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DIPLOMOVÁ PRÁCE

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Analýza vývoje výslovnosti francouzských výpůjček od střední do moderní angličtiny na základě korpusových dokladů

An analysis of the history of French borrowings' pronunciation from Middle to Modern English on the basis of corpus data

Praha   2015   Vedoucí práce: Mgr. Ondřej Tichý, Ph.D.

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Daniela Rosová

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Klíčová slova

Anglický pravopis, fonologie střední angličtiny, fonologie staré francouzštiny, kontaktová lingvistika, přejímání z cizích jazyků.

Key words

Borrowing, English graphics, language contact, Middle English phonology, Old French phonology.

Abstrakt

Diplomová práce Analýza vývoje výslovnosti francouzských výpůjček od střední do moderní angličtiny na základě korpusových dokladů je snahou o objasnění vlivu výslovnosti starofrancouzských výpůjček na středoanglický fonologický systém s ohledem na jejich dopady v moderní angličtině. Teoretická část práce vysvětluje některé extralingvistické a intralingvistické aspekty kontaktové lingvistiky a s ní spojeného přejímání lexikálních a fonologických prvků z cizích jazyků. Následuje podrobný přehled historie anglického a francouzského fonologického systému doplněného o s nimi související písařské zvyklosti. Praktická část zkoumá francouzské výpůjčky extrahované ze slovníku Oxford English Dictionary. Vybrané vzorky jsou vyhledávány ve středoanglickém korpusu a jejich výslovnost je vyvozována na základě jejich ortografických variant. Analýza se věnuje pěti konkrétním francouzským fonémům, jimiž střední angličtina nedisponovala.

Abstract

The diploma thesis An analysis of the history of French borrowings' pronunciation from Middle to Modern English on the basis of corpus data attempts to account for the influence of Old French borrowings and their pronunciation on the Middle English phonological system with respect to Modern English. The theoretical part of the thesis explains extralinguistic and intralinguistic aspects of language contact and the related lexical and phonological borrowing, which is followed by an overview of the history of the English and French phonological systems and complemented by the corresponding scribal practices. The research is carried out on a list of French loans extracted from and further studied in Oxford English Dictionary. Selected samples are looked up in a Middle English corpus and their probable pronunciation is inferred on the basis of their orthography. The analysis is concerned with five French phonemes absent in the medieval English.

LIST OF ABBREVIATIONS

AN   Anglo-Norman

EME   Early Middle English

EModE   Early Modern English

fem.   feminine

FR   French (Present-Day)

masc.   masculine

ME   Middle English

MEC   Middle English Corpus

MF   Middle French

OE   Old English

OED   Oxford English Dictionary

OF   Old French

pl.   plural

PDE   Present-Day English

V   vowel

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INTRODUCTION

Pronunciation of present-day English words is irregular and inconsistent. Not only learners of English, but also English native children must learn by heart the correct spelling of words. This is due to the fact that English pronunciation has long been developing without parallel changes in its orthography. Therefore not many pronunciation rules may be deduced from it. This might be the reason why linguists (Harweg, McLaughlin, Haas, Venezky, Brekle) have not confidence in the orthography of a language as a source of reliable data for an exploration of its phonology. They consider the written and the spoken language separate systems, which develop independently.

Such generalizations are transferred to medieval languages as well, but there are two differences between the study of Present-Day English pronunciation and the one of Middle English or Early Modern English. Firstly, historical linguists simply must get by with written recordings. It is the only source of information for the study of medieval phonological systems. Secondly, and more importantly, the medieval English orthography has an advantage over the PDE one in that medieval scribes were not bound by any "spelling standards", so they had a free hand in recording the language according to what they heard. It is supposed here that they reflected both Middle English and Early Modern English sounds in the written language, and that the medieval pronunciation can still be inferred from their spelling practices.

This thesis is concerned with two medieval languages and their sound and spelling systems. Its objective is to examine to what extent the pronunciation of French loans, which were adopted in English after the Norman invasion, influenced the phonological systems of Middle English, while its impact on Early Modern English and Present-Day English phonology is taken into consideration.

The first part of the thesis deals with related theoretical background. At the beginning, the history of the French impact on English is briefly explained, followed by a chapter on language borrowing. As the subsequent analysis is focused directly on French loans, the concepts of both the lexical borrowing and phonological borrowing are accounted for. The major part of theory is then devoted to a diachronic description of the phonological systems of both English and French from their diachronic perspective. The English section is

accompanied by the principal rules of medieval scribal practices.

The second part of the thesis accounts for the hypothetical grounds on which the research was based. A procedure of the analysis is presented in a concise manner. The practical part consequently stems from the discrepancies between the presented medieval English and French phonological systems. Five concrete phonemes were chosen for an analysis of the influence of the Old French pronunciation on the Middle English sound system. Corresponding graphemes in the selected French loanwords, still occurring in Present-Day English, were compared with medieval spelling habits. Thereafter, their phonemic counterparts were deduced and compared to the phonemes in the present-day cognates in both modern English and French. Extraction of word-forms was carried out by means of an online diachronic English dictionary along with a Middle English corpus, which served as a source of authentic material. Outcomes inferred from the evaluation of the given hypotheses and a summary of findings are summarized at the end of the thesis.

1. THEORETICAL BACKGROUND

In order to be able to speak of the principal topics covered in the thesis and discuss the subsequent interpretation of the study's results, a brief overview of several linguistic notions crucial for the research is accounted for in the first chapter. More space is given to the phonological systems of both English and French and the English orthography.

1.1 Language Contact

This thesis stems from the fact that English and French shared, due to extralinguistic aspects, a part of their history. The inevitable interplay of one on the other results in a language change, which is here to be described on the level of pronunciation. For a better comprehension of why the thesis deals with the influence of Old French on Middle English, the outer history of the English language should be summarized shortly.

Romance influence (which is important to mention as French originated as a vulgar variety of Latin) on the English word stock can be traced back to the period of Roman colonization of the British Islands, and even earlier if taking into consideration the Germanic precursors of OE, whose tribes had been in contact with Latin on the continent (hence "continental borrowings" of Latin origin can be found in English). Later, during the Christianization, it was again Latin that supplied English with words connected with the religion. The French influx itself started only with the Normans, originally Vikings who were given a land in Northern France and who, in the 11th century, spoke Old French, known as Norman French, with only minor differences to the rest of the country. In 1066, they invaded the British Isles and a three-century-long period of their rule began. English kings spoke Norman French, priests preached in English and wrote in Latin. The resulting Anglo-Norman dialect of Old French, influenced by Old English and Early Middle English, was soon replaced by a more fashionable Central French dialect spreading from Paris. Political, religious and cultural domination of the ruling aristocracy and the related constant pressure of French were among the causes of transformation of the formerly synthetic Old English (450 – 1100) into the analytic Middle English (1100 – 1500). It was enriched with a large amount of borrowings to denote legal, administrative and religious issues. During the period, especially the written and literary English acquired thousands of French loans (Berndt, 1984, 57) and since English was

already used to adoption of Romance expressions, their lexicalization was fast. However, French has never become the mother tongue of the English population and after king John lost Normandy, the already spreading feeling of nationalism contributed to the dying out of Anglo-Norman in England. Eventually, English regained its status of the official language in the second half of the 14th century.

Early Modern English (1500 – 1800) is marked by an immense introduction of Latin expressions especially in the scientific field. Latin was a popular mediating language in which universities taught; English scholars even reshaped French words to sound more Latin. Around 1700 the scientific language was formed by borrowing Greek, Latin, German, or Italian words. According to Barber, French provided English with expressions from fashion, arts or motoring (1993, 219). Thanks to the vastness of the British Empire in the 19th century, many exotic languages also contributed to the modern English lexis, which is, however, not the subject-matter of this thesis.

1.2 Borrowing

Before any language contact may result in a change in the lexical, morphological or phonological system of a language, the process of borrowing must take place. Haugen introduces the topic with Hermann Paul's belief that "borrowing by one language from another is predicated on some minimum of bilingual mastery of the two languages". Thus for a large impact of one language on another, a considerable group of bilingual speakers must be concerned (Haugen, 1950, 210). Haugen defines borrowing as "the attempted reproduction in one language of patterns previously found in another", assuming that a speaker learns only such patterns that are new for him/her and reproduces them not in the context in which s/he learned them (1950, 212). Borrowing must be differentiated from code-switching, which is a random alternation of a language feature in the course of a conversation (Matras, 2009, 101), whereas borrowing is of a permanent nature.

Borrowing may be divided into eight categories according to the level of linguistic structure on which the borrowing takes place: phonological, prosodic, graphematic, morphemic, morphological, semantic, lexical and syntactic (see Michael Clyne as referred to by Capuz, 1997, 83). For the purposes of this study, the next two sections focus on lexical and phonological borrowing only.

1.2.1 Lexical Borrowing

Lexical borrowing is a term used for lexical items adopted from one language (or its variety) by another. Depending on the direction, the expressions are generally called either (lexical) borrowings or loans. Haugen talks about reproduction or imitation of a *model* (original pattern) in another language. He emphasizes that borrowing is the process (although the term does not correspond to its common meaning) and the result should be called "a borrowed pattern" because not only a simple word but also a more complex lexical item may be adopted from a model language, e.g. *that goes without saying* (FR *cela va sans dire*). In most cases, it is not possible to detect a borrowed pattern right in the moment when it enters a language lexis. Any such imitation was once an innovation (a neologism), which may not survive in the language, and it becomes a proper loan only by isolating it from the original language (Haugen, 1950, 212). Two kinds of reproduction may be distinguished according to the degree of identity of the model and its imitation. If the native speaker is able to recognize the model, Haugen speaks of *importation*. On the contrary, *substitution* is a term for imitations which reproduced the model inadequately by substituting similar patterns in the given language. Haugen admits that in a period of time, substituted forms may become imported. From all linguistic disciplines, substitution is predominantly recognized in phonetics (Haugen, 1950, 212-213).

According to Matras, borrowing mostly concerns nouns, which "cover the most differentiated domain for labelling concepts, objects, and roles". Summarizing several studies, he notices that they refer mostly to institutional, social and technological innovations (2009, 168). Haugen as well notices that there are certain linguistic patterns that tend to be borrowed more frequently than others. He mentions William Dwight Whitney with his scale of patterns according to "the freedom with which they are borrowed". Nouns are the most easily borrowed, then other parts of speech followed by suffixes, inflections and sounds. The last in the scale would be grammatical features (such as articles or pronouns). They are the most formal part of a language, which is established in early childhood, and therefore highly habitual and subconscious (Haugen, 1950, 224).

Lexical borrowings may be divided according to two aspects: the degree of assimilation of a loanword and the manner of borrowing. The former depends on the frequency of a particular loanword in a language and at the same time on the length of time since the word form has been adopted. A German system is generally used to account for the three degrees. The notion

gastwort (guest-word) represents words that were not assimilated in the given language and therefore, they are not further inflected. Their pronunciation, orthography, grammar and meaning remain identical with their models; they are usually used in specialized contexts, italicized and their meaning explained, e.g. *fin de siècle, passé, gastwort. Fremdwort* (foreign-word) is still perceived as foreign but it has acquired a stable pronunciation and spelling (either native or exotic), e.g. *garage, hotel. Lehnwort* (loan word) is fully assimilated in the vocabulary and not easy to discern from the rest of the lexis even by native speakers. It is subject to inflection and word formation, e.g. *cheese* (from Latin *caseus*), *waltz* which gave *waltz in, waltz off, waltz up to*.

The latter aspect relates to the manner of borrowing according to which four types can be distinguished: proper loanwords, loan translations, loan shifts and loan blends. Firstly, the notion of *loanword* concerns word forms adopted along with its meaning and its phonemic shape, e.g. *chic, tea*. The longer they stay in a language the more adapted they are (in sound, grammar, etc.). Secondly, *loan translations*, or *lexical calques*, are usually compounds or complex words whose whole model or its part is translated or replaced with a similar morpheme, e.g. *accomplished fact* (FR *fait accompli*). Thirdly, *loan shifts*, or *semantic calques*, refer to adopted meanings that are associated with an already existing native form, e.g. Latin *scribere* (*to write*) → *scratch*. Lastly, *loan blends* combine words both of native and foreign origin, e.g. *Afrikanerdom*.

Haugen studies these terms more in detail and realizes that the loans differ rather in their extent of morphemic substitution – either none, partial, or complete. That is why he establishes an adapted typology based on three concepts only: *loanwords* are characterized by morphemic importation without substitution; *loanblends* represent both morphemic substitution and importation; and finally *loanshifts* which show morphemic substitution without importation (1950, 213-216) and which generally occur in cases where the phonetic and semantic aspects of both the foreign model and its imitation resemble (idem, 220).

As was previously mentioned, borrowings already accepted in a language immediately tend to be adjusted according to the spelling, phonological, morphological, syntactical and/or semantic rules of that language. In order to be used without constraints, various changes on these levels may take place, e.g. acceptance of native suffixes. Consequently, new loan words are assigned native grammatical categories according to already existing analogies (which are difficult to anticipate beforehand) and eventually become assimilated (nativized). To what

extent and in what respects the pronunciation of borrowings is governed by the phonology of a model language is discussed in the next section.

1.2.2 Phonological Borrowing

Phonological borrowing (transfer, interference or replication) concerns changes in the phonological system of a language due to its close contact with another language or simply due to adoption of words from that language. The adoption of new sounds is substantially dependent on physiological constraints of the recipient language speakers (mainly adults whose capability to master new sounds is lower than with children). If these constraints are significant, speakers may not discriminate the proper sounds, or sets of sounds, to reproduce them correctly. Matras claims that "contact-induced change in phonology is the result of speakers' inability or reluctance to maintain complete and consistent separation among the phonological systems of two languages" (2009, 222). Haugen puts it more simply: "[Phonological] substitution is when a native sound sequence is used to imitate a foreign one" (1950, 215). Generally, the original set of sounds is replaced by as nearly related native sounds as possible. Haugen further points out that naive language learners may produce complete substitution to such an extent that native speakers cannot recover the original model word (idem).

Nevertheless, phonological changes may, besides articulation of individual phonemes, influence both segmental and suprasegmental levels of phonology, i.e. length, stress, tone, prosody, intonation.

Matras distinguishes four types of contact-induced phonological change in the process of integrating sounds in a recipient language. Firstly, an integration of a foreign word form does not affect the recipient's phonological system; for instance, from the English pronunciation of the French loan *current* ['kʰʌrənt], speakers probably do not realize its foreign origin. The final stress is moved to the initial position, the phoneme /k/ is aspirated, the quality of the French trill is changed, etc. In the second kind of process, the pronunciation of a borrowed word form brings about enrichment of the recipient phonological system, although it may be of low importance. For example, German received the diphthong /eɪ/ along with the word *baby*, but as only two in German already existing vowels were combined, the pronunciation of the diphthong does not cause problems to German speakers. This most frequently happens among bilingual members of a speech community, where the donor language is of higher

prestige. System convergence is the third type of the process describing the integration of foreign sounds in a language. It is frequently present among second language learners whose inability or reluctance do not enable them to produce the donor's language sounds correctly and so they adjust them to their native phonemes (which may lead to creation of an ethnolect). Matras illustrates it on this example: the English phoneme /t/ (an aspirated dento-apical stop) is usually pronounced as an unaspirated retroflex /ʈ/ in South Asian English. The last kind of the integrating process applies to the situation of a small bilingual community language being influenced by a dominant one, where a native sound acquires a new variety because of "the advantages of not having to maintain a context-oriented separation of sound inventories within their bilingual linguistic repertoire". For example, in the Domari language the voiceless /p/ in /pandʒi/ (meaning *he* or *she*) which does not exist in Arabic undergoes a partial voicing (Matras, 2009, 222-224). These four types of contact-induced overlap of phonological systems are presented as a continuum illustrated in Figure 1 (Matras, 2009, 226).
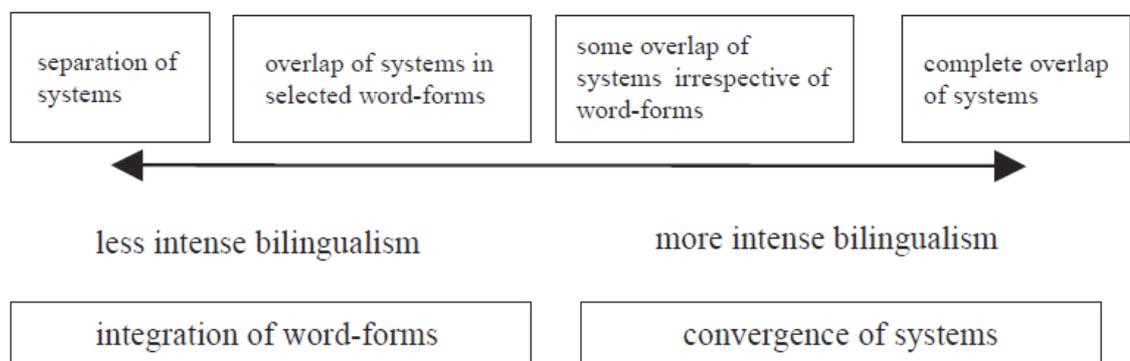
Figure 1: Contact-induced overlap of phonological systems

Phonological changes caused by the integration of loanwords into a recipient language primarily concern the places and modes of articulation of the language. Once a phoneme resembles its potential counterpart (sharing any of the phonological features), it is subject to reinterpretation, which may lead to two possible consequences. Either the sound matches the familiar sound patterns of the target language, which Matras terms as approximation, or the

sound is modified according to the model language system, which corresponds to the type of process called phonological convergence (2009, 226) and which contributes to an increase of similarities between the phonological systems of the two languages.

Integration of sounds may have an effect on the omission of certain phonemes (for example in consonant clusters) and thus eliminating minimal pairs, on phoneme substitution (providing that both the model and the resulting phoneme share a salient feature, most frequently the place of articulation), and/or on accommodation of syllables and stress structure of loanwords.

Borrowing of foreign sounds with all their phonological aspects depends on recipients' ability to produce them, which calls for a good command of the model language. Monolingual speakers then adopt the new phonemes in the manner of the bilingual innovators. Matras claims that replication of foreign sounds is mostly concerned with consonants rather than vowels, because an overall number of consonants is so high that two languages are very likely to differ in their consonant inventories. Once a phoneme, the position of a stress or any other feature is preserved, it is often repeated especially in the loanwords from the particular donor language (2009, 228).

While grammatical features can be ranged according to their susceptibility to borrowing, no such a scale may be established for individual phonemes. Nevertheless, prosodic features are, according to Matras, more prone to replication, which was confirmed by several studies (Matras, Burridge, Matisoff). Matras explains it by two possible factors. Firstly, the main role of prosody resides in expressing emotions, which is operating at the level of an utterance rather than the word level. Secondly, it is due to "neurophysiological separation between prosody and other aspects of speech production" (2009, 233). Matras further exemplifies the contact-susceptibility of a language intonation to replication on Romani dialects and their intonation and stress, according to which it is possible to estimate their geographical origin. "Romani dialects in Western Europe (Britain, Germany, Italy, Scandinavia, Finland) have adopted a strong tendency toward word-initial stress, while those in a zone in central Europe (Hungary, Slovenia, Croatia, Slovakia[1]) show a moderate tendency toward penultimate stress, in both cases replicating the patterns of the contact languages (Matras, 2009, 231)." Comparing other aspects of the Romani dialects, Matras finally establishes a scale of phonological features with regard to their susceptibility to borrowing as follows: prosody – stress – vowel length – vowel quality – semi-vowels and liquids – complex consonants – other

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[1]   Hungarian, Croatian and Slovak have initial stress, Slovenian has shifting stress.

consonants (idem). This order, however, is not valid for all languages, primarily because of an easy borrowability of consonants, as was indicated above.

1.3 History of the English Phonology

Although the research is mostly concerned with the Middle English phonological system, a short overview of the main tendencies in the Old English and Early Modern English phonology is presented in the following section. Phonological systems of the three main periods of the English history are usually accounted for on the basis of a change, therefore it seems natural to delimitate the Middle English phonological system as a deflection from the earlier Old English and the subsequent Early Modern English stage. A brief chapter (1.4) on graphemic rules during the history of English is added at the end.

1.3.1 Old English Phonology

The phonological system of Old English has been uncovered thanks to the number of surviving manuscripts written in one of its varieties – West Saxon. "Even the thousands and thousands of loanwords that have entered English since OE times have not affected the basic [consonant] system (Millward, 1996, 85)." In short, there were 19 consonants, out of which 6 were stops /p, b, t, d, k, g/, 2 affricates /ʧ, ʤ/, 5 fricatives /f, θ, s, ʃ, h/, 2 nasals /m, n/, a lateral /l/, a retroflex /r/ and 2 semivowels /w, j/. Three consonants seem to be missing in the Present-Day English, however they were already present in OE in the form of allophones /ð, z, ŋ/. The last consonant /ʒ/ was adopted later (Millward, 1996, 83).

Minkova's view of the OE consonantal inventory differs in a few aspects. She presents the Old English consonantal system as shown in Figure 2 (2014, 75). For instance, Minkova classifies /h/ among glottal (not velar) fricatives; however, she admits the probability that it was pronounced in the same way as the velar fricatives /x/ or /ɣ/, which is why it is bracketed in the table. Parenthesis around /ʧ/ and /ʤ/ means that it is not certain whether the two consonants were pronounced as singletons (affricates in PDE) or geminates, i.e. a sequence of a stop and a fricative.

	Bilabial	Labiodental	Interdental	Alveolar	Alveopalatal	Velar	Glottal
Stops	p, b			t, d		k, g	
Affricates					(ʧ, ʤ)		
Fricatives		f	θ	s	ʃ	x, ɣ	(h)
Nasals	m			n			
Lateral				l			
Central	w			r	j		

Figure 2: Old English consonants

There were four main qualitative changes between Common Germanic and Old English vowels (breaking, back mutation, palatal diphthongization and front mutation). They had major influences on the quality of West Saxon vowels, which were mostly diphthongized and lengthened when occurring in a certain position between specific consonants. Millward illustrates the system with 7 vowels, either short or long, /ɪ, y, e, æ, ɑ, o, u/ and two central (short or long) diphthongs /eə, æə/ (1996, 88), as can be seen in Figure 3[2] (1996, 88).
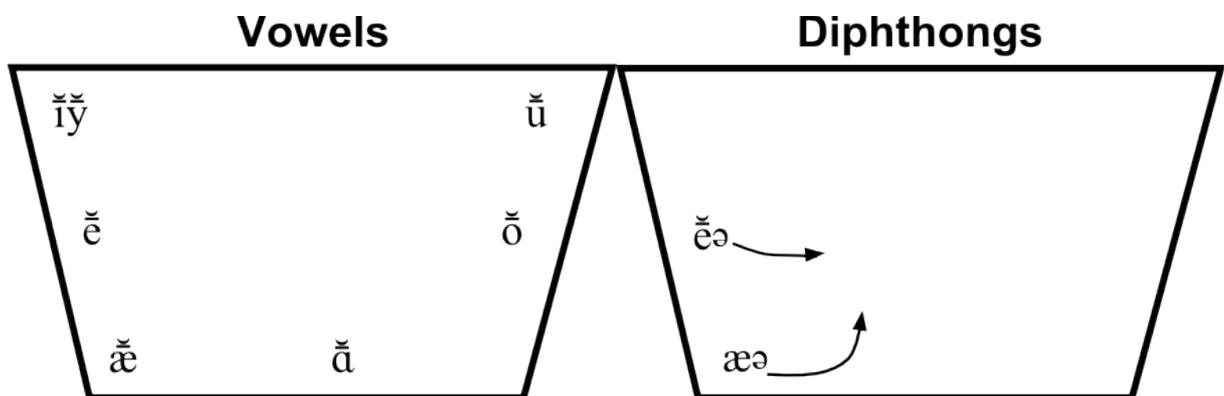
Figure 3: Old English vowels

Not much is certain about the OE prosody, however some characteristics may be discerned from the Old English poetry. Based on alliteration and stress-timed line, it is probable that the alliterated sounds were stressed. If so, the stress pattern was more or less similar to present-day native words. The same applies to primary and secondary stresses in compounds.

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2   Millward indicates the vowel length by a macron /ˉ/ (a breve /˘/ signifies short vowels). In this text, the IPA symbol /ː/ is used for the phenomenon.

1.3.2 Middle English Phonology

Especially during the period of Norman occupation, Middle English was recorded rather scarcely. The then scribes learned the Latin and French orthography and when it came to English, they confused the Romance rules of writing with the former Old English spelling based on West Saxon dialect. As a result of the adoption of new French loanwords, ME scribal practices were a combination of many different spelling traditions. Furthermore, Standard English developed from the London (East Midlands) dialect (Millward, 1996, 146-147). Therefore, some of the differences between the Old English standard and the late Middle English standard are more due to dialectal differences than to a diachronic development of a single phonological system.

As to the phonemic inventory, no Old English consonant was dropped in the Middle English consonantal system, which has in turn developed into the Modern English system (compared to Modern English, ME missed only two consonants, i.e. /ŋ/ and /ʒ/). Millward distinguishes two types of changes that occurred in ME consonantal system: the distribution of consonants and voicing of fricatives.

Firstly, the distribution of consonants includes several changes which Millward separates into two categories: systemic and sporadic (1998, 147-151). The former ones occurred under certain conditions throughout the system, while the latter changes occurred under certain conditions but only some words were affected. Systemic changes were:

- loss of long consonants at the end of words in early ME and in all positions by the end of ME; e.g. OE *man (one)* vs. *mann (man)* were no longer distinguishable in speech;
- loss of the voiceless velar fricative /h/ in initial position in the clusters /hl, hn, hr/, in some dialects also in /hw/; e.g. *hnecca → necke (neck)*;
- loss of the voiced velar fricative [ɣ] as an allophone of /g/, which became /w/ after [l, r]; e.g. *morgen → morwen (morning)*;
- loss of the alveopalatal semi-vowel /j/ in the prefix <ge->, which was reduced to /ɪ/ and spelled <y> or <i>; e.g. *genōg → inough (enough)*.

Sporadic changes were:

- voicing of initial and final fricatives previously lightly stressed, sporadic instances include grammatical endings which started to be voiced after voiced sounds and voiceless after voiceless sounds;

- loss of unstressed final consonants following a vowel; e.g. *ic → i* (the pronoun *I*), sporadic remained final /n/ that was lost in most verbal forms and possessive adjectives, but is still present in some word formations, e.g. *gone, taken, mine, an*;

- simplification of consonant clusters – some consonants were lost when occurring in certain clusters, but in some words the pronunciation remains; this was the case of /w/ after /s/ or /t/ (e.g. *sword* vs. *swim*); /l/ before /ʧ/ (e.g. *each* vs. *milch*); /v/ before a consonant or a vowel and a consonant (e.g. *hlaːford* → PDE *lord* vs. *heofon* → PDE *heaven*); /b/ after /m/ in the final position, although the spelling was retained (e.g. *lamb* vs. *timber*);

- appearance of intrusive consonants, which facilitated pronunciation before resonants, see the case of /b/ after /m/ (e.g. *nœːmel → nimble* vs. PDE *camel*); final /d/ after /n/ or a resonant (e.g. OE *þunor → ME thunder* vs. *fenol → fennel*); /t/ after /s/ (e.g. OE *hlysnan → ME listnen* vs. ME *vessel*).

Secondly, voiced fricatives occurred in Old English solely in the form of allophones. Their addition to the Middle English system was partly due to influx of French loanwords. The contrast between voiced and voiceless spirants can be seen in examples such as *vine* vs. *fine*, *few* vs. *view*. The functioning of /z, v, ð/ as separate phonemes from /s, f, θ/ dates back to around 1200, when (in the Northern Midlands) their intervocalic position influenced their voicing (Fisiak, 1968, 59). According to Fisiak, the initial /z/ and /v/ were the direct influence of French loans, while /ð/ appeared later in unstressed grammatical words (*the*, *there*) (1968, 60), which was actually the case of other voiced fricatives, too (e.g. *is, was, of*). Voiced /z/ and /v/ in final position started to be pronounced after the drop of final vowels. As an example, Millward mentions the verbal form *to house* with its final /z/ sound, which derived from *husian*. Intervocalic <s> was pronounced as /z/ and after the loss of final /n/ and the preceding vowel, the pronunciation remained (1996, 147-148). The only ME fricative without its voiced counterpart was /ʃ/ – /ʒ/ became phonemic as late as Early Modern English (Millward, 1996, 148). From today's form of the pronoun *it*, it is assumed that the fricative /h/ was dropped in unstressed syllables, e.g. *hit → it*, *him → im* (Fisiak, 1968, 61). The Middle English consonantal inventory is summarized in Figure 4 (Millward, 1996, 148).

	Bilabial	**Labiodental**	**Interdental**	**Alveolar**	**Alveopalatal**	**Velar**
Stops	p, b			t, d		k, g
Affricates					ʧ, ʤ	
Fricatives		f, v	θ, ð	s, z	ʃ	h
Nasals	m			n		
Lateral				l		
Retroflex				r		
Semivowels	w				j	

Figure 4: Middle English consonants

Whereas consonants tended to behave relatively stably in the history of English, changes in the vocalic system were much more complex. The original eighteen Old English vowels were reduced into five short and six long vowels as a result of five main qualitative changes. By the end of the ME period, the rounded /y/ and /y:/ were in all dialects modified into /ɪ/ and /i:/; OE /æ/ changed to low /ɑ/, its long counterpart /æ:/ developed into /ɛ:/ and /e:/; and /ɑ:/ was rounded to /ɔ:/ except in the North. OE diphthongs were also affected – they became pure vowels: /eə/ → /ɛ/, /æə/ → /ɑ/, /e:ə/ → /e:/ and /æə/ → /ɛ:/. The resulting eleven vocalic phonemes, were further supplemented by seven more new diphthongs, especially due to the addition of /ə/ and /ɑ:/ sounds, due to the vocalization of OE /w/, /j/, and /v/, and the influx of French loans. Millward mentions the newly formed ME diphthongs as follows: /iu, ʊi, ɔi, ɛu, ɑu, ɔu, æi/ (1996, 153-154).

The loss of OE inflections went hand in hand with the reduction of full unstressed vowels into the new ME sound schwa /ə/, usually spelled <e>. "This was probably due to changes in the distribution of stress which increased the prominence of the syllable carrying the primary accent at the expense of the other syllable(s) (Berndt, 1984, 185)." The phoneme replaced almost all short vowels in unstressed syllables. The only /ɪ/ remained in the final position and is still present in weak forms. The grapheme <e> in unstressed final syllables remained written, however not pronounced, except for the grammatical endings where their environment enforces it, e.g. *wishes, judges, wanted, raided* (Millward, 1996, 156).

Lengthening and shortening of vowels belong to other quantitative changes in the vocalic system of ME. They played a crucial role in the neutralization of quantitative distinctions between vowels in Early Modern English. "Phonemic vowel length was retained throughout

ME, but, as it became more and more predictable and redundant, its overall importance was greatly reduced (Millward, 1996, 155)." As Berndt states, "shortening of long vowels before consonant clusters and in trisyllabic words occurred first, and perhaps as early as the seventh and eighth centuries" (1984, 180). In the 11th and 12th centuries, the process influenced long vowels in closed syllables, e.g. *(he) sle:pte → he slepte, hu:sbonda → husbond(e)*, and long vowels in the initial position of trisyllabic words, e.g. *ho:liday → holiday* (Berndt, 1984, 180). This has much to do with a different vowel quantity in derivatives, such as *Christ* vs. *Christmas*, or *break* vs. *breakfast* (Millward, 1996, 156). Lengthening started to affect short OE vowels in the 9th century by means of "lengthening groups of consonants", i.e. *mb, nd, ld*. Berndt illustrates it on words, such as *climban → cli:mban, blind → bli:nd, milde → mi:lde*. According to him, also lengthening in open syllables occurred, which most probably functioned as an alternative for the gradual reduction of the final stress (1984, 181). The overview of Middle English vowel system is presented on the basis of the London English dialect by Millward (1996, 153), shown in Figure 5:

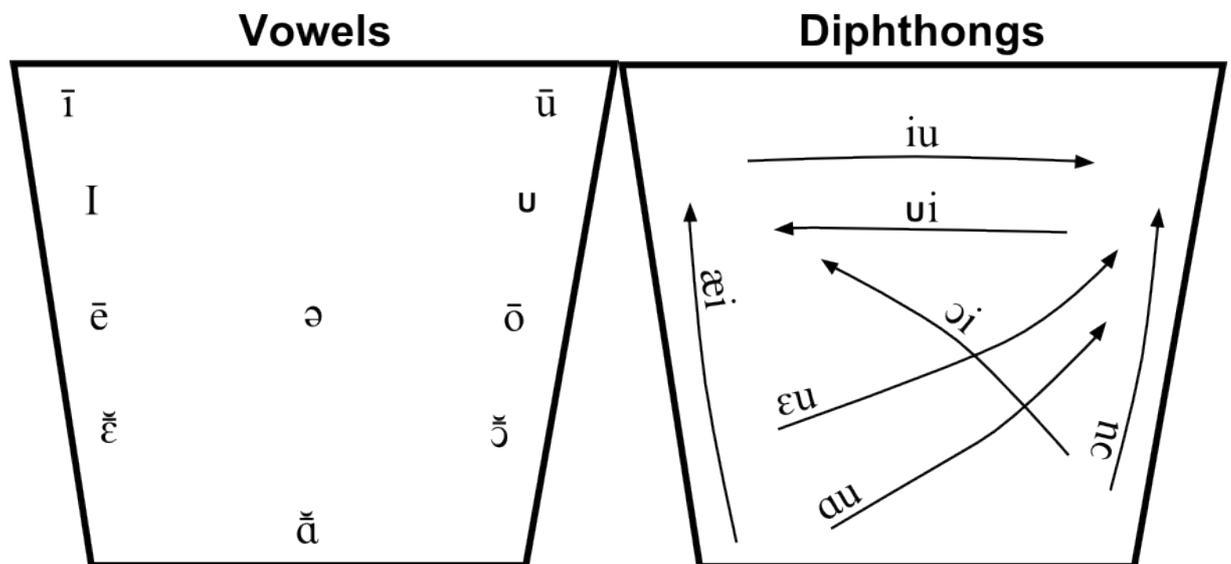*Figure 5: Middle English vowels*

As for the prosody of Middle English, primary stress was usually put on the first syllable, the other syllables thus receiving a lower emphasis. The only difference appeared in the polysyllabic French loanwords, whose major stress was mostly placed on the final syllable. ME final unstressed syllables were replaced by the increasing number of function words, also

lacking a major stress. Therefore, the somewhat trochaic rhythm of OE changed to iambic pattern of ME (Millward, 1996, 157).

1.3.3 Early Modern English Phonology

However it seems that the abundance of written texts in Early Modern English period is now of a great value for historical linguists, phonological changes are hard to recover from them. It is due to the invention of printing which had a positive effect on people's literacy, but led to the consequent standardization of spelling that was preserved and let the scribes no such freedom of recording their own dialects or changes in pronunciation. "In this respect, the poorly educated writer is of more assistance than the well-educated one because the former is more likely to spell 'phonetically' (Millward, 1996, 250)."

The Early Modern English consonantal inventory, as has been completed by 1800, is considered identical to the Present-Day English one and is reproduced in Figure 6 according to Millward (1996, 28). The phoneme /w/ is mentioned twice for its double articulation.

	Bilabial	**Labiodental**	**Interdental**	**Alveolar**	**Alveopalatal**	**Velar**
Stops	p, b			t, d		k, g
Affricates					ʧ, ʤ	
Fricatives		f, v	θ, ð	s, z	ʃ, ʒ	h
Nasals	m			n		ŋ
Lateral				l		
Retroflex				r		
Semivowels	w				j	(w)

Figure 6: Early Modern English and Present-Day English consonants

Comparing the EModE consonantal structure with ME consonants unveils that it has adopted phonemic /ŋ/ as a third nasal to the row of bilabial /m/ and dental /n/, and /ʒ/ as the voiced counterpart of the fricative /ʃ/. Nevertheless, some changes appeared in the distribution of ME consonants in the EModE period. Fisiak mentions the following three as major ones (1968, 69):

- [x] disappeared before consonants or was changed to [f] in final position (with the

exception of the Scottish dialect), e.g. *douter (daughter), lauf (laugh)*;

- [ç] disappeared before consonants in the northern dialects (except for the Scottish dialect), see the rhyme *bright: whi:t*;
- final /g/ (along with final /k/) was eliminated after /n/, which caused the phonemicization of the two allophones [n] and [ŋ], e.g. the minimal pair *sin* vs. *sing.*

Millward adds some more changes (1996, 251-253):

- /l/ was reduced between /ɑ/ or /ɔ/ and a labial or velar consonant, e.g. *palm*, *folk*;
- /t/ and /d/ were being lost in consonant clusters containing /s/, e.g. in PDE *castle*, *handsome*; and also in colonial America when at the end of words, e.g. *wes, lan* (*west, land*);
- /k/ and /g/ were lost before /n/, as well as /w/ before /r/ in initial position; e.g. *gnome, knight, wrinkle*;
- /r/ started to be eliminated before /s/ as early as ME period, later the loss was spread to other positions, e.g. *quater, Mach (quarter, March)*;
- /j/ was inserted in medial positions before an unstressed vowel and after the primary stress, e.g. *peculiar* [pə'kju:ljər]; when introduced after /s, z, t, d/, they merged into a palatal fricative or affricate, e.g. *ocean, vision, lecture, soldier*;
- the phonemic /ʒ/ replaced the affricate /dʒ/, e.g. *beige, garage,* however, the assibilation has not appeared in all dialects and different pronunciation is frequent until now;
- /d/ changed to /ð/ in some cases where it occurred before /r/ and after the major stress, e.g. *widderen (wither)*.

Millward further mentions another phenomenon which prevailed in the period of EModE. Spelling pronunciation occurred especially with words of foreign origin, i.e. French or Latin. Three such graphemes were especially affected in this respect (1996, 253):

- <th> in *anthem*, *author* was originally pronounced as /t/, but in English changed to /θ/ even in native words, e.g. *Gotham*; *Thames* have two different pronunciations in England and Connecticut;
- <h>, on the other hand, was not pronounced at all, which is no longer the case of *habit, human, history*; however, some words remained intact, e.g. *heir, hour*;
- introduction of <l> into French roots was caused by the previous knowledge of their original Latin cognates, e.g. French *faute, assaut*, Latin *fallita, assaltus*, "fault",

"assault"; other consonants could also have been inserted, e.g. <d> in *admiral, adventure;* <b> and <p> in words like *debt* (FR *dette*), *receipt* (FR *recette*) differ in that they are not pronounced.

Early Modern English vocalic system was considerably changed due to the Great Vowel Shift, which was completed by the end of the 18th century in most of English dialects. The process affected ME long vowels in that they became more high and the already high ones developed into diphthongs. The extensive procedure caused the loss of vowel length as a distinctive feature. The particular changes produced by the Great Vowel Shift can be best illustrated on the two following diagrams demonstrating two stages of the process (Millward, 1996, 255).

Figure 7: The Great Vowel Shift

Picture on the left indicates the first stage (beginning in the 15th century) where the phonological oppositions were not lost yet. Berndt calls it a "rephonologization process" because the number of contrastive units was neither increased, nor decreased (1984, 195). To describe the process in more detail, after the long /i:/ and /u:/ were diphthongized, they left space to central phonemes which were then pronounced with a higher position of the tongue. This is also the case of the low /a:/, which was fronted and raised to the position of /æ:/. The second stage is characterized by a number of phonological mergers and losses of contrastive units, which lead to the rise of homophones in English. Berndt lists the following mergers (1984, 198-199):

- /i:/ and /e:/, e.g. *piece* (ME *pe:ce*) vs. *peace* (ME *pe:s*);
- /a:/ and /aɪ/ and later /ɛ:/ and /aɪ/, e.g. *tale* (ME *ta:le*) vs. *tail*;

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- /o:/ and /ɔʊ/, e.g. *sole* (ME *so:le*) vs. *soul*;
- /ɛʊ/ and /iu/, e.g. *dew* (ME *dɛu/dew*) vs. *due* (ME *dew*).

As Millward states, some ME words with /ɛ:/ or /o:/ were not affected by the Great Vowel Shift, because the vowels shortened prior to the process. For instance, *threat, head, deaf* have no /ɪ/ and, similarly, *flood* and *blood* are not pronounced with /ʊ:/ (1996, 256-257).

Short vowels were also subjected to certain changes (Millward, 1996, 257-258):

- all remaining unstressed final <-e>, pronounced as /ə/ were definitely lost, excluding already mentioned examples, such as *judges*, *wanted*, etc.
- /ɑ/ changed to /æ/, which, in the 17th century returned to /ɑ/ before /r/, e.g. *harm, park*, and in the 18th century before voiceless fricatives, e.g. *staff, path*;
- /ɑ/ changed to /ɔ/ before /l/, e.g. *all, chalk*, and after /w/, e.g. *want, swan* if not occurring before a velar consonant, e.g. *wax, twang*;
- /ʊ/ changed to /ə/ except cases before /l/, /ʃ/, /ʧ/, e.g. *full, push, butcher*;
- /ɪ/ and /ɛ/ remained but were sometimes confused in pronunciation, and consequently in spelling, e.g. *niver (never), derect (direct)*, some are still found in nowadays' colloquialisms, e.g. *nigger, pritty*;
- /ɛ/ changed to /ɑ/ before /r/, then it reverted to /ɛ/ again and afterwards to modern /ər/, e.g. *ferme → farm*; the lowering effect of /r/ had been started in Middle English period and it was gradually affecting also /ɪ/, /ɛ/ and /ʊ/ which were reduced to /ə/, e.g. hence PDE *girl, hurt*;
- /ɔ/ became /o/ before /l/, e.g. *cold, bowl;* in United States, it changed to /ɑ/, e.g. *rock, shot*.

The seven ME diphthongs became simple vowels, with the exception of /ʊi/ and /ɔi/, which merged into one diphthong /ɔi/ in most of the English dialects. Millward presents the above mentioned vocalic changes in an illustrative Figure 8 (1996, 255).

Short Vowels		Long Vowels		Diphthongs	
ME	EModE	ME	EModE	ME	EModE
ɪ	ɪ	i: → əi → ɑi		iu	u, ju
ɛ	ɛ	e:	i	ɛu	u, ju
ə	ə	ɛ: → e: → i, e		ɑu	ɔ

Short Vowels		Long Vowels		Diphthongs	
ɑ	æ, ɑ	a: → æ: → ɛ: → e		ɔu	o
ʊ	ə, ʊ	u: → əu → ɑu		æi	e
ɔ	ɔ, ɑ, æ	o:	u	ʊi	ɔi
		ɔ:	o	ɔi	ɔi

Figure 8: Early Modern English vowels

As for the Early Modern English rhythm, there is no evidence that it would differ from today's one. However, several discrepancies in the placement of the main and secondary stress occurred, especially in words of foreign origin. Millward illustrates it on the word *sinister* (from Shakespeare's Henry V) having the primary stress on the second syllable, while on the first in PDE. Secondary stress could also fall on syllables where it would not occur in PDE (1996, 259-260).

1.4 History of the English Graphics

Bloomfield (1933) had taken it for granted that "writing is not language, but merely a way of recording language by means of visible marks [quoted in Bauer, 1986, 199]." The truth is somewhere in between, as Bauer attempts to explain in his essay on medieval scribal practices (1986). Written and spoken language systems co-exist side by side and as such, they are influenced by one another. This happens under the circumstances of time and place, which were also the most crucial aspects for spelling conventions of both Old and Middle Englishes (Bauer, 1986, 204).

Although a one-to-one principle (a grapheme for a phoneme) seems to be an ideal practice of recording a spoken language, Vachek finds out that this is not possible in any language (Bauer, 1986, 204). Likewise, Old English graphical symbols were not sufficient for all English phonemes (Millward, 1996, 91). The former runic alphabet (or futhorc) has not survived Christianization in the 7[h] century, when missionaries started to use the Latin alphabet instead. Since some English sounds had not existed in Latin, runic letters must have been adopted, such as wen <ƿ> for /w/ and thorn <þ> for /θ/ and /ð/, the latter also written as eth <ð>.

Later, new spelling conventions were adopted by scribes who noticed the reduction of

unstressed vowels often occurring in inflectional endings. Their pronunciation by the /ə/ sound was recorded in the form of <-e> instead of <-a, -e -o, -u> in most cases. The spelling of words with unstressed final <m> and <n> was confused. As for other scribal practices, doubled letters indicated their prolongation in speech, especially as far as consonants in an intervocalic position or between a vowel and a sonant are concerned (Fisiak, 1968, 58).

Even though medieval spelling followed the pronunciation more closely than we are accustomed to in PDE, there was a significant instability and inconsistency in ME writings (Bauer, 1986, 204). "Medieval spelling was in a constant process of adaptation and readjustment, diatopically as well as diachronically (Bauer, 1986, 206)." Middle English varied in a large number of dialectal areas, many medieval texts were written at that time and, in addition, each scribe used to have his own "spelling habits". That is why the ME inventory of graphemes differed considerably, at least until the rise of printing and the popularity of Chancery Standard, which eventually enabled the spelling become standardized and generally accepted in the 15th century. As the English graphics became consistent as late as Early Modern English period, only general tendencies in the ME spelling may be summed up.

In Middle English, 26 letters were commonly used (Millward, 1996, 159):

<a, b, c, d, e, f, g, ȝ, h, i/j, k, l, m, n, o, p, q, r, s, t, þ, u/v, w, x, y, z>.

The inventory missed OE <æ> and <ð>, but retained <þ> and <ȝ> and adopted <j> and <v> from French, the latter two being alternated by <i> and <u>, respectively. The allograph <v> tended to be used at the beginning of words in the late Middle English and Early Modern English, as in *vp, valeie (valley)* vs. *euen (even), pur (pure)* (idem). <ȝ> could stand for /x/, /j/, sometimes even /ʤ/, some scribes confused the letter with <z>. <y> ceased to represent rounded /y/ and was used interchangeably with <i>. With the arrival of French loans, also <q> and <z> became more frequent; <qu> even replaced OE <cw> in *cwic → quicke*. <þ> represented /θ/ and /ð/, however, the tendency to substitute it with the digraph <th> has already emerged.

Another change in spelling was connected with the pronunciation of /u/, which changed to /o/, e.g. *come, love*. The grapheme <u> was substituted by <o>, which helped to distinguish the letter from minims. The graph <c> used to represent /k, ʧ/, but in ME it acquired one more sound – /s/ – on the analogy of the French writing practices, e.g. *place;* later even originally English words were influenced, e.g. *mice*. Hence the new function of <k> to indicate the phoneme /k/. However, <c> was still used in cases other than before <e, i, n>; e.g. *kiss, keen,*

knee vs. *cut, cat, creep*. In addition to single-letter changes, French scribes introduced many new digraphs in ME spelling. /u:/ was represented by <ou> or <ow> even in native words, e.g. *how, loud*. London dialect made is standard to spell long /e:, o:/ by their doubling, e.g. *good, beet*. <sc> for /ʃ/ changed to <sh>, <c> to <ch> for /ʧ/, <cg> to <dg> for /ʤ/, <h> to <gh> for [x], <hw> to <wh> for /w/, and lastly <gu> started to be used for /g/ (Millward, 1996, 160-162).

In Early Modern English, several graphemes started to be abandoned. This is the case of the yogh <ʒ> which was replaced by the digraph <gh> or by single letters <y> or <s> in the early years of the period. In the 17th century, the thorn <þ> for /θ, ð/ was written as <y> in function words (*thou, that*) and also the alternating <i/j> and <u/v> started to be used separately for vowels and consonants, respectively. In addition, <i> was used for /ʤ/ as well, e.g. *Iohn*. Similarly, long /ss/ written as <ſ> gradually yielded to its single-letter form <s>.

Official spelling of most words was standardised in the 17th century and in the 18th century, it was strengthened also in personal writings. A new grapheme <ea> occurred as a part of a spelling reform in the EModE, to represent the phoneme /e:/ coming from ME /ɛ:/, e.g. ME *bete* (*beat*) was spelled <beat>. "As a result of the final stages of the Great Vowel Shift, many words with ME /ɛ:/ moved from /e/ to /i/, and words like *beet* and *beat* became identical in pronunciation. Hence the <ea> spelling ended up as nothing more than a variant spelling for /i/ in many words (Millward, 1996, 362)."

Capitalization of some letters was becoming frequent, however, no rules of its use seem to be apparent. Punctuation was used on the analogy of continental writings, i.e. comma replaced virgule in mid-sentences, also semicolon and apostrophe appeared for contracted forms (not yet for possessives). Although different from today's practice, they occurred frequently in written texts, but their use still lacked consistency. (They were proclitic – first words were reduced, e.g. *i'the* for *in the*. Present-Day contractions are enclitic.) The eighteenth-century punctuation was much heavier than today and was used on a rhetorical basis (commas were put where pauses were supposed to be made) (Millward, 1996, 260-262).

1.5 History of the French Phonology

As was already indicated in Chapter 1.1, French has developed from vulgar Latin that was gradually abandoned by the rustic people. The last attempt to restore the classical Latin was

made by Charlemagne (742 – 814), which only confirmed the fact that the people were already speaking a different language. In 813, the Council of Tours decided that the sermons should be held in a language understandable to the common people. The priests started to preach and record the newly-born Romance language, called Gallo-Roman. The first Proto-French document, *The Oaths of Strasbourg*, was written in 842 (Zink, 1997, 11). This language was largely influenced by the language of Franks, who took hold of France in the 4th century. Frankish was a superstratum of Germanic origin, which was, eventually, superseded by the Gallo-Roman language. The resulting Old French is a name for a group of dialects called "langues d'oïl" (including the Norman dialect) and spoken between the 9th and the 13th century in the northern and central regions of today's France (Leclerc, 2015). The subsequent Middle French period (14th – 15th century) is in some respects similar to the situation of Middle English: Latin was used in church, a number of Romance dialects in the country and French by the court (the reigning House of Capet). French, as a koiné language from its very beginning, surpassed Latin in the 13th century when the language started to be used for writing not only fiction, but also official documents, chronicles and philosophical texts, which are now of a great value for historical linguists.

1.5.1 Proto-French phonology

In the epoch preceding the Old French period, various changes appeared in the historical development of Latin (slowly becoming Gallo-Roman). Latin itself had five short and five long vowels /a, e, i, o, u, aː, eː, iː, oː, uː/, the vowel length being phonemic, and four diphthongs: /eu, oe, ae, au/. The opposition between long and short vowels changed in all Romance languages to the opposition of open and closed vowels. Their subsequent phonological changes depended on the position of the syllable in which they occurred. Latin diphthongs were monophthongized during the 3rd and 4th centuries and new ones were born: /ie, uo/, e.g. /pétra[3] → pietra → pierre/ ("rock"); /nóvum → nuovu → nuef/ ("new"). Later, in the 6th century, closed /a, e, o/ and vowels in the final position not protected by stress were diphtongized, e.g. /máre → maere/ (FR *meɹ*, "sea"), /me → mei/ (FR *moi,* "me"), /flórem → floure/ (FR *fleur, "*flower*")* (Zink, 1997, 15).

In the 3rd and the 4th century, simple vowels were also affected. The unstressed ones, along with whole syllables, were reduced, especially those occurring in penultimate position or in

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3   An acute signifies long vowels in Zink's transcriptions.

the position before stress, provided that they were internal, e.g. /subitánum/ (FR *soudain,* "suddenly"). Final vowels were changing gradually, until their definitive reduction in the 7th century. Reduction of the internal ones caused the production of new consonants in the syllables (a process called epenthesis), e.g. /númerum → numbru → nombre/ ("number").

Focusing on the consonantal changes, a specific phenomenon is the prosthesis in consonant clusters /sp-, st-, sk-/ where /s/ became less strong and was preceded by the vowel /i/, e.g. /ischola → escole/ (FR *école,* "school") (Zink, 1997, 16). Among intervocalic consonants, some plosives were voiced, e.g. /wíta/ → /vida/ → 6th century /viða/ → 11th century /vie/ ("life"), and /b, w/ were replaced by /v/ in the 3rd century, e.g. /habére → avére/ (FR *avoir*, "to have"). Other new consonants were formed in the pre-French period. For instance, yod, a /j/ sound, was entered in /filĭus → filyus/ (FR *fils*, "son"), and similar effects were produced by palatalization of some consonants, namely spirants /s, z, ʃ, ʒ/, which were produced after /t, d/ to form affricates /ts, dz, ʧ, ʤ/, e.g. /infántia → infantsya → enfantse/ (FR *enfance*, "infancy"). /dy, gy, ge, gi/ were weakened to /yy/, e.g. /régem → reyye → rei/ (FR *roi*, "king"). Also /k, g/ palatalized before /r, l, s, t/ and in the 5th century before /a/ as well, e.g. /cárrum → ʧarro/ (FR *char*, "car"), /gámbo → ʤamba/ (FR *jambe*, "leg"). The cases in which /j/ was preceded by palatalized consonants were gradually changed into diphthongs, e.g. /nóctem → nuoyte → nuit/ (FR *nuit,* "night") (Zink, 1997, 17). The aspirated laryngeal from Latin was lost but with the borrowings from Frankish, the aspirated Germanic /h/ was reintroduced in Gallo-Roman, and was pronounced in course of Old and Middle French. It has been eliminated in the 17th century and now remains only in the form of a hiatus between two words, preventing them from being pronounced with liaison[4] (Bonnard, 1982, 9-10). To conclude, palatalization has enriched the phonetic system of Proto-French, namely by the new series of affricates and by an increased number of diphthongs (Zink, 1997, 18).

1.5.2 Old French Phonology

Zink separates the Old French phonetic developments into two parts. The first one is concerned with changes which commenced before the period of Old French, while the second describes proper Old French developments. The former part discusses unstressed vowels in initial syllables, final consonants, velar /l/ and /w/ of Germanic origin (1997, 18-20):

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4   Liaison is a case of linking typical for French. A normally silent final consonant of a word is pronounced when followed by a word beginning with a vowel, e.g. *les hommes* /lezɔm/ "people" vs. *les héros* /leeʁo/ "heroes".

- Latin /u/ becomes /y/ if there is /ɑ/ in the hiatus before /u/, which entailed the centralization of /ɑ/ in /e/, e.g. /habútu → aútu → aúdo → eu/ (past participle of Latin *habeɪ*, FR *avoiɪ*, "to have"), /maturum → meur/ (FR *mûɪ*, "mature") (Zink, 1994, 70);

- /ɑ/ in initial stressed /ka-, ga-/ is changed into central closed /ə/; e.g. /cabállum → ʧevallo → ʧeval/ (FR *cheval,* "horse");

- /ẹ/ became weaker and started to be produced as the central /ə/ in the 11th century, e.g. /dé → de → də/ as in /debére → deveir/ (FR *devoiɪ*, "to must");

- /i/ in closed syllables is lowered to closed /e/, e.g. /vĭrtútem → vertu/ ("power");

- the already closed /o/ is changed to /u/ between the 11th and the 13th century, which reintroduces the vowel /u/ to the OF phonological system, formerly substituted by /y/, e.g. /co(h)órtem → corte → court/ ("court");

- syncope of /ə/ before or after /r/ and /l/ in course of both Old and Middle French, e.g. /sairement → serment/ ("oath") (Bonnard, 1982, 14);

- in the 11th and 12th centuries, the timbre of unstressed vowels in initial syllables (except /u/ and /i/) was fixed;

- since the 12th century, /r/ has influenced the aperture of oral cavity when pronouncing /e/, which thus became /a/, e.g. *escherpe → escharpe* ("scarf"), and /y/ which became dialectal /oe/, e.g. *hurter → heurter* ("to hit") (Bonnard, 1982, 18).

Before the Old French period, the Gallo-Roman language was affected by loss of final consonants, which had a crucial impact on nominal and verbal inflections and which reduced word-forms to one or two syllables; e.g. /donc/ → /dõn/ ("so"). However, this has not applied to all cases, e.g. *filius → fils* /fis/ ("son") (Bonnard, 1982, 31). Consonantal changes include:

- loss of the final /-m/, which remains in a handful of words in a nasalized form, such as /rem → rien/ ("nothing"), /mum → mon/ ("my");

- loss of /-c/ in the deictics, such as *ecce hoc/hic/hac → si, ce, ci, ça* ("it");

- loss of /s/ before voiceless consonants, e.g. *teste → tête* ("head"), *coustume → coutume* ("custom") (Leclerc, 2014);

- in the 11th century, final dental /-t, -θ/ were lost after simple vowels, e.g. /pórtat → portet → porte, portéθ → porté/ ("carried");

- /l/ became vocalized and is changed to /u/, which produces a new series of diphthongs, e.g. *alba → aube* ("dawn");

- Germanic /w/ was reintroduced in the 4th and 5th centuries, its pronunciation was

exaggerated and the /g/ sound was consequently added before it; however, in the 11th century, the semi-vowel is lost, which produced the following etymology of originally Germanic words; e.g. /wardôn → gwardare → garder/ ("to guard"), /werra → gwerra → guerre/ ("war").

In the 12th century, the liaison tends to be produced in pronunciation of the final consonant of a word followed by another beginning with a vowel, e.g. *six exemplaires* /siz/ (Zink, 1997, 20).

The second part of developments concern mostly vowels where significant changes occurred. Both simple vowels and diphthongs were nasalized and in less than one century (1150 – 1250), a vast reduction of diphthongs took place and affected all of the preliterate epoch diphthongs (Zink, 1997, 21-23).

- 11th – 14th century – all vowels preceding the nasals /m, n, ɲ/ were nasalized, namely: /ɑ, e, o, i, y/ were pronounced as /ɑ̃, ẽ/ since the beginning of the 11th century, as /õ/ since the second half of the12[th] century, /ĩ/ in the 13th century and lastly /ỹ/ in the 14th century; e.g. /ĩnfántem → enfant → ẽnfɑ̃nt/ ("child"), /bonum → bon → bõn/ ("good"), /fínem → fin → fĩn/ ("end");

- a tendency of nasalized vowels to be pronounced more carelessly led to their change in open vowels in case of /õ/ and /ẽ/, the latter changed to /ɑ̃/; also /ĩ/ and /ỹ/ were affected but as late as in the course of the Middle French period;

- diphthongs were nasalized under the same conditions in the 11th century: i.e. /ai/ → /ɑ̃ĩ/, /ei/ → /ẽĩ/, e.g. /vánum → vaeno → vain → vɑ̃ĩn/ ("vain").

Reduction of diphthongs was mostly connected with the position of stress. Two possible types of such reduction appeared:

- the second element was stressed while the first one was becoming more closed until it approached approximant consonants, i.e. they were turned into semi-vowels: /i/ → /j/, e.g. /ljé/ (FR *lié,* "connected"), /y/ → /w/, e.g. *cuer* /kwœr/ (FR *cœur,* "heart"), /u/ → /ɥ/, e.g. *nuit* /nɥít/ ("night"); at the end of 12th century, /ie/ after palatal consonant was monophthongized, e.g. /ʒ/ in *mangier → manger* (Bonnard, 1982, 17);

- in the case of diphthongs ending with /-i/ or /-u/, the second element remained unstressed and was left out afterwards, e.g. *fleur* /flœur → flœr/ ("flower").

During the Old French period, the language lost half of its vowels. Zink claims that it was

caused by the fact that the complexity of the system exceeded its usefulness, which the native speakers were aware of. The French vocalic system was still able to do without them; besides other things, also thanks to the above mentioned nasalization which had doubled the number of vowels again (1997, 23-24).

In addition to the vocalic changes, several consonants were modified since the 12th century. There was a simplification of affricates /ts, dz, ʧ, ʤ/, whose spirants overshadowed the preceding stops, e.g. /ʧyéf → ʃyéf/ (FR, PDE "chef"), /pledzir → plezir/ (FR *plaisir*, "pleasure"). Spirants placed in the final position of a syllable were reduced, especially /z/ in the first half of the 11th century, and /s/ in the 12th century, e.g. /vazlet → válet/ (FR, PDE *valet*) (Zink, 1997, 24-25). /θ/ and /ð/ were lost in the 11th century (Bonnard, 1982, 34).

Figure 9 represents a chart of OF consonants based on the chapter 1.5.1 above and Fouché (1952).

	Bilabial	Labio-dental	Inter-dental	Alveolar	Alveo-palatal	Labio-palatal	Palatal	Velar
Stops	p, b			t, d				k, g
Affricates				ts, dz	ʧ, ʤ			
Fricatives		f, v	(θ, ð)	s, z	ʃ, ʒ			h
Nasals	m			n			ɲ	
Lateral				l				
Retroflex				r				
Semivowels	w				j	ɥ		

Figure 9: Old French consonants

The vocalic system of Old French is difficult to cover because there is not an accord on which out of the 33 possible vowels were proper phonemes and which were only allophones. Leclerc (2014) enumerates 9 oral vowels, 5 nasal vowels, 11 oral diphthongs, 5 nasal diphthongs, and 3 triphthongs. According to him, such a number of vowels is abnormal and was subject to inevitable reduction starting by the beginning of the 13th century.

Norman French Phonology

Anglo-Norman was one of the medieval dialects of French, which became the official language of the English court from the 11th to the 14th century and which had the biggest impact on the form of contemporary English. The main phonological changes which have appeared since the 11th century are summarized as follows (Zink, 1997, 26-27):

- closed /o/ was changed to /u/ and in some cases nasalized at the same time, e.g. *council, mountain*; the same applied to the diphthong /oi/;
- diphthongs were reduced: /ie/ → /e/, e.g. *chevaler* ("chevalier"); /uo/ and /ue/ → /u, o, e/; /ui/ → /u, i/;
- /ei/ became a variant of /oi/;
- /ə/ was lost before /r/, in hiatus and at the end of the word;
- /-p, -n, -r, -s, -t/ were often reduced in the final position, e.g. /bien → be/;
- /n/ was labialized before /f/, e.g. PDE *comfort* vs. FR *confort;*
- /z/ was dentalized before /l/, e.g. /isle → idle/.

1.5.3 Middle French Phonology

In course of the 14th and 15th centuries, Old French has been simplified altogether. Its pronunciation remains recorded in the present-day spelling, which used to be phonetic in Old French. It is due to medieval scholars who insisted on maintaining the existing spelling practices, and sometimes even on returning to the former Latin scribal rules, e.g. <belle> instead of <bele> (Latin *bella*, fem. "beautiful"). Despite the intention to simplify the orthography, new graphemes were introduced, i.e. initial <h> to distinguish, for instance, *huître* ("oyster") from *vitre* ("window") in the spelling of <u> and <v>; <ç> pronounced as /s/ to be distinguished from <c> pronounced as /k/, and also special accents and a circumflex were written above certain vowels (Leclerc, 2014), e.g. to indicate the former Latin /s/ in <hôpital> ("hospital"), <hôtel> ("hotel").

The most considerable change in the course of Middle French period affected diphthongs and triphthongs, which were reduced to single vowels; e.g. /au/ → /o/, /ei/ → /ɛ/, /ue/ → /ø/ or /œ/. /a/ and /e/ were nasalized before nasal consonants, e.g. diadame /ãmə/ ("diadem") (Ayres-Bennett, 1996). /e/ became silent and the hiatus disappeared as well as final consonants (only in cases where followed by words beginning with a consonant), which had an impact on MF

morphology because phonetic differences between inflections were abandoned. Bonnard (1982, 19-25) adds the following changes happening in the Middle French period:

- vowels in initial position: /ey/ → /y/, e.g. /meyɾ/ → /myr/ (FR *mûɪ*, "mature"); /aóu/ → /aœ/ → /eœ/, e.g. /paóur/ → /pœr/ (FR *peuɪ*, "fear"); /ai/ → /aĩ/ → /aẽ/ → /ẽ/ → /e/, e.g. /faĩne/ → /fẽn/ (FR *faine*, "beechnut");

- in stressed vowels: /a/ in /au/ → /ao/ → /o/, e.g. FR *aube* ("dawn"); /e/ in /eáu/ (13th century) → /iau/ → /yau/ (14th century) → /yo/ → /eo/ → /o/ (16th century,) e.g. *beau*, (masc. "beautiful"), nasalized /ẽ/ in /ẽn/ and /ãn/ changed to /ẽ/, /ã/, respectively, e.g. *vent* ("wind"), *bien* ("well"), the same applies for /õn/ changed to /õ/, e.g. *pont* ("bridge"), and /œ̃n/ to /œ̃/, e.g. *un* (an indefinite article, masc.);

- nasal explosives denasalized nasal vowels provided that the /n/ remained pronounced (which was secured by the grapheme consisting of double <nn> or <mm>), e.g. *bonne*, (fem. "good");

Consonantal changes decreased in number and the resulting system is mostly similar to the present-day French phonology. According to Bonnard (1982, 38-43),

- /p/ was reduced in the final position, e.g. /plõmp → plõ/ (FR *plomb*, "lead"), as well as /t/ and /s/, e.g. /tard → tar/ (FR *tard*, "late"), /pales → pale/ (FR *palais*, "palace");

- /rr/ changed to simple /r/, e.g. *carré* ("square"), although some linguists claim that the difference is only graphic (Straka);

- /l/ preceded by a vowel was gradually changing to /j/ from the 13th to the 17th century, e.g. /braler/ → /brajer/ (FR *brailler*, "to yell").

Middle French was mostly influenced by the adoption of "Villers-Cotterêts" in 1539, an ordinance imposing the French language as the only official language in France, which, on one hand, led to the disappearance of Latin in both administration and common use, to a linguistic unity across the country and the rise of national feeling in France, but which, on the other hand, advanced the decline of regional dialects (Fouché, 1952, 57).

2. METHODOLOGY

This intermediary chapter introduces assumptions in which the research is grounded. The crucial part of the analysis is included in the first hypothesis, which is formulated in the subsection 2.1 along with the second, subsidiary assumption. The procedure employed in the analysis is described in 2.2. A corpus linguistics method is chosen for the research.

2.1 Hypothesis

A number of researches have dealt with the French dominance over the English language in the Middle Ages, most of them focusing on the Middle English morphological structure and word stock. As was described in Chapters 1.3 and 1.4, it was also found out that the three centuries were long enough for French to have influenced even the Middle English phonological system and its orthography. This research is concerned with the phonological borrowing from Old French to Middle English, taking into consideration the respective sound systems and spelling practices of both.

In Chapter 1.2, it was suggested that in language borrowing and a consequent integration of loanwords, a foreign sound is adjusted according to the contemporary phonological system of the recipient language. The new sounds are replaced by as nearly related sounds as possible. The statement was complemented by the claim that changes in the phonological system of the recipient language influence consonants more than vowels, which concerns especially the places and manners of articulation of the related sounds.

On the basis of these claims, the first hypothesis was formulated as follows:

A foreign sound is replaced by a related native sound. "Related sounds" are understood here as phonemes sharing at least one of the articulatory features attributed to the two compared sounds, i.e. either manner, or place of articulation of the two elements of a pair corresponds.

The second hypothesis was inspired by an essay by Lyle Campbell on *Cautions about loan words and sound correspondences* (1986, 221). Campbell warns there against a misleading assumption that "one should expect sounds in loan words to be identical or nearly so to sounds in the word of the donor language." That similarity hinges on many factors can be

seen on an example of genetically distant languages. According to him, the English *bed* and the Finnish *patja* both derived from the Proto-Germanic *badja*. The currently used derivatives *bed* and *patja* "reveal no identical correspondences, in part due to substitutions in the borrowing process, and in part due to subsequent changes in the donor after the word was borrowed (Campbell, 1986, 223)."

The second hypothesis was formulated as follows:

> *Present-Day English sounds adopted with lexical borrowings from Old French are not identical to their modern French counterparts.*

Also Haugen considered the current state of the borrowed sounds. According to the difference between the model phoneme and its imitation, he distinguished importation and substitution of the pattern, conceding the fact, that after some time, substituted forms may transform into imported models. Therefore, the analysis focused on cases where both counterparts are present in modern French and English, e.g. in OED selected PDE *March* vs. the modern French *mars*. A comparison of the two words' current pronunciations is provided to see whether importation or substitution was achieved.

Based on the assumption that consonantal inventories, rather than vowels, are more prone to differ between the donor language and the recipient language, the research investigates consonants only.

2.2 Procedure

With respect to the limited length of the diploma thesis, the research was carried out on the Old French loanwords adopted by the English in the Early Middle English period only (between 1100 and 1300). The analysis focused on specific phonemic phenomena different in both languages at the same point of time. Firstly, these sound mismatches were selected in chapter 3.1 by comparing the two respective phonological systems. Secondly, samples of French borrowings were extracted from the *Oxford English Dictionary*, an electronic collection of words diachronically recorded along with a range of their possible orthographic variants throughout the words' etymologies. The extraction was performed according to certain restrictions as for the period of time, language source and location where the respective borrowings should have been used. This was possible thanks to the advanced search of the OED online version. Thirdly, each of the items was looked up in a Middle

English corpus under the possible orthographic variants found in OED[5]. For this purpose, *The Penn-Helsinki Parsed Corpus of Middle English* was used because it contains a database of Middle English prose texts (with 1,358,119 positions, or tokens, i.e. every single use of a word, punctuation and number altogether in the given collection of texts). Moreover, the corpus is annotated, which enables an inquiry in a corpus manager, such as *KonText* – a user-friendly software developed by the Institute of the Czech National Corpus. Lastly, the excerpted samples were interpreted with respect to the medieval English and French phonological systems and spelling practices.

Two possible approaches may be followed when carrying out linguistic researches in corpora. Either they are used as a source of data from which linguistic theories are deduced, or they serve as a collection of empirical examples on which already established theories are confirmed or disproved. This study follows the latter, the corpus-based method.

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5   OED word-forms represent an already pre-selected sample of all the recorded ME variants. A larger sample of variant forms could have been derived from the Middle English Dictionary, but that would have disproportionately expanded the material for the analysis.

3. PRACTICAL PART

Even though both Early Middle English and Old French are genetically quite close and have developed in relative geographical proximity, there was a noteworthy disparity in their consonantal inventory, cf. Figures 4 and 9. While English had 22 phonemes, French speakers could make use of up to 27 sounds, out of which two (/θ, ð/) were on their way to disappear. It seems that there was not an English consonant which the French would not know. On the contrary, the two alveolar affricates /ts/ and /dz/, the alveopalatal fricative /ʒ/, the palatal nasal /ɲ/ and the labiopalatal /ɥ/ were new for the English when the Normans invaded their country.

To what extent the five consonants were accepted and assimilated, or rejected with the influx of French borrowings in the first half of the Middle English period is explored in the next sections.

3.1 Data Obtained

In the advanced search of OED, several restrictions were set to extract a representative number of samples, i.e. borrowings from French. By determining the language source as "French", which brought words in "Britain" during "1100-1300", 307 entries corresponding to the subject-matter, i.e. Old French loans in Early Middle English, were found. The last restriction eliminated obsolete words, so that only words that survived until present days were further studied. The whole list is included in Appendix 1.

The extracted words were examined in OED to ascertain their OF word-forms, which were adopted in English in the course of the first two centuries of the EME period. However, in most of the cases, there was more than one possible word-form of more than one origin. For instance, compare the dictionary entries for the selected PDE words *tent* and *aumbry*. While *tent* was assigned only one possible OF model (*tente*), *aumbry* could have been borrowed either from Anglo-Norman or Old French (both in the form of *almarie*). Since the AN consonantal inventory was identical to that of OF, at least as far as the selected phonemes in question are concerned (see Chapter 1.5.1), also word-forms of Anglo-Norman origin (and there was a majority of them) were taken into account.

Before proceeding to the five required phonemes, their OF graphemic forms were drawn up

on the basis of Skarup (1994), see Figure 10.

Phoneme	ts		dz	ʒ		ɲ		ɥ
Corresponding graphemes	c + e, i		z (inside the word)	g + e, i		(i)gn + V		ui
	z (final position)			j + a, o, u		ng (final position)		

Figure 10: Phoneme-grapheme correspondences

These graphemes were searched for in OF/AN word-forms to get a list of their PDE counterparts. Figure 11 indicates number of such PDE words, whose various OF and AN forms contained the respective phonemes. There were

- 40 PDE words whose OF/AN cognates contained the sound /ts/, corresponding to <ce>, <ci>, and <z> in the final position of a word-form;
- 3 words containing the sound /dz/ corresponding to the grapheme <z> occurring between vowels;
- 27 words containing the sound /ʒ/ in graphemes <ge>, <gi>, <ja>, <jo>, <ju>;
- 12 words containing the sound /ɲ/ corresponding to the graphemes <(i)gn> followed by a vowel and <ng> at the end of a word;
- and 13 words containing the sound /ɥ/ corresponding to the grapheme <ui>.

Naturally, some word-forms had several possible orthographies, that is why some graphemes, for example <ce> and final <z> in the OF/AN variants *voice, voiz* of the PDE *voice* confirmed twice the presence of the phoneme /ts/ in the original French cognate. Similarly, two selected phonemes could have occurred in one sample as well. For instance, PDE *mason* could have been borrowed either from *maciun* or *mazoun* (or several other variants), which would correspond to the pronunciation of both /ts/ and /dz/, respectively. The origin of three samples was marked as uncertain, so their variants were not further studied (it is the case of *boy, frame,* and *poke*).

Phoneme	ts	dz	ʒ	ɲ	ɥ
No of instances	40	3	27	12	13

Figure 11: Number of selected PDE words for each phoneme

3.2 Research

The selected PDE words (whose OF/AN cognates contain the phonemes in question) were again explored in OED. Thanks to the list of ME word-forms, which OED presents chronologically for each lexeme, it is possible to look them all up in the Middle English Corpus and see, which of them and how frequently they were used in early ME manuscripts. Although the borrowings were taken from the first half of the ME period, the research is focused on the development of ME pronunciation until the end of the ME period. Therefore, all orthographic word-forms which are, according to OED, supposed to have been in use until 1500 were taken into consideration (except those marked as transmission errors).

In the course of research in the MEC, several unanticipated phenomena appeared, which are discussed here as an introduction to the detailed analysis of the phonemes in question.

There were words recorded in many different word-forms in MEC; other expressions did not occur at all, e.g. *mitcher, mason*. The case of *deliverance* is specific in that even OED offered no word-forms existing in the ME period. From those researched in citations below the entry, only the word-form *deliveraunce* (used in 1509) was found with the frequency of one token in the whole corpus.

In examples such as *causey*, *city, March, noise* and similar short words, it often happened that their word-forms occurred in the corpus but after a closer examination, they turned out to be homographs or homonyms of different lexemes (*cause, sette* – past tense*, Mars, nose*, respectively). For instance, the word-form *cause* (for PDE *causey*) occurred 351 times but only in the sense of its PDE variant*.*

*The fer **cause** is almyghty God, that is **cause** of alle thynges.*

Such instances were, naturally, not taken into consideration. The last but one restriction was of morphological nature. Word-forms of expressions which were subject to changes according to their grammatical environment were usually not taken into account, e.g. ME past tense formations of *to pass*, because grammatical endings might have had an influence on the graphemic representations of studied phonemes. However, if the ending had its role in the pronunciation of one of the given phonemes, the form was considered, e.g. the plural form of *Norman*. Finally, instances which emerged to be expressions of a foreign language, i.e. they were part of a larger text in Latin or French, were not included in the research.

Some word-forms proposed by OED follow more than one branch or tendency of

development. (Such etymologies are marked by Greek letters.) These separate ways of development may have not survived, as in *justice* (see β. in Figure 12), or they have been used until nowadays, e.g. *access*, whose ME orthography suggests a different evolution leading to two polysemes: *an access* (an act of entering), *an access* (an onset of a disease).

Even more interesting emerged to be the word *city* and its ME spelling variants, denoting different semes used in different contexts. *Syte* and *cite* occurred twice and 47 times, respectively, for the same meaning as PDE *city*:

> *He was choson by a voyce, (…) forto be byschoppe of þe* **syte** *of Myrre.*
> *Þus he þen prophysyet before of wracch þat aftyr fell on þat* **cite** *of Ierusalem for*
> *vengeans of hys deþe.*

While *sete* was used rather for the PDE *seat,* and *site* for the PDE *site*, as can be seen in the following examples.

> *And whan þe popes* **sete** *was vacaunt, for hir cunnyng and hir fame þei chose hir pope.*
> *Than fell he down onto þe erde, and reuerently worchipid þat* **site**.

Investigating the word-forms one by one, it can be confirmed what is generally known about the ME orthography – it is highly inconsistent. For instance, there were up to sixteen distinct word-forms of the PDE word *council* out of 30 possibilities taken from OED, see Figure 12 along with the number of their occurrences in the corpus. From the series of word-forms in OED lined up according to the date of their occurrence, one would presume that the more recent the forms, the more frequently they occur in the corpus. This was, however, not proved, as the numbers of instances imply no such tendency. On the contrary, the example of *council* confirms the opposite direction that the longer the borrowings (adopted with a clearly French spelling) stay in the English environment, the less their originally borrowed word-forms are used, the larger amount of various distinct word-forms are created, and the less they resemble their OF/AN counterparts (regardless which of them have survived or were replaced by other forms). To demonstrate this on an example, <i> was replaced by <y> unwittingly (cf. *company* in Figure 18, *quit* in Figure 19), the phoneme /ʤ/ was spelled as <j> or <i> alternately (cf. *judgement*, *justice* in Figure 12). Nonetheless, preferences for a word-form change over time and the forms used today are not necessarily those that used to be most frequent in Middle English. Some PDE cases even show a tendency to return to the original French spelling, e.g. *price, danger, judgement, quit.*

Sections 3.2.1 to 3.2.5 deal with the studied phonemes from the phonological point of view,

the analysis being conducted in a similar procedure for each of the phonemes separately but always with respect to the two presented hypotheses.

3.2.1 /ts/

The voiceless alveolar affricate /ts/ corresponded to the OF graphemes <ce>, <ci>, and <z> occurring in the final position of a word. Forty Old French/Anglo-Norman cognates containing these graphemes were found. Ten of the samples were not further studied as their ME word-forms were not found in the MEC. These were: *causey, deliverance, mason, mitcher, noise, reset, rocket, size* along with *poverty* and *statute* whose plural forms were searched for. The whole list can be, due to its extent, found in Appendix 2.

In words occurring in MEC, the given graphemes appeared either at the beginning, in the centre or at the end of the selected ME words. Most of them (23 out of the remaining 30) were found in the last syllable where the vowels /e/ or /i/ could follow the consonant, e.g. PDE *praise: praysy, preyes, preise.*

The phonological analysis of the word-forms was based on the fact that /ts/ has not survived until EModE, therefore, although the grapheme <c> has been preserved in spelling by the ME scribes, it seems that the /ts/ pronunciation was replaced by other phonemes. What follows is a distribution of given words according to the most probable sound change of the phoneme /ts/.

/ts/ → /s/

The orthography of ME word-forms in Figure 12 oscillates between the graphemes <c> and <s>. They are supposed to have acquired the /s/ pronunciation, where the grapheme <s> has prevailed, cf. the samples for *voice*: *uoys, veys, vyce, woyse; vice, vois, voys*. In some cases, the result is further confirmed by the double spelling <ss>, e.g. *nourice: norisse, pass: passi*. On the other hand, there are examples where the spelling <c> was more frequent, e.g. *city*. It is probable that the /ts/ pronunciation at the beginning of the word remained long unchanged.

PDE word	OF/AN variants in OED	ME variants found in MEC
access	accesse, accese	α. axcesse (1); β. axes (2)
burgess	burgez	burgeise (1), burgeis (1)
chance	cheance	chauns (1)
city	citee, citté, cittee, ceté, cetee, scité, cité	syte (2), cete (3), cite (47), cyte (69), cytee (204), cytte (55), cytye (1), sete (31), site (12)
council	cuncile, concile	α. concilie (1), counceil (34), counceyl (6), councell (43); β. conseil (143), consaile (7), consell(7), counseil (24), counseile (4), counsail (4), conseille (14), counseyl (21), counsele (2), counsell (11), cownsell (8), conseyl (2)
face	face	faas (1), fas (3), face (191), faace (2)
grace	grace	gras (7), grace (860)
justice	justiz, justice	α. justes (pl., 3), justis (4), justys (5), justyse (1), iustyce (3), iustyse (5), justice (9); β. justicie (1), iusticie (6)
malison	malicion	malisoun (4), malysoun (1)
niece	nece, nice, niece, niece	neese (1), neis (1), nyce (10), nece (6)
Norman	Normanz (pl.)	Normans (pl., 10)
nourice	nurice, nurrice, norice, norrice, nurysce, nurrice, norrice, nourice, nourrice	α. nurrice (1), nurice (3) β. norisse (1), norys (1), norice (5)
pass	pascer	paci (1), passi (1), pace (1), pas (7)
peace	pez	pais (27), pasch (6), payse (3), peys (3), pays (18), pece (20), pees (193), pes (91), pesse (4)
piece	pice, peece, piece, pece, pièce	pese (8), peyse (1)
plaice	pleiz, playz, plaïz	plays (3)
press	presce	α. press (2); β. prees (8), pres (2), prese (5)
price	price	presse (2), priis (1), prijs (1), priys (1), prys, (11) pris (26)
principal (adj, n.)	princepal, principal, principall, principalle, principal	α. prencipall (1), princypal (2), pryncipal (3), pryncypall (3); β. principal (21), principle (2)
purchase	purchacere, purchacer, porchacer	α. porchaci (3); β. purchase (6)
ransom	rancun, raunceon, raunceoun	α. ranceun (3), ransoun (1), raunceoun (1), raunson (6), raunsoun (14); β. raunsom (1)

PDE word	OF/AN variants in OED	ME variants found in MEC
reverence	reverence, reverance	reuerance (1), reuerens (26), reverens (5), reverence (29)
space	space	space (36)
spice	espice	spice (5)
voice	voice, voisce, voiz	α. uoys (1), veys (1), vyce (7), woyse (7); β. vice (28), vois (21), voys (55)

Figure 12: /ts/ → /s/

Due to the fact that the Old French /ts/ was reduced to /s/ even in the French environment no later than 1200, it cannot be determined from the results, whether the selected words were borrowed with their /ts/ or /s/ pronunciation and which of them it concerned. In most of the selected words the sound /s/ prevails until nowadays, but one of the examples can be pronounced with either /s/ or /z/ in PDE, i.e. *malison* /mælizən/ or /mælisən/.

/ts/ → /s/ → /ʃ/

The gradual change from /ts/ to /s/ and then to /ʃ/ is evident in the examples of word-forms for PDE *conscience*. All three correspondent graphemes occur in the studied word-forms: <c> for /ts/[6], <s> for /s/ and <sc> for /ʃ/. The last grapheme was reduced in the ME period. However, its presence in the example *conscyens* substantiates the presumption that the coalescence of the /s/ sound with /j/ spelled here as <y> resulted in /ʃ/. Although ME word-forms of PDE *mention* do not show the third stage so clearly, it is very probable that the phoneme /s/ could have already been palatalized in this case as well. It is supported by the spelling of <i> or <j> after <c> or <s> in the ME *mencioun, mensyon, mencyon.*

Parish is included in this group because of two tokens with the grapheme <ss> in the orthographic variant *parysse*. The grapheme is supposed to show the intermediary stage between the former Old French phoneme and the definite one, which is indicated by the grapheme <sch(e)> where the phoneme /ts/ had been pronounced.

All three PDE words are now pronounced with the voiceless fricative /ʃ/.

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6   On the analogy of the French writing practice of /ts/, it is supposed that <c> in OF borrowings was pronounced rather as /ts/ than /ʧ/, which was common for the grapheme in ME native words, especially because <c> was attributed the pronunciation of /s/ imitating the French models (see chapter 1.4).

PDE word	OF/AN variants in OED	ME variants found in MEC
conscience	conciance, conciense, consciense, conscience, consience	conciens (2), concyens (13), conscyens (1), consyence (1), consyens (1)
mention	mencion, menciun, mencioun, mencion	mencioun (1), mensyon (2), mencyon (8)
parish	parroce, parosce	parische (1), parysche (1), parysse (2), parisch (1), parysch (10)

Figure 13: /ts/ → /s/ → /ʃ/

/ts/ → /s/ → /z/

For *praise* a separate table was created because its ME orthographic variants show the tendency to put the grapheme <s> representing the given phoneme between vowels. Intervocalic position of /s/ meant its voicing in ME, which is also supported by the current pronunciation of the expression /preɪz/.

PDE word	OF/AN variants in OED	ME variants found in MEC
praise	preicer	praysy (1), preyes (3), preise (12)

Figure 14: /ts/ → /s/ → /z/

/ts/ → /ʧ/

The case of *March* speaks for a fast transfer from /ts/ to /ʧ/, which is indicated by the grapheme <ch> appearing in ME. The /ʧ/ sound remains until PDE.

PDE word	OF/AN variants in OED	ME variants found in MEC
March	marz	Marce (1), Mearch (1), Marrch (3)

Figure 15: /ts/ → /ʧ/

To compare the original voiceless alveolar affricate /ts/ with the four possible results of the phonological change, the original phoneme differs from the voiceless alveolar sibilant /s/ only

in one of the observed aspects (manner of articulation), as well as in case of the voiceless palato-alveolar affricate /ʧ/ (place of articulation). The other two resultant phonemes that have replaced the OF /ts/ were more distinct. The voiceless palato-alveolar sibilant /ʃ/ differed from it in both place and partly in manner of articulation (both /ts/ and /s/ are sibilants, but the former is an affricate while the latter a fricative) and the voiced alveolar sibilant /z/ differed from /ts/ in place and voicing.

To prove the first hypothesis, the resultant ME phonemes must share at least one of the two principal aspects of pronunciation – either manner or place of articulation. It may be summarized that three of the four possible phonemes confirmed the assumption, i.e. /s/, /ʧ/, /z/, whereas /ʃ/ is considered here, according to the set parameters, an unrelated sound.

The second hypothesis concerns present-day French cognates of the selected words. Out of the 30 examples, four PDE words had no counterparts in modern French (*malison, nourice, plaice, praise*), five more cases were found with a corresponding grapheme, which is no longer pronounced in modern French, i.e. *bourgeois, Normans, paix, prix, voix*. The rest of the cognates (21) are pronounced with the voiceless sibilant /s/, as well as the majority of their PDE counterparts (17). The number thus confirms that most of the pairs have an identical phoneme in both modern languages, i.e. /s/ in *conseil, face, grâce, principal, press, rançon*, but there are some differences in the pronunciation, e.g. *conscience* (/kõsjãs/ vs. /kɒnʃəns/), *mention* (/mãsjõ/ vs. /menʃən/), and some examples whose phonemes do not match at all, e.g. *paix* /pɛ/ vs. *peace* /piːs/, *prix* /pʁi/ vs. *price* /praɪs/. To conclude, the phoneme /ts/ was by no means imported in ME. In French, /ts/ was substituted by /s/ and by "zero". Whether it was /ts/ or /s/, which was replaced by the ME sound /s/, /ʧ/, /ʃ/, or /z/, is not certain.

3.2.2 /dz/

The second alveolar affricate /dz/ differs from /ts/ in that it is voiced. The manner and place of articulation are identical. The corresponding intervocalic grapheme <z> occurred in OF/AN cognates of three of the extracted PDE words: *grace, justice* and *mason*. The grapheme was in most of the original OF/AN cognates spelled in a different way, which also indicates a number of various default ways of pronunciation for the following ME borrowings, see Figure 16.

OED suggests eight possible ME spellings of the word *grace*, however, only two of them (marked as coming from the 15th century) were found in the MEC. *Gras* occurred seven times,

but it seems that *grace* was the preferred solution for most of the medieval scribes (860 times). Eventually, the orthography has survived until now. PDE *justice* has been developing in two separate branches. 15 possible spellings were used for the first one, however only seven of them occurred in the corpus: *justes* (pl.), *justis*, *justys*, *justyse*, *iustyce*, *iustyse*, *justice*. The second branch contained two word-forms: *justicie*, *iusticie*, out of which both were found in MEC. Their frequency ranged from 1 to 9. *Mason* had up to seventeen possible spellings in ME, but none of them was found in MEC.

PDE word	OF/AN variants in OED	ME variants found in MEC
grace	graze	gras (7), grace (860)
justice	justize	α. justes (pl., 3), justis (4), justys (5), justyse (1), iustyce (3), iustyse (5), justice (9); β. justicie (1), iusticie (6)
mason	mazoun	-

Figure 16: /dz/ in orthographical variants

It is obvious that the sound /dz/ has not been preserved in English and not even the OF grapheme <z> between vowels occurs in the explored samples. The phoneme tended to be spelled with <s, se, ce>, which supports the interpretation of the sound as /s/.

To compare it with the original sound, /s/ is a voiceless alveolar fricative which differs from /dz/ in manner of pronunciation and voicing. The first hypothesis is thus confirmed: the OF /dz/ sound shares with its resultant ME counterpart the place of articulation. Therefore, they can be considered related sounds.

As for the second hypothesis, members of the pair, the present-day English sound and the modern French one, are identical in the given cognates (/gʁɑs/ vs. /greɪs/, /ʒystis/ vs. /dʒʌstɪs/).

The situation with /dz/ is similar to /ts/. /dz/ cannot be considered imported in English because it simply had not remained in the language and was replaced by a related sound /s/. To confirm this assumption, more corpus data would be needed.

3.2.3 /ʒ/

/ʒ/ originated in French as a reduction of the phoneme /ʤ/, that is why the graphemes which represented them in the written texts were identical. As a result of this substitution already in the French phonological system, it is not obvious (as in the previous cases with the phoneme /ts/ and /dz/) whether the OF/AN borrowings in English were pronounced with the voiced palato-alveolar sibilant, or still with its affricate counterpart. The same problem arises when discussing the ME pronunciation. Figure 17 shows all possible orthographic variants found in MEC.

PDE word	OF/AN variants in OED	ME variants found in MEC
burgess	borgeys, burgess, burgez, burgeois, burgeis, borgeis, borgois	burgeise (1), burgeis (1)
change, n.	change, chaunge	chaunge (32), chonge (1), chounge (1)
change, v.	change-r	α. chaungen (9), changi (1), β. chawnge (1), chongi (1), chonge (1), change (3)
danger	dangier, danger	daunger (2), daungere (3), dawnger (1)
engine	engine, enginne, ingein engin, engien engign, enging	-
gage	guage, gage	-
gentrice	genterise	genterise (1)
gibbet	gibet	-
image	image, ymage, imaige himage	ymage (69), image (1)
jangle	jangler, gengler	-
judgement	judgement, jugemen, juggement, juggment, jogement, jougement, gugement, jugement	iugumen (1), jugemente (1), juggement (20), iugement (90), jugement (8)
jupe	jube, gipe jupe	-
justice	jostise, justis, justiz, justize, justyse, justise, justice	α. justes (pl., 3), justis (4), justys (5), justyse (1), iustyce (3), iustyse (5), justice (9); β. justicie (1), iusticie (6)
large	large	-

PDE word	OF/AN variants in OED	ME variants found in MEC
marriage	mariage	maryage (6)
message	message, message, missage	message (1)
messenger	messager, messagier, mesanger, messager, messagier, messanger, messenger, massager	α. messagere (3), messagyer (2), messagyr (1) β. massanger (1), messyngere (4), messanger (8), messaunger (1)
outrage	utrage, ultrage, oltrage outrage	outragie (1), outtrage (1), owtrage (7), vtrage (2), outrage (20)
page	page	page (1)
passage	passage	passage (15)
pottage	potage	-
ramage	ramage	ramage (1)
scourge	escorgier	scourge (1)
sergeant	sergent, serjant	α. sergant(2), sergonte (1); β. seriont (1)
siege	sege, seige, siege	syege (9)
stage	estage (masc.)	stage (0), stages (5)
stranger	estrangier	straungere (1), straunger (2), strangier (1)

Figure 17: /ʒ/ in orthographical variants

As is evident from the table, the phoneme could occur at the beginning of a word or at its end. The letter <g> was followed mostly by <e>, but also several <gi>, <go>, <gu> and <ga> appeared among the examples in MEC, e.g. *outragie, sergont, iugumen, sergant*. <j> was less frequent, cf. *judgement* and *justice*. Its alternative <i> replaced the former in *seriont*, and even <y> was used in *maryage*, both probably following the French spelling *serjant*, or *mariage*, respectively. Graphemes representing the phoneme seem to be foreign for Middle English, e.g. <ge> would suggest the pronunciation /je/ in the Old English tradition, but the prefix *ge-*, for example, was already disappearing in ME and was often substituted by /i/, so the /j/ sound seems improbable. The use of the grapheme /iu/ or /io/ in *iugumen(t)* and *seriont* might have indicated the sound /ʤ/ as in *Iohn* for /ʤon/ or *Ierusalem*, which was seen in one of the examples taken from MEC. This pronunciation appears to be more likely because the sound /ʤ/ existed already in the phonological system of ME. Therefore, if these borrowings came to England with the phoneme /ʤ/, their adoption was smooth and definite. If /ʒ/ appeared already in the Middle English pronunciation as a separate phoneme (while it is generally

known that this happened later), it is probable that one of the causes was the already reduced affricate /ʤ/ to /ʒ/ in the French phonological system.

Taking into account that /ʒ/ appeared in English as late as in its EModE period, it has to be concluded that if the above mentioned examples occurred in English with the /ʒ/ sound, then it was replaced by similar phonemes in the ME period, most probably by /ʤ/ – a related phoneme differing from /ʒ/ only in the manner of articulation. The pronunciation /ʤ/ is further supported by the PDE pronunciation of all these samples and thus the first hypothesis is considered confirmed. Whether the sound /ʒ/ was replaced is not evident.

As for the second hypothesis, all modern French counterparts of these samples (with the example of *gentry* whose modern French pronunciation resembles the PDE one) are now pronounced with /ʒ/, e.g. /ʒyʒmɑ̃/ vs. /ʤʌʤmənt/. The second hypothesis is proved – the French sounds are not identical with their modern English equivalents.

3.2.4 /ɲ/

The palatal nasal phoneme /ɲ/ was present in a large number of OF/AN word-forms, which corresponded to the twelve ME borrowings. Two of them, *engine, renable*, were left out due to their absence in the ME corpus. /ɲ/ was represented in OF by the combination of graphemes <n> and <g> or vice versa and complemented by an /i/ before the digraph, or /e/ after it. The phoneme in question usually stood in the final position of the word, sometimes followed by a grammatical ending (e.g. *-er* for infinitives as in *signer*). The English orthography was less regular, see Figure 18.

PDE word	OF/AN variants in OED	ME variants found in MEC
chamberlain	chamberleing, chamberleng	chambirlayne (1), chaumberleyn (3)
company	cumpaignie, cumpaigne, compaigne, compaignye, compagnie, compaignie	cumpaynye (1), compaignye (11), compaynye (1), cumpainie (1), cumpany (18), cumpanye (15), cumpeny (2)
engine	engign, enging	-
fustian	fustaigne	fustane (1)
meinie	maigné, meigné	mayne (12), meignee (1), meine (1), menʒe (1), meynee (4), mayny (23), maynye (1), menye (7)

PDE word	OF/AN variants in OED	ME variants found in MEC
mountain	montaigne, montangne, muntaigne	mountein (1), mounteyne (4), mowntayne (1), muntain (1), montayne (11), mountaigne (1), mountayn (1), mounteyn (1)
ordain	ordeigner	ordayny (1), ordeigne (1), ordeyni (1), ordyne (1), ordane (2), ordene (2)
pain	paigne, peigne	peyn (26), peyne (139)
reign	reigner, raigner, regner, régner	α. reine (3); reign (1); β. rengne (8); γ. reng (1)
renable	reignable	-
sign	signer, seigner, seignier, signier	sygne (18)
spain	espaigne	spaigne (2)

Figure 18: /ɲ/ in orthographical variants

The grapheme <g> was found in ten ME forms, however, the spelling has been preserved in only two PDE words, i.e. *reign*, *sign*. ME word-forms containing a similar graphemic form, such as <gny>, <gne>, were not frequent (e.g. *compaignye, meignee, mountaigne, ordeigne*). However, based on the ME spellings, it can be deduced that /ɲ/ must have been in use for some time. As can be seen in the table above, the nasal /ɲ/ is frequent in combination with the vowel /i/ or the semi-vowel /j/, cf. <eyn> in *chaumberleyn,* <anye> in *cumpanye,* even the yogh appeared in *menȝe*. The effort to palatalize the /n/ sound in the ME period is obvious. For how long /ɲ/ remained in the ME pronunciation cannot be deduced from the samples. Nevertheless, its alveolar variant /n/ has prevailed in the pronunciation afterwards. Already some ME spellings prove it, for example, *cumpany* was by far the most frequent variant of the word in the MEC. It is remarkable that in spite of the fact that the velar nasal /ŋ/ was already present in ME (although not phonemic), the OF spelling <ng> at the end of words pronounced as /ɲ/ in French, was replaced by /n/ accordingly with the trend, see *chamberlain*.

To sum up results of the first hypothesis, the English have acquired the phoneme in question for some period of time. The palatal nasal /ɲ/ has changed to /n/ later in the period differing in the place of articulation. The manner of articulation remains the same, so the two phonemic counterparts are related. The original foreign sound was substituted by /n/ and thus the first hypothesis is proved. The second hypothesis must be confirmed as well because five of the modern French counterparts of these samples are pronounced with /ɲ/, i.e. *compagnie, montagne, régner, signer, Espagne*, four with /n/, i.e. *futaine, ordonner, peine, ménage*, and

one with the nasal vowel /ɑ̃/, in *chambellan*. The consonantal variant /n/ is identical in both PDE and modern French, but it represents only 40 % from the whole list.

3.2.5 /ɥ/

The labialized palatal approximant is a semi-vowel which still exists in French and which must be combined with a vowel. The research focused on the grapheme <ui> in the former Old French and Anglo-Norman word-forms. From the thirteen possible PDE cognates, ME word-forms of *quise* and *toil* were not found in MEC. The 11 remaining can be seen in Figure 19.

PDE word	OF/AN variants in OED	ME variants found in MEC
foison	fuison	foysoun
guise	guise	-
noy	nuier	α. noy (14); β. neiȝe (1), neyȝe (1)
point	puint	α. poyns (6, pl.), point (43)
pursue	porsuir, poursuire, poursuier, poursuir	α. pursew (1), pursue (9); β. porsewe (1)
quaint	cuinte, quint	α. cointe (2); β. quainte (1), qwaynt (2), qwaynte (1), qweynte (1), quaynt (1), quaynte (1), queynte (2); γ. whaynt (1)
quit, adj.	quit, quite	α. cwite (4), quyte (4) β. qwyt (1), quyt (1), quit (5), whyt (4) γ. kuytte (2), quytte (3)
quit, v.	quiter, quitier	α. qwyte (3), qwite (2), quyte (7), quite (7); β. qwyt (3), quyt (1)
rule,	ruiler	riule (3), riwle (23), rewele (1), rewle (45), reule (81), rule (37), reul (7)
statute	statuit	statute (16)
suit	suitte, suite	sewte (1), suyt (1), soute (5)
toil	tuillier	-
use, n.	huis	α. use (27), β. vys (1); γ. oys (1)

Figure 19: /ɥ/ in orthographical variants

The phoneme in question occurred in short monosyllabic or disyllabic words, either in the

first (9 samples) or the last syllable (2 samples). Judging from the ME word-forms, it seems that the /ɥ/ sound was substituted in the Middle English period. All of these ME orthographic variants contain another non-syllabic semi-vowel already existing in English, i.e. /w/ or /j/, spelled as <w/u> or <i/y>, respectively, e.g. *qwaynte*, *poyns*. Most of them often combine both these semi-vowels, e.g. *riule*, *cwite*. Therefore, it can be summed up that the labialized palatal approximant was replaced either by the labio-velar approximant <w> or by the palatal approximant <j>. The manner of articulation has thus not changed, only the position of the tongue was adjusted according to the ME sounds. The first hypothesis is confirmed.

As for the second hypothesis, what is now /wa/ in modern French corresponds to the English /ɔi/, e.g. *point*, and what has developed into a simple vowel /y/ in French became /juː/ in PDE, e.g. *statut*, *usage* vs. *statute*, *use*. Other generalizations are difficult to make. For instance, the original sound /ɥ/ survived in the French *nuier*, *poursuivre*, but their English counterparts are pronounced in various different ways, cf. *noy*, *pursue*, *suit*. Consequently, the second hypothesis is confirmed, as the modern variants of the phoneme do not resemble in present-day French and English. Similarly, the sound /ɥ/ was not imported in English.

3.3 Summary of Findings

The analysis focused on five concrete Old French consonants whose potential adoption in Middle English was studied on 95 samples extracted from OED. These were selected out of the overall number of 307 samples according to the presence or absence of French medieval graphemes corresponding to the sounds. The studied consonants, which had not existed in Middle English at that time, were /ts/, /dz/, /ʒ/, /ɲ/, and /ɥ/. A list of the French word-forms where they occurred was accompanied by another with its ME orthographic variants, both taken from OED. Their spelling was compared and discussed with respect to the medieval English pronunciation and scribal practices. The results of the analysis can be summarized as follows.

The phoneme /ts/ is a voiceless alveolar affricate that was found in the largest number of word-forms. It has not survived long either in French, or in English. In Old French, it was substituted by the voiceless sibilant /s/, as well as in the majority of the selected English samples, i.e. in 21 examples. The change to /s/ was in French due to a reduction, which affected all the French affricates, hence its substitution by the remaining fricative /s/. The

change of /ts/ to /s/ in Middle English is not that obvious. Firstly, it is very probable that the French loans (or at least a part of them) came to English with the already simplified phoneme, which would mean that no substitution was necessary because /s/ was a common English sound. Secondly, some above mentioned cases show that the change to /s/ was not definitive. There were three examples whose graphemic form indicated a gradual development to the voiceless palato-alveolar fricative /ʃ/ and one more, whose ME spelling suggested /z/ pronunciation. Again, whether the respective phoneme in these words was adopted in English with the /ts/ or /s/ pronunciation remains unclear. A different situation appears in the last development of /ts/, that is its change into the affricate /ʧ/. There was no intermediary stage in the change. The phoneme /ʧ/ was frequent in ME, however, the substitution was supported by only one example (*March*), which is not a conclusive evidence of a regular development.

The French phoneme /dz/ underwent the same development from a voiced alveolar affricate to its fricative counterpart during the 11th and 12th centuries. Hence the same problems with the evaluation whether the three selected borrowings had been acquired with /dz/ or /z/ pronunciation. Nevertheless, the ME spelling showed its substitution by /s/, which, interestingly enough, prevailed in modern French as well. Unfortunately, a lack of samples found in MEC makes it impossible to draw any definitive conclusions.

The analysis of the voiced palato-alveolar fricative /ʒ/ is once more connected with the French simplification of affricates in the medieval times. The sound not existing in ME was spelled by many different orthographic variants and its pronunciation must be implied not from the samples from MEC but on the basis of the general knowledge on ME sounds and scribal practices based on other examples. Eventually, it was stated that the most probable consonant corresponding to the borrowed phoneme is /ʤ/, which was supported by the PDE pronunciation of the selected PDE cognates, by the fact that /ʤ/ was a part of the ME consonantal system, and that /ʒ/ entered the English system in the period of EModE. As a matter of fact, all these assumptions indicate that the OF loans were adopted with the former /ʤ/ sound.

The palatal nasal /ɲ/, according to a vast number of various different spellings suggesting the palatalization of the native sound /n/ in medieval English, must have been in use for some time. Scribes accommodated the original French graphemes by use of <i> or <j> for the vowel /i/ or the palatal /j/ in combination with <n>. From the five orthographic spellings (not containing <i> or <y>), a slow change into the alveolar nasal /n/ was inferred.

In comparison to /ɲ/, the semi-vowel /ɥ/ was replaced quite fast. The original French spelling <ui> was found only in the ME *quit* (either verb or adjective) and in one token for ME *suit*. The substitution by the already existing ME semi-vowels /w/ and /j/ was natural and the graphemic forms indicate it.

An overview of the results for the particular phonemes, related to the two established hypotheses is presented in Figure 20.

	/ts/	/dz/	/ʒ/	/ɲ/	/ɥ/
Hypothesis 1	disputed	confirmed	confirmed	confirmed	confirmed
Hypothesis 2	disputed	disputed	confirmed	confirmed	confirmed
Substitution	?	?	?	yes	yes

Figure 20: Results

In almost all cases, the first hypothesis assumed that a foreign phoneme should be replaced by a related native one was confirmed. Only three samples out of 95 contradicted this statement, all of them found in word-forms undergoing the change from /ts/ into /ʃ/. What must be pointed out is the fact that there was a temporary stage in the development, where the /s/ sound would meet the restrictions established by the hypothesis 1.

The second hypothesis suggested that PDE sounds are not identical to their modern French counterparts. Regardless whether the final phonemes correspond to their models, two identical phonemes are now occurring in the modern French and modern English cognates. The question of substitution emerged to be rather complex, at least for the original OF affricates, which were developing into fricatives in course of the ME period. This presented a complication when deciding whether the transformation had been finished before or after the adoption of the respective OF loans. That /ɲ/ and /ɥ/ were replaced by native sounds was evident and is still the case today.

CONCLUSION

That the Old French word-stock affected the English lexis is apparent at a glance. Its impact on the phonology of both the medieval and present-day English is, however, not so evident. The presented research included the French loans in Middle English in an analysis of the influence of the Old French sound system to the recipient medieval English phonology. Before the research was conducted, the notion of borrowing and the corresponding phonological systems of both English and French were accounted for.

The hypothetical background for the research resulted from assumptions stated in Chapter 1.2. It was supposed in the first hypothesis that foreign sounds are replaced by related native sounds, while related sounds were defined as those sharing either manner or place of articulation. The second hypothesis considered the present-day corresponding phonemes in both languages and assumed that the PDE sounds are not identical to their modern French counterparts. Moreover, the selected foreign sounds were studied from the perspective of the recipient language speaker. It was anticipated that the sounds were substituted, rather than imported, in the language. Due to the fact that the two states may change within a longer period of time, their final stage of development in the language was considered.

By comparison of the two phonological systems described in Chapters 1.3, 1.4 and 1.5, it was found out that five French consonants, namely /ts/, /dz/, /ʒ/, /ɲ/, and /ɥ/, were not used in Middle English. To be able to study their development in English, French loans borrowed in English between 1100 and 1300 in Britain were extracted from OED. Graphemes corresponding to the five Old French phonemes were searched for in the Old French orthographic variants of the 307 samples. Subsequently, 95 PDE words, whose OF variants contained the given graphemes, were again looked up in OED to gather their Middle English orthographic variants. Eventually, the Middle English corpus was queried for those variants. The absent ones were left aside, the rest was further studied on the basis of the corresponding ME graphemes, which were supposed to indicate the pronunciation of the ME phonemic counterpart. Carrying out the research in MEC, a large number of word-forms was found in the authentic texts, which only supported the fact that Middle English spelling was unstable.

Among the studied phonemes, the Old French /ts/ was by far the most frequent. It was established from the ME variants that the phoneme /ts/ followed four possible directions of

evolution. The most numerous group of samples (25 samples) contained graphemes indicating its transformation into the /s/ sound. Less numerous groups (from 1 to 3 samples) showed either the gradual change from /ts/ via /s/ to /ʃ/ or to /z/, or a fast change into /ʧ/. Because of the resultant phoneme /ʃ/ in the ME cognates, the first hypothesis was refuted. (/ʃ/ as the only one shares neither place, nor manner of articulation with the original sound /ts/ – the affricate differs from the other sibilant in the pronunciation of the preceding stop.) Due to the fact that the modern French and modern English phonemes in the corresponding present-day cognates match (17 cognates out of 30 are now pronounced with /s/ in both French and English), the second hypothesis was also disproved. Only three PDE words had been borrowed from French with the sound /dz/, out of which only two indicated its substitution to /s/. In modern French as in PDE, the cognates are still pronounced with /s/. Therefore, only the first hypothesis was confirmed. The substitution of /ʒ/ by /ʤ/ seemed to be the most probable development of the phoneme in Middle English. As they are considered related sounds, the first hypothesis was confirmed in this case. Due to its pronunciation as /ʤ/ in PDE cognates and as /ʒ/ in modern French derivatives (with one exception only), the second hypothesis was also proved. /ɲ/ was imported in ME and was probably used in the OF loans until it was replaced by its alveolar counterpart /n/. The resultant present-day phonemes in both English and French do not match in the majority of the cognates. Therefore, it is supposed that both hypotheses were correct. /ɥ/, on the other hand, was naturally substituted by related native semi-vowels /w/ or /j/. The number of various possibilities in its pronunciation nowadays confirms the second hypothesis as well.

These findings seem to be unequivocal, however, several deficiencies occurred during the research. Firstly, the analysis lacked data specifying a more definite time when the loans were adopted in English. This was especially the case of the original French affricates /ts/, /dz/ and the fricative /ʒ/, which had been derived from /ʤ/. The problem resided in the fact that their simplification was taking place in continental French during the same two centuries in which they were acquired in English. Therefore, whether they occurred as affricates or fricatives in each of the loans was uncertain and, therefore, their probable substitution could not be testified. Thus, a more detailed ME corpus, which would contain metadata about the given manuscripts, would be of a great value. A second problem, which the analysis encountered, was the fact that some conclusions were arrived at by use of additional knowledge of the issue (and not by comparison of corpus data with ME grapheme-phoneme correspondences). For instance, it was admitted that the OF loans which should have been pronounced with /ʒ/ might

have been borrowed with the /ʤ/ sound because the phoneme prevails in the corresponding present-day English cognates and, because it is generally known that /ʒ/ became phonemic as late as the EModE period. The last shortcoming of the analysis which may have a negative effect on the presented results is the focus on units isolated from their phonological environment. Their closer investigation in the concordance lines generated in MEC could bring about more details on the position of stress and/or on neighbouring sounds, which would shed more light into the adoption or substitution of foreign sounds. It is obvious that the suggested improvements as for the procedure of analysis would require more space than a thesis of this scope can offer.

To conclude the presented results and evaluate them with respect to the established aims, it was found out that foreign French sounds were in most cases replaced by native ones which shared at least one of the aspects of pronunciation with their original counterparts. The thesis thus managed to analyse the impact of selected Old French phonemes on the medieval English sound system (it was not affected), however other sounds and their environments were not taken into consideration. A comprehensive overview of the French influence on English medieval pronunciation would need to be achieved by further research.

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RESUMÉ

Diplomová práce Analýza vývoje výslovnosti francouzských výpůjček od střední do moderní angličtiny na základě korpusových dokladů se věnuje vlivu staré a střední francouzštiny na střední a raně moderní angličtinu, přesněji vlivu výslovnosti starofrancouzských výpůjček na středně anglický fonologický systém s ohledem na jeho podobu ve staré a posléze také moderní angličtině. Cílem práce je tento vliv prozkoumat na konkrétních dokladech ve středoanglickém korpusu a popsat možné důsledky francouzské výslovnosti tohoto období na angličtinu užívanou v prvních staletích po Normanské invazi do Anglie v roce 1066.

Práce je rozčleněna na tři části, z nichž první popisuje teoretické poznatky v oblastech spojených s následným výzkumem, druhá stručně prezentuje hypotézu a metodický postup výzkumu a třetí se následně zabývá dílčími kroky analýzy a jejími výsledky.

Úvod první kapitoly stručně připomíná extralingvistické okolnosti, jež proměnily původně syntetickou starou angličtinu na analytickou, a objasňuje hlavní příčiny vlivu románských jazyků, tedy latiny a francouzštiny, které se v historickém vývoji angličtiny hned v několika vlnách staly hlavním zdrojem její slovní zásoby. Kontaktem dvou jazyků, které společně koexistují na jednom území, však nedochází jen k přejímání lexikálnímu, nýbrž také fonologickému, o čemž pojednává podkapitola 1.2. Zde jsou vyjádřena některá tvrzení, na jejichž základě byly také formulovány pracovní hypotézy pro výzkum. Jedná se mimo jiné o Haugenovo rozdělení jazykových jevů podle míry shody s jejich modelem na *importation* (přijetí cizího jevu) a *substitution* (náhrada cizího jevu vlastním), přičemž nejčastěji se tyto pojmy vyskytují právě v souvislosti s fonologickým přejímáním. V případě výpůjčky cizích fonémů pak svou roli hraje, kromě ochoty mluvčích hlásku přijmout, také jejich schopnost nové fonémy správně identifikovat a vyslovit. Zdá se proto přirozenější cizí fonémy nahrazovat jinými, původními hláskami, než je přijímat. Matras tvrdí, že k integraci bývají náchylnější souhlásky na rozdíl od samohlásek, jelikož souhlásek je takové množství, že se téměř vždy stane, že se nějaké souhlásky mezi dvěma jazyky nebudou shodovat. Případné změny fonologického systému jazyka se týkají především místa nebo způsobu artikulace fonémů.

Následující kapitoly pokrývají vývoj fonologických systémů obou klíčových jazyků a jsou označeny čísly 1.3 až 1.5. Přehled staroanglických hlásek, jenž byl sestaven na základě

rukopisů psaných v západosaském dialektu, je jen stručný. Stará angličtina (450 – 1100) disponovala 19 konsonanty, 14 krátkými a dlouhými vokály a čtyřmi krátkými a dlouhými diftongy. Konsonanty střední angličtiny (1100 – 1500) se od těch předchozích příliš nelišily. Změny se projevily v distribuci některých souhlásek a v transformaci znělých frikativ z alofonů na samostatné fonémy. K neznělým /s, f, θ/ tak přibyly jejich znělé protějšky /z, v, ð/. Dramatičtější změny nastaly u původních 18 staroanglických samohlásek redukovaných na pouhých 11, které byly ale následně doplněny o nové dvojhlásky. Z období střední angličtiny pochází schwa /ə/, které postupně nahrazovalo nepřízvučné samohlásky v zanikajících gramatických koncovkách. Aby se raně moderní (1500 – 1800) anglické konsonanty mohly shodovat s těmi dnešními, musela angličtina přijmout poslední dva fonémy, a to /ŋ/ a /ʒ/, jež přišlo s francouzskými výpůjčkami. Mnohem výraznějších změn opět doznaly samohlásky, a to v souvislosti s tzv. velkým posunem samohlásek (Great Vowel Shift), který byl dovršen na konci 18. století a který spočíval především ve ztrátě funkce délky samohlásek rozlišovat význam. Krátké samohlásky byly v některých konkrétních případech také ovlivněny, stejně jako diftongy, jejichž poměrná část se redukovala na jednoduché vokály.

Stručný přehled grafematické soustavy a jejího vývoje podává kapitola 1.4. Zmiňuje se o některých ve střední angličtině zanikajících runových písmenech, které byly postupně nahrazovány grafémy přejatými z francouzských písařských tradic, např. <þ> značící /θ/ nebo /ð/ bylo nahrazeno spřežkou <th>. Časté byly záměny písmen <u> za <v> a <i> za <j> a naopak. Středoanglické grafémy mnohdy označovaly několik možných hlásek, čímž se stávala psaná podoba anglického jazyka značně nekonzistentní. Ustálena byla až v průběhu raně moderní angličtiny díky vzniku knihtisku a inklinaci k jednomu písařskému úzu, tzv. Chancery Standard.

Exkurz do středověké výslovnosti a písařských praktik uzavírá kapitola 1.5 věnovaná staré a zčásti také střední francouzštině. Vznik francouzštiny podléhal mnoha mimojazykovým vlivům. To, co nyní nazýváme starou francouzštinou, byla v 9. - 13. století směs mnoha dialektů, jimiž mluvili venkované v severní a střední části dnešní Francie. Významné fonologické změny mezi latinou a starou francouzštinou a poté mezi starou a střední francouzštinou (např. redukce afrikát /ts/, /dz/, /ʧ/ a /ʤ/ na k nim příslušné spiranty) jsou v této práci následovány pohledem na francouzský dialekt, jenž se vyvinul v Normandii a jímž mluvili nájezdníci, kteří na tři století ovládli anglický dvůr. Francouzský dialekt, který se dále vyvíjel v Anglii, je dnes nazýván anglonormanštinou.

Stanovení hlavní hypotézy v kapitole 2 vyšlo z teoretických poznatků o přejímání prvků z cizích jazyků. Formulována byla takto:

Cizí hláska je nahrazena příbuznou hláskou domácího původu, přičemž „příbuznými hláskami" se myslí ty fonémy, které sdílí alespoň jeden z artikulačních znaků, tedy jejichž místo nebo způsob artikulace si odpovídají.

Druhá hypotéza se inspiruje esejí Lylea Campbella (1986), v níž varuje před zavádějícím zjednodušením, že hlásky ve výpůjčkách jazyka příjemce se neliší od těch, které se vyskytují v dnešním kognátu zdrojového jazyka. Autor tím naráží na mnohé faktory, jež mohly hrát roli v proměně jednotlivých hlásek v obou jazycích a které je tudíž třeba prozkoumat. Druhá hypotéza byla formulována takto:

Hlásky moderní angličtiny, které byly přejaty společně s lexikálními výpůjčkami ze staré francouzštiny se neshodují s jejich nynějšími francouzskými protějšky.

Poslední část hypotézy se zaměřuje na rozdělení fonologické změny na náhradu a přijetí cizích hlásek. Analýza zkoumá, zda v jednotlivých níže popsaných případech došlo k substituci či nikoliv.

Vzhledem k rozsahu, jaký nabízí diplomová práce, se výzkum zaměřuje na výpůjčky ze staré francouzštiny, které přijala raně střední angličtina. V úvodu analýzy byly porovnány fonologické systémy staré francouzštiny a střední angličtiny a z této komparace byly vybrány takové hlásky, které se objevovaly pouze ve francouzštině. Z důvodů, které popisoval Matras, (2009) byly v úvahu vzaty pouze konsonanty. Jedná se o afrikáty /ts/ a /dz/, frikativu /ʒ/, nazálu /ɲ/ a semivokál /ɥ/. Starofrancouzské grafické protějšky vybraných fonémů byly následně zpracovány podle Skarupa (1994). Konkrétní slova, v nichž byly tyto blíže zkoumány, byla extrahována z online verze diachronně zpracovaného anglického výkladového slovníku Oxford English Dictionary (2015) po zadání zdrojového jazyka „francouzština", období „1100 – 1300", oblast „Británie" s vyřazením zastaralých slov tak, aby mohly být zkoumány jen dosud užívané výpůjčky. Takto získaný seznam zahrnoval 307 dokladů, k nimž byly v OED dohledány francouzské pravopisné varianty těsně před jejich přijetím do angličtiny. V těchto původních francouzských slovních tvarech (včetně anglonormánských variant) byly následně vyhledávány požadované francouzské grafémy. Tak bylo pro analýzu vybráno 95 slov, která byla rozdělena mezi pět konsonantů (některé výrazy se mohly opakovat) a k nimž byly opět v OED dohledávány raně středoanglické a středoanglické pravopisné varianty (do roku 1500). Všechny tyto anglické slovní tvary byly

zadávány do středoanglického korpusu *Penn-Helsinki Parsed Corpus of Middle English* (2000) v prostředí korpusového manažeru *KonText*, vyvinutého Institutem českého národního korpusu (2013). Ortografické varianty, které se v daném korpusu vyskytovaly, byly podrobeny dalšímu zkoumání.

Z velkého množství různých pravopisných variant středoanglických slov, které byly v korpusu nalezeny, lze usuzovat, že tehdejší pravopis byl velice různorodý (např. 15 variant z 30 možných pro *council*). Počet tokenů v některých případech (např. *messenger*) nasvědčoval, že čím déle se výpůjčka ve střední angličtině nacházela, tím větší množství jejích různých variant existovalo a tím méně se podobaly francouzskému originálu. Paradoxně se pravopis některých moderních protějšků vybraných slov zpětně navrátil k původní francouzské formě (např. *judgement*).

Kapitoly 3.2.1 – 3.2.5 vysvětlují, jak se zkoumané fonémy pravděpodobně vyvíjely, a to na základě srovnání středoanglických grafémů užitých pro dané hlásky. Pro posouzení neznělé alveolární afrikáty /ts/, jíž odpovídaly francouzské grafémy <ce>, <ci> a <z> na konci slova, bylo v korpusu nalezeno 30 ze 40 slov. Různé pravopisné podoby pro tento foném naznačily čtyři možnosti jeho vývoje ve střední angličtině. Nejčastějším fonémem, který původní afrikátu nahradil, byla neznělá frikativa /s/, kterou představovaly anglické grafémy <s>, <ss> i <c>. Vzhledem k tomu, že se /ts/ zjednodušovalo na /s/ také ve staré francouzštině, není zřejmé, se kterým z fonémů byly výpůjčky přejaty. Podobnou nesnáz představoval tento fakt pro interpretaci dalších dvou změn souhlásky /ts/, v nichž /s/ byl mezistupeň mezi /ts/ a /ʃ/ a mezi /ts/ a /z/. Neznělá frikativa /ʃ/ pravděpodobně vznikla palatalizací /s/ v kombinaci se semivokálem /j/, např. *conscience, mention*. Svědčí o tom kombinace grafémů jako <s>, <sc>, <sch>, <c> spolu s <i> nebo <y>. Změna v /z/ je podpořena pouze jediným vzorkem, a to variantami moderního anglického slova *praise*. Stejně tak *March* je jediným příkladem, kdy /ts/ mohlo přecházet v /tʃ/. Pro shrnutí, výsledné hlásky /s/ a /tʃ/ se od původního /ts/ lišily pouze v jednom z artikulačních aspektů a /z/ se lišilo v místě artikulace a znělosti. Tyto tři tedy potvrdily první hypotézu, na rozdíl od výsledné konsonanty /ʃ/, která se od /ts/ odlišuje v místě i způsobu artikulace (obě sice patří mezi sibilanty, avšak afrikáta se od frikativy liší předcházející výslovností explozívy). Ačkoli některé současné kognáty obsahují v obou jazycích hlásku /s/ (např. *face, principal, press*), jiné spolu nesouhlasí (*conscience*: /kõsjãs/ vs. /kɒnʃəns/; *peace* vs. *paix*: /piːs/ *vs.* /pɛ/), nebo v moderní francouzštině již neexistují (např. *plaice*). Afrikáta /ts/ sice byla nahrazena frikativou /s/, není však zjevné, zda k substituci došlo

ještě na kontinentu, či mimo něj.

Podobně jako /ts/ i /dz/ mohlo být zjednodušeno už v kontinentální francouzštině (psáno se <z> uprostřed slova). Ve dvou ze tří příkladů, které se vyskytovaly ve středoanglickém korpusu, (tj. *grace* a *justice*) se grafémy přibližovaly výslovnosti /s/. Kdy byl ale původní zvuk nahrazen frikativou, není jasné. Nicméně /dz/ a /s/ jsou hodnoceny jako hlásky podobné, ačkoli se liší ve způsobu artikulace a znělosti. První hypotéza se tedy potvrdila, zatímco druhá nikoli – hláska na konci slov *grace* a *justice* se v moderní angličtině i francouzštině vyslovuje stejně.

Pro /ʒ/ existovalo ve staré francouzštině mnoho grafických variant, což se projevilo také v různorodosti středoanglických slovních tvarů. K odvození jejich pravděpodobné výslovnosti velkou měrou přispěly informace o fonologických systémech několika období. Opět hrála svou roli změna starofrancouzské znělé afrikáty /ʤ/ na znělou frikativu /ʒ/. Pokud byly výpůjčky přejaty s původní hláskou, /ʤ/ ve slově nemuselo být ničím nahrazováno, neboť tato afrikáta byla součástí středoanglické fonologické struktury. Pokud se hláska při přejímání vyslovovala jako /ʒ/, je zřejmé, že byla nahrazena jinou, protože je známo, že /ʒ/ se jako samostatný foném objevilo až v raně moderní angličtině. Vzhledem k dnešní výslovnosti studovaných slov je pravděpodobné, že byl foném nahrazen artikulačně blízkým /ʤ/. Ve francouzštině jsou tato slova nicméně vyslovována s /ʒ/. První hypotéza se tedy potvrdila a druhá taktéž.

Palatální nazálu /ɲ/ ve staré francouzštině představoval grafém <(i)gn> následovaný samohláskou a grafém <ng> vyskytující se na konci slova. Z řady anglických variant byla snaha palatalizovat domácí hlásku /n/ evidentní, např. *chaumberleyn, cumpanye, menʒe.* Z příkladů nelze vyvodit, jak dlouho bylo /ɲ/ ve střední angličtině vyslovováno, některé zmiňované slovní tvary již ale naznačily jeho postupný přechod na alveolární /n/ (např. *cumpany*). První hypotéza je tedy i v tomto případě platná, cizí foném byl nahrazen jiným fonémem příbuzným. Druhá hypotéza je také potvrzena, jelikož současné anglické /n/ má v moderní francouzštině hned několik protějšků: /n/, /ɲ/, /ã/ a fonémy se tedy z větší části neshodují.

Posledním fonémem byla přechodová hláska /ɥ/, označovaná grafematicky jako <ui>. Díky tehdejšímu anglickému fonologickém systému, který sám disponoval semivokálami /w/ a /j/ je patrné, že původní francouzský foném byl brzy nahrazen lokálními, např. *qwaynte, poyns, riule, cwite.* Substitucí se tedy nahradila hláska s jiným místem artikulace, první hypotéza

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však zůstává platná i pro poslední zkoumaný foném. Porovnáním moderních kognátů zkoumaných slov ve francouzštině a angličtině bylo zjištěno, že hlásky si odpovídají jen velmi zřídka, druhá hypotéza tedy byla potvrzena.

Ze všech zkoumaných 95 slov zde byly pouze tři případy, kdy cizí hláska nebyla substituována příbuzným fonémem. Dá se tedy shrnout, že cizí fonémy obsažené ve francouzských výpůjčkách angličtina dříve či později nahrazovala podobnými hláskami z vlastního fonologického inventáře. Je to alespoň případ starofrancouzských souhlásek /ts/, /dz/, /ʒ/, /ɲ/ a /ɥ/. Druhá hypotéza nebyla takto jednoznačná. Většina hlásek se v odpovídajících si kognátech současné francouzštiny a současné angličtiny neshodují, příklady řazené pod fonémy /ts/ a /dz/ to však nepotvrdily. Substituce za domácí hlásky se jednoznačně týká pouze fonémů /ɲ/ a /ɥ/, v ostatních případech tato skutečnost nemohla být vzhledem k nedostatečným údajům potvrzená.

I přes některá výše zmíněná omezení lze říci, že se v práci podařilo analyzovat dopad vybraných starofrancouzských výpůjček a jejich fonémů na fonologický systém střední angličtiny. Bylo zjištěno, že zkoumané nepůvodní hlásky neměly na inventář anglických fonémů zvláštní vliv. Tato práce nicméně nepodává, a ani nemůže podat zevrubnější výklad působení lexika přejatého z francouzštiny na výslovnost středověké a raně moderní angličtiny.

APPENDICES

Appendix 1: List of OF/AN borrowings in EME

1. abbey, n. c1300

2. access, n. c1300

3. account, n. c1300

4. ace, n.1 and adj. (and int.) ?a1300

5. adventure, n. ?c1225

6. arles, n. c1220

7. assize, n. 1297

8. aumbry, n. a1225

9. bar, n.1 c1175

10. baron, n. a1200

11. barony, n. 1297

12. beast, n. c1210

13. beef, n. a1300

14. blue, adj. and n. c1300

15. bowel, n.1 c1300

16. boy, n.1 and int. c1300

17. burgess, n.1 ?c1225

18. capital, adj. and n.2 ?c1225

19. cattle, n. c1275

20. cause, n. ?c1225

21. causey, n. c1300

22. caution, n. 1297

23. chamber, n. ?c1225

24. chamberlain, n. ?c1225

25. chance, n., adj., and adv. 1297

26. change, n. ?c1225

27. change, v. a1225

28. channel, n.1 a1300

29. city, n. ?c1225

30. close, n.1 1297

Appendix 2: /ts/ in orthographical variants

PDE word	OF/AN variants in OED	ME variants found in MEC
access	accesse, accese	α. axcesse (1); β. axes (2)
burgess	burgez	burgeise (1), burgeis (1)
causey	caucie	-
chance	cheance	chauns (1)
city	citee, citté, cittee, ceté, cetee, scité, cité	syte (2), cete (3), cite (47), cyte (69), cytee (204), cytte (55), cytye (1), sete (31), site (12)
conscience	conciance, conciense, consciense, conscience, consience	conciens (2), concyens (13), conscyens (1), consyence (1), consyens (1)
council	cuncile, concile	α. concilie (1), counceil (34), counceyl (6), councell (43); β. conseil (143), consaile (7), consell(7), counseil (24), counseile (4), counsail (4), conseille (14), counseyl (21), counsele (2), counsell (11), cownsell (8), conseyl (2)
deliverance	delivrance	-
face	face	faas (1), fas (3), face (191), faace (2)
grace	grace	gras (7), grace (860)
justice	justiz, justice	α. justes (pl., 3), justis (4), justys (5), justyse (1), iustyce (3), iustyse (5), justice (9); β. justicie (1), iusticie (6)
malison	malicion	malisoun (4), malysoun (1)
March	marz	Marce (1), Mearch (1), Marrch (3)
mason	maciun	-
mention	mencion, menciun, mencioun, mencion	mencioun (1), mensyon (2), mencyon (8)
mitcher	mucer, muscer	-
niece	nece, nice, niece, niece	neese (1), neis (1), nyce (10), nece (6)
noise	noice	-
Norman	Normanz (pl.)	Normans (pl., 10)
nourice	nurice, nurrice, norice, norrice, nurysce, nurrice, norrice, nourice, nourrice	α. nurrice (1), nurice (3) β. norisse (1), norys (1), norice (5)
parish	parroce, parosce	parische (1), parysche (1), parysse (2), parisch (1), parysch (10)

pass	pascer	paci (1), passi (1), pace (1), pas (7)
peace	pez	pais (27), pasch (6), payse (3), peys (3), pays (18), pece (20), pees (193), pes (91), pesse (4)
piece	pice, peece, pièce, pece, pièce	pese (8), peyse (1)
plaice	pleiz, playz, plaïz	plays (3)
poverty	povertez (pl.)	no plural form
praise	preicer	praysy (1), preyes (3), preise (12)
press	presce	α. press (2); β. prees (8), pres (2), prese (5)
price	price	presse (2), priis (1), prijs (1), priys (1), prys, (11) pris (26)
principal (adj, n.)	princepal, principal, principall, principalle, principal	α. prencipall (1), princypal (2), pryncipal (3), pryncypall (3); β. principal (21), principle (2)
purchase	purchacere, purchacer, porchacer	α. porchaci (3); β. purchase (6)
ransom	rancun, raunceon, raunceoun	α. ranceun (3), ransoun (1), raunceoun (1), raunson (6), raunsoun (14); β. raunsom (1)
reset	resceter, recetter, receter	-
reverence	reverence, reverance	reuerance (1), reuerens (26), reverens (5), reverence (29)
rocket	rocet	-
size	cise	-
space	space	space (36)
spice	espice	spice (5)
statute	statuz (pl.)	no plural form
voice	voice, voisce, voiz	α. uoys (1), veys (1), vyce (7), woyse (7); β. vice (28), vois (21), voys (55)