THE LINGUISTIC INFLUENCE OF EU DIRECTIVES ON DUTCH IMPLEMENTATION LAWS

A COMPARATIVE CORPUS-BASED STUDY

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Julie Carton
Studentennummer: 01402980

Promotor: Prof. dr. Gert De Sutter

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Abstract

Recent research within the Eurolect Observatory Project assumes the existence of *Eurolects:* separate legal varieties, originated at EU level as a consequence of numerous translation processes, with distinct linguistic features that set it apart from national legal varieties. Especially considering the international scope of EU legislation, it is interesting to investigate the possible impact of these *Eurolects* on legal varieties at a national level. This thesis studies the linguistic impact of EU directives on Dutch implementation laws, so as to find out whether traces of the Dutch *Eurolect* trickle down into the Dutch national legal variety. De Bock (2017) revealed a considerate number of linguistic similarities between a corpus with EU directives and a corpus with the corresponding implementation laws in the Netherlands. This thesis compares those findings to a third corpus, which contains only Dutch national laws that are not based on EU legislation. We analyse two categories of linguistic features in the three corpora: local-variation features, which give information about the lexical and stylistic choices, and global-variation features, which give information about the readability and complexity of the laws. The results of the analysis generally confirm our hypothesis that Dutch implementation laws contain traces of the Dutch *Eurolect* used in EU directives, and that EU directives exercise a linguistic influence on their Dutch implementation laws. With these findings, this thesis makes a valuable contribution to research on EU legal language and *Eurolects*. For further research, it might be interesting to adopt a more comprehensive approach and include more linguistic features.

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1 Introduction

1951 marked the first step in the process of supranational organisation in Europe. The European Coal and Steel Community (ECSC) was founded, and developed a common market for coal and steel among its six member states in order to preserve peace in Western-Europe. The second step towards European integration was taken in 1958, with the founding of the European Economic Community (EEC) and the European Atomic Energy Community (Euratom). In the following centuries, supranational decision-making became increasingly influential as more and more countries joined the European Communities. Under the Treaty of Maastricht, which entered into force in 1993, the three existing Communities were incorporated into one supranational political body: the European Union. The EU aims to provide economic and political benefits for its member states and is committed to the protection of the values of democracy, freedom, human rights, equality, human dignity and the rule of law. ("The history of the European Union", n.d.), ("The EU in brief", n.d.)

The governance of the EU, as in national governments, is based on the principle of the separation of powers. The executive power rests with the European Commission. The power of judiciary is exercised by the Court of Justice of the European Union. The legislative branch consists of two institutions: the European Parliament, through which citizens participate in EU legislation, and the Council of the European Union, which represents the national governments of all EU member states.

As soon as a state joins the EU, it is bound by the Community legal order. This means that European law overrules national law. The principle of Community legal order prevents member states from circumventing EU laws and thus attributes great power to the EU and its legislation. Ever since the existence of the EU, the scope of its legislation has expanded on several levels: firstly, it has expanded in geographical terms, as it now covers 28 member states as opposed to 12 member states in 1993. Secondly, EU legislation encompasses an increasing number of areas and policy domains (Eeckhout, 2011, pp. 1491-1492). The EU currently has so-called exclusive competences in the following areas: customs union, competition rules, monetary policy, trade, and marine plants and animals. Areas in which the EU shares its competences with national governments are: single market, employment and social affairs, economic, social and territorial cohesion, agriculture, fisheries, environment, consumer protection, transport, trans-European networks, energy, security and justice, public health, research and space, and development cooperation and humanitarian aid ("Areas of EU action", n.d.). Finally, the expanding scope of EU law is manifested in the sheer number of legal acts being passed.

According to an advanced search on EUR-lex[1], 31,792 legal acts are currently in force in the EU. Although some years show a slight decline, there is, generally speaking, a growing trend in the number of legal acts published per year. Evolving from 1 text in 1952 to 708 texts in 2000, the number has amounted to 2,043 legal acts in 2017. Considering these facts and numbers, it can be said that EU legislation is ever more present in all its member states.

Recent research has made the assumption that the expanding scope of EU legislation has linguistic implications for its member states as well. In order to investigate this, a research project was set up in 2013 by professor Laura Mori from the University of International Studies of Rome: the Eurolect Observatory Project. Research within this project assumes the existence of so-called *Eurolects:* separate legal varieties of official EU languages, originated at a supranational level as a consequence of the intensive language contact and complex translation processes that characterize EU legislation ("Eurolect Observatory", n.d.). The ongoing research within this project aims to generate valuable insights into the characteristics of those *Eurolects*. In order to investigate the differences and similarities that occur between *Eurolects* and national legal varieties, the research group has compiled a multilingual corpus containing EU directives and their national implementation measures in eleven official EU languages.

Of the three main EU legislative instruments (regulations, directives and decisions), directives have the most immediate influence on member states' legislation and are therefore the most suitable instrument for comparing *Eurolects* with national legal varieties. In contrast with regulations and decisions, which are legally binding for all member states immediately after they are adopted by the EU, directives have to be incorporated into the individual member states' national legislation first. They contain guidelines and goals established by the EU legislator. National governments are required to create new laws in order to achieve those goals. The process of turning an EU directive into a national implementation law is called transposition ("Law-making process", n.d.). Research within the Eurolect Observatory Project explores the extent to which linguistic features of the so-called *Eurolects* creep into national legal varieties during this transposition process, by comparing the language use in EU directives with that in the corresponding implementation laws.

However, little research has been conducted on the Dutch *Eurolect.* As part of the Eurolect Observatory Project, this paper aims to explore the linguistic influence of Dutch EU directives

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[1] Details of the advanced search: Domain: EU law and related documents, Subdomain: Legislation, Limit to legislation in force: True, Exclude corrigenda: True
The search was conducted within the broad document category of "legislation" Its results may include more than the main legal instruments (directives, decisions and regulations) and therefore serve merely as a general indication, since no official figures are published.

on their national implementation laws in The Netherlands[2]. This objective encompasses two research questions, the first of which was presented and answered by De Bock (2017).

(1) What are the linguistic differences and similarities between EU directives and their implementations on a national level? (De Bock, 2017, p. 11)

De Bock provided an answer to the first question by comparing the presence of a selection of linguistic features in two corpora: corpus A, which contained all Dutch EU directives adopted between 1 January 1999 and 31 December 2008, and corpus B, which contained the corresponding Dutch national implementation laws. 122 linguistic parameters were selected and their respective presence in both corpora was analysed. De Bock expected to find that the Dutch *Eurolect* had exercised a considerable linguistic influence on the implementation laws and therefore suspected few linguistic differences between both corpora. De Bock was largely able to confirm this hypothesis as most of the linguistic features she analysed recurred to a similar extent in both corpora. However, De Bock's research could not verify whether the language use in the implementation laws was influenced by that in the EU directives, or if the similarities between corpus A and corpus B were due to the influence of the target system (Dutch legislation). In order to investigate this, a comparison between EU-based national law and non-EU-based national law is necessary. Therefore, a second research question must be answered:

(2) What are the linguistic differences and similarities between national implementation laws (i.e. laws which are based on EU directives) and non-EU-based national laws?

This paper deals with the second research question and aims to combine the answers to questions (1) and (2) in order to answer the following, more general question:

(3) What is the linguistic influence of the Dutch Eurolect on the national Dutch legal variety?

To this purpose, a third corpus, corpus C, is included in this research. Corpus C contains non-EU-based Dutch laws adopted between 1 January 1999 and 31 December 2008. With the exception of a few motivated changes (see section 3), the same linguistic parameters selected by De Bock (2017) will be used to analyse corpus C. De Bock found few linguistic differences between EU directives and their Dutch implementations. The expected result of the analysis conducted in this thesis is that the number of linguistic differences between corpus B and corpus C will be higher than the number of differences found by De Bock between corpus A and corpus B. In other words: the hypothesis of this research is that Dutch implementation laws contain traces of the Dutch *Eurolect* used in EU directives, and that EU directives exercise

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[2] The Dutch-speaking part of Belgium is not included in this research, since there is currently no suitable corpus available with Dutch non-EU-based Belgian laws.

a linguistic influence on their Dutch implementation laws. By testing this hypothesis and answering the research questions, this thesis hopes to provide insights into the linguistic relationship between EU directives and their implementation laws at a national level and make a valuable contribution to the research of the Eurolect Observatory Project.

This master's dissertation is structured as follows: chapter 2 provides the theoretical framework to the research. We elaborate on the multilingual legal context in the EU and discuss descriptive and normative features of legal language. Chapter 3 gives an overview of the selected linguistic features and presents the corpora, as well as the tools and statistical methods used for the analysis. In chapter 4, the results of the analysis are presented, discussed and interpreted. Finally, chapter 5 attempts to draw relevant conclusions from the results. In addition, we formulate a few limitations of the research, and suggest possible considerations and ideas for further research.

2 Literature study

In this chapter, we present the theoretical background necessary to appropriately conduct and comprehend this research. In section 1, the multilingual policy of the EU is discussed in detail. Section 2 elaborates on the EU legislative procedure and the role of translation within that procedure. Section 3 proceeds to explore the academic literature on legal language. After discussing the term 'legal language' as a whole in subsection 1, we proceed to discuss Dutch legal language and EU legal language separately. Subsection 2 gives an overview of research on Dutch national legal language while distinguishing between normative and descriptive publications. Subsection 3 is divided accordingly and deals with research on legal language at EU level. We conclude section 3 by comparing the literature on Dutch legal language to the literature on EU legal language.

2.1 The multilingual context of the EU: multilingualism as a language regime

With 24 official languages[3] to consider, the EU can be seen as a unique multilingual organisation. Multilingualism in an EU context manifests itself on an entirely different level than in a national context, where it usually implies the co-existence of two or three official languages (Biel, 2007, p. 145). The EU attaches great importance to this multilingual reality and is committed to an intensive language policy, which is based on the principle of equality of official languages as stated in the Council Regulation No 1 of 1958. The language policy promotes multilingualism and fits within the EU motto "unity in diversity", which accentuates the value of the cultural differences between EU member states. The EU wants to convey the same message to all its citizens, while addressing them in their own language. In this section, the language policy of the EU is discussed in all its facets, so as to provide an insight into the multilingual framework within which EU legislation functions.

2.1.1 The non-institutional language policy: multilingualism at individual level

The multilingual policy can be divided into two levels: multilingualism at the level of individual citizens and multilingualism at government level. Van Els (2005) respectively uses the terms "non-institutional language policy" (p. 268) and "institutional language policy" (p. 272) to refer

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[3] Bulgarian, Croatian, Czech, Danish, Dutch, English, Estonian, Finnish, French, German, Greek, Hungarian, Irish, Italian, Latvian, Lithuanian, Maltese, Polish, Portuguese, Romanian, Slovak, Slovene, Spanish and Swedish (https://europa.eu/european-union/topics/multilingualism_en)

to the same distinction. The former implies the encouragement of multilingualism at an individual level. The Commission is intensively engaged in promoting language education and foreign language learning to enhance the multilingual capacities of its citizens. With the Barcelona Objective in 2002, the Council has set a concrete goal regarding foreign language knowledge: EU citizens should speak at least two foreign languages in addition to their mother tongue. In order to realise this goal, several activities, events and projects have been set up, such as the Erasmus+ programme, the Lifelong Learning Programme, the European Day of Languages, etc. One reason why language education and foreign language learning are so intensely promoted, is the strategic and economic potential of multilingualism. Speaking more than one language stimulates the international mobility of EU citizens and improves individuals' chances on the labour market as it offers them a competitive advantage. A second reason is the cultural value of EU multilingualism. The EU increasingly sees its so-called "linguistic diversity" as an important part of its cultural identity and heritage and therefore wants to protect its official languages. The cultural aspect is partly intertwined with the economic aspect, in the sense that the foreign language knowledge is believed to deepen one's knowledge of other cultures, which can be an asset on the labour market as well. ("Multilingualism", 2016), ("Multilingualism - Education and training", n.d.)

2.1.2 The Institutional language policy: multilingualism at government level

Since this thesis investigates the language use in EU law and not that of individual citizens, it is particularly important to discuss the institutional language policy. It refers to the languages used by the EU institutions, both in communication with the public and internally. At the level of the EU government, multilingualism is necessary for pragmatic and organisational reasons as well as for legal reasons. The EU is a powerful political body and its policies need to be communicated as clearly and comprehensibly as possible, so that the government can operate in a transparent way. For this purpose, the EU commits itself to ensuring that its citizens can communicate with EU institutions in any of the official languages. This multilingual communication is bi-directional: citizens have the right to use each of the official languages in correspondence with the EU and the right to receive a reply in the same language. ("Multilingualism", 2016.) However, the guarantee of multilingual correspondence between citizens and EU institutions is not only a matter of clear communication; it is also a matter of "democratic legitimacy" toward EU citizens. This was stated by Ján Figel, a Commission member responsible for Education, Training, Culture and Multilingualism, in a speech at the SCIC Universities conference in 2006. Citizens take part in the democratic system by casting their vote in the elections to the European Parliament every five years. In order to exercise their right to vote appropriately, they must be sufficiently and accurately informed of EU actions

and policies. This can only be done appropriately if the EU offers all political and legal information in the languages of its citizens' nations. The principle of language equality serves the more general principle of equality of all EU citizens, in that they should have equal access to EU legal documents (Kużelewska, 2014, p. 152). In other words: the equal status of all 24 official languages is necessary to ensure the equal legal validity of EU legislation in all member states (Biel, 2017, p. 40).

The multilingual approach does not only concern communication with the public; it is also respected in communication within and between EU institutions. Each institution has specific rules of procedure, which contribute to the efficient functioning of the EU government. In Parliament, the interpretation of committee and delegation meetings, as well as speeches, must be available in all official languages. Members of Parliament have the right to speak in any of the official languages. The Council follows a strict procedure as well: if, during a session of the Council, the necessary documents and drafts are not available in the required languages, the Council will not deliberate or take any decisions. As for the Commission, all documents "of general application" are to be made available in all official languages. In the Court of Justice, any of the official languages may be used in a legal case. Depending on the type of the case, the language used in the case is either automatically the official language of the state involved, or a language chosen by the applicant. ("Legal aspects of EU multilingualism", 2017, pp. 5-6) All these rules of procedure exist to enhance the EU's communicative efficiency on an internal level.

EU multilingualism requires a great effort from within the institutions. In order to facilitate multilingual communication both internally and externally and put the institutional language policy to practice, the EU depends heavily on translation. As the EU expands, the demand for translation grows accordingly: when new countries accede to the EU, new languages are to be incorporated, and more thematic and terminological expertise is required to cover the increasing number of policy areas. Many of the EU's translation needs are fulfilled by the Directorate-General for Translation. The DGT is the translation service of the European Commission and provides institutional translation of its written communication in the 24 official languages. The texts involve laws, policy papers, reports, correspondence, and other official documents ("Directorate-General for Translation (DGT)", n.d.). The DGT employs 1,500 in-house translators and produces more than 2 million pages of translation each year (Strandvik, 2017, p. 123). The budget that the Commission spends on translation each year is estimated at 300 million Euros ("Translation at the European Commission", 2010, p. 56) An increasing part of EU translation is outsourced to external translation agencies and freelancers. This development was triggered by the enlargement of 2004, which added 10 new member states to the EU and doubled the number of official languages. The DGT did not have sufficient

resources to carry the large increase in translation demand caused by the enlargement (2010, p. 45). At present, more than a quarter of all EU translation is outsourced. The Commission conducts a very strict quality management policy and provides "guidelines for contractors" in all official languages to ensure that outsourced translations meet its quality standards.

2.2 The legal context of the EU: translation in EU legislation

In the following, we will elaborate on the legislative procedure of the EU. This overview serves two objectives: firstly, it demonstrates the strict application of the institutional language policy. Especially in the area of legislation, translation is crucial as it bears the responsibility of ensuring legal accuracy and equivalence across all EU languages. Secondly, this overview provides insight into the legal context of this research. The aim of this thesis is to investigate the linguistic influence of EU directives on their implementation laws. In order to do so, it is relevant and useful to first explain how the legislative system operates and how directives are implemented.

2.2.1 The legislative procedure of the EU

EU law makes a distinction between primary and secondary law. Primary law encompasses the EU treaties, which all member states have agreed upon and on the basis of which the EU operates. The Treaty on European Union and the Treaty on the Functioning of the European Union serve as the EU's constitutional foundations. Secondary law includes regulations, directives and decisions and is based on the principles set out in the treaties. EU law-making follows a strict procedure. Three institutions are centrally involved in that procedure: the European Commission, the European Parliament and the Council of the European Union. The Commission takes the initiative of submitting a proposal for a legislative act. In the case of an ordinary legislative procedure (see Figure 1), which was referred to as co-decision until 1999, both the European Parliament and the Council decide on the proposal and have equal decision-making powers. After the proposal has been submitted by the Commission, it enters the first reading stage, where it is discussed respectively by Parliament and the Council. In Parliament, the Commission proposal is subjected to two substages: the committee stage, in which a legislative report is drawn up to prepare the proposal for plenary, and the plenary stage, in which Parliament votes on the proposal by simple majority. Parliament can take three courses of action: it can approve the proposal, in which case it is sent to the Council directly; it can reject the proposal; or it can decide to draw up amendments and adopt a position after the proposal has been amended. In a next phase of the first reading, the Council of the European Union receives the proposal and can in turn choose to approve or amend

Parliament's position by a qualified majority. If no amendments are made by the Council, the legislative act is adopted. If the Council does amend the proposal, a second reading is held, repeating the two phases mentioned above. The second reading stage differs from the first reading stage in that Parliament and the Council are bound by strict deadlines. If the Council again does not approve the amendments made by Parliament, the second reading is followed by negotiations and a third reading, until Parliament and the Council reach an agreement. The ordinary procedure takes between 18 and 24 months on average.

Figure 1: The EU's ordinary legislative procedure (source: "Ordinary legislative procedure", European Union. (n.d.))
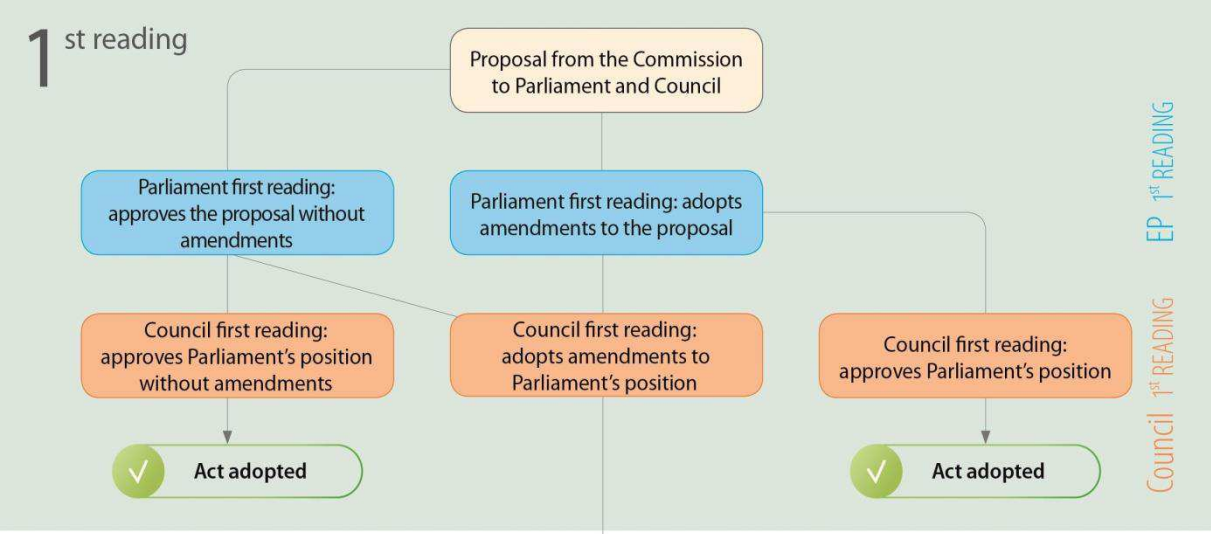
In the case of a special legislative procedure, the two dominant types of which are the consent procedure and the consultation procedure, the legislative power is not equally divided between Parliament and the Council. Under the consent procedure, the consent of Parliament is required in order for the Council to adopt a legislative proposal, whereas under the consultation procedure, Parliament has a consultative function and the Council is not obliged to follow Parliament's advice.

The three main types of legal acts (regulations, decisions, and directives) have different characteristics and legal implications. Whereas regulations and decisions are immediately legally binding for all EU member states, directives have to be transferred into national legislation first. As stated in Article 288 of the Treaty on the Functioning of the European Union, "a directive shall be binding, as to the result to be achieved, upon each Member State to which it is addressed, but shall leave to the national authorities the choice of form and methods." An example of an EU directive in Dutch is presented below (a), followed by the announcement of its implementation in The Netherlands (b).

(a) Richtlijn 2010/41/EU van het Europees Parlement en de Raad van 7 juli 2010 betreffende de toepassing van het beginsel van gelijke behandeling van zelfstandig werkzame mannen en vrouwen en tot intrekking van Richtlijn 86/613/EEG van de Raad. (published 15 July 2010)

(b) Mededeling van de Minister van Sociale Zaken en Werkgelegenheid van 20 december 2010, nr. WBJA/B+I/10/25642, houdende bekendmaking van de uitvoering van een tweetal richtlijnen. (published 31 December 2010)

A directive prescribes a particular result which the EU wants its member states to achieve, and each member state is free to determine the means and measures by which it will implement the directive. In some cases, a member state may not be required to draw up any new laws, since its existing laws already provide the necessary means to achieve the provisions formulated in the EU directive. In most cases, however, the adoption of a directive by the EU institutions is followed by an implementation phase during which the member state changes its existing legislation in order to comply with the directive. This process is referred to as transposition. The transposition of EU law is closely monitored by the European Commission. Each directive contains a deadline by which the transposition process must be completed. Member states may be requested to submit explanatory documents in which they describe the transposition measures they used to incorporate a directive into their national legislation. The Commission, in this context often nicknamed 'guardian of the Treaties', ensures that directives are implemented correctly and in a timely manner and that all its provisions are integrated into the member state's national law. It also provides assistance in the form of online information, implementation plans, guidance documents and expert-group meetings. If a member state fails to meet the requirements of a directive within the prescribed deadline or if the provisions are not implemented correctly or sufficiently, the Commission can initiate an infringement procedure[4]. In exceptional cases, member states who do not comply are referred to the Court of Justice of the EU, which can impose a financial sanction. The European Commission commits itself to a strict policy regarding member states' compliance with EU law, as it affects the daily lives of EU citizens. ("Monitoring the application of EU law", 2017), ("Better results through better application", 2017), ("Law-making process", n.d.), ("Handbook on the ordinary legislative procedure", 2017).

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[4] There are four main types of infringements of EU law: failure to notify, non-conformity/non-compliance, infringement of the Treaties, regulations and decisions, incorrect/bad application
http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=COM%3A2017%3A370%3AFIN&from=EN

2.2.2 Translation in the EU legislative procedure

In this section, we will proceed to clarify the role and importance of translation in the legislative procedure of the EU. The European Commission drew up *Translation Quality Info Sheets for Contractors* in 2017*,* in which four categories of texts are defined: (A) legal documents, (B) policy and administrative documents, (C) information for the public, and (D) input for EU legislation, policy formulation and administration. Each category is divided into a number of subcategories. Category A consists of (1) EU legal acts, (2) documents used in administrative or legal proceedings and inquiries, and (3) documents for procurement or funding programmes. Specific requirements are attributed to each category and subcategory. The data analysed in this paper belong to the first subcategory of category A, the EU legal acts. Of all the texts produced and translated in the EU, legal acts are most subject to strict rules in terms of quality of translation (Biel, 2017, p. 3). In the *Translation Quality Info Sheets for Contractors*, the quality requirements of legal acts in general are summarised as follows: "EU legal acts have a legal effect: they create rights, obligations and legitimate expectations. The readership, be it citizens or courts, must be able to act in complete confidence that the information in the document is reliable." As Schäffner (2001, p. 249) puts it, "the translations produced have consequences for the political development of the European Union". Especially within the context of EU legislation, those consequences are very concrete. The daily lives of EU citizens are, directly or indirectly, affected by EU laws. Furthermore, supranational law overrides national law in case of conflicting legal situations (Community legal order). Translators thus have the responsibility to ensure that all EU legislative texts represent the exact same legal content in each official language, so that the equal application of the laws in all member states is guaranteed and ambiguity in interpretation is avoided. All language versions of a legal act are equally valid. This principle is referred to as "equal authenticity" (Wagner, 2001, p. 268) and serves the legal accurateness of EU legislation as well as the EU's policy of language equality.

The importance of translation for EU legislation is clearly reflected in its intensive presence in the legislative procedure. Since every step of the process is accompanied by translation and revision, each institution has its own translators and legal revisers. Wagner (2001, p. 266) gives a concrete overview of the role of translation within the procedure. In the first step, the final proposal submitted by the Commission is translated into all official languages. In the first, second, or third reading, amendments of the proposal by Parliament and consequently by the Council are both translated. Finally, when the proposal is officially adopted, it is translated into all 24 official EU languages and the act is published in the Official Journal of the European Union. Wagner states that translation is both the input and the output of the legislative

procedure, as drafts are translated before they are discussed and final versions are translated just before they enter into force (2001, p. 267). The *Handbook on the Ordinary Legislative Procedure,* published in November 2017 by the European Parliament, provides more details on the linguistic aspects of the legislative procedure. The Handbook mentions the process of "legal-linguistic finalisation" (p. 40), which takes place before the legal documents are translated. Proposals for legal acts and amendments are usually drafted in English, German, or French, which are seen as the procedural languages (Biel, 2007, p. 148). Those original versions are consolidated into a final version by lawyer-linguists, who ensure both the legal and linguistic accuracy of the text and may propose changes to the texts. The documents are then translated into the remaining languages, and all 24 language versions are again checked and finalised by lawyer-linguists before they are officially adopted.

As a consequence of the EU's multilingual reality, coupled with its legal context, translation has taken up a unique position in EU legislation. The constant need for translation in a large number of languages has led to a unique understanding of the concept, which is different from traditional ideas on several levels. Firstly, the outcome of the legal translation process is not seen as a translation as such. Following the principle of equal authenticity, there is no distinction between original texts and translations and, accordingly, between source texts and target texts (Schäffner, 2001, p. 250). Although in practice, legislation is generally drafted in English, German or French, and translated into the remaining official languages, all language versions are treated as authentic and original texts and they all have the same legal value. This does not correspond with traditional views on translation, in the sense that a translated text is often considered as an inferior version of the original. It can be said that, in an EU context, the status of a translation is elevated to the level of an original text. Secondly, the intensive involvement of translation in the legislative procedure leads to a unique interaction between drafting, translation and revision. As every single draft or amendment has to be translated, the boundaries of the translation process are not clearly defined. The process is marked by a close and intertwined cooperation between politicians, translators, revisers, lawyers, proof readers and other EU officials who are involved in it (Wagner, 2001, p. 265). Translators do not work in isolation; they are in constant contact with the legislators and lawyer-linguists. Robertson (2013, p. 30) defines the EU legislative procedure as a co-operative and continuously interactive process, where there is no clear distinction between drafting, editing, translation and revision. All three activities take place at the same time and not necessarily in a straightforward or fixed order.

2.3 Legal language

In order to establish linguistic differences and similarities between the language use in Dutch implementation laws and non-EU-based national legislation, it is important to investigate the properties of legal language and, subsequently, demarcate legal varieties in both the context of the European Union and the context of Dutch national legislation. This section contains a definition and description of 'legal language' in general. Having dealt with this concept briefly, we proceed to discuss legal language in the Netherlands (2.3.2) and in the EU (2.3.3) separately. Finally (2.3.4), a comparison is made between features of legal language in The Netherlands and the EU.

2.3.1 What is legal language?

Legal language increasingly became a topic of academic research in the second half of the 20th century. It came to the attention of linguists that the language of lawyers and drafters of legislation, both written and spoken, was difficult to understand for the general public. Researchers wanted to investigate how legal language had developed over the decades and centuries, and how and why it had become so incomprehensible to lays. In order to do so, they attempted to define its linguistic characteristics. Mellinkoff's *The language of the law* (1963) is one of the standard works on legal language and numerous researchers and linguists have drawn from it over the past decades. According to Mellinkoff, legal language is characterized by "distinctive words, meanings, phrases and modes of expression" (p. 3). He specifies this further, enumerating the "chief characteristics" of legal language, all of which deal purely with lexicon or terminology[5] (e.g. frequent use of Latin words and phrases, frequent use of formal words and argot, etc.) (p. 11).

Legal language was long thought of as a variety that distinguished itself only by means of a specialized vocabulary or jargon. It was not until the 1970s that researchers began to attribute features to it that were not lexicon-related. Today, it is generally accepted among linguists that legal language is a separate linguistic variety, with multiple specific linguistic characteristics that set it apart from ordinary language use.

Tiersma (2008) determines six linguistic categories on the basis of which legal language differs from ordinary language: pronunciation and spelling, morphology, syntax, vocabulary, semantics and style (pp. 13-22). Pronunciation logically refers to spoken legal language, which

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[5] It should be noted that Mellinkoff sticks to the English legal variety, but it is safe to say that his observations are largely universal, as it is generally accepted that the general characteristics of legal language are not language-specific.

is not relevant for this research, and the morphological features mentioned by Tiersma only apply to the English language. The syntax of legal language, however, bears universal peculiarities, the most obvious of which are long sentences, complex syntactical structures and a frequent use of passive constructions. Lexicon, however, remains the most distinctive and crucial characteristic of legal language. Technical vocabulary is prominent in every language's legal variety. However, Tiersma asserts that the question of legal vocabulary also poses certain problems: as opposed to other specialized fields, such as chemistry or computer technology, which use a largely universal conceptual framework, the jargon and terminology of legal language depend on the jurisdiction and legal system of the country in question. This may cause difficulties for the translation of legal language and becomes particularly problematic in an EU context, as will be discussed in the next section. A second lexicon-related problem that might arise in the translation and interpretation of legal language, is the recycling of ordinary words in a legal context. Words that have a common meaning to the general public are often used in legal texts to refer to an entirely different concept. This may lead to confusion and ambiguity. Tiersma (1999) calls this phenomenon "legal homonyms" (pp. 111-112). In terms of semantics, Tiersma states that the question of interpretation is a typical feature of legal language. We will not elaborate further on this since it is a historical and purely legal discussion rather than a linguistic one. Tiersma's last linguistic category is style. Legal language has a distinctive style that manifests itself in different ways: archaisms, formal language use, wordiness and redundancy, impersonal language use (which is reflected in syntactical features such as the frequent use of passives), and occasionally even a poetic or literary style. A final stylistic feature of legal language is precision. However, Tiersma takes a nuanced view in this respect, as he assumes the existence of a tension field between precision and vagueness. On the one hand, legal texts should be concrete enough as to avoid discussion or confusion, but on the other hand, the texts must be formulated in a way that allows them to cover as many cases and situations as possible.

Another question which linguists have been dealing with over the past decades, is 'what is legal language?', not referring to its linguistic features as discussed above, but to the question whether legal language is in fact a language, or rather a language variety, a sublanguage, or a genre. In other words: where do we classify 'legal language'? Cao (2010) defines legal language as a language variety with 4 sub-varieties: legislative texts, judicial texts, legal scholarly texts and private legal texts (p. 79). According to Smith (1995), legal language is a specialized genre (p. 190). Charrow & Crandall (1990) argue that legal language can be classified as a dialect[6], since it reveals a number of functional characteristics typical of dialects:

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[6]Here, the term 'dialect' must be understood in its Anglosaxon meaning. Charrow & Crandall refer to a sociolect or a language variety associated with a particular social group.

firstly, lawyers use legal language as a means of identification. It possesses a certain level of prestige and defines them as a separate group. Secondly, the acquisition of legal language requires a process of socialization in the legal culture. Furthermore, like dialects, legal language contains norms and rules, which members of the in-group are expected to comply with (p. 8). Finally, a feature that legal language shares with dialects, is the tension between changeability and conservatism in terms of semantics and lexicon: legal language sticks to an archaic style, but at the same time has to adapt its lexicon and terminology to the social and political reality. Tiersma (2005) uses the label 'legal language', but at the same time suggests that legal language is a "sublanguage". He argues that it bears too much resemblance with ordinary language use to be labelled as a separate language (p. 30).

2.3.2 Legal language in The Netherlands

In this section, we will elaborate on Dutch legal language. The section is divided into two main parts: the first maps the research field of Dutch legal language and gives an overview of descriptive academic publications on Dutch legal language, in order to provide an insight into the characteristics and peculiarities of the language use in legal texts in the Netherlands. The second part contains an overview of normative works on Dutch legal language, i.e. handbooks, rules, guidelines and writing tips for law students and drafters of legislation in the Netherlands. The overview is not exhaustive; we will discuss and illustrate the most typical and prominent guidelines.

2.3.2.1 Mapping the research field: Dutch legal language from a descriptive perspective

Van Ginneken (1914) was one of the first linguists to describe the language use in Dutch legal texts and mentioned archaisms, Latinisms, gerunds, gerundives and participial constructions (e.g. *het in aanbouw <u>zijnde</u> huis*) as typical features of Dutch legal language. Van Ginneken also found that some sentences did not contain a finite verb and some nouns were not preceded by an article. In 1976, Reinsma & Reinsma found that the occurrence of the features mentioned by Van Ginneken had decreased. However, this was not true in the case of archaisms, which occurred more frequently than in 1914 (van Essen, 2017, pp. 9-10).

A more recent reference work which discusses Dutch legal language in great detail, is Hendrickx' *Taal- en formuleringsproblemen in de regelgeving* (2003). Hendrickx analyses the linguistic comments made by the Legislation Department of the Belgian Council of State and compares them with academic literature on Dutch legal language. Since the data analysed in Hendrickx' research concern Belgian Dutch, we have to be careful as to apply his findings to legal language as used in the Netherlands. However, Hendrickx does provide an overview of

descriptive publications on legal language and draws from those works to list a number of linguistic problems in legislative texts, a number of which are accompanied by examples from The Netherlands. He defines those problems as "areas of concern" (p. 102), which implies a prescriptive perspective, but we can look at those areas of concern from a descriptive point of view as well, and consider them as typical features of legal language. A selective overview of linguistic characteristics at word level and at sentence level, as categorized and specified by Hendrickx[7]:

A. AT WORD LEVEL

- *Terminology*: drafters of legislation in the Netherlands are usually very strict and consistent in terms of terminology. Sometimes the meaning of two terms is mixed up, leading to a semantic error, but this only happens in rare cases. (p. 103)

- *Vagueness, ambiguity, polysemy*: the Dutch Council of State has repeatedly commented on vagueness in word choice and technical terms that were inadequately defined. (p. 109)

- *Pleonasm, tautology, redundancy*: redundancy is a typical feature of legal language. Drafters of legislation tend to use cumbersome phrases and formulations, which makes for longer and more complex sentences. A few Dutch examples: *de bepaling wordt opgeheven en vervangen*, instead of *de bepaling wordt vervangen*; *artikel y wordt ingevoegd tussen artikel x en artikel z,* instead of *artikel y wordt ingevoegd*; *artikel y wordt gewijzigd en aangevuld*, instead of *artikel y wordt aangevuld*. (p. 113)

- *Archaisms*: due to the slow evolution of legal language, many archaic words or phrases are so inherently present in legal texts that they have obtained a fixed meaning, which makes it very hard to get rid of them. Typical archaisms in Dutch legal language are: *geschieden, woonachtig zijn, hetwelk, alsmede.* (p. 115)

- *Modal verbs*: legislative texts typically contain a lot of modal verbs, since they express commands, prohibitions, rights, obligations and permissions. (p. 116)

- *Conjunctions*: one typical problematic conjunction that often occurs in Dutch legislative texts, is '*en/of*'. (p. 117)

B. AT SENTENCE LEVEL

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[7] Hendricks gives an overview of linguistic issues that recur in legal texts. In a sense, his overview is prescriptive rather than descriptive: each item contains academic views and norms regarding the linguistic issue in question. However, for some items, Hendricks explicitly adds that they are in fact typical features of legal language, and underpins this by referring to conducted research. We interpret those items as descriptive information and thus include them in this list. Purely normative items have been left out.

- Sentence length and sentence complexity: in order to cover all applications of the law, drafters of legislation tend to use overly long and complex sentences. Research has repeatedly shown that sentences in legal texts are significantly longer than sentences in other government documents or scientific texts. Typical structures in legal texts are complex sentences with subordinate clauses (mostly restrictive relative clauses) and embedded clauses. (p. 123)

- Passive and impersonal structures: legal texts typically contain a lot of passive and impersonal constructions. There are several reasons for this: passives fit within the abstract writing style that allows the drafter to generalize situations and they can perform pragmatic functions, e.g.: passive structures can be used to create a thematic word order, where the topic of a sentence obtains the first position in the sentence. (p. 128)

- Negations and negative constructions: laws contain a large number of negative formulations and negations, since they prescribe whether a certain action is allowed or not. (p. 128)

- Nominalizations: nominalizations are a distinctive feature of legislative texts. Similar to passive constructions, they contribute to an abstract and objectifying writing style. They are also used to convey messages in a more concise way (e.g. *inbetalinggeving* instead of *een zaak die in betaling gegeven wordt*; *meerderjaardigheidsverklaring* instead of *iemand die meerderjarig wordt verklaard)*. (pp. 130-131)

- Prepositional chains and prepositional expressions: the frequent use of prepositional chains is a typical feature of legal language. It can be seen as a consequence of the frequent use of nominalizations: as nouns can be linked to each other by prepositions, a sentence which contains a lot of nouns will logically contain more prepositions.

2.3.2.2 Linguistic guidelines in law-making: Dutch legal language from a normative perspective

Hendrickx (2003) provides a historical context of legal language in the Netherlands. Ever since the 19th century, continuous efforts have been made to improve the quality and comprehensibility of legal texts: several associations (e.g. the association of legal experts and the association of administrative law) published reports and guides which contained linguistic and stylistic guidelines for drafters of legislation. However, these initiatives came from linguists and academics rather than the government. It was not until the 1950's that the Dutch government structurally invested in improving the quality of legal texts. Following a report on difficulties in legislation, official guidelines for legislation technique were drawn up and a committee was set up to evaluate legislation on a linguistic and substantive level. In 1992, all instructions and quality requirements were bundled into *Aanwijzingen voor de regelgeving* (instructions for drafting legislation), which still serves as the basis for the evaluation of legal

texts. The Dutch Council of State, which receives legal drafts after they have been approved by the cabinet and evaluates them before they are adopted, relies on the official instructions to comment on the texts and is known to conduct a strict policy in terms of clarity, consistency and unambiguousness. All in all, the linguistic evaluation of legislation in The Netherlands follows a structured, systematic and well-founded procedure. Apart from the official instructions in *Aanwijzingen voor de regelgeving*, several unofficial guides have been written over the past decades. The most important are *Wetgevingstechniek en de toegankelijkheid van de wet voor de burger* (Sebus, 1984), *Wetgevingswijzer* (Waaldijk, 1985) and *Handboek Wetgeving* (Van der Vlies, 1987). (Hendrickx, 2003, pp. 54-57), (Hendrickx, 2003, pp. 82-83).

In the following, we will deal with the unofficial guidelines for legal drafting in Dutch in Waaldijk's *Wetgevingswijzer* and the official instructions in *Aanwijzingen voor de regelgeving.* There is a large overlap between the two, since a considerable share of Waaldijk's guidelines were incorporated into the official instructions. Therefore, the following overview focuses on the instructions that occur in both works. The additional instructions in *Aanwijzingen voor de regelgeving* that were not mentioned by Waaldijk are listed as well, so as to provide an extensive overview of the official instructions.

A OVERLAPPING LINGUISTIC GUIDELINES IN *WETGEVINGSWIJZER* AND *AANWIJZINGEN VOOR DE REGELGEVING*

- *word choice:* the terms used should convey a concrete and clear meaning and should be in accordance with spoken language if possible. If a new term is introduced, it should be defined. Words that are common in everyday language should not be given an entirely different meaning in a legal context. Words derived from foreign languages should be avoided. (Waaldijk, 1987, p. 56)

- *one word, one meaning*: there has to be a one-on-one relationship between concepts and words. One word refers to one concept only, and one concept is denoted by one word only. Synonyms, such as *vergunning-toestemming, eis-vordering, salaris-wedde* should be avoided. (p. 57)

- *sexe*: when referring to persons or professions, gender-neutral words should be used where possible, e.g. *verloskundige* instead of *vroedvrouw*. Combinations (e.g. *werknemer/werkneemster*) should not be used. (p. 57)

- *abbreviations*: abbreviations should only be used when they cannot be avoided. Any abbreviations used should be written out in full and added to the definitions section. (p. 57)

- *capital letters:* this guideline states that drafters should follow the official spelling of the Dutch constitution, and lists a number of examples. The following words need a capital letter: *Eerste (Tweede) Kamer der Staten-Generaal, Raad van State, Algemene Rekenkamer, Hoge Raad (der Nederlanden), Koninkrijk (der Neerlanden), Rijk, 's Rijks kas, (Kabinet der) Koningin, Kroon, Staat, Minister(ie) van Justitie.* The following words are written without capital letter: *ministerraad, regering, kamers, gemeente, minister-president, voorzitter Tweede (Eerste) Kamer, koninklijk besluit, voorstel van wet, algemene maatregel van bestuur, regeringscommissaris, kabinet, minister, parlement en presidium*. (p. 57)

- *specific expressions*: drafters are instructed to use *voor zover* instead of *indien en voor zover*, *tot en met* instead of *tot*, *voorstel van wet* instead of *ontwerp van wet,* and to avoid the double conjuction *en/of*. When referring to a royal decree, the noun phrase *koninklijk besluit* should be used and the personal pronouns *Wij* and *Ons* should be avoided when referring to a royal decree. The expression *Rijk in Europa* is outdated. Ministers are referred to as *Onze Minister (van/voor...)* and the expression *Onze met de uitvoering van deze wet belaste minister* should not be used. (pp. 60-61)

- *specific terms*: the words *departement* and *ministerie* should not be used interchangeably. *Ministerie* is the only correct term. A binding regulation determined by a minister may only be referred to as *ministriële regeling.* (p. 61)

B ADDITIONAL INSTRUCTIONS IN *AANWIJZINGEN VOOR DE REGELGEVING*

Aanwijzingen voor de regelgeving contains a number of EU-related linguistic instructions, which naturally did not exist in Waaldijk's *Wetgevingswijzer* since it was published before the founding of the EU. The EU-related instructions are listed below.

- Particularly important for implementation measures: terminology in national laws should be in correspondence with terminology used in binding EU or international legal acts, unless (1) the EU terminology is not sufficiently specified, (2) more relevant terms can be found in other national laws, (3) other terms sound better in Dutch.

- a list of EU institutions or terms and their spelling: *het Europees Parlement; de Europese Raad; de Raad van de Europese Unie; de Europese Commissie; het Hof van Justitie van de Europese Unie; de Europese Centrale Bank; de Europese Rekenkamer; het rag betreffende de werking van de Europese Unie; het Verdrag betreffende de Europese Unie; het Verdrag tot oprichting van de Europese Gemeenschap voor Atoomenergie; EU-verordeningen, EU-richtlijnen, EU-besluiten; bindende EU-rechtshandelingen, EU-rechtshandelingen, EU-regelgeving; Euratom-verordeningen, Euratom-richtlijnen, Euratom-besluiten; lidstaten van de Europese Unie: gebieden waarop het Verdrag betreffende de Europese Unie van toepassing*

is; de lidstaten van de Europese Unie of een andere staat die partij is bij de Overeenkomst betreffende de Europese Economische Ruimte; de gebieden waarop de Overeenkomst betreffende de Europese Economische Ruimte van toepassing is; Zwitserland.

- Any spelling changes or new abbreviations established by the Treaty of Lisbon should not be applied in legal acts written before the ratification of the Treaty.

- *Publicatieblad van de Europese Unie* is abbreviated as *PbEU.*

2.3.3 Legal language in the EU

This section focuses on language use in EU legislation. The first subsection gives an overview of descriptive academic research on EU legal language, whereas the second subsection discusses rules and guidelines for drafters of EU legislation.

2.3.3.1 Mapping the research field: EU legal language from a descriptive perspective

As a consequence of the growth of the EU and, accordingly, the growing linguistic diversity within the EU, the language use in EU legislative texts and the possible development of separate EU legal varieties have increasingly attracted academic attention over the past two decades. The Eurolect Observatory Project, to which this thesis contributes, aims to investigate the development of EU varieties of legal language (or so-called *Eurolects*) by conducting linguistic analyses on both EU directives and their national implementation laws in 11 official EU languages. While it is true that the members of this research group are the first to systematically and quantitatively investigate the existence of *Eurolects* and their influence on national legal language, they are not the first to suggest their existence.

Biel (2007, p. 144) asserted that EU legal language differs from the language use in national legislation and argues that, because of the intense involvement of translation in the EU legislative procedure, EU legal language should be treated as a sub-genre of legal translation.

Robertson (2010) suggested that the difference between EU legal language and national legal language is partly related to the unique legal culture of the EU. EU law is dynamic and focused on change and movement, whereas national law has a more static nature. This reflects itself in the linguistic properties of EU legal language (e.g. it contains a higher number of verbs expressing futurity) (p. 2). Even more so than its legal culture, the multilingual reality of the EU distinguishes its legal language from the national legal language of member states. Robertson shares this view with Biel: EU legislation is often either drafted by non-native speakers or translated. Languages are continuously influenced by each other during the drafting process.

Robertson enumerates 4 linguistic aspects of EU legal language that are influenced by its multilingual and supranational context (pp. 5-6):

- *words or terminology:* the EU may use concepts that do not exist in national legal cultures. In order to refer to those new, specialised EU concepts in legal texts, either a new term or neologism is introduced (e.g. *sheepmeat*), in which case an equivalent in each language has to be established, or an existing word is recycled and given a new EU-specific meaning (e.g. *decision*). According to Robertson, this lies at the basis of the development of an EU dialect, "Euro-speak", which can be seen as a predecessor of *Eurolects.* Biel (2007) also discusses the development of EU-specific terminology, and attributes this to the EU's "distinct supranational conceptual network" (p. 150).

- *the language system*: drafters of EU legislation apply the syntax, spelling, and phraseology of their national language in legal texts. However, when they are not native speakers, traces of that syntax may trickle down and influence the language use in the text they are writing. The same may happen when a text written by a native speaker is translated by a non-native speaker of the target language.

- *text*: Robertson stresses the specialized nature of EU legal texts: they are created within a supranational environment with its own purposes (Robertson states that the EU is particularly focused on economic purposes), its own legal basis (i.e. the EU treaties) and its own legal structure. This has consequences for the language use in legal texts: as mentioned above, EU legal texts may contain more verbs in future tense.

- *communicative activity*: the addressee plays an important role when drafting a legal text. In the case of directives, the EU is communicating directly with its member states and this communication process determines the content and structure of the legal text. However, this item does not deal with concrete linguistic properties of the text.

From 2010 to 2012, research concerning EU legal language was taken a step further with the Eurofog project (Biel, 2014). Biel compared Polish EU legislation, which is translated, with non-EU-based national Polish legislation, which is written by native speakers. Her hypothesis suggested that the language use in national Polish legislation differs from that in EU legislation. Biel was able to confirm this as she found salient linguistic differences between both corpora, such as untypical collocations and unique phraseological patterns (pp. 284-285). This research is similar to that of the Eurolect Observatory since it compares EU legal language with national legal language, but it is limited in that it only deals with one language and does not include a corpus with EU-based national legislation so as to investigate the possible linguistic influence of EU directives on their implementations. Castagnoli (2017) conducted a similar research for the Italian language. It must be noted, however, that the data for this research were institutional

texts, which is a broader category than legal texts. Castagnoli found that Italian EU texts are less varied and less specific in terms of lexicon (p. 86), but they show more terminological variation than national Italian institutional texts.

While the existence of separate EU legal varieties with specific linguistic features has been suggested and discussed by multiple researchers, comparative linguistic analysis of EU directives and their implementation laws on a large scale was not conducted before the start of the Eurolect Observatory Project in 2013. However, Schäffner (2001) suggested a hypothesis that was in line with what the Eurolect Observatory is researching over a decade later: referring to the transposition process from EU directives into national implementation laws, she assumed that "'exposure' to the textual features of the 'incoming' text(s) will affect the profile of original texts subsequently produced in the target cultures. Such effects may be most obvious in the lexical stock." (p. 253) While the Eurolect Observatory investigates non-lexicon-related linguistic characteristics as well, Schäffner's hypothesis was an interesting prelude.

The parallel and comparable Eurolect Observatory Multilingual Corpus, which contains EU directives in 11 languages (sub-corpus A) and their implementation measures at a national level (sub-corpus B), has been used by members of the Eurolect Observatory research group to analyse the language use in EU legislation and compare it with national EU-based legislation. An example of research within this project is Patin (2016). Patin deals with the French corpora and applies *Differential Textometric Reading* (DTR) to the data. This reading strategy displays the results of textometric analysis between comparable texts synchronically and allows for an efficient comparison (p. 1). The paper aims to detect typical features of the French *Eurolect* by investigating the linguistic differences between both sub-corpora. Patin's results suggest that EU directives employ a rather generalist vocabulary (e.g. frequent use of hyperonyms, verbs in the conditional mood, frequent use of the indefinite article '*tout*') in order to create a broad legal framework which allows the national legal system to be more precise and to adapt the text to the French national context (pp. 7-9).

Patin's study, together with similar comparative studies conducted by other members of the Eurolect Observatory research team, constituted the first phase of the project, which ended in 2016. An overview of the results of all eleven participating EU languages will be published in an edited volume by coordinator Laura Mori in the course of 2018. For this reason, it is not yet possible to discuss the general findings of the first phase.

2.3.3.2 Linguistic guidelines in law-making: EU legal language from a normative perspective

The EU commits itself to transparent and clear communication, both within its institutions and with its citizens. Therefore, the EU has developed several style guides for written texts, in order to standardise and harmonise language use in all EU institutions. The standard reference work in this respect is the *Interinstitutional Style Guide,* which was first published in 1997 and is available in all 24 official EU languages. The *Style Guide* lists general rules for writing and translating EU documents, as well as specific guidelines drawn up for each language separately. It consists of 4 main parts: part one deals with the Official Journal of the European Union and focuses on structural and editorial conventions; part two assembles rules for general publications; part three contains language guidelines that apply to all 24 languages, and part four differs per language as it assembles unique conventions for each official language. The language-related chapters of the *Interinstitutional Style Guide* are limited to rules and conventions on punctuation, spelling, abbreviation, number formats and referencing, rather than on writing style. Since this paper investigates the language use, the writing style and the linguistic complexity of legal acts, we will only include guidelines on writing style from the *Interinstitutional Style Guide* in this chapter. For tips that focus more on language and writing style and less on technical conventions, the European Commission has published a guide called *How to write clearly* in all 24 languages*,* as well as an additional booklet with more detailed practical writing tips for the main drafting languages English and French, called *Claire's clear writing tips*. The Commission also published *Translation Quality Info Sheets for Contractors* in 2017*,* in which it refers to the above-mentioned guides. The info sheets have been developed to ensure that outsourced translations meet the quality requirements of the EU and to maintain a standardized language use in all EU documents.

The guides mentioned above apply to all types of EU documents. A reference work which is particularly relevant for this research, since it deals with language use and writing style in legislative documents only, is the *Joint Practical Guide of the European Parliament, the Council and the Commission for persons involved in the drafting of European Union legislation*. This guide attributes particular attention to the drafting of legislative documents, since they have very concrete and far-reaching consequences and convey information that determines the lives of EU citizens. The *Joint Practical Guide* was first published in 2000 and last updated in 2015. The aim of the guide is to optimize the quality of EU legislation, so that citizens are accurately informed of their rights and obligations. In the introduction, it is stated that the rules set out in the guide must be respected, "so that citizens and economic operators can identify their rights and obligations and the courts can enforce them, and so that, where necessary, the Member States can correctly transpose those acts in due time." (p. 6) The importance of

the guidelines for drafting EU directives and for the transposition process is affirmed in this statement. Directives can only be transposed efficiently and correctly when they are drafted in a consistent, clear and comprehensible way. A second work that contains guidelines specifically meant for the drafting of legal acts, and for the Dutch language in particular, is the *Beknopte stijlgids voor het Nederlands,* developed by the Dutch language department of the Directorate-General for Translation and published in 2011.

This section aims to summarize the guides mentioned above and contains a selective overview of the linguistic guidelines relevant for this research.

A GUIDELINES THAT APPLY TO ALL LANGUAGES

In the following, we will focus on writing guidelines for legal acts in particular. The *Joint Practical Guide* applies to the drafting of legislation and is based on six general principles.

(1) "*Legal acts of the Union shall be drafted clearly, simply and precisely."* (p. 10)

The first principle serves two goals: on the one hand, the purpose of clear, simple and precise language use in EU legislation is to ensure that all citizens have full access to the texts, in the sense that they understand what is written; on the other hand, such language use serves the "legal certainty" of the texts: if the message is conveyed in an unambiguous manner, the law will be interpreted and thus applied correctly. To achieve those goals, drafters of legislation are advised to use everyday language whenever possible, to avoid synonymy, and to use correct grammar and punctuation.

(2) "*The drafting of Union acts shall be appropriate to the type of act concerned and, in particular, to whether or not it is binding (regulation, directive, decision, recommendation, or other act).* (p. 11)

With regard to the second principle, only the specifications about EU directives will be considered. The principle stipulates that directives should be addressed to the Member States, which implies the use of sentence structures such as *Member States shall [...].* Furthermore, directives have to be more flexible in terms of content. Member States are free to determine the concrete implementation of the provisions set out in the directive, so the formulations in the directive cannot be too detailed.

(3) "*The drafting of acts shall take account of the persons to whom they are intended to apply, with a view to enabling them to identify their rights and obligations unambiguously, and of the persons responsible for putting the acts into effect."* (p. 13)

Drafters of legislation are to bear the addressees of their texts in mind. This principle is of great importance with regard to the transposition process of directives. Directives are not addressed to citizens, but to the national legislator of the member state(s) concerned.

(4) "*Provisions of acts shall be concise and their content should be as homogeneous as possible. Overly long articles and sentences, unnecessarily convoluted wording and excessive use of abbreviations should be avoided".* (p. 14)

This principle encompasses consistency both in terms of content and in terms of language. Concrete writing tips in this respect are to avoid long sentences and to be careful with abbreviations. Abbreviations should only be used when they have been written out in full earlier in the text or when it is expected that the addressee of the text is familiar with the abbreviation.

(5) *"Throughout the process leading to their adoption, draft acts shall be framed in terms and sentence structures which respect the multilingual nature of Union legislation; concepts or terminology specific to any one national legal system are to be used with care."* (p. 16)

Drafters of legislation should bear in mind that their texts will be translated. Translation problems can be avoided if the original text is unambiguous and comprehensive in terms of the message it conveys. For this purpose, drafters should:

- avoid overly deep syntactical structures (e.g. a sequence of subordinate clauses);
- use clear cohesion (avoid ellipses, e.g. write *wooden walls and wooden doors* instead of *wooden walls and doors*;
- avoid jargon and Latin expressions, unless used in their generally accepted legal meaning;
- avoid expressions and terms which are specific for a particular language or national legal system. The use of such expressions or terms may cause ambiguity and confusion with translators and, in the case of directives, with those involved in the transposition process.

(6) "*The terminology used in a given act shall be consistent both internally and with acts already in force, especially in the same field. Identical concepts shall be expressed in the same terms, as far as possible without departing from their meaning in ordinary, legal or technical language."* (p. 20)

The last general principle deals with consistency and makes a distinction between "formal consistency", or terminological consistency, and "substantive consistency", or consistency of the text as a whole. Formal consistency is of crucial importance for an unambiguous text. There must be a one-on-one relationship between terms and concepts: each term refers to one single concept and each concept is denoted by one single term.

B SPECIFIC GUIDELINES FOR THE DUTCH LANGUAGE

The booklet *How to write clearly,* published by the European Commission, is available in all 24 languages. It tackles common problems in writing style and illustrates writing tips by means of language-specific examples. It should be noted that this guide provides language tips that apply to all types of EU documents. However, although they are not addressed specifically to drafters of legislation, they can be seen as general tips that need to be considered in legislative drafting as well, since legislative acts also require clear language. Therefore, a number of relevant guidelines on clear writing has been selected from the Dutch version of this booklet and is presented below.

(1) *"KISS: Keep It Short And Simple"* (p. 6)

This guideline encompasses several concrete tips: keeping sentences as short as possible; being consistent in terms of word choice; using the positive form instead of the negative. In order to keep the text as straightforward as possible and limit the number of words in a sentence, it is advisable to avoid expressions that consist of multiple words and replace them with a one-word equivalent. For example: complex prepositional phrases such as *in het geval van* or *gezien het feit dat* should be replaced by *bij* respectively *aangezien.*

(2) *"Cut out excess nouns - verb forms are livelier"* (p. 8)

Authors or translators of Dutch EU documents should avoid nominalisations. Especially nouns that end in *-ing* or *-atie*, should be replaced by their corresponding verb, as this creates a livelier and smoother style. For instance: A phrase such as *door de toepassing van*, which contains a nominalization and two prepositions, should be replaced by *door ... toe te passen*.

(3) *"Be concrete, not abstract"* (p. 9)

In order to be concrete, it is important that the choice of words is specific. A word with a broad semantic range or an abstract or vague meaning can often be replaced by a more specific word. Dutch examples of this are the verbs *vaststellen, bepalen, gebeuren* or *doen*.

(4) "*Prefer active verbs to passive"* (p. 10)

Passive voice should be avoided where possible. Passive structures render a sentence longer and more complex, and require more cognitive effort from the reader. Furthermore, an active voice contributes to the concreteness of the message, since it names the subject or agent of the action expressed by the verb.

(5) "*Beware of false friends, jargon and abbreviations*" (p. 11)

This guideline is addressed to translators or drafters of legislation who are not native speakers of the language they are drafting in. The guide lists a number of common false friends, i.e. words that sound similar in two different languages, here English and Dutch, but differ in meaning. The list contains English words, their wrong literal translation and their correct translation:

- *actual = werkelijk* (not *actueel*)
- *adequate = voldoende* (not *adequaat*)
- *administration = regering* (not *administratie*)
- *eventual = uiteindelijk* (not *eventueel*)
- *global* = m.b.t. *aarde* (not *globaal*)
- *opinion = advies* (not *opinie)*
- *paragraph = lid* (not *paragraaf*)
- *relevant = desbetreffend* (not *relevant*)
- *sensible = verstandig* (not *sensibel*)
- *subparagraph = alinea* (not *subparagraaf*)
- *under = op grond van* (not *onder*)

The guideline advises writers of EU documents to avoid jargon. In the context of legislative drafting, this becomes a complex issue. When writing legal acts, it is of crucial importance to use correct terminology, which sometimes makes it impossible to avoid jargon. The guideline for clear writing suggests adding a definition of jargon words when mentioning them for the first time, or referring to a glossary or another explanatory source. The final item of this guideline concerns abbreviations. Abbreviations should be used only when the addressee of the text is expected to be familiar with them. However, the text becomes harder to read when it contains too many abbreviations. Therefore, the guideline prescribes that acronyms may be written out in full if they only occur once or twice. If they are written out in full the first time they occur, the abbreviation can be used in the rest of the document. Another possibility is to enclose a list of abbreviations and their meaning.

A few concrete instructions from the *Interinstitutional Style Guide* can be added to this overview.

(1) *Capital letters*

This section of the style guide contains a list of the official Dutch translation of important (inter)national or EU bodies and institutions (e.g. *het Europees Parlement, de Europese Raad, de Europese Commissie, de Tweede Kamer, het Ministerie van Economische Zaken,*

Organisatie voor Economische Samenwerking en Ontwikkeling, etc.). The first noun of a name is capitalized, as well as any adjective preceding it. As concerns services, the category (e.g. *directorate*) receives a small letter and the actual name of the service policy area follows the same rule that applies to bodies and institutions. Names of treaties, charters, agreements, conferences, etc. also follow this rule. Titles of offices and functions receive a small letter. (p. 151)

(2) *Compound nouns*

Apart from standard Dutch spelling rules, this section lists a number of EU-specific rules for the spelling of compounds: compounds that start with 'euro' are written as one word (e.g. *euroambtenaar* or *eurozone*); a compound that refers to of a group of EU member states and that consists of *EU*, followed by the number of member states, is written with a hyphen (e.g. *EU-27-landen, EU-17-besluit*). (p. 157)

(3) *Other*

Some Dutch nouns have two possible plural forms; either an *n* or an *s* is added to the singular form. In such cases, the Commission prefers the *-n* plural form (e.g. *typen* rather than *types*, *perioden* rather than *periodes*).

Lastly, we will draw from the *Beknopte stijlgids voor het Nederlands* to give an overview of tips for translating legislation into Dutch (see appendix). The guide expresses preferences in terms of word choice. The left column of the table in appendix I contains the 'original' English word (if mentioned in the guide); the middle column contains Dutch words as they should be used in EU legislative documents; the right column contains the wrong Dutch translation (if mentioned in the guide).

2.3.4 The Netherlands vs. the EU: a comparison of descriptive and normative features

In general, it is clear from the overviews above that the EU deals more elaborately with legal language, both on a descriptive and on a normative level. Not only are the EU linguistic guidelines and academic publications larger in number and updated more frequently; they are also more detailed and more comprehensive in terms of content. A first linguistic difference is that at an EU level, both in guidelines and in descriptive works, the linguistic context is taken into account more than at a Dutch level: In Dutch publications, there is hardly any mention of genre conventions or target audience, whereas EU publications repeatedly stress the importance of the readers and goals of the legal texts for drafters (see guideline 3 in the *Joint Practical Guide*). Secondly, there is a difference in perspective, since the EU guidelines and papers incorporate translation issues as a logical consequence of EU multilingualism.

Therefore, EU guidelines include lists with false friends or instructions regarding interference to which drafters are expected to pay attention, and descriptive works draw on insights from Translation Studies. This of course does not apply to the Dutch national context, since The Netherlands is a monolingual country. A third difference is the varying attitude toward the use of passive constructions. Hendrickx provides multiple reasons why the use of passives can be functional, and Dutch instructions for legislative drafting do not contain any guidelines regarding passives, whereas EU guidelines explicitly advise against the frequent use of passive constructions. Finally, EU normative works provide more linguistic background and refer more frequently to concrete linguistic concepts than Dutch normative works do. The latter focus especially on individual words, terms, phrases or formulations, whereas the former also elaborate on syntactical structures, the use of nominalisations, etc.

The features discussed in Dutch guidelines and descriptive works also show a few similarities to those that appear in an EU context. Firstly, the question of terminology is heavily emphasized in both Dutch and EU publications. It is repeatedly stressed that consistency in terminology is of paramount importance and that one term should refer to one concept only and a concept cannot be denoted by different terms. A second similarity concerns the focus of normative works on vocabulary. Both the EU guidelines and the instructions in *Aanwijzingen voor de regelgeving* pay a lot of attention to spelling and word choice, whereas descriptive works focus more on stylistic features.

3 Methodology

This thesis aims to explore the linguistic influence of EU directives on their implementation laws in The Netherlands. De Bock (2017) provided part of the information needed to investigate this: she selected a number of linguistic features and compared their presence in a corpus with EU directives to that in a corpus with the corresponding Dutch implementations laws. De Bock found a considerate number of similarities between both corpora. By investigating the presence of these features in a corpus with non-EU-based Dutch laws, we hope to identify differences and similarities between the three corpora which allow us to find out whether the language use in EU directives (corpus A) exercises an influence on the language use in Dutch implementation laws (corpus B). In the following, we will discuss the data analysed in this research, as well as the details of the analysis. Section 3.1 presents the corpora that are analysed and elaborates on the content and selection of the data. Section 3.2 contains an overview of the linguistic features we analysed, as well as the considerations on the basis of which we selected those features. This section also presents the categories we developed to structure the features. Finally, the statistical methods used to analyse the data are explained and motivated in section 3.3.

3.1 Research materials

Three corpora are analysed in this research: (1) corpus A, which contains EU directives in Dutch, (2) corpus B, which contains the corresponding Dutch implementation laws, and (3) corpus C, which contains non-EU-based national Dutch laws. For the EU directives and their implementation laws, we used the Dutch component of the Eurolect Observatory Multilingual Corpus, a parallel and comparative corpus compiled by Marco Stefano Tomatis from the University of International Studies of Rome (UNINT). The Eurolect Observatory Multilingual Corpus contains two sub-corpora. Sub-corpus A consists of all EU directives published between 1 January 1999 and 31 December 2008 in the eleven EU languages participating in the Eurolect Observatory Project. In total, sub-corpus A comprises 660 directives in eleven different languages. Sub-corpus B consists of all the corresponding national transposition measures in the same languages. The Dutch components of sub-corpus A and sub-corpus B, which are analysed in this thesis, each consist of 150 legal acts and have a respective word count of 1,495,740 and 3,279,788. Since the Eurolect Observatory Multilingual Corpus does not contain any non-EU-related national laws, we drew from a different source to collect our third corpus. The material for corpus C was compiled by professor Kees Van Noortwijk from

the law faculty of Erasmus University Rotterdam and comprises 19,119 Dutch national laws that are not based on EU legislation.

De Bock (2017) analysed 150 texts from both corpus A and corpus B. Accordingly, 150 texts were selected from the total of 19,119 texts in the corpus with Dutch national laws. The 19,119 texts were sorted chronologically and covered a period of over two centuries: the laws were published between 1813 and 2015. However, we only include those laws that are within the research period defined by De Bock (i.e. from 1 January 1999 until 31 December 2008), so as to compare corpus C with corpus A and B. In order to ensure that the entire research period is represented in our analysis, we followed a random selection procedure which comprised several rounds and established a fair distribution of the selected texts across the entire research period. The texts in the full corpus were numbered. In a first round, every one hundredth text, starting from 100, was extracted (e.g. text 100, text 200, text 300, etc.) In this process, some texts were skipped, namely

- texts that did not fall within the research period or that did not state clearly when the law was published;
- texts with less than 400 words of continuous text (preamble excluded)[8];
- texts that were based on EU law.

A second round was held, selecting every hundredth text starting from 50 (eg. text 50, text 150, text 250, etc.). A third, fourth, fifth, sixth and seventh round were held, starting respectively from number 25, 75, 33, 66 and 15, until the desired amount of 150 relevant texts was reached. The 150 texts in corpus C contain 448,183 words in total.

3.2 Linguistic features and data collection

In order to measure the linguistic similarities and differences between corpus A, B and C, we selected a number of linguistic features, which we divided into two categories: local-variation features (32 in total), i.e. features that display variation at morpheme, word, or sentence level, and global-variation features (6 in total), i.e. features that display the global variation of an entire text. Both types of features are discussed in detail below, along with the methodological approach followed to analyse the behaviour of the features in all three corpora.

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[8] The reason why these texts were left out is stated in 3.2.2.

3.2.1 Local-variation features

A total of 32 groups of local-variation features are extracted from the corpora. Apart from a few exceptions[9], each group (also referred to as an *onomasiological profile*) contains a set of synonymous variants (or lemmas) that express one concept (De Sutter et. al., 2012, p. 329). For example: one of the profiles consists of three modal verbs of obligation (*moeten*, *dienen* and *(be)horen*). All three lemmas express the same concept. The purpose of the analysis is to find out if the corpora have a statistically significant preference for a certain lemma, and, if so, for which lemma.

The local-variation features are structured into three subcategories. The first subcategory contains 9 lexical profiles and a total of 23 lemmas. The lemmas of a certain profile are lexical variations for a given concept. It should be noted, however, that two of the lexical profiles do not show lexical variation. They have been included in the lexical group for reasons explained in 3.3.1. These profiles are marked in grey in table 1. The second subcategory of local-variation features contains 21 stylistic profiles and a total of 78 lemmas. The lemmas of the stylistic profiles each have a different level of formality, as opposed to those of the lexical profiles. In the example presented above, the lemmas *dienen* and *(be)horen* are more formal than *moeten*. However, with regard to the stylistic profiles, it must be noted that there are 7 exceptions where there is no variation in formality between the lemmas, or where there is only one lemma. The reason why these profiles are included in the analysis is explained in 3.3.1. These profiles are marked in grey in table 1. Finally, the third subcategory of local-variation features contains two profiles, which have been set apart because they do not fit within the two former subcategories. Both profiles are EU noun phrases, either written out in full or abbreviated.

Table 1 presents the three subcategories of local-variation features and their lemmas, separated by a slash. In the stylistic profiles where there is variation in formality, the formal lemmas have been underlined.

Table 1: Local-variation features

Group	Profile n°	Lemmas
LEXICAL PROFILES	1	vreemdeling/vluchteling/migrant/asielzoeker/ ontheemde/allochtoon

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[9] These exceptions are explained and motivated further down this section.

	2	arbeid/werk/job/baan
	3	onderdaan/ingezetene
	4	gemeenschap/maatschappij/samenleving
	5	periode/termijn
	6	toepassingsgebied/werksfeer
	7	evenredigheidsbeginsel/proportionaliteitsbeginsel
	8	lidstaat
	9	acquis
STYLISTIC PROFILES	10	moeten/<u>dienen</u>/<u>(be)horen</u>
	11	worden (passive)
	12	-heid/-ing/-(a)tie/-teit/het+inf+en
	13	proberen/<u>trachten</u>/<u>pogen</u>
	14	<u>wier</u>/<u>wiens</u>/van wie
	15	<u>indien</u>/als
	16	<u>mits</u>/<u>vermits</u>/op voorwaarde
	17	omdat/doordat/daardoor/<u>wegens</u>/<u>vanwege</u>/aangezien/want/ <u>immers</u>
	18	<u>dientengevolge</u>/daarom
	19	ten eerste/vervolgens/tot slot/ten slotte
	20	bijvoorbeeld/zoals/onder andere
	21	<u>althans</u>/behalve/<u>desondanks</u>/<u>echter</u>/<u>evenwel</u>/hoewel/ <u>alhoewel</u>/maar/ondanks/ook al
	22	<u>behoudens</u>/behalve
	23	<u>reeds</u>/al
	24	<u>vooraleer</u>/<u>alvorens</u>/voordat
	25	om te/<u>teneinde</u>
	26	<u>gelet op</u>/gezien
	27	<u>zodoende</u>/daarmee/dus
	28	anti/contra/eco/pluri/inter/intra/pre/pro/post/omni/ pan
	29	er is een/er bestaat een/is er een/bestaat er een
	30	het bepaalde in/de bepaling van
PROFILES WITH ABBREVIATIONS	31	EU/Europese Unie
	32	EP/Europees Parlement

The frequencies of all the lemmas were calculated as follows: all 150 texts of each corpus were assembled in one text file and opened with Notepad++. De Bock (2017) already did this for corpus A and B, and created regular expressions for each lemma. We applied the same regular expressions to corpus C by copying them in the search function of Notepad++ and counting the number of hits for each lemma in each corpus (see appendix II).

3.2.2 Global-variation features

6 global variation-features have been analysed:

- Average sentence length
- Type-token ratio (TTR)
- Average syllables per sentence
- Average syllables per word
- Flesh Reading Ease
- Gunning Fog Index

Each of these features are indicators of text complexity and readability. The average sentence length, as well as the average number of syllables per sentence and the average number of syllables per word are fairly simple features that allow us to interpret the readability of the texts in terms of sentence length and word length. The type-token ratio divides the number of types (i.e. the number of unique words in a text) by the number of tokens (i.e. the total number of words in a text). The TTR gives information about the lexical variation of the texts. The higher the TTR-value of a text, the higher its lexical variation or lexical complexity. Flesh Reading Ease is a readability formula which combines the average sentence length and the average number of syllables per word to calculate a readability score. Flesh Reading Scores are directly proportional to the readability of a text: the level of readability increases as the score increases. The opposite is true for the last feature, the Gunning Fog Index, which calculates readability on the basis of average sentence length and a fixed definition of 'complex words'. The higher a text scores, the lower its level of readability.

Since the values of these 6 features are not frequencies, we could not use the search function in Notepad++, as we did for the local-variation features. To obtain the values of the global-variation features, we used an online tool called TextInspector[10]. Since the tool allows for a maximum input of 400 words per calculation, we selected 400 words from each of the 150

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[10] 18 of the 150 legal texts from corpus C were analysed after an update in the formulas of the TextInspector tool. It was unfeasible to recalculate all the values in the new version of the tool, since this incident occurred at a later stage in the research process. Therefore, it is possible that the values of the global-variation features for those 18 texts are not entirely equivalent to those of the 132 texts that were analysed before the update. This might cause a minor deviation in the results of the analysis.

texts in corpus C, omitting the preamble and starting from the first full sentence in the first article of the legal text. Long lists have been left out as well, since the elements of a list are not separated by a full stop in most cases and, as a consequence, the readability features would interpret these lists as very long sentences.

3.2.3 The Eurolect Observatory Research Template

The linguistic features presented above have been selected on the basis of a common analysis template assembled by members of the Eurolect Observatory Project. The research template provides a well-founded collection of linguistic features which can be used to analyse linguistic similarities and differences between *Eurolects* and national legal varieties. The template defines 6 levels of analysis: lexicon, morphology of the noun, morph-syntax of the noun, morphology of the verb, syntax, and textuality. The features at each level are divided into three categories: EU-rooted phenomena, contact-induced features, and intra-linguistic variability (De Sutter, G. & De Bock, F. (in press)). The limited scope of this thesis does not allow for all features in the template to be included in our analysis. Therefore, we made a selection of features and thereby considered both the scope of this thesis and the distribution of the features across the different categories and levels defined in the research template. Within a practically feasible range, we aimed to include as many categories and as many levels of analysis as possible, so as to cover a broad spectrum of linguistic features.

3.3 Statistical methods

3.3.1 Local-variation features: correspondence analyses and chi-square test

In order to investigate whether the analysed corpora have a statistically significant preference for one of the lemmas of the local-variation features, we used RStudio to conduct a correspondence analysis. Before the analysis was conducted, the three subcategories of local-variation features (stylistic profiles, lexical profiles, and profiles with abbreviations) were structured into three datasets and a screeplot was produced for each group to find out how many dimensions were needed to represent the data. The screeplots indicated that a two-dimensional representation would be sufficient to accurately and compactly display the variation in the datasets. Consequently, four correspondence analyses were carried out: one for the stylistic profiles, one for the lexical profiles, one for the profiles with abbreviations, and a final analysis of all three datasets combined. The resulting plots visualize the extent to which the corpora differ from each other. To discuss each profile individually, a chi-square test was performed for the separate profiles. These chi-square tests provide us with a p-value for each

separate profile. A p-value lower than 0,05 indicates a significant difference in the distribution of the values across the different lemmas and the three corpora. A p-value higher than 0,05 signifies that there is no significant difference in the distribution of the data. In the case of a significant p-value, we extracted the residuals to investigate where the differences were situated and to which extent the frequencies deviated from the expected value.

The two lexical and seven stylistic profiles marked in grey in table 1 are not included in the correspondence analysis, for reasons explained below:

- Profiles n° 8 (*lidstaat*) and 9 (*acquis*): these profiles only have one lemma and are therefore not suitable for a correspondence analysis. The relative frequencies of both profiles in the three corpora are calculated to see if these EU concepts are used significantly more often in a certain corpus. Additionally, we conduct a chi-square test on the observed frequencies.

- Profile n° 11 (*worden*): profiles with only one lemma are not included in the correspondence analysis since such an analysis is only useful to investigate the preference of the corpora in case of variation. The relative frequencies of *worden* in the three corpora are calculated to find out which corpora use passive structures most frequently. A chi-square test is performed on the observed frequencies, so as to verify the statistical significance.

- Profile n° 12 (*-heid, -ing, -(a)tie, -teit, het+inf+en*): for this profile, we especially want to assess the overall use of morphological mechanisms indicating nominal style in the three corpora. Therefore, we will calculate the relative frequencies of the sum of all 5 lemmas per corpus.

- Profile n° 19 (*ten eerste, vervolgens, tot slot, ten slotte*): the lemmas of this profile are not synonymous alternatives for one concept, which is why it is not relevant to know which lemma is used most frequently. To investigate the overall use of linking words in the corpora, we calculate the relative frequencies of the sum of the three lemmas per corpus, and a chi-square test is performed on the sum of the observed frequencies.

- Profile n° 20 (*bijvoorbeeld, zoals, onder andere*): this profile is not included in the correspondence analysis of the stylistic profiles, since there is no difference in formality between the three lemmas and they are not synonymous. This profile is evaluated using the relative frequencies of the sum of its three lemmas, to investigate the overall use of exemplifying constructions in the corpora. A chi-square test is performed on the sum of the observed frequencies, so as to verify the statistical significance.

- Profile n° 28 (*anti, contra, eco, pluri, inter, intra, pre, pro, post, omni, pan*): similar to profiles n° 19 and 20, the lemmas of this profile are not synonymous. We want to

investigate the overall use of Latin prefixes in the corpora by calculating the relative frequencies of the sum of the 11 lemmas, and performing a chi-square test on this sum.

- Profile n° 29 (*er is een, er bestaat een, is er een, bestaat er een*): although the lemmas of this profile are synonymous, there is no difference in formality between them. The presence of the entire profile, no matter which lemma, is an indication of a vague style. A chi-square test is conducted for the sum of the frequencies of the lemmas in this profile to assess the use of impersonal verb structures in the three corpora. We are not interested in the preference of the corpora for one of the lemmas.

- Profile n°30 (*het bepaalde in, de bepaling van*): similar to the previous profile, we want to investigate the presence or absence of both lemmas, rather than the preference of the corpora for one of them. For this purpose, the relative frequency of the sum of both lemmas will be calculated and a chi-square test will be performed on the observed frequencies.

3.3.2 Global-variation features: Kruskal-Wallis test

The values for the 6 global-variation features, generated by TextInspector, were statistically processed using SPSS. The first step was to conduct a test of normality for each feature to see if the data were distributed normally. This was not the case for any of the features. Therefore, we proceeded to carry out a non-parametric test. The programme automatically determined that a Kruskal-Wallis test should be conducted for each parameter to either reject or confirm the null hypothesis that the distribution of the data was the same across the three corpora. In other words: the test verified whether any differences in the values calculated for each feature between corpus A, B and C were statistically significant or not. Consequently, we produced a box plot for each parameter in order to visualize the distribution of the data, and calculated the average values of the features per corpus, which allowed for an efficient comparison between the three corpora.

4 Results and discussion

This chapter reports on the findings of our research. As mentioned in chapter 1, we aim to measure the linguistic distances between EU directives (corpus A), their corresponding Dutch implementation laws (corpus B), and non-EU-related Dutch legislation (corpus C), so as to find out to what extent EU legal language influences national legal language via the EU directives. In particular, local-variation and global-variation features were extracted from the three corpora and statistical tests were performed on the obtained values for both categories of features. The results of those tests are presented in this chapter. The idea behind the procedure is that the more similar the values of these features are across corpora, the more likely these corpora are or, in other words, the smaller the linguistic distance, and vice versa. Since the two categories of features required a different type of statistical evaluation, the results for both categories will be described in two separate sections. In both sections, we present the results and link them to our hypothesis that Dutch implementation laws contain traces of the Dutch *Eurolect* used in EU directives, and that EU directives exercise a linguistic influence on their Dutch implementation laws. In addition, we compare the results to the normative and descriptive literature discussed in chapter 2.

4.1 Local-variation features

To analyse the behaviour of local-variation features in the three corpora, four correspondence analyses were conducted: one for the lexical profiles, one for the stylistic profiles, one for the profiles with abbreviations, and finally, one for all three subcategories of local-variation features together, so as to provide a more general picture of their distribution. By dividing the correspondence analysis into four parts, we hope to find out if the distance between the corpora is similar across the different types of features, or if becomes smaller or larger depending on the type of feature. In other words: the four correspondence analyses allow us to compare the distance between the corpora in terms of lexical variation to the distance in terms of stylistic variation and the distance in terms of use of abbreviations. The results of the correspondence analyses are presented in this section.

4.1.1 Lexical profiles

The plot in figure 2 is a two-dimensional display of the results of the correspondence analysis for the lexical profiles. It is a visual representation of the distance between the three corpora in terms of lexical choices. The three corpora are indicated in red and the lemmas or lexical alternatives of the different profiles are indicated in grey. The figure shows that the distance

between corpus A and B on the one hand and corpus C on the other hand is larger than the distance between corpus A and B. This means that the EU directives and the Dutch implementation laws are more similar to each other in terms of lexical choices than they are to the non-EU-related national laws. This plot is a first step in the confirmation of our hypothesis: since EU directives and Dutch implementation laws share remarkably more lexical features with each other than they do with non-EU-related Dutch national laws, the hypothesis that the language use in those Dutch implementation laws is influenced by that in the EU directives (for now only in terms of lexicon), becomes more plausible.

Figure 2: Correspondence analysis of lexical profiles
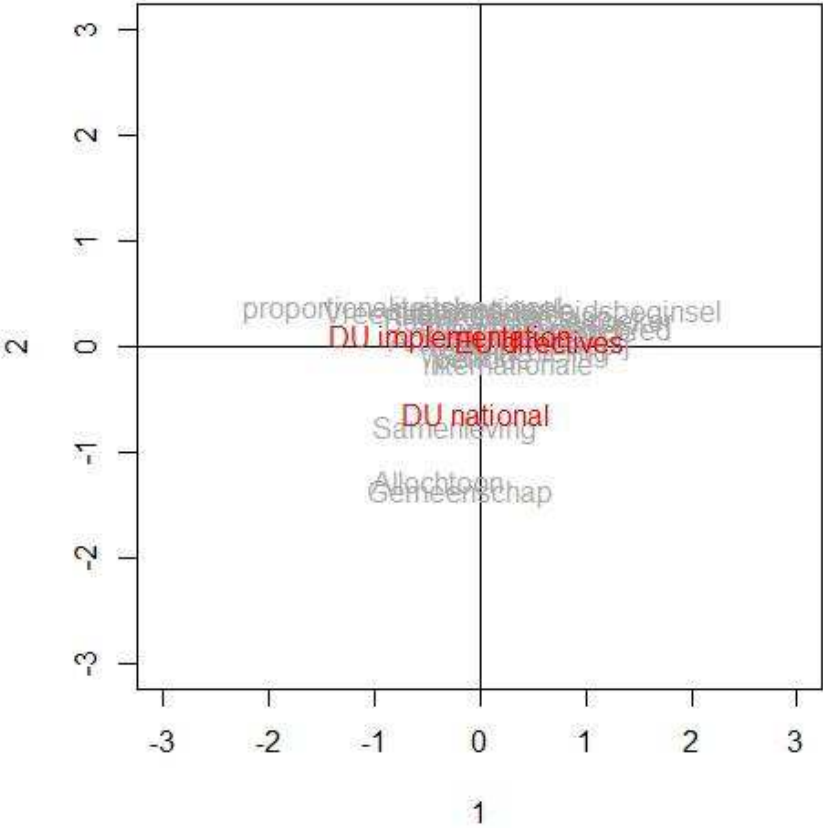
This two-dimensional representation is very suitable for a visual indication of the distance between the three corpora. However, it is also interesting to discuss each single profile in detail. This way, we can investigate which lexical alternatives the different corpora prefer and where the most prominent differences lie. In order to zoom in on each individual lexical profile, we performed chi-square tests and calculated the Pearson residuals for 7 of the 9 profiles. The remaining two profiles were analysed using relative frequencies and a chi-square test of their observed frequency, and are discussed further down in this section. The results of the chi-square tests and the residuals of the first 7 profiles are displayed in table 2. The left column contains the lemmas of the 7 profiles. The middle columns present the absolute frequencies

of the lemmas in each corpus, as well as the residuals of the chi-square test for each lemma. The meaning and interpretation of the residuals are explained below the table. The right column contains the chi-square value, the degrees of freedom and the p-value.

Table 2: Distribution of lexical profiles

	lemma	CORPUS A		CORPUS B		CORPUS C		chi-square
		freq.	resid.	freq.	resid.	freq.	resid.	
1	vreemdeling	5	-13.69	842	7.9	15	-1.68	x²(2)=904.93
	vluchteling	47	6.16	29	-4.38	10	5.08	df=10
	migrant	11	1.06	22	-0.79	2	1.1	p<2.2e-16
	asielzoeker	215	19.83	46	-10.77	4	-1.16	
	ontheemde	13	3.94	6	-2.3	1	0.64	
	allochtoon	0	-0.96	2	-0.57	2	5.79	
	Total	*291*		*947*		*34*		
2	arbeid	38	-2.69	312	1.89	34	-1.66	x²(2)=35.195
	werk	198	2.1	772	-1.57	149	1.52	df=4
	baan	4	-2.07	65	1.83	2	-2.2	p=4.235e-07
	Total[11]	*240*		*1149*		*185*		
3	onderdaan	299	4.09	222	-3.61	4	-0.89	x²(2)=80.748
	Ingezetene	81	-5.24	233	4.62	6	1.14	df=2
	Total	*380*		*455*		*10*		p<2.2e-16
4	gemeenschap	8	-2.78	35	-0.63	49	2.91	x²(2)=70.525
	maatschappij	36	5.82	21	-1.1	6	-3.44	df=4
	samenleving	10	-2.11	46	1.59	30	-0.06	p=1.759e-14
	Total	*54*		*102*		*85*		
5	periode	587	1.89	1087	-2.44	284	2.53	x²(2)=26.791
	termijn	755	-1.56	1806	2.01	320	-2.09	df=2
	Total	*1342*		*2893*		*604*		p:1.522e-06
6	toepassingsgebied	160	1.85	92	-1.81	14	-0.66	x²(2)=14.942
	werkingssfeer	105	-1.93	121	1.89	18	0.69	df=2
	Total	*265*		*213*		*32*		p=0.0005693
7	evenredigheidsbeginsel	7	/	3	/	0	/	x²(2)=NaN
	proportionaliteitsbeginsel	0	/	1	/	0	/	df=2
	Total	*7*		*4*		*0*		p=NA

By performing a chi-square test for these 7 profiles, we calculate the probability that there is no association between the lemmas and the three corpora (i.e. the data are equally distributed

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[11] Originally, profile n° 2 contained 4 lemmas: *arbeid*, *werk*, *job* and *baan*. However, the lemma *job* did not occur in any of the corpora. These zero frequencies jeopardized the results of the chi-square test and have therefore been omitted from the table and excluded from the chi-square test.

over the three corpora). A p-value lower than 0.05 means that we can reject the null hypothesis that there is no association or, in other words, that there is a statistically significant difference in the distribution of the lemmas' frequencies across the three corpora. As table 2 shows, this is the case for 6 of the 7 profiles on which a chi-square test was performed (see green markings). For profile n° 7, there were insufficient data to perform a statistical test (see red marking). The p-values of profiles n° 1, 2, 3, 4, 5 and 6 indicate that there is a significant difference in the distribution of the data for those profiles. In order to find out where exactly those differences are located, we calculated the residuals for each frequency. The residuals show the distance between the observed frequency and the expected frequency. A residual higher than 3 or lower than -3 indicates that the observed frequency of a lemma deviates significantly from the expected frequency. These residuals are marked in orange in table 2.

For profile n° 1, the table shows a significantly low frequency of the lexical variant *vreemdeling* in corpus A. *Vluchteling*, *asielzoeker* and *ontheemde* occur significantly often in the same corpus. In corpus B, *vluchteling* and *asielzoeker* have significantly low frequencies, whereas *vreemdeling* occurs significantly more often than theoretically expected. In corpus C, the frequencies of *vluchteling* and *allochtoon* are significantly high. The strong preference of corpus C for *allochtoon* is remarkable, since this word is hardly used in corpus A and B. This was already visible in the plot from the correspondence analysis. However, the preferences of corpus A and B differ from each other as well: the preference for *asielzoeker* in corpus A is not followed in corpus B, on the contrary: corpus B shows a strong preference for *vreemdeling*.

In profile n° 2, we can see some similarities between corpus A and corpus C. Although there are no residuals higher than 3 or lower than -3, the p-value still indicates a significant result. The highest deviations from the expected value can be found in the frequencies of *arbeid* in corpus A and corpus C, which are both rather low. The same goes for the frequencies of *baan.* In fact, corpus A and C are fairly similar to each other for all three lemmas. Therefore, this particular profile does not correspond with our hypothesis.

For profile n° 3, the table shows a significantly high frequency of *onderdaan* in corpus A and *ingezetene* in corpus B, whereas the opposite is true for *ingezetene* in corpus A and *onderdaan* in corpus B, as these frequencies are significantly low. The frequencies of both lemmas in corpus C do not deviate strongly from the expected values. Interesting in this profile is that the EU directives are most in compliance with EU writing guidelines, which prescribe the use of *onderdaan* and advise against the use of *ingezetene.* The Dutch implementation laws do not follow this trend as they show a preference for *ingezetene.*

For profile n°4, the significant frequencies are those of the lemma *maatschappij* in corpus A and corpus C, which are respectively remarkably high and low. The difference between corpus

A and B on the one hand and C on the other hand is therefore large when considering this lemma. As could be deduced from the plot, corpus C has a preference for *gemeenschap.* Also striking in this profile is that corpus A clearly has a preference for *samenleving,* whereas corpus B does not have a significant preference. This implies that corpus B is the least consistent in terms of word choice.

Although the residuals of profile n° 5 are never lower than -3 or higher than 3, the p-value still indicates a significant distribution. The frequencies that deviate most from the expected values are the frequencies of *periode* in corpus B (-2.44) and in corpus C (2.53). The EU writing guidelines discussed in chapter 2 express a preference for *termijn,* as *periode* is considered a false friend in English-to-Dutch translation. All three corpora use *termijn* most frequently, but we can tell by the residuals that corpus C has the weakest preference for this term.

In profile n° 6, none of the residuals is remarkably high or low either. However, we notice that corpus B and C are slightly more similar to each other than to corpus A, which is in contradiction with our hypothesis.

For profile numbers 8 and 9, we used a different method of statistical analysis. Since these profiles each have only one lemma, the relative frequencies of the lemmas in each corpus were calculated. The absolute frequency of the lemma in a corpus was divided by the total number of words in that corpus and multiplied by 100 so as to obtain a percentage. We performed a chi-square test on the observed frequencies as well, to see if there is a significant difference between the frequencies in the three corpora. The relative frequencies and the chi-square value and p-value that resulted from these calculations are presented in table 3.

Table 3: Relative frequencies of profiles 8 and 9

Profile n°	Lemma	Corpus A	Corpus B	Corpus C	Chi-square
8	lidstaat	0.35491% (freq.: 5309)	0.00901% (freq.: 2954)	0.00134% (freq.: 6)	$X^2(2)=5302.1$ Df= 2 P<2,2e-16
9	acquis	0.00013% (freq.: 2)	0.00006% (freq.: 2)	0% (freq.: 0)	$X^2(2)=1.0851$ Df= 2 P=0.5813

Table 3 shows that both the terms *lidstaat* and *acquis* have the highest relative frequency in corpus A and the lowest in corpus C. However, the p-value for the observed frequencies of the lemma *acquis* is higher than 0.05 and thus indicates that there is no statistically significant difference in the distribution of the frequencies across the three corpora. We can only make

reliable statements about the relative frequencies of the lemma *lidstaat*, which has a p-value lower than 0.05. *Lidstaat* occurs significantly more often in corpus A than in corpus B and C. Since *lidstaat* refers to a typical EU concept, the frequent use of the term in EU directives was to be expected. Its low frequency in Dutch national laws is not surprising either, since these laws are non-EU-related.

In general, it can be said that EU directives and their corresponding Dutch implementation laws tend to make similar lexical choices. The distance between corpus C on the one hand and corpus A and B on the other hand is clear from figure 2. It must be noted, however, that one of the lexical profiles did not generate a significant p-value (profile n° 9), and for one profile (n° 7), we were unable to collect sufficient data to perform statistical tests. Furthermore, the lexical differences do not always occur between the two EU-related corpora and the non-EU-related laws. In some cases, the EU directives are more similar to the national Dutch laws, whereas the implementation laws show deviating values. In other cases, the implementation laws are more similar to the national Dutch laws than to the EU directives. Nevertheless, the correspondence analysis clearly shows that, across all profiles, corpus A and B are more similar to each other than corpus C, which confirms our hypothesis.

4.1.2 Stylistic profiles

The plot in figure 3 is a two-dimensional display of the results of the correspondence analysis for the stylistic profiles. It is a visual representation of the distance between the three corpora in terms of stylistic choices, i.e. in terms of formality. Similar to figure 2, the distance between corpus A and B is small. While corpus C is closer to corpus A and B than in figure 2, it still visibly stands apart from corpus A and B. This observation forms a second step in the confirmation of our hypothesis: not only in terms of lexical variation, but also in terms of stylistic variation, non-EU-related Dutch national laws differ more from EU directives and implementation laws, whereas the two latter corpora are more similar to each other. Consequently, it is likely that the stylistic choices in EU directives influence those in their Dutch implementation laws.

Figure 3: Correspondence analysis of stylistic profiles
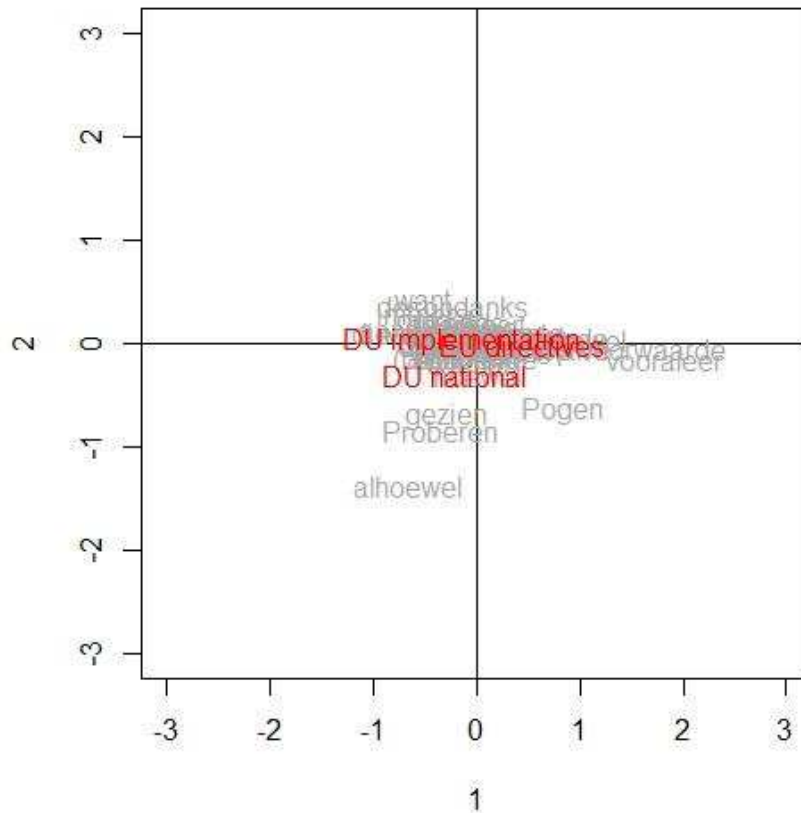
This plot provides general visual information about the distance between the three corpora in terms of stylistic variation. In order to find out exactly which stylistic choices cause the distances between the corpora, we followed a similar procedure as for the lexical profiles: we performed chi-square tests and calculated the Pearson residuals for 14 of the 21 stylistic profiles. The remaining 7 profiles (n° 11, 12, 19, 20, 28, 29 and 30) were analysed using relative frequencies and a chi-square test of their observed frequency, and are discussed further down in this section. The results of the chi-square tests and the residuals are presented below, in table 4.

Table 4: Distribution of stylistic profiles

	lemma	corpus A		corpus B		corpus C		
		freq.	resid.	freq.	resid.	freq.	resid.	p-value
10	moeten	3,212	9.1	5,525	-3.42	683	-7.19	x²(2)=428.43
	dienen	953	-8.58	2,801	2.76	575	7.97	df=4
	(be)horen	155	-9.5	809	4.49	161	5.18	p<2.2e-16
	Total	*4,320*		*9,135*		*1,419*		
13	proberen	1	-1.41	5	0.3	3	2.21	x²(2)=10.114
	trachten	25	0.37	28	0.15	3	-1.1	df=4
	pogen	3	0.65	1	-0.92	1	0.71	p=0.04
	Total	*29*		*34*		*7*		
14	wier	45	2.56	104	-0.51	8	-2.16	x²(2)=17.163

	wiens	53	-0.62	201	-0.26	40	1.49	df=4
	van wie	28	-1.55	142	0.78	21	0.1	p=0.002
	Total	*126*		*447*		*69*		
15	indien	2,882	3.01	10,224	0.16	1,118	-4.83	x²(2)=50.409 df=2 p=1.131e-11
	als	4,751	-2.24	18,370	-0.12	2,500	3.6	
	Total	*7,633*		*28,594*		*3,618*		
16	mits	536	-2.66	460	2.99	29	1.11	x²(2)=92,373 df=2 p<2,2e-16
	op voorwaarde	203	5.55	32	-6.24	0	-2.33	
	Total[12]	*739*		*492*		*29*		
17	omdat	56	-3.75	867	1.75	43	-1.86	x²(2)=210.73 df=14 p<2.2e-16
	doordat	18	1.12	117	-0.51	10	0.49	
	daardoor	38	3.61	177	-0.9	9	-1.16	
	wegens	108	9.78	317	-3.54	32	0.97	
	vanwege	40	-0.16	353	-0.6	38	2.49	
	aangezien	3	-4.05	208	0.9	20	1.72	
	want	0	-0.69	5	0.38	0	-0.54	
	immers	0	-5.37	292	2.23	11	-1.62	
	Total	*263*		*2,336*		*163*		
18	dientengevolge	4	-0.1	31	0.17	3	-0.38	x²(2)=0.19692 df=2 p=0.9062
	daarom	49	0.03	348	-0.05	44	0.11	
	Total	*53*		*379*		*47*		
21	althans	5	-1.72	28	0.63	5	1.54	x²(2)=601.96 df=18 p<2.2e-16
	behalve	163	9.48	108	-5.67	12	-1.6	
	desondanks	1	-0.82	7	0.77	0	-0.73	
	echter	252	-2.56	757	2.32	54	-2.04	
	evenwel	306	14.82	173	-8.02	3	-5.15	
	hoewel	15	-0.48	36	-0.62	10	2.93	
	alhoewel	0	-0.75	1	-0.27	1	2.37	
	maar	281	-9.24	1,295	4.65	163	4.31	
	ondanks	23	0.4	47	-0.39	6	0.4	
	ook al	23	-0.19	60	0.49	3	-1.15	
	Total	*1,069*		*2,512*		*257*		
22	behoudens	87	-4.12	211	2.98	33	1.77	x²(2)=62.792 df=2 p=2.316e-14
	behalve	163	4.45	108	-3.22	12	-1.92	
	Total	*250*		*319*		*45*		
23	reeds	338	0.08	1,338	0.29	51	-1.5	x²(2)=6.32 df=2 p=0.04234
	al	197	-0.1	772	-0.38	49	1.96	
	Total	*535*		*2,110*		*100*		
24	vooraleer	4	2.05	0	-1.53	0	-0.41	x²(2)=12.224 df=4 p=0.01576
	alvorens	74	-1.5	149	0.95	13	0.94	
	voordat	186	0.88	264	-0.53	17	-0.63	
	Total	*264*		*413*		*30*		

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[12] Originally, profile n° 16 contained 3 lemmas: *mits*, *vermits* and *op voorwaarde*. However, the lemma *vermits* did not occur in any of the corpora. These zero frequencies jeopardized the results of the chi-square test and have therefore been omitted from the table and excluded from the chi-square test.

25	om te	449	-1.97	547	1.95	18	-0.05	x²(2)=18.6
	teneinde	390	2.34	310	-2.33	13	0.06	df=2
	Total	**839**		**857**		**31**		p=9.141e-05
26	gelet op	62	0.8	297	2.02	25	-4.86	x²(2)=63,65
	gezien	39	-0.89	179	-2.26	90	5.53	df=2
	Total	**101**		**476**		**115**		p=1.509e-14
27	zodoende	4	2.13	11	-0.74	2	0.14	x²(2)=93.287
	daarmee	117	5.85	610	-1.7	81	-0.54	df=4
	dus	5	-6.82	580	2	75	0.57	p=2.2e-16
	Total	**126**		**1,201**		**158**		

In profile n° 10, 8 of the 9 observed frequencies deviate strongly from the expected values. Corpus A has a strong preference for *moeten,* whereas the residuals of the formal variants *dienen* and *(be)horen* in corpus A are remarkably low. In terms of observed frequencies, corpus B has a preference for *moeten* as well, but the frequency is still significantly lower than expected. The more formal variant *(be)horen* occurs remarkably often in this corpus compared to corpus A. Strikingly, corpus C shows a significant preference for both formal variants, *dienen* and *(be)horen*. The residual of *moeten* is very low, which means that *moeten* is chosen far less often in corpus C compared to corpus A and B. In summary, the results for this profile show that EU directives are less formal in their choice of modal verbs of obligation, whereas non-EU-related national Dutch laws use formal variants remarkably more often. Dutch implementation laws have less obvious preferences, but are generally more formal than the directives.

For profile n° 13, the p-value is just below 0.05. Therefore, although the residuals are all higher than -3 and lower than 3, the results are still significant. We can see that *trachten* is the preferred variant in corpus A and B. As was already visible in the plot in figure 3, the frequencies of *pogen* and the neutral variant *proberen* in corpus C are significantly higher than statistically expected.

Profile n° 14 does not show any residuals above 3 or below -3. However, although the frequency of the formal variant *wier* in corpus C is not remarkably low, it is still lower than the expected frequency, whereas it occurs more often than statistically expected in corpus A. The second formal variant *wiens* occurs statistically more often in corpus C than in corpus A and B.

In profile n° 15, the most significant frequencies are that of the formal variant *indien* in corpus A and corpus C: in corpus A, the frequency is higher than statistically expected, whereas the opposite is true for corpus C. When considering the observed frequencies, we can see that *als* is preferred in all three corpora, but it occurs significantly more often in corpus C than in corpus

A and B. Corpus A and B both have a weaker preference for the less formal variant than corpus C and are therefore are both less similar to corpus C than to each other.

As for profile n° 16, the less formal variant *op voorwaarde* occurs statistically more often in corpus A than in corpus B. The values for corpus C do not deviate strongly from the expected values, but are fairly similar to corpus B. The difference between corpus A and B and the similarity between corpus B and C for this profile are in contradiction with our hypothesis.

For profile n° 17, the strongest deviations from the expected frequencies can be found in corpus A. The more formal variants *immers* and *aangezien* occur significantly less often than statistically expected. Interestingly, *omdat*, which is not formal, also has a negative residual. Another interesting frequency is that of the rather formal variant *wegens,* which occurs remarkably often in corpus A, whereas it has a lower value than expected in corpus B. Due to the large number of lemmas, it is hard to tell which of the corpora are most similar to each other across the entire profile. Furthermore, there is no general pattern noticeable in the distribution of the different lemmas across the corpora.

For profile n° 21, the frequency of *evenwel*, which is a rather formal variant, is significantly high in corpus A. When considering the observed frequencies, we can see that *evenwel* is the third choice in corpus B, but still occurs statistically less often than in corpus A. The use of this formal variant is rather surprising, since EU style guides promote simple language use in legislative texts. In general, we can say that corpus A is rather inconsistent in terms of style for this profile: the most significant frequencies are *evenwel* and *behalve*, which are respectively formal and less formal. Moreover, the stylistically neutral variant *maar* occurs statistically less often in corpus A than in corpus B and C. The distribution of the data for this profile does not confirm our hypothesis, since the differences occur especially between corpus A and C on the one hand, and between corpus B and C on the other hand.

In profile n° 22, corpus A and B behave rather differently from eath other as well: corpus A prefers the neutral lemma *behalve*, whereas corpus B prefers the more formal lemma *behoudens*, which is more in line with corpus C.

For profile n° 23, the residuals do not indicate any remarkably high or low frequencies. When looking at the observed frequencies of the lemmas, we can see that all three corpora have a relative preference for the more formal lemma *reeds*. However, corpus A and B share a slightly stronger preference, whereas corpus C uses both lemmas nearly equally often.

For profile n° 24, we can tell by the observed frequencies that all three corpora have a preference for the neutral variant *voordat* and the use of the formal variant *vooraleer* is very low: this variant does not occur in corpus B and C and occurs only 4 times in corpus A. The

residuals of this profile indicate that corpus B and C are slightly more similar to each other than they are to corpus A. This profile therefore does not correspond with our hypothesis.

For profile n° 25, there are no remarkably high or low frequencies either. In terms of observed frequencies, all three corpora have a preference for the neutral variant *om te*, which is in compliance with the guidelines in both EU style guides and writing guides for Dutch legislators.

In profile n° 26, corpus C is clearly exceptional, in that it is the only corpus which has a significant preference for the more neutral variant *gezien*. This was already visible in the plot which resulted from the correspondence analysis. This profile is therefore clearly in line with our hypothesis. The EU directives and the Dutch implementation laws use the formal variant *gelet op* more frequently. This is surprising, since it is inconsistent with EU writing guides which, as mentioned above, prescribe a simple language use. Therefore, one would expect a one-word variant instead of a two-word variant of the same concept.

For profile n° 27, the neutral variant *daarmee* is relatively preferred in all three corpora. However, its frequency in corpus A is remarkably high compared to corpus B and C. *Dus*, the least formal variant, has a significantly low frequency in corpus A, whereas in corpus B and C, it is used almost as frequently as *daarmee.* We can conclude that in this profile, the Dutch implementation laws and the Dutch national laws are more similar to each other than they are to the EU directives, which is not in line with our hypothesis.

Table 5 presents the relative frequencies of profiles n° 11, 12, 19, 20, 28, 29 and 30. These profiles are different from the ones discussed above, in that there is no stylistic variation in their lemmas. Each of these profiles can be described as stylistic feature: profile n° 11 indicates an impersonal style; profile n° 12 indicates a nominal style; profile n° 19 gives information about the use of linking words; profile n° 20 gives information about the use of exemplifying constructions; profile n° 28 assesses the use of Latin prefixes; profile n° 29 and 30 indicate vagueness and redundancy. To compare the presence of these features in the three corpora, we calculated the relative frequencies of the entire profile, i.e. the sum of the frequencies of the individual lemmas for each profile. We performed a chi-square test on the sum of the observed frequencies as well, to see if there is a significant difference between the frequencies in the three corpora.

Table 5: Relative frequencies of profiles 11, 12, 19, 20, 28, 29 and 30

Profile n°	Lemma	Corpus A	Corpus B	Corpus C	Chi-square
11	worden	0.72% (freq.: 10,725)	0.65% (freq.: 21,466)	0.7% (freq.: 3,131)	X²(2)=62 Df= 2 P=2.5e-14

12	-heid, -ing, -atie, -teit, het+inf	4.98% (freq.: 74,493)	5.79% (freq.: 189,794)	11.75% (freq.: 52,644)	X²(2)=24,495 Df= 2 P<2.2e-16
19	Ten eerste, vervolgens, tot slot, ten slotte	0.0075% (freq.: 112)	0.0095% (freq.: 313)	0.0096% (freq.: 43)	X²(2)=5.0642 Df= 2 P=0.08
20	Bijvoorbeeld, zoals, onder andere	0.084% (freq.: 1,263)	0.084% (freq.: 2,768)	0.118% (freq.: 527)	X²(2)=51.626 Df= 2 P=6.161e-12
28	Anti, contra, eco, pluri, inter, intra, pre, pro, post, omni, pan	0.044% (freq.: 659)	0.031% (freq.: 1,020)	0.097% (freq.: 435)	X²(2)=430.19 Df= 2 P<2.2e-16
29	Er is een, er bestaat een, is er een, bestaat er een	0.000343% (freq.:5)	0.001223% (freq.: 40)	0.004908% (freq.: 22)	X²(2)=56.532 Df= 2 P=5.3e-13
30	Het bepaalde in, de bepaling van	0.031% (freq.: 467)	0.024% (freq.: 777)	0.03% (freq.: 135)	X²(2)=24.639 Df= 2 P=4.463e-06

As can be seen from the table, the difference between the relative frequencies in the three corpora is significant for all profiles, except for n° 19. The values for profile n° 11 show that *worden* occurs significantly more often in corpus A than in the two other corpora and that its frequency in corpus B is significantly lower than expected. This is surprising in two ways: firstly, the guidelines for writers of Dutch EU legislation explicitly prescribe that passive structures should be kept to a minimum and that active verb forms should be given preference when possible. Secondly, the significantly low frequency of *worden* in corpus B implies that the Dutch implementation laws do not follow the trend of the directives. The results of this profile therefore do not correspond with our hypothesis.

The opposite is true for profile n° 12: the use of nominal suffixes is clearly considerably higher in corpus C, whereas their frequencies in corpus A and B differ only slightly. With regard to this profile, EU directives follow the guidelines on clear writing, which advise against the use of excess nouns and nominalizations. In the writing guides for Dutch national legislation, we did not find any rules or guidelines in terms of nominal style.

In profile n° 20, the difference between corpus A and B on the one hand, and corpus C on the other hand, is obvious as well. The use of exemplifying constructions such as *bijvoorbeeld*, *onder andere* or *zoals* is significantly higher in corpus C. In addition, it is noteworthy that the relative frequency of the sum of these lemmas is precisely the same in corpus A and B.

The trend we noticed in profiles n° 12 and 20, i.e. the similarity between corpus A and B and the deviating values in corpus C, is also noticeable in profile n° 28. The use of Latin prefixes is significantly high in Dutch national legislation.

For profile n° 29, the table again shows a significantly high frequency in corpus C. The frequency in corpus B does not deviate remarkably from the expected value. The use of vague constructions such as *er is een* or *er bestaat een* is the lowest in EU directives. A possible explanation for this is the fact that EU style and writing guidelines strongly emphasize that vague wordings should be avoided and that legal texts should be as concrete as possible.

For profile n° 30, we can see a significant difference between corpus A and C on the one hand, and corpus B on the other hand. Such difference is in contradiction with our hypothesis. The Dutch implementation laws in corpus B use the vague expressions *het bepaalde in* and *de bepaling van* significantly less often than EU directives and national Dutch laws. The frequency is highest for corpus A, which is remarkable since EU writing guides explicitly advise against the use of these particular expressions.

When looking at the stylistic profiles in general, a few remarks are necessary. Firstly, when considering each profile individually, we can see that for 2 of the 21 profiles, there is no association between the lemmas and the corpora. In other words: the distribution of the data for these profiles is not significantly different across the corpora. Secondly, for the profiles where we do find a statistically significant difference between the corpora, the nature of this difference does not always correspond with our hypothesis. In some cases, the EU directives and the Dutch national laws are more similar, whereas the implementation laws show deviating values. In other cases, the implementation laws are more similar to the Dutch national laws, whereas the EU directives show deviating values. Secondly, although there are stylistic differences between the three corpora, it is not necessarily the case that one corpus is consistently more or less formal than the other. The stylistic choices of the corpora vary

in nature: for some profiles, a corpus may prefer the formal variant(s), whereas for other profiles, that same corpus prefers the neutral variant(s). This observation also implies that EU directives, Dutch implementation laws and non-EU-related Dutch laws do not always comply with their respective writing guidelines, which generally prescribe a neutral, simple and clear language use. However, in spite of these remarks, it can be said that in terms of style and formality, Dutch implementation laws are generally more similar to the EU directives they are based on than to non-EU-related national Dutch legislation. The distances between the corpora across all stylistic profiles are therefore in line with our hypothesis: it is likely that the stylistic choices in EU directives influence those in Dutch implementation laws.

4.1.3 Profiles with abbreviations

The plot in figure 4 is a two-dimensional display of the results of the correspondence analysis for the profiles with abbreviations. It is a visual representation of the distance between the three corpora in their preference (or lack of preference) for abbreviations. The plot shows us that non-EU-based Dutch national laws are further away from EU directives and Dutch implementation laws, whereas the distance between the two latter corpora is smaller. This observation forms a third step in the confirmation of our hypothesis, as it renders the presumption that EU directives influence the language use in their implementation laws more likely.

Figure 4: Correspondence analysis of profiles with abbreviations
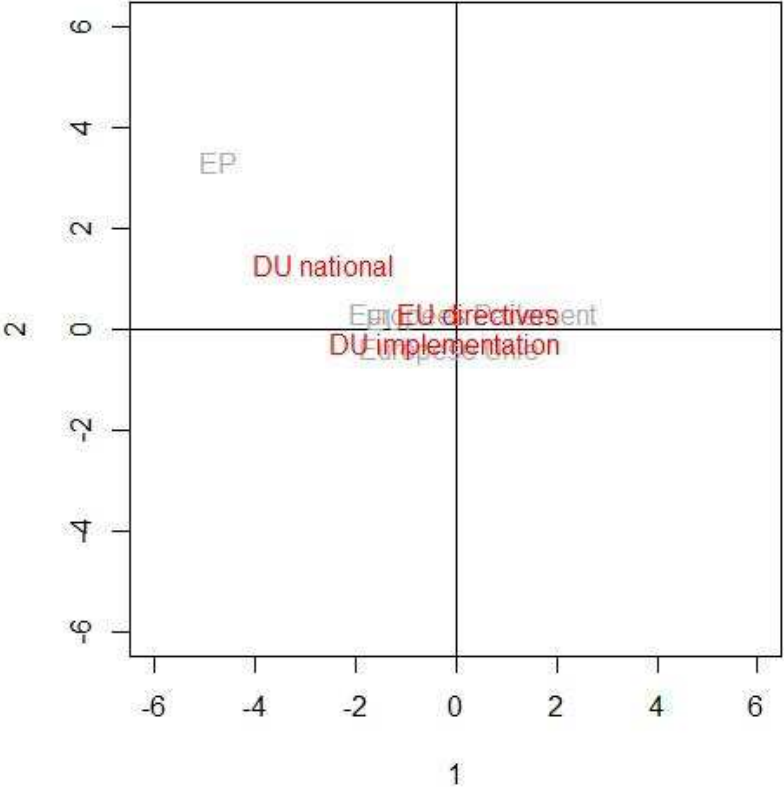
Similar to the other groups of local-variation features, we performed a chi-square test on each profile in this group and calculated the residuals, so as to view the differences between the corpora in greater detail. The results of these calculations are presented in table 6. The p-values of both profiles indicate that there is a difference in the distribution of the data across the corpora. For profile n° 31, corpus C shows the strongest deviations from the expected values. Corpus C has a significant preference for the abbreviation *EU*, whereas corpus A and B prefer the full term *Europese Unie*. However, this preference is only significant in corpus A, since the residuals of both lemmas in corpus B are not below -3 or above 3. A similar situation occurs for profile n° 32: both corpus A and corpus B prefer the full term *Europees Parlement.* In both corpora, the abbreviation does not occur once. This implies that the EU directives follow the writing guidelines very strictly, since the guidelines state that abbreviations should be avoided. A similar guideline exists for Dutch national legislation, but the table shows that the observed frequencies of the abbreviation and the full term are exactly the same. Consequently, we can say that the Dutch national laws are not so strict in their compliance with the official instructions.

In general, it can be said that the results of the analysis of profiles n° 31 and 32 form a third step in the confirmation of our hypothesis, since corpus C clearly deviates from corpus A and B.

Table 6: Distribution of profiles with abbreviations

	lemma	corpus A freq.	corpus A resid.	corpus B freq.	corpus B resid.	corpus C freq.	corpus C resid.	p-value
31	EU	10	-8.15	328	-0.73	109	19.7	x²(2)=539.87 df=2 p<2.2e-16
	Europese Unie	532	3.52	1844	0.32	20	-8.51	
	Total	*542*		*2,172*		*129*		
32	EP	0	-3.49	0	-2.56	19	37.73	x²(2)= 1451.4 df=2 p<2.2e-16
	Europees Parlement	1873	0.28	1011	0.21	19	-3.05	
	Total	*1,873*		*1,011*		*38*		

4.2 Global-variation features

In this section, we present the results of the statistical evaluation of the global-variation features, i.e. average sentence length, type-token ratio, average syllables per sentence, average syllables per word, Flesh Reading Ease and Gunning Fog Index. After calculating the values for each feature in the 150 texts that were selected from each corpus, we performed a test of normality and found that the data were not normally distributed. Consequently, a Kruskal-Wallis test indicated that there was a significant difference in the distribution of the

data across the corpora. Table 7 presents the means of all 6 features in each corpus, as well as the standard deviation, i.e. the extent to which those values deviate from the average of the three corpora.

Table 7: Distribution of global-variation features

variable	corpus A	corpus B	corpus C	significant?
average sentence length	40.99 (stdev: 34.64)	41.56 (stdev: 34.57)	27.05 (stdev: 14.4)	Yes
TTR	0.4 (stdev: 0.05)	0.4 (stdev: 0.05)	0.4 (stdev: 0.06)	No
average syllables per sentence	76.4 (stdev: 66.19)	75.85 (stdev: 67.69)	49.97 (stdev: 27.68)	Yes
average syllables per word	1.84 (stdev: 014)	1.79 (stdev: 0.15)	1.84 (stdev: 0.12)	Yes
Flesh Reading Ease	9.6 (stdev: 39,81)	13.27 (stdev: 40.54)	23.79 (stdev: 18.91)	Yes
Gunning Fox Index	26.27 (stdev: 14.24)	26.24 (14.29)	20.89 (stdev: 6.23)	Yes

Table 7 reveals that the means of 5 of the 6 global-variation features differ significantly between the three corpora: average sentence length, average syllables per sentence, Flesh Reading Ease and Gunning Fog Index. Only the mean of the type-token ratio is not significantly different across the three corpora. When looking at the means of the remaining 5 features, we can see that in most cases, there no difference (or only a slight difference) between corpus A and B, whereas corpus C deviates strongly from corpus A and B. Both the average sentence length and the average number of syllables per sentence are significantly lower in corpus C. This implies that the texts in corpus C are less complex and thus more readable. This is confirmed by the results of the Flesh Reading Ease test: corpus C scores significantly higher than corpus A and B on the Flesh Reading Ease test, which means that it has the highest level of readability. It must be noted that corpus B has a higher score than corpus A, but this difference is not so big, since the standard deviations of corpus A and B are more or less the same. The higher readability level of corpus C is also clearly visible from the results of the Gunning Fog Index: corpus A and B score significantly higher on this test, which means that their level of readability is lower. The correspondence between the results for the features 'average sentence length' and 'average syllables per sentence' on the one hand and the readability

formulas on the other hand is logical, since the former two are incorporated in the calculation of the readability tests. The feature 'average syllables per word' forms an exception to the similarity between corpus A and B: corpus A and C have the same mean, whereas that of corpus B is slightly lower.

With regard to the global-variation features, we can confirm our hypothesis that the number of linguistic differences between corpus B and corpus C is higher than the number of differences between corpus A and B. For 5 of the 7 features, the non-EU-based Dutch national laws differ significantly from the EU directives and the implementation laws. Consequently, the second part of our hypothesis, namely the hypothesis that the language use in those Dutch implementation laws is influenced by that in the EU directives, becomes plausible. However, when taking the style guides and writing instructions for all three varieties into account, the results are rather surprising. The official Dutch instructions in *Aanwijzingen voor de regelgeving* do not contain any mention of sentence length, whereas EU style guides repeatedly stress that overly long sentences should be avoided. This means that EU-based legislation does not sufficiently comply with the guidelines provided by the EU.

5 Conclusion

Recent research within the Eurolect Observatory Project assumes the existence of *Eurolects:* separate legal varieties, originated at EU level as a consequence of numerous translation processes, with distinct linguistic features that set it apart from national legal varieties. The study of these *Eurolects* can provide valuable insights into the language development within the unique multilingual environment of the European Union. Especially considering the international scope of EU legislation, it is interesting to investigate the possible impact of these *Eurolects* on legal varieties at a national level. EU directives are very suitable for investigating this: they are written and published at EU level, but the legislators of EU member states each have to transpose the directives into national implementation laws.

This thesis investigated the linguistic impact of EU directives on Dutch implementation laws. Recent research has revealed a considerate number of linguistic similarities between a corpus with EU directives and a corpus with the corresponding implementation laws in the Netherlands. This thesis compared those findings to a third corpus, which contained only Dutch national laws that are not based on EU legislation. We analysed two categories of linguistic features in the three corpora: local-variation features, which gave information about the lexical and stylistic choices in the corpora, and global-variation features, which gave information about the readability and complexity of the laws. The three corpora were compared to each other on the basis of those features. The purpose of this comparison was to find out whether and to which extent the non-EU-based Dutch laws would differ from the EU directives and the implementation laws. Our hypothesis was that Dutch implementation laws contain traces of the Dutch Eurolect used in EU directives, and that EU directives exercise a linguistic influence on their Dutch implementation laws. This would mean that the language use in the non-EU-based Dutch laws differs significantly from the language use in EU directives and Dutch implementation laws. The results of our analysis enabled us to confirm this hypothesis. For both categories of linguistic features, we found that in most cases, the corpus with non-EU-based Dutch laws differed significantly from the EU directives and the implementation laws. Implementation laws tend to make similar lexical and stylistic choices and generally have a lower level of readability than non-EU-based national Dutch laws. We found a few differences between the directives and the implementation laws, as well as some similarities across all three corpora, but the differences between the non-EU-based Dutch laws on the one hand and the EU directives and implementation laws on the other hand, were predominant. The results allow us to attribute the similarities between directives and their implementation laws to a linguistic influence exercised by the directives. The findings of this research form a valuable

contribution to the research of the Eurolect Observatory Project, as they yield insight into the influence of the Dutch *Eurolect* on the Dutch national legal variety.

Although we were able to confirm our hypothesis and answer our research questions, there were some unavoidable limitations to this research. Firstly, due to the limited scope and time span of this thesis, we were practically unable to analyse all the linguistic features assembled in the research template of the Eurolect Observatory Project. We included features from as many linguistic categories and levels of analysis as possible, in order to cover a broad range of features. However, a comprehensive approach, comprising all the linguistic features from the research template, might allow for a more detailed analysis of where the differences between the three corpora lie exactly. The more features that are analysed, the more information that can be gained to help further demarcate the Dutch *Eurolect* and its influence on the national Dutch legal variety.

In addition to the comparative analysis, we examined the linguistic features of all three corpora against normative and descriptive literature on legal language, and observed that both EU writing guidelines and Dutch instructions on legal drafting are not consistently taken into account. However, we did not draw a systematic comparison, since this was not the main objective of our research. For further research, it may be interesting to analyse the compliance of legal texts with writing guidelines more systematically and in more detail. This could provide valuable information about the readability and accessibility (or the lack thereof) of legal texts and, in the long term, lead to an improvement of the quality and comprehensibility of legal texts.

Finally, it would be interesting to find out if an analysis of Belgian Dutch would generate similar results as an analysis of legislation in the Netherlands. Since there was no corpus of non-EU-based Belgian Dutch legislation available, this research only included laws published in the Netherlands. If a corpus with Dutch (Flemish) legislation is made available, it can be investigated if traces of the Dutch *Eurolect* also trickle down into the language use in Belgian implementation laws.

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7 Appendix

I. Appendix 1 (table): Lexical preferences in *Beknopte stijlgids voor het Nederlands*

notification	kennisgeving	
publication	bekendmaking	
	aanbeveling + vaststellen besluit + vaststellen verordening + vaststellen richtlijn + vaststellen	
amend	wijzigen	
adapt	aanpassen	
		laatstelijk gewijzigd bij
period	termijn	
legal basis	rechtsgrondslag	rechtsgrond
national	onderdaan	ingezetene
with ... citizenship	die ... staatsburger zijn	
		het bepaalde in de bepalingen van
subject matter	onderwerp/voorwerp	doel
scope	toepassingsgebied (/werkingssfeer)	
	comitéprocedure	comitologie
	evenredigheidsbeginsel	proportionaliteitsbeginsel
	gewone wetgevingsprocedure	medebeslissingsprocedure
having regard	gezien	gelet op
	toepasselijke/desbetreffende/betrokken regelgeving	relevante regelgeving
should	moeten/dienen te	zouden moeten
shall	<onvoltooid tegenwoordige tijd>	
	overeenkomstig/krachtens/ingevolge	in toepassing van
	bijlage bij	bijlage van

	daarmee/aldus	zodoende
to claim	stellen/aanvoeren/verklaren/zeggen	beweren
allegedly	zou + main verb	beweerdelijk/naar verluidt/zogezegd/zogenaamd
detailed rules for the implementation/application	uitvoeringsbepalingen/bepalingen ter uitvoering	
detailed rules	andere regels/voorschriften	
referred to heareafter as... hereinafter referred to as... hereafter referred to as... hereinafter... hereinafter called...	hierna ... genoemd	
vested (pension) rights acquired (pension) rights accrued (pension) rights	definitieve (pensioen)rechten verworven (pensioen)rechten opgebouwde (pensioen)rechten	
	Unie	EU
	Gemeenschap	EG
life long learning	een leven lang leren	levenslang leren
equity	kansengelijkheid	rechtvaardigheid
citizen's/citizens' summary	publiekssamenvatting	
executive summary	samenvatting	
nuclear safety	nucleaire veiligheid	
nuclear security	nucleaire beveiliging	
air safety/aviation safety	veiligheid van de luchtvaart/luchtvaartveiligheid	
aviation security	beveiliging van de luchtvaart/luchtvaartbeveiliging	

food safety	voedselveiligheid	
food security	voedselzekerheid	
conformity	conformiteit	overeenstemming
codification	codificatie	
refonte, recasting	herschikking	
consolidation	consolidatie	
	Hof van Justitie van de Europese Unie	Hof van Justitie
subject to conclusion	onder voorbehoud van (de) sluiting	
internal market	interne markt	
single market	eengemaakte markt	
law of obligations	verbintenissenrecht	
contract law (law of contracts)	contractenrecht/overeenkomstenrecht	
flagship initiative	vlaggenschipinitiatief	

II. Appendix 2 (Excel file): Frequencies of the local-variation features

profile	lemma	corpus	freq
1	Vreemdeling	EU directives	5
1	Vluchteling	EU directives	47
1	Migrant	EU directives	11
1	Asielzoeker	EU directives	215
1	Ontheemde	EU directives	13
1	Allochtoon	EU directives	0
2	Arbeid	EU directives	38
2	Werk	EU directives	198
2	Job	EU directives	0
2	Baan	EU directives	4
4	Onderdaan	EU directives	299
4	Ingezetene	EU directives	81
5	Moeten	EU directives	3212
5	Dienen	EU directives	953
5	(be)horen	EU directives	155
10	Proberen	EU directives	1
10	Trachten	EU directives	25
10	Pogen	EU directives	3
12	Wier	EU directives	45
12	Wiens	EU directives	53

12	Van wie	EU directives	28
13	Indien	EU directives	2882
13	Als	EU directives	4751
15	Gemeenschap	EU directives	8
15	Maatschappij	EU directives	36
15	Samenleving	EU directives	10
17	EU	EU directives	10
17	Europese Unie	EU directives	532
18	EP	EU directives	0
18	Europees Parlement	EU directives	1873
19	mits	EU directives	536
19	vermits	EU directives	0
19	op voorwaarde	EU directives	203
20	omdat	EU directives	56
20	doordat	EU directives	18
20	daardoor	EU directives	38
20	wegens	EU directives	108
20	vanwege	EU directives	40
20	aangezien	EU directives	3
20	want	EU directives	0
20	immers	EU directives	0
21	dientengevolge	EU directives	4
21	daarom	EU directives	49
24	althans	EU directives	5
24	behalve	EU directives	163
24	desondanks	EU directives	1
24	echter	EU directives	252
24	evenwel	EU directives	306
24	hoewel	EU directives	15
24	alhoewel	EU directives	0
24	maar	EU directives	281
24	ondanks	EU directives	23
24	ook al	EU directives	23
25	behoudens	EU directives	87
25	behalve	EU directives	163
26	reeds	EU directives	338
26	al	EU directives	197
27	vooraleer	EU directives	4
27	alvorens	EU directives	74
27	voordat	EU directives	186
28	om te	EU directives	449
28	teneinde	EU directives	390
29	periode	EU directives	587
29	termijn	EU directives	755
30	toepassingsgebied	EU directives	160
30	werkingssfeer	EU directives	105

31	evenredigheidsbeginsel	EU directives	7
31	proportionaliteitsbeginsel	EU directives	0
32	gelet op	EU directives	62
32	gezien	EU directives	39
33	zodoende	EU directives	4
33	daarmee	EU directives	117
33	dus	EU directives	5
1	Vreemdeling	DU implementation	842
1	Vluchteling	DU implementation	29
1	Migrant	DU implementation	22
1	Asielzoeker	DU implementation	46
1	Ontheemde	DU implementation	6
1	Allochtoon	DU implementation	2
2	Arbeid	DU implementation	312
2	Werk	DU implementation	772
2	Job	DU implementation	0
2	Baan	DU implementation	65
4	Onderdaan	DU implementation	222
4	Ingezetene	DU implementation	233
5	Moeten	DU implementation	5525
5	Dienen	DU implementation	2801
5	(be)horen	DU implementation	809
10	Proberen	DU implementation	5
10	Trachten	DU implementation	28
10	Pogen	DU implementation	1
12	Wier	DU implementation	104
12	Wiens	DU implementation	201
12	Van wie	DU implementation	142
13	Indien	DU implementation	10224

		DU	
13	Als	implementation	18370
15	Gemeenschap	DU implementation	35
15	Maatschappij	DU implementation	21
15	Samenleving	DU implementation	46
17	EU	DU implementation	328
17	Europese Unie	DU implementation	1844
18	EP	DU implementation	0
18	Europees Parlement	DU implementation	1011
19	mits	DU implementation	460
19	vermits	DU implementation	0
19	op voorwaarde	DU implementation	32
20	omdat	DU implementation	867
20	doordat	DU implementation	117
20	daardoor	DU implementation	177
20	wegens	DU implementation	317
20	vanwege	DU implementation	353
20	aangezien	DU implementation	208
20	want	DU implementation	5
20	immers	DU implementation	292
21	dientengevolge	DU implementation	31
21	daarom	DU implementation	348
24	althans	DU implementation	28
24	behalve	DU implementation	108
24	desondanks	DU implementation	7
24	echter	DU implementation	757
24	evenwel	DU implementation	173

		DU	
24	hoewel	implementation	36
24	alhoewel	DU implementation	1
24	maar	DU implementation	1295
24	ondanks	DU implementation	47
24	ook al	DU implementation	60
25	behoudens	DU implementation	211
25	behalve	DU implementation	108
26	reeds	DU implementation	1338
26	al	DU implementation	772
27	vooraleer	DU implementation	0
27	alvorens	DU implementation	149
27	voordat	DU implementation	264
28	om te	DU implementation	547
28	teneinde	DU implementation	310
29	periode	DU implementation	1087
29	termijn	DU implementation	1806
30	toepassingsgebied	DU implementation	92
30	werkingssfeer	DU implementation	121
31	evenredigheidsbeginsel	DU implementation	3
31	proportionaliteitsbeginsel	DU implementation	1
32	gelet op	DU implementation	297
32	gezien	DU implementation	179
33	zodoende	DU implementation	11
33	daarmee	DU implementation	610
33	dus	DU implementation	580
1	Vreemdeling	DU national	15

1	Vluchteling	DU national	10
1	Migrant	DU national	2
1	Asielzoeker	DU national	4
1	Ontheemde	DU national	1
1	Allochtoon	DU national	2
2	Arbeid	DU national	34
2	Werk	DU national	149
2	Job	DU national	0
2	Baan	DU national	2
4	Onderdaan	DU national	4
4	Ingezetene	DU national	6
5	Moeten	DU national	683
5	Dienen	DU national	575
5	(be)horen	DU national	161
10	Proberen	DU national	3
10	Trachten	DU national	3
10	Pogen	DU national	1
12	Wier	DU national	8
12	Wiens	DU national	40
12	Van wie	DU national	21
13	Indien	DU national	1118
13	Als	DU national	2500
15	Gemeenschap	DU national	49
15	Maatschappij	DU national	6
15	Samenleving	DU national	30
17	EU	DU national	109
17	Europese Unie	DU national	20
18	EP	DU national	19
18	Europees Parlement	DU national	19
19	mits	DU national	29
19	vermits	DU national	0
19	op voorwaarde	DU national	0
20	omdat	DU national	43
20	doordat	DU national	10
20	daardoor	DU national	9
20	wegens	DU national	32
20	vanwege	DU national	38
20	aangezien	DU national	20
20	want	DU national	0
20	immers	DU national	11
21	dientengevolge	DU national	3
21	daarom	DU national	44
24	althans	DU national	5
24	behalve	DU national	12
24	desondanks	DU national	0
24	echter	DU national	54

24	evenwel	DU national	3
24	hoewel	DU national	10
24	alhoewel	DU national	1
24	maar	DU national	163
24	ondanks	DU national	6
24	ook al	DU national	3
25	behoudens	DU national	33
25	behalve	DU national	12
26	reeds	DU national	51
26	al	DU national	49
27	vooraleer	DU national	0
27	alvorens	DU national	13
27	voordat	DU national	17
28	om te	DU national	18
28	teneinde	DU national	13
29	periode	DU national	284
29	termijn	DU national	320
30	toepassingsgebied	DU national	14
30	werkingssfeer	DU national	18
31	evenredigheidsbeginsel	DU national	0
31	proportionaliteitsbeginsel	DU national	0
32	gelet op	DU national	25
32	gezien	DU national	90
33	zodoende	DU national	2
33	daarmee	DU national	81
33	dus	DU national	75

III. Appendix 3 (Excel file): Values of the global-variation features

Corpus	Text	Total Number of Words	Average Sentence Length	TTR	Average Syllables per Sentence	Average Syllables per Word	Flesch Reading Ease	GunningFogIndex
A	1	450	25,22	0,41	47,28	1,87	22,66	20,22
A	2	425	10,41	0,42	18,32	1,76	47,47	13,53
A	3	450	29,2	0,35	52,93	1,81	23,84	21,54
A	4	450	43,45	0,44	87,36	2,01	-7,36	28,09
A	5	402	10,84	0,38	18,37	1,69	52,5	12,88
A	6	450	21,71	0,39	39,14	1,8	32,29	18,51
A	7	450	24,47	0,39	43	1,76	33,35	18,56
A	8	450	24,47	0,39	43,21	1,77	32,63	18,56
A	9	450	24,47	0,39	42,47	1,74	35,17	18,56
A	10	450	24,58	0,34	45,21	1,84	26,27	19,51
A	11	450	22,1	0,39	38,1	1,72	38,55	17,72
A	12	450	23,8	0,35	38,95	1,64	44,23	17,92
A	13	450	32,14	0,45	62,43	1,94	9,9	23,79
A	14	450	44,9	0,44	86	1,92	-0,78	29,54
A	15	450	66,14	0,47	126,29	1,91	-21,83	37
A	16	450	37,92	0,4	68,33	1,8	15,88	25,45
A	17	450	234,5	0,44	444,5	1,9	-191,54	102,67
A	18	450	26,82	0,4	50,06	1,87	21,73	21,17
A	19	450	37,25	0,44	72,67	1,95	3,99	25,91
A	20	450	35,23	0,42	63,85	1,81	17,76	24,57
A	21	410	14,38	0,36	23,93	1,66	51,44	13,14
A	22	450	19,48	0,37	35	1,8	35,05	16,99
A	23	450	76,33	0,33	137,5	1,8	-23,03	39,79
A	24	450	65,71	0,46	119,86	1,82	-14,17	36,63
A	25	445	22,05	0,41	39,57	1,79	32,62	19,27
A	26	450	25,22	0,44	43,78	1,74	34,4	17,75

A	27	450	19,87	0,39	34,43	1,73	40,05	16,09
A	28	450	38,83	0,47	47,58	1,92	4,94	26,95
A	29	450	28,19	0,37	56,69	2,01	8,09	22,63
A	30	450	25,53	0,38	47,11	1,85	24,81	18,95
A	31	450	45,7	0,43	80,3	1,76	11,8	27,3
A	32	409	15,14	0,4	26,07	1,72	45,81	14,17
A	33	450	28,88	0,44	48	1,66	36,89	19,17
A	34	450	91	0,44	172,4	1,89	-45,81	46,25
A	35	450	24,53	0,34	44,84	1,83	27,26	19,68
A	36	450	31,47	0,3	60,53	1,92	12,15	23,18
A	37	450	27,59	0,29	50,35	1,83	24,42	20,76
A	38	450	18,46	0,38	34,27	1,86	31,06	18,47
A	39	450	27,76	0,29	49,29	1,78	28,45	20,34
A	40	450	37,17	0,42	73,67	1,98	1,43	26,44
A	41	450	26,53	0,45	52,47	1,98	12,58	21,96
A	42	450	41,91	0,45	80,73	1,93	1,34	26,92
A	43	450	17,19	0,44	30,11	1,75	41,16	15,67
A	44	450	27,76	0,41	46,59	1,68	36,7	18,99
A	45	450	21,76	0,42	37,29	1,71	39,8	17,98
A	46	450	44,8	0,33	83	1,85	4,63	27,47
A	47	450	18,12	0,45	31,44	1,74	41,65	17,05
A	48	450	32,21	0,37	61,07	1,9	13,75	24,15
A	49	450	30,67	0,37	51,8	1,69	32,81	19,4
A	50	450	32,5	0,46	65,07	2	4,46	24,96
A	51	450	12,78	0,36	21,42	1,68	52,07	12,07
A	52	450	22,55	0,4	41,7	1,85	27,5	18,86
A	53	450	31,47	0,34	56,8	1,81	22,19	21,57
A	54	438	10,54	0,37	16,59	1,57	63,04	10,32
A	55	450	32,14	0,43	61,57	1,92	12,15	24,32
A	56	450	23,15	0,46	46,75	2,02	12,49	21,79

A	57	450	25,67	0,37	47,28	1,84	24,95	21,44
A	58	450	23	0,38	46,2	2,01	13,55	19,55
A	59	450	65,29	0,46	120	1,84	-14,93	35,22
A	60	450	49,56	0,46	100	2,02	-14,18	31,93
A	61	450	45,2	0,42	81,2	1,8	8,98	26,93
A	62	450	40,73	0,45	70,82	1,74	18,39	24,68
A	63	450	66,86	0,35	114,29	1,71	-5,64	36,57
A	64	450	75,33	0,47	141,5	1,88	-28,53	40,31
A	65	450	34,62	0,4	64,15	1,85	14,91	24,51
A	66	446	8,87	0,38	13,56	1,53	68,5	9,29
A	67	414	11,86	0,4	17,81	1,5	67,8	11,4
A	68	450	92,4	0,42	195,4	2,11	-65,86	47,87
A	69	450	46	0,41	87,1	1,89	-0,04	28,83
A	70	450	28,56	0,41	54,06	1,89	17,71	21,84
A	71	450	32,5	0,37	62,29	1,92	11,71	24,16
A	72	450	50,22	0,36	97,67	1,94	-8,66	30,44
A	73	450	15,7	0,43	25,87	1,65	51,52	14,86
A	74	450	41	0,31	73,55	1,79	13,47	26,33
A	75	450	56,75	0,4	108,38	1,91	-12,33	34,42
A	76	450	23,47	0,46	44,58	1,9	22,35	19,97
A	77	450	16,15	0,38	30,44	1,89	30,95	16,18
A	78	450	34,54	0,39	62	1,8	19,91	22,9
A	79	400	10,68	0,42	15,85	1,48	70,44	10,39
A	80	450	38,58	0,41	73,33	1,9	6,88	26,06
A	81	450	29,31	0,35	51,62	1,76	28,09	21,02
A	82	450	28,31	0,46	51,06	1,8	25,52	21,74
A	83	450	56,5	0,38	100,62	1,78	-1,18	31,98
A	84	450	225,5	0,47	414,5	1,84	-177,55	99,96
A	85	450	27,12	0,28	49,88	1,84	23,69	20,57
A	86	450	17,63	0,22	29,48	1,67	47,47	14,36

A	87	450	27,82	0,34	44,76	1,61	42,48	18,82
A	88	450	15,8	0,27	27	1,71	46,23	15,77
A	89	450	28,5	0,45	54,62	1,92	15,76	23,07
A	90	450	115,5	0,47	226,75	1,96	-76,48	58,15
A	91	450	114,25	0,51	221,25	1,94	-72,96	56,99
A	92	450	32,07	0,45	67,43	2,1	-3,58	25,84
A	93	450	20,73	0,49	44,59	2,15	3,8	21,36
A	94	450	19,61	0,4	32,13	1,64	48,31	15,83
A	95	450	32,57	0,34	59,36	1,82	19,6	22,77
A	96	450	65,29	0,38	130,43	2	-28,44	37,23
A	97	450	151	0,42	283,67	1,88	-105,36	69,67
A	98	450	24,32	0,36	45,89	1,89	22,48	19,51
A	99	450	55,88	0,4	102,88	1,84	-5,64	32,19
A	100	450	29,56	0,38	49,94	1,69	33,92	19,86
A	101	450	51	0,44	94,33	1,85	-1,41	31,12
A	102	446	20,82	0,44	37,05	1,78	35,16	18,46
A	103	450	30,4	0,39	56	1,84	20,14	21,55
A	104	450	20,04	0,41	35,96	1,79	34,72	17,39
A	105	450	20,73	0,41	37,73	1,82	31,81	18,55
A	106	450	30,47	0,41	56	1,84	20,41	21,99
A	107	450	20,95	0,4	37,64	1,8	33,62	17,75
A	108	416	12,6	0,43	21,69	1,72	48,44	13,38
A	109	450	30,07	0,37	55	1,83	21,56	22,14
A	110	435	15,55	0,39	25,79	1,66	50,74	14,2
A	111	450	43,55	0,29	70,64	1,62	25,4	24,52
A	112	450	30,27	0,36	54,13	1,79	24,8	19,86
A	113	450	50,56	0,47	96,44	1,91	-5,87	30,51
A	114	450	30,13	0,41	61,73	2,05	2,93	25,06
A	115	450	23,95	0,45	44,47	1,86	25,41	20,13
A	116	450	35,46	0,44	76,69	2,16	-12,12	26,94

A	117	450	27,18	0,42	58,41	2,15	-2,58	24,12
A	118	450	39,25	0,45	89,67	2,28	-26,27	30,22
A	119	450	46	0,47	96,9	2,11	-18,07	30,92
A	120	450	12,17	0,37	19,85	1,63	56,48	11,84
A	121	450	76,17	0,39	137	1,8	-22,64	40,97
A	122	450	90,8	0,5	191,8	2,11	-64,03	49,18
A	123	450	95,6	0,37	174,2	1,82	-44,36	48,45
A	124	450	50,89	0,43	82,67	1,62	17,75	27,34
A	125	450	25,11	0,46	48,06	1,91	19,45	21,64
A	126	450	21	0,44	38,68	1,84	29,69	17,49
A	127	413	14,81	0,41	24,61	1,66	51,18	13,5
A	128	450	26,56	0,35	48,06	1,81	26,79	21,42
A	129	450	28,31	0,39	54	1,91	16,74	20,77
A	130	450	157,67	0,4	301	1,91	-114,71	73,89
A	131	450	45,8	0,48	97,7	2,13	-20,12	31,6
A	132	450	30,62	0,29	53,5	1,75	27,96	20,58
A	133	450	20,91	0,42	37,5	1,79	33,88	17,58
A	134	450	37,25	0,36	67,17	1,8	16,48	24,83
A	135	450	44,8	0,35	78,5	1,75	13,12	27,21
A	136	450	44,9	0,36	87,4	1,95	-3,42	28,92
A	137	450	44,8	0,36	82,9	1,85	4,82	28,28
A	138	450	46,7	0,44	94	2,01	-10,85	30,41
A	139	450	64,14	0,46	123,57	1,93	-21,25	36,53
A	140	450	114,5	0,41	214,75	1,88	-68,05	56,46
A	141	450	50	0,42	97	1,94	-8,04	31,29
A	142	450	16,5	0,42	28,96	1,76	41,58	16,04
A	143	450	33,86	0,43	80,86	2,39	-29,57	27,8
A	144	450	152,33	0,4	288,33	1,89	-107,91	71,35
A	145	450	29,56	0,37	50,81	1,72	31,42	20,87
A	146	450	35,23	0,31	63,08	1,79	19,61	23,79

A	147	450	38,31	0,33	72	1,88	8,95	24,88
A	148	450	89,2	0,38	159,8	1,79	-35,26	44,47
A	149	450	48,67	0,39	85,44	1,76	8,91	28,69
A	150	450	22,5	0,41	39,2	1,74	36,61	18,33
B	1	450	28,25	0,44	48,69	1,72	32,36	20,42
B	2	450	14,59	0,34	27,12	1,86	34,78	16,2
B	3	450	31,8	0,42	60,47	1,9	13,69	22,53
B	4	450	63,71	0,42	105	1,65	2,75	33,29
B	5	450	18,67	0,4	33,29	1,78	37,01	18
B	6	450	28,69	0,42	48,94	1,71	33,4	20,71
B	7	450	27,24	0,41	46,41	1,7	35,02	18,93
B	8	450	22,8	0,38	38,5	1,69	40,84	17,01
B	9	450	32,82	0,48	61,27	1,87	15,57	22,88
B	10	450	75	0,26	94,17	1,26	24,49	32,58
B	11	450	25,11	0,42	41,39	1,65	41,91	18,01
B	12	450	26,06	0,36	42,94	1,65	40,95	18,44
B	13	450	19,65	0,38	32,39	1,65	47,45	17,24
B	14	450	42,36	0,31	75,09	1,77	13,88	25,79
B	15	450	70,17	0,36	89,5	1,28	27,71	31,39
B	16	450	19,17	0,38	30,83	1,61	51,29	15,23
B	17	450	18,08	0,35	30,96	1,71	43,62	15,99
B	18	450	23,63	0,46	39	1,65	43,23	17,11
B	19	450	26,47	0,46	44,76	1,69	36,9	18,68
B	20	450	35,23	0,46	67,08	1,9	10	25,45
B	21	450	75,17	0,46	155,17	2,06	-44,1	42,75
B	22	450	32,71	0,38	65,71	2,01	3,69	24,35
B	23	450	98,2	0,42	179,2	1,82	-47,22	48,49
B	24	450	30,27	0,41	52,6	1,74	29,09	21,01
B	25	450	28,19	0,47	43,31	1,54	48,23	16,6
B	26	450	16,43	0,4	29,18	1,78	39,9	16,92

B	27	450	113,25	0,55	199	1,76	-56,77	53,95
B	28	450	23,3	0,44	42	1,8	30,69	18,25
B	29	450	21,23	0,41	38	1,79	33,84	18,17
B	30	450	28,5	0,43	54,88	1,93	15,02	21,58
B	31	450	65,43	0,46	123,71	1,89	-19,54	37,44
B	32	450	36,38	0,33	63,38	1,74	22,53	23,26
B	33	450	66,43	0,38	115,86	1,74	-8,14	34,57
B	34	450	35,92	0,38	64,69	1,8	18,02	23,62
B	35	450	35	0,46	63,54	1,82	17,73	23,32
B	36	450	19,61	0,39	33,48	1,71	42,49	16,89
B	37	450	45,2	0,48	83,9	1,86	3,92	28,35
B	38	450	46,6	0,43	81,3	1,74	11,94	28,25
B	39	450	33	0,42	62,77	1,9	12,42	24,02
B	40	450	42	0,37	78,91	1,88	5,26	27,54
B	41	450	41,36	0,41	71,64	1,73	18,33	25,78
B	42	450	21,38	0,38	35,9	1,68	43,07	18,08
B	43	450	56,38	0,34	104,62	1,86	-7,39	34,08
B	44	450	37,83	0,39	67,33	1,78	17,87	24,74
B	45	450	30,47	0,43	55,87	1,83	20,78	22,78
B	46	450	28,75	0,4	49,62	1,73	31,63	21,07
B	47	450	26,47	0,35	48,12	1,82	26,18	20,19
B	48	450	36,15	0,35	68,92	1,91	8,86	24,25
B	49	450	20,73	0,33	39	1,88	26,62	18,03
B	50	450	227	0,53	431,5	1,9	-184,38	101,46
B	51	450	32	0,42	64,93	2,03	2,7	25,84
B	52	450	91,4	0,51	160	1,75	-34,03	45,84
B	53	450	90,6	0,47	185,8	2,05	-58,62	48,43
B	54	450	161,33	0,34	319,67	1,98	-124,55	76,6
B	55	450	21,48	0,36	43,33	2,02	14,34	20,21
B	56	450	13,73	0,43	26,15	1,91	31,73	15,2

B	57	450	23,25	0,37	45,3	1,95	18,4	20,57
B	58	450	50,78	0,46	89,89	1,77	5,53	30,03
B	59	450	35	0,37	62,31	1,78	20,7	25,16
B	60	450	27,94	0,43	52,62	1,88	19,12	22,9
B	61	450	26,29	0,38	49,53	1,88	20,79	21,61
B	62	450	24,68	0,35	40,32	1,63	43,61	17,89
B	63	450	30,93	0,36	49,2	1,59	40,88	20,22
B	64	450	21,52	0,43	38,33	1,78	34,32	17,72
B	65	450	32,93	0,41	65,57	1,99	4,95	25,15
B	66	450	58,25	0,45	118	2,03	-23,67	36,35
B	67	450	28,56	0,39	52,06	1,82	23,64	21,84
B	68	450	50,22	0,43	99,56	1,98	-11,84	32,12
B	69	450	65,86	0,42	113,14	1,72	-5,35	35,28
B	70	450	19,48	0,38	32,7	1,68	45,06	15,38
B	71	450	24,94	0,41	42,61	1,71	37	19,15
B	72	450	32,36	0,44	60,5	1,87	15,81	24,16
B	73	450	32,57	0,48	60,86	1,87	15,71	24,34
B	74	450	19,57	0,48	36,13	1,85	30,75	18,94
B	75	450	45	0,41	79,2	1,76	12,26	27,78
B	76	450	20,64	0,26	33,23	1,61	49,67	16,36
B	77	450	21,86	0,35	36,59	1,67	43,06	16,98
B	78	450	22,27	0,39	38,55	1,73	37,82	16,99
B	79	450	32,93	0,43	55	1,67	32,11	22,02
B	80	450	25,06	0,38	42,33	1,69	38,47	19,96
B	81	450	18,67	0,34	29,63	1,59	53,6	14,63
B	82	450	51,33	0,47	91,44	1,78	4,03	30,06
B	83	450	27,29	0,46	49,41	1,81	25,98	20,57
B	84	450	22,5	0,36	41,75	1,86	27,02	19,84
B	85	450	21,43	0,42	36,67	1,71	40,33	17,37
B	86	450	18,37	0,26	28,48	1,55	57,02	14,44

B	87	450	18,24	0,45	34,28	1,88	29,33	17,82
B	88	450	32,43	0,3	56,64	1,75	26,15	21,43
B	89	450	23,45	0,41	43,2	1,84	27,18	19,44
B	90	436	18,33	0,44	32,96	1,8	36,14	17,06
B	91	450	32,86	0,37	50,57	1,54	43,27	20,19
B	92	450	20,5	0,41	36,59	1,78	35,02	17,87
B	93	450	24,58	0,37	42,37	1,72	36,06	19,34
B	94	450	56,88	0,38	108	1,9	-11,54	33,48
B	95	450	51,22	0,51	93,44	1,82	0,51	30,55
B	96	450	57,75	0,44	116,5	2,02	-22,45	35,57
B	97	450	22,65	0,42	38,7	1,71	39,3	18,15
B	98	450	58,12	0,45	105,62	1,82	-5,9	32,45
B	99	450	226	0,37	412	1,82	-176,78	100,67
B	100	450	18,04	0,37	29,08	1,61	52,15	15,55
B	101	450	30,4	0,5	56,33	1,85	19,21	22,34
B	102	450	26,06	0,4	48,59	1,86	22,64	21,35
B	103	450	30,07	0,34	54,87	1,82	21,94	22,05
B	104	450	62,71	0,33	105,14	1,68	1,34	33,01
B	105	450	54,88	0,44	97,25	1,77	1,21	29,88
B	106	450	25,11	0,42	43,16	1,72	35,92	18,34
B	107	450	43,82	0,41	70,18	1,6	26,86	23,83
B	108	450	30	0,42	56,27	1,88	17,71	22,84
B	109	450	29,31	0,41	48,88	1,67	36,02	20,85
B	110	450	16,31	0,29	23,76	1,46	67,05	12,87
B	111	450	30,2	0,42	64,33	2,13	-4,04	25,33
B	112	450	35,46	0,38	68,08	1,92	8,43	25,9
B	113	450	155,33	0,47	354,67	2,28	-143,99	75,78
B	114	450	29,93	0,29	52	1,74	29,49	20,88
B	115	450	46,6	0,48	95,1	2,04	-13,11	31,34
B	116	450	26,89	0,34	42,95	1,6	44,44	18,98

B	117	450	38	0,47	77	2,03	-3,16	26,6
B	118	450	21,38	0,31	35,76	1,67	43,63	16,57
B	119	450	16,36	0,35	30,29	1,85	33,59	16,76
B	120	450	24,68	0,45	43,32	1,75	33,32	19,17
B	121	450	34,46	0,44	63,54	1,84	15,88	24,23
B	122	450	29,12	0,42	49,88	1,71	32,4	21,01
B	123	450	23,2	0,41	43,5	1,88	24,66	20,92
B	124	450	22,65	0,41	43	1,9	23,24	19,57
B	125	450	112,5	0,43	235,25	2,09	-84,26	56,56
B	126	450	77	0,32	145	1,88	-30,63	41,88
B	127	450	116,25	0,35	218	1,88	-69,81	57,17
B	128	450	23,84	0,4	42,79	1,79	30,8	19,69
B	129	450	25,22	0,37	43,28	1,72	36,07	19,43
B	130	450	28,88	0,45	50,38	1,74	29,93	20,38
B	131	450	23,85	0,37	40,8	1,71	37,9	17,42
B	132	450	25,06	0,4	44,17	1,76	32,28	20,93
B	133	450	40,36	0,41	72,91	1,81	13,05	25,42
B	134	450	150	0,46	281	1,87	-103,9	71,11
B	135	450	30	0,38	51,13	1,7	32,19	20,62
B	136	450	91,6	0,42	189,4	2,07	-61,07	46,68
B	137	450	48,4	0,25	77,5	1,6	22,24	27,05
B	138	450	25,06	0,39	46,67	1,86	23,83	20,4
B	139	450	30,33	0,36	57,47	1,89	15,77	22,24
B	140	450	113,5	0,42	226,5	2	-77,19	57,47
B	141	450	21,57	0,34	36	1,67	43,75	16,13
B	142	450	32	0,35	49,21	1,54	44,24	19,32
B	143	450	37,5	0,45	74,08	1,98	1,64	26,29
B	144	450	31,33	0,35	51,13	1,63	36,97	20,53
B	145	450	75,33	0,37	140	1,86	-26,85	40,66
B	146	450	34,77	0,45	59,62	1,71	26,49	22,49

B	147	450	22,6	0,38	39,75	1,76	35,1	18,77
B	148	450	22,85	0,43	42,9	1,88	24,81	20,96
B	149	450	20,82	0,35	34,41	1,65	45,87	17,32
B	150	450	17,29	0,3	27,96	1,62	52,43	15,67
C	1 (3250)	400	33,33	0,41	59,17	1,77	22,84	22,03
C	2 (3615)	400	30,85	0,37	63,38	2,05	1,68	24,91
C	3 (3366)	400	26,6	0,41	45,6	1,71	34,81	19,46
C	4 (3815)	400	44,44	0,4	83	1,87	3,73	28,98
C	5 (3425)	400	16	0,3	33,36	2,08	14,2	19,7
C	6 (3450)	400	26,67	0,42	47,8	1,79	28,12	20,17
C	7 (3466)	400	28,5	0,4	56,86	1,99	9,13	24,43
C	8 (3500)	400	30,77	0,31	51,31	1,67	34,53	20,81
C	9 (3550)	400	15,38	0,43	27,73	1,8	38,73	15,45
C	10 (3575)	400	26,67	0,36	47,2	1,77	30,03	19,07
C	11 (3600)	400	36,36	0,48	69,55	1,91	8,13	26,15
C	12 (3625)	400	21,05	0,41	36,63	1,74	38,26	17,12
C	13 (3650)	400	23,53	0,49	47	2	13,96	21,31
C	14 (3675)	400	22,22	0,47	40,94	1,84	28,4	19,59
C	15 (3725)	400	25	0,41	41,69	1,67	40,39	18,2
C	16 (3750)	400	25	0,41	44,75	1,79	30,03	20
C	17 (3775)	400	21,05	0,47	40,21	1,91	23,88	19,32
C	18 (3825)	400	14,81	0,43	26,74	1,8	39,09	15,93
C	19 (3850)	400	30,77	0,43	56	1,82	21,63	21,51
C	20 (3875)	400	17,39	0,36	32,52	1,87	30,98	17,76
C	21 (3900)	400	28,57	0,36	50,57	1,77	28,09	21,13
C	22 (3925)	400	30,77	0,41	53,54	1,74	28,4	19,21
C	23 (3950)	400	36,27	0,47	69,45	1,91	8,03	25,14
C	24 (4050)	400	80	0,35	141,2	1,76	-23,68	41,9
C	25 (4066)	400	23,53	0,42	42,71	1,81	29,4	20,01
C	26 (4100)	400	14,81	0,47	25,7	1,74	45,02	14,43

C	27 (4125)	400	30,62	0,45	54,85	1,79	24,2	21,49
C	28 (4133)	400	25	0,28	45,38	1,81	27,91	20,4
C	29 (4150)	400	36,36	0,49	70,81	1,93	6,65	24,85
C	30 (4166)	400	26,67	0,37	43,33	1,62	42,29	18,67
C	31 (4175)	400	21,05	0,36	41,84	1,99	17,32	19,72
C	32 (4250)	400	16	0,27	26,48	1,66	50,58	14,7
C	33 (4267)	400	18,18	0,43	37,09	2,04	15,8	21,17
C	34 (4300)	400	33,33	0,46	62,42	1,87	14,59	25,23
C	35 (4350)	400	14,81	0,31	26,48	1,79	40,58	14,73
C	36 (4366)	400	23,53	0,44	42,47	1,8	30,25	19,51
C	37 (4425)	400	23,53	0,48	44,47	1,89	23,06	19,91
C	38 (4433)	400	20	0,29	33,9	1,7	43,14	17,6
C	39 (4466)	400	133,33	0,33	248,67	1,86	-86,28	64,73
C	40 (4476)	400	14,78	0,36	26	1,76	42,99	15,43
C	41 (4500)	400	28,57	0,44	51	1,78	26,82	20,33
C	42 (4575)	400	22,22	0,41	40,67	1,83	29,46	18,69
C	43 (4600)	400	24,94	0,49	51,31	2,06	7,45	21,9
C	44 (4633)	400	15,38	0,39	29,12	1,89	31,11	17,45
C	45 (4666)	400	18,18	0,45	32,86	1,81	35,47	16,97
C	46 (4675)	400	18,18	0,46	32,68	1,8	36,31	16,87
C	47 (3915)	400	26,67	0,39	45,8	1,72	34,47	19,57
C	48 (4733)	400	26,67	0,37	47	1,76	30,66	19,87
C	49 (4771)	400	25	0,47	52,69	2,11	3,17	23,4
C	50 (4775)	400	44,44	0,36	79,56	1,79	10,29	26,58
C	51 (4615)	400	40,1	0,42	78,7	1,96	0,1	27,81
C	52 (4833)	400	30,77	0,43	54,85	1,78	24,8	22,61
C	53 (4850)	398	23,41	0,45	45,12	1,93	20,04	19,82
C	54 (5015)	397	30,54	0,4	52,54	1,72	30,29	20,88
C	55 (4875)	400	79,6	0,47	159,8	2,01	-43,8	44,6
C	56 (4900)	400	22,22	0,48	40,28	1,81	30,94	19,19

C	57 (4950)	400	22,17	0,35	40,83	1,84	28,49	18,49
C	58 (4966)	400	36,36	0,41	67,36	1,85	13,2	24,85
C	59 (5128)	400	19,05	0,45	32,38	1,7	43,68	15,32
C	60 (5150)	400	25	0,34	46,56	1,86	23,89	21,1
C	61 (5233)	400	16	0,36	27,28	1,71	46,35	14,8
C	62 (5275)	400	20	0,44	36,1	1,8	33,83	17,5
C	63 (5350)	398	14,74	0,43	28,85	1,96	26,29	17,15
C	64 (5375)	400	36,18	0,45	71,18	1,97	3,67	25,93
C	65 (5115)	400	36,36	0,47	69,55	1,91	8,13	25,05
C	66 (5575)	400	30,77	0,36	62,08	2,02	4,92	24,81
C	67 (5215)	400	36,27	0,44	65	1,79	18,42	23,83
C	68 5700)	400	14,81	0,4	26,78	1,81	38,88	15,23
C	69 (5800)	400	32,42	0,4	61,83	1,91	12,56	23,97
C	70 (5825)	400	28,57	0,5	58,86	2,06	3,56	23,53
C	71 (5315)	400	23,53	0,4	41,65	1,77	33,21	19,01
C	72 (5866)	400	23,53	0,45	46,24	1,97	16,71	20,91
C	73 (5875)	400	20	0,45	38,45	1,92	23,89	19,1
C	74 (5900)	400	25	0,4	45,5	1,82	27,49	19,9
C	75 (5925)	400	23,53	0,46	45,18	1,92	20,52	19,31
C	76 (5950)	400	17,35	0,45	31,26	1,8	36,78	16,86
C	77 (6000)	400	16,67	0,2	26,42	1,58	55,83	13,57
C	78 (6025)	400	19,95	0,32	32,3	1,62	49,61	15,2
C	79 (6133)	400	20	0,36	35,75	1,79	35,31	17,1
C	80 (6515)	400	40	0,34	71,9	1,8	14,17	25,9
C	81 (6225)	400	25	0,39	44	1,76	32,56	18,9
C	82 (6615)	400	57,14	0,41	102,71	1,8	-3,23	32,06
C	83 (6715)	400	44,44	0,33	85,78	1,93	-1,55	28,48
C	84 (6350)	400	36,36	0,42	68,18	1,88	11,3	24,45
C	85 (6366)	400	19,05	0,39	35	1,84	32,05	17,42
C	86 (6433)	400	17,39	0,4	31,43	1,81	36,27	17,46

C	87 (6466)	400	25	0,38	45,88	1,83	26,22	19,5
C	88 (6815)	400	28,57	0,39	53,93	1,89	18,15	21,63
C	89 (6525)	400	22,22	0,43	44,06	1,98	16,56	18,99
C	90 (6600)	400	25	0,34	39,56	1,58	47,58	15,9
C	91 (6633)	400	36,36	0,46	66,73	1,83	14,68	24,25
C	92 (6650)	400	28,57	0,45	54,14	1,9	17,52	21,33
C	93 (6666)	400	18,18	0,45	32,27	1,77	38,22	16,77
C	94 (6675)	400	19	0,45	34,24	1,8	35,1	17,63
C	95 (6700)	400	15,35	0,47	29,54	1,92	28,42	16,97
C	96 (6725)	400	57,14	0,37	109	1,91	-12,54	33,86
C	97 (6750)	400	23,41	0,36	44,76	1,91	21,31	20,42
C	98 (6779)	400	28,57	0,33	48,57	1,7	34,02	20,13
C	99 (6800)	400	80	0,41	167	2,09	-50,97	46,5
C	100 (6828)	400	22,22	0,46	42,22	1,9	23,54	20,49
C	101 (6966)	400	23,53	0,46	43,53	1,85	26,44	20,21
C	102 (6850)	400	30,77	0,33	52,92	1,72	30,09	20,51
C	103 (6866)	400	22,22	0,45	41,5	1,87	26,29	18,39
C	104 (6900)	400	16	0,4	29,6	1,85	34,09	16,7
C	105 (6933)	400	21,05	0,44	42,05	2	16,48	19,42
C	106 (7466)	400	21,05	0,28	49,95	2,37	-15,25	24,32
C	107 (6975)	400	14,29	0,5	27,64	1,94	28,63	16,71
C	108 (7025)	400	14,29	0,38	25,96	1,82	38,57	15,91
C	109 (7033)	400	19,05	0,28	29,38	1,54	57,01	14,82
C	110 (7100)	400	36,36	0,38	73,09	2,01	-0,12	26,75
C	111 (7168)	400	14,29	0,5	27,64	1,94	28,63	16,71
C	112 (7250)	400	24,94	0,31	45,06	1,81	28,65	19,4
C	113 (7275)	400	16,67	0,53	30,38	1,82	35,73	16,87
C	114 (7333)	400	18,18	0,32	31,59	1,74	41,39	17,67
C	115 (7433)	400	50	0,41	92,12	1,84	0,21	29,8
C	116 (7450)	400	40	0,37	69,2	1,73	19,88	25,5

C	117 (7533)	400	18,18	0,35	29,82	1,64	49,64	14,57
C	118 (8035)	400	23,53	0,42	45,76	1,95	18,41	20,41
C	119 (8050)	400	28,57	0,3	53,14	1,86	20,48	22,93
C	120 (8075)	400	15,96	0,27	33,72	2,11	11,89	18,61
C	121 (8175)	400	15,38	0,42	28,96	1,88	31,96	17,75
C	122 (8066)	400	23,53	0,38	42,47	1,8	30,25	19,31
C	123 (8325)	400	15,38	0,38	27,5	1,79	40	14,85
C	124 (8333)	400	20	0,3	33	1,65	46,95	17,3
C	125 (8375)	400	25	0,31	46,31	1,85	24,74	21,2
C	126 (8400)	400	22,22	0,52	42	1,89	24,39	19,09
C	127 (8475)	400	17,39	0,37	27,65	1,59	54,67	14,16
C	128 (8550)	400	20	0,48	36,1	1,8	33,83	15,6
C	129 (8575)	400	16,67	0,38	27,92	1,68	48,21	14,77
C	130 (8625)	400	26,67	0,43	50,27	1,89	20,3	20,47
C	131 (8633)	400	16	0,49	30,84	1,93	27,53	17,4
C	132 (8750)	400	39,9	0,29	70,5	1,77	16,86	25,58
C	133 (8366)	400	30,77	0,44	59,08	1,92	13,17	23,41
C	134 (8833)	400	21,05	0,47	36,79	1,75	37,63	18,42
C	135 (8850)	400	19,05	0,47	37	1,94	23,17	19,82
C	136 (8925)	400	21,05	0,41	39,42	1,87	27,05	20,42
C	137 (8933)	400	15,35	0,38	27,81	1,81	37,96	16,46
C	138 (9050)	400	21,05	0,29	38,68	1,84	30,01	17,92
C	139 (9075)	400	25	0,45	50,81	2,03	9,51	21,7
C	140 (9100)	400	28,57	0,44	53,93	1,89	18,15	21,63
C	141 (9133)	400	18,18	0,21	32,23	1,77	38,43	14,67
C	142 (9150)	400	23,53	0,38	41,71	1,77	33	19,51
C	143 (9175)	400	21,05	0,39	39,05	1,85	28,53	18,82
C	144 (9233)	400	33,33	0,45	64,42	1,93	9,51	23,23
C	145 (9258)	400	17,35	0,44	30,78	1,77	39,11	15,96
C	146 (9275)	400	40	0,39	71,8	1,79	14,38	26,3

C	147 (9325)	400	25	0,29	42,5	1,7	37,64	19,1
C	148 (9466)	400	40	0,42	76	1,9	5,5	25,8
C	149 (12500)	400	22,17	0,41	38,89	1,75	35,91	16,69
C	150 (9666)	400	36,36	0,32	56,09	1,54	39,43	20,25