DIPLOMARBEIT

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„The Linguistic Landscape of Vienna’s Westbahnstraße – A Comparison of Methods“

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Declaration of Authenticity

I confirm to have conceived and written this thesis in English all by myself. Quotations from other authors and ideas borrowed and/or paraphrased from the work of other authors are all clearly marked within the text and acknowledged in the bibliographical references.

Vienna, November 2014

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# Table of contents

List of Abbreviations ................................................................................................. i
List of figures ................................................................................................................ i
List of tables ................................................................................................................ ii

1. **Introduction** ........................................................................................................... 1

2. **Linguistic Landscaping** .......................................................................................... 3
   2.1. Introductory overview ......................................................................................... 6
   2.2. General procedure .............................................................................................. 7

3. **Methodology** ........................................................................................................... 9
   3.1. General research methods ................................................................................ 9
   3.2. Theoretical and methodological issues in LL ..................................................... 12
       3.2.1. *Theoretical framework* ........................................................................... 13
       3.2.2. *Methodological approaches* .................................................................. 16
   3.3. Method I ........................................................................................................... 17
   3.4. Method II ......................................................................................................... 18

4. **English as an international language in the LL** .............................................. 21
   4.1. The functions of English .................................................................................. 22
   4.2. English in Austria ............................................................................................. 25

5. **The dataset** ........................................................................................................... 28
   5.1. Survey area ....................................................................................................... 28
   5.2. Data collection process .................................................................................... 31
   5.3. Included and excluded items .......................................................................... 31

6. **Language judgement – What is ‘English’?** ...................................................... 35
   6.1. The questionnaire ............................................................................................. 38
   6.2. Results .............................................................................................................. 41
   6.3. Limitations ........................................................................................................ 43

7. **Categorization of data** ......................................................................................... 45
   7.1. Languages, monolingualism and multilingualism .......................................... 46
7.2. The top-down/bottom-up distinction .......................................................... 47
7.3. The functions of signs .............................................................................. 49
7.4. Domains in the LL .................................................................................... 50
7.5. Differences in categorizations between the methods .............................. 51
7.6. Limitations ................................................................................................ 53

8. Analyses ........................................................................................................ 53
8.1. Analysis of method I .................................................................................. 54
  8.1.1. Monolingual vs. multilingual .............................................................. 54
  8.1.2. Top-down vs. bottom-up .................................................................... 58
  8.1.3. Functions of signs .............................................................................. 59
  8.1.4. Domains .............................................................................................. 60
8.2. Analysis of method II ................................................................................. 61
  8.2.1. Monolingual vs. multilingual .............................................................. 62
  8.2.2. Top-down vs. bottom-up .................................................................... 65
  8.2.3. Functions of signs .............................................................................. 66
  8.2.4. Domains .............................................................................................. 67

9. The comparison ............................................................................................ 68
9.1. Monolingual vs. multilingual signs .......................................................... 69
9.2. Top-down vs. bottom-up .......................................................................... 72
9.3. Functions of signs .................................................................................... 73
9.4. Domains ................................................................................................... 74

10. Findings and results .................................................................................... 78
  10.1. Language dominance and sociolinguistic implications .......................... 78
  10.2. Conclusions drawn from the comparison in section 9 .......................... 80
  10.3. Answering of the research questions ................................................... 83

11. Limitations and further research suggestions ............................................ 85

12. Conclusion ................................................................................................... 87

13. References ................................................................................................... 89

14. Appendix ..................................................................................................... 97
List of Abbreviations

L1.........................................................................................................................First language
LL.........................................................................................................................Linguistic Landscape/Linguistic Landscaping
RQ.........................................................................................................................Research question
UoA.........................................................................................................................Unit of analysis

Languages, alphabetically

Anc. Greek............................................................................................................Ancient Greek
Chin.......................................................................................................................Chinese
E............................................................................................................................English
F..............................................................................................................................French
G..............................................................................................................................German
Hu.........................................................................................................................Hungarian
Jap..........................................................................................................................Japanese
Lat..........................................................................................................................Latin
Sp..........................................................................................................................Spanish

List of figures

Figure 1 Shop front on Westbahnstraße............................................................... 19
Figure 2 Nespresso ad on the LL ......................................................................... 25
Figure 3 Three concentric circles (Kachru 1985: 71)........................................ 26
Figure 4 Sign reading “bi good”........................................................................... 35
Figure 5 Results of the survey............................................................................ 42
Figure 6.1 Distribution of mono- and multilingual signs (comparison)............... 69
Figure 6.2 Language appearances in the LL (comparison)................................. 70
Figure 6.3 Number of languages in signs (comparison)..................................... 71
Figure 6.4 Types of multilingual writing (comparison)....................................... 72
Figure 6.5 Top-down vs. bottom-up (comparison)............................................ 73
Figure 6.6 Functions of signs (comparison)....................................................... 74
Figure 6.7 Distribution of domains (method I).................................................... 75
Figure 6.8 Distribution of domains (method II) ................................................................. 75
Figure 7 Examples of ‘objects’ in the LL ........................................................................ 76

List of tables

Table 1 Characteristics of research methods .................................................................. 10
Table 2 Top-down and bottom-up items in a LL (Ben-Rafael et al. 2006: 14) ........... 48
Table 3 Domains in the LL ............................................................................................ 50
Table 4.1 Monolingual and multilingual signs (method I) ......................................... 54
Table 4.2 Languages in the LL (method I) ................................................................. 55
Table 4.3 Language appearances in the LL (method I) ............................................. 56
Table 4.4 Number of languages on signs (method I) ............................................... 57
Table 4.5 Types of multilingual writing (method I) .................................................. 58
Table 4.6 Top-down vs. bottom-up (method I) ......................................................... 58
Table 4.7 Functions of signs (method I) ................................................................. 59
Table 4.8 Domains in the LL (method I) ................................................................. 60
Table 5.1 Monolingual and multilingual signs (method II) ..................................... 62
Table 5.2 Languages in the LL (method II) .............................................................. 63
Table 5.3 Language appearances in the LL (method II) .......................................... 63
Table 5.4 Number of Languages on signs (method II) ........................................... 64
Table 5.5 Types of multilingual writing (method II) ............................................... 64
Table 5.6 Top-down vs. bottom-up (method II) ....................................................... 65
Table 5.7 Functions of signs (method II) ............................................................... 66
Table 5.8 Domains in the LL (method II) ............................................................... 67
Table 6 Language combinations (comparison) ......................................................... 70
Table 7 Functions of signs (comparison) .............................................................. 73
Table 8 Distribution of businesses, apartment buildings, and objects in the LL ....... 77
1. Introduction

“The methodology used in any study will also have an effect on the results [...]” (Macalister 2010: 71)

The quote above refers to the assumption that a different method used in any research, will have an undeniable influence on the outcome of said study. Although the thought might have occurred to a number of researchers in the field of Linguistic Landscaping as well, it seems that no one has yet considered testing the different methods and comparing the results to each other. This thesis aims at providing a first glimpse into whether the use of a different methodology has effects on the results of a Linguistic Landscape survey.

Although Linguistic Landscape studies are being conducted all around the world, the field is still lacking an agreed upon methodology. At any stage of the process, there are various ways to go about a Linguistic Landscape survey. As Huebner (2009: 70) notes, we are dealing with “problems of selection, classification, and linguistic analyses”. In this thesis I draw from two approaches that deal differently with the first stage of any Linguistic Landscape study, namely the definition of the unit of analysis or the ‘sign’. More concretely the approaches of sign-classification by Backhaus (2007) and Cenoz and Gorter (2006) are being applied to a survey area and compared to each other.

The survey area of choice is a sample from a shopping street and residential area in the centre of Vienna. In the course of the thesis, the area is introduced and the results of both Linguistic Landscape analyses are presented. Any observation of a Linguistic Landscape inevitably brings about a discussion about the role of the international language English. Hence, an additional research focus in this thesis is on the status and function of English in Austria, and the survey area in particular. Additionally, I provide a discussion of the language contact situation of German and English in Austria, and the results of a perception study conducted with the help of questionnaires distributed among Viennese citizens.
The main research focus however, lies in unravelling the possibilities of the two methods mentioned above, both of which are frequently used in Linguistic Landscape surveys. Having conducted a Linguistic Landscape study before in the course of a seminar, I also had to make a decision on which method to use. It seemed very interesting to revisit the scene with another aspect in mind, namely testing these approaches. The thesis attempts to push the study field further ahead and provide for a deeper understanding of the impact of these methods. The research focus is summarized in the following research questions:

**RQ 1:** What are the advantages and disadvantages in the application of each method?

**RQ 2:** Does the use of one specific method influence the overall result of a study in a significant way? And if so, in what way(s)?

**RQ 3:** Which method should researchers use in order to answer which research question(s)?

Consequently, the main interest lies in evaluating the two methods, via commenting on the process of their application, the results they offer and the actual outcome revealed by each approach.

In pursuit of finding answers to the research questions, the first part of the paper provides a theoretical overview, while the second part is concerned with the empirical research. Section 2 offers an introduction to the meaning and motivation of Linguistic Landscaping. Section 3 takes a closer look at methodology and theory of the field and introduces the two methods the research questions and analyses are based on. Section 4 discusses the current status as well as the functions of the world language English. Section 5 introduces the survey area and the process of data collection, while the following section (section 6) discusses the results of a perception study on language contact and influence. Section 7 discusses the coding scheme and introduces the variables used for analysis. Section 8 presents the analyses of both datasets, acquired through the application of the two different methods. Section 9 takes a closer look at the results of these analyses, by comparing them to each other.
The findings and answers to the research questions are then presented in section 10. Prior to the concluding statement in section 12, section 11 states the limitations of this thesis and provides suggestions for future studies.

2. Linguistic Landscaping

This section is divided into three parts. At first Linguistic Landscaping is defined and its objectives and relevance are foregrounded. The second part provides a short overview about published work in connection to Linguistic Landscaping, in order to highlight the development and many perspectives that the study field has taken up in recent times. The last part provides an introduction to the constituent parts of a Linguistic Landscape study and how it is generally conducted.

In 1997, Landry and Bourhis provided the probably most quoted definition of what the term Linguistic Landscape refers to, namely “the visibility and salience of languages on public and commercial signs” (Landry & Bourhis 1997: 23). In fact, a Linguistic Landscape is made up of all “writing on display in the public sphere” (Coulmas 2009: 14). Linguistic Landscaping is hence, the study of collection, categorization and analysis of such written items in a particular area (Huebner 2009: 70). The written items in public areas, like streets, shopping centres, even hospitals or schools (cf. Gorter 2013: 203), can take on a myriad of forms. Landry and Bourhis’ (1997: 25) often quoted examples of such items are, “public road signs, advertising billboards, street names, place names, commercial shop signs, and public signs on government buildings”.

However, this only begins to cover the possible objects encountered in an area, as there can be newspaper stands, leaflets, and many other ‘smaller’ items. Furthermore, due to technological developments, new types of signs can be encountered nowadays, from neon lights to interactive touch screens (Gorter 2013: 191).

Although such linguistic items can be found in almost any part of the world that has been touched by man, Linguistic Landscaping (henceforth LL) is mainly concerned
with urban areas, as the diversity of signs is most evident there.¹ Thus, the term ‘Cityscape’ has been deemed more appropriate by several researchers (Coulmas 2009: 14; cf. Gorter 2013: 191; Spolsky 2007: ix).² Bruyél-Olmedo and Juan-Garau (2013: 1) further support this notion by holding that social interaction mostly takes place in cities, where signs are put up in order to “catch our attention”. This insinuates that written items play an important role in social interaction and serve as a means of communication. This form of communication takes place between several “managers” of the LL and the public that passes by (Blackwood 2010: 304). These managers or “actors” are numerous and have a multitude of motives and objectives for how they participate in written language display (Ben-Rafael et al 2006: 10). Shohamy & Gorter (2009: 1) point out how languages on signs are connected to people and people’s lives as it is them who "choose the ways to represent and display" as well as "read, attend, decipher and interpret these language displays, or at times, choose to overlook, ignore or erase them", the latter referring to the role of the passers-by. Before taking a closer look at who these actors in the LL are and why they participate in this form of written communication, the more urgent question to ask is in how far the study of these items is relevant to researchers and – as is claimed – to society as a whole.

Landry and Bourhis (1997) already recognized that any LL reveals important information on the society living, moving around and interacting in it, as well as on “vitality and the inter-relationship of groups, especially in linguistic contested regions” (Shohamy & Gorter 2009: 2). Is it possible, that a shop window with posters advertising the goods offered inside can do all that? In connection to all the other written items in a certain area, one can in fact investigate a number of social and language related information bits. Thanks to globalization and immigration, items in the city are often written in two or more languages other than the official one (Bruyél-Olmedo & Juan-Garau 2013: 1). Indeed, a strictly monolingual state – if there ever really was such a thing – has always been an exception (Gorter 2006b: 88). Moreover, globalisation and the resulting factors such as “migration flows, spread of cultural products, and high speed communication” have brought about an increase in multilingualism, which is visible on the linguistic items on display (Gorter 2006b: 88).

² For a more detailed discussion of the term ‘landscape’ see Gorter (2006b: 82-83).
Analysing signs the way LL does, aims at foregrounding societal multilingualism and the effects it has on society. LL focuses thereby on “language choices, hierarchies of languages, contact phenomena, regulations, and aspects of literacy” (Gorter 2013: 191). The main belief is that different motivations for putting up signs, and the multitude of languages featured on signs do have consequences for “the treatment that languages receive when they feature in the public domain” (Bruyël-Olmedo & Juan-Garau 2013: 1). \textit{id est} the languages on signs are said to influence the people who encounter them. But the process is reciprocal. Society also influences the actors’ choices: “The linguistic landscape not only reflects the status of different languages in society, but it also acts as a force shaping how languages are being perceived and used by the population” (Gorter 2013: 199).

Because the use of languages on signs influences the people reading them and \textit{vice versa}, LL research can give information about the current sociolinguistic state of an area, its people, and the signs put up by them. What was their intention to putting up a sign in a specific language, or with a slogan in a language other than the official language of the country they live in? A study like this seeks at providing information about what the people of a specific country and culture associate with a certain language: may it be the status and power they associate with it, or the idea of addressing a specific readership, for example potential buyers of a specific product, via the use of a specific language. Interpretations about these aspects can be only made when keeping in mind that language signs can have symbolic functions as well as informative ones (Landry & Bourhis 1997; quoted in Cenoz & Gorter 2009: 56).

The informative function indicates the borders of the territory of a linguistic group. The signs of the territory show that a specific language or languages are available for communication, e.g., to sell products. On the other hand, the symbolic function refers to the value and status of the languages, as perceived by the members of a language group in comparison to other languages. (Cenoz & Gorter 2009: 56)

The point made here is that languages are not only used in order to be understood \textit{per se}, but they also have a symbolic purpose, which evokes emotions in people, to which they react. This symbolic function of languages will be looked at more closely later in the thesis. For now it suffices to say that the notion of symbolic functions of languages is what makes LL especially interesting for researchers.
In general, linguists consider LL a fruitful study field, because it can provide valuable insights into the linguistic situation of a given place, including common patterns of language and script use, official language policies, prevalent language attitudes, power relations between different linguistic groups, and the long-term consequences of language and script contact, among others. (Backhaus 2007: 11)

Although the study of public writing may be rooted in linguistics, the objects under analysis are consequences of “social and cultural dynamics” (Bagna & Barni 2009: 129). This makes the field interesting for a number of other disciplines, too. In fact, the scope of the field is broad. Next to applied linguistics, social linguistics and language policy studies, LL research has been done in connection to many other disciplines and deals with numerous perspectives (Gorter 2013: 191-192). The list includes advertising, architecture, communication, economics, education, environmental studies, geography, history, literacy, media, sociology, politics, semiotics, and urban planning (Shohamy & Gorter 2009: 1; Gorter 2013: 192). All these different perspectives provide opportunities to further investigate and understand linguistic varieties, its users, and overall – societal multilingualism as such (Gorter 2013: 190). The following sub-section lists some efforts that have been made in order to pursue this objective.

2.1. Introductory overview

The first LL studies were conducted in the 1970s (for example Rosenbaum et al. 1977), when researchers first publicly started noticing the importance and socio-ecological implications possible to be drawn from paying attention to language choice in the urban environment (cf. Bruyèl-Olmedo & Juan-Garau 2013: 1). In the beginning the studies focussed on bilingual areas and were conducted by language planners (Bruyèl-Olmedo & Juan-Garau 2013: 1). In the early 1990s, Spolsky and Cooper (1991) published a highly influential work, which focussed on LL from a historical perspective (Gorter 2013: 93). The above mentioned description by Landry and Bourhis (1997: 23) was only provided in 1997, but seems to be the most frequently quoted definition of LL (cf. Bruyèl-Olmedo & Juan-Garau 2013: 1).
In the last decade, a multitude of papers focussing especially on multilingualism has been published, as globalization and immigration have visibly altered today’s urban environment. Bruyéll-Olmedo and Juan-Garau (2013: 2) mention Backhaus (2006), Coluzzi (2009) and Gorter (2006) as some of the researchers focussing on the sociolinguistic impact of these factors. Another often referenced milestone in the field is Backhaus’ (2007) work on “Urban multilingualism in Tokyo”. His methodology is often adapted in newer studies. The investigation of contemporary multilingualism has led to the conclusion that English is a main component of the LL all over the world. Thus, the use and vitality of English in LLs around the globe has been the main research focus of many researchers, such as McArthur (2000) or Schlick (2002, 2003), while others like Cenoz and Gorter (2006) or Backhaus (2007), focus more on the relationship between local languages and English (cf. Gorter 2013: 193-194; Bruyéll-Olmedo & Juan-Garau 2009: 386, Huebner 2006: 49). The number of publications up to this day is almost countless, and the foci and perspectives vary greatly. An online bibliography (Troyer 2012) offers a structured and regularly updated collection of English publications on LL.

For obvious reasons, not all works can be mentioned here. This is a very restricted list on some influential milestones in LL research. Throughout the thesis, other works will be introduced, especially in connection to theoretical and methodological considerations in the field. Section 2.2., however, serves as a mere introduction to the most basic methods and theoretical framework of any LL study.

2.2. **General procedure**

How do researchers go about LL research? Methodologically, before analysing data, three preparing steps have to be taken: deciding on a research area, collecting the data – mostly by taking pictures with a digital camera –, and categorizing the items. The coding scheme researchers use can take on different forms, depending on what one wants to find out, as well as how elaborate and detailed a study is supposed to be. For example, items can be classified according to the languages they feature, the relative importance or proportion each language takes up, modes of translation, or authorship of the sign. This process of categorization ensures a reliable quantification and analysis of the collected data (Gorter 2006a: 3). In the analysis, independent of
the specific research question(s), all LL studies have general objectives. Backhaus (2007: 2) notes that all studies have three “guiding questions” in common that they seek to answer, or that need to be answered. Those questions refer to the author- and readership of a sign, as well as “the dynamics of the language contact situation as a whole” (Backhaus 2007: 2). The guiding questions are:

(1) Linguistic landscaping by whom?
(2) Linguistic landscaping for whom?
(3) Linguistic landscape *quo vadis?*

Question (1) refers to the agents, actors or managers of the LL, who are important in “constructing” the public space (Ben-Rafael et al. 2006: 7). First and foremost the signs can be divided into “governmental” and “non-governmental” (Huebner 2006) or “top-down” and “bottom-up” signs (Ben-Rafael et al. 2006). On a deeper level the sign initiators are:

shop-owners, graffiti artists, the local and national authorities, banks and major industries, as well as the residents who not only manage their own homes, but also participate in electing the civic bureaucracies that act on the voters’ behalf. (Blackwood 2010: 304)

Question (2) refers to the fact that sign authors are aware of the power of languages to raise clichés and ideas in people’s minds and attract potential buyers (Barni & Bagna 2010: 135). Several studies have taken into consideration the important role of the recipient of the messages displayed, namely the reader (see for example Aiestaran, Cenoz & Gorter 2010; Todd-Garvin 2010; Trumper-Hecht 2010). In contrast to Landry and Bourhis, these researchers have acknowledged the importance of attitudes and perceptions of passers-by of the LL (Bruyêl-Olmedo & Juan-Garau 2013: 2). The importance of meaning in relation to reader interpretations has been pointed out by Backhaus (2006) or Scollon and Scollon (2003), among others (cf. Bruyêl-Olmedo & Juan-Garau 2013: 2).

Question (3) refers to the interpretation of the way in which society and language signs influence each other. This can be best viewed via diachronic studies. LL studies help reflecting on “the instability of language contact situations” (Backhaus 2007: 59). Since public places and thus their language environment change relatively
frequently (new advertisements are placed, public announcements put up, new items sold, etc.), such a study can always just be a momentary documentation. The importance of diachronic studies has been voiced repeatedly, and acted out by some, like Backhaus (2005), Leeman & Modan (2010) or Pavlenko (2010).

In a nutshell, the LL is first and foremost a space of communication between sign writers/distributers, sign readers and the place in which these signs are found (cf. Scollon & Scollon 2003). In the city, passers-by are exposed to what is sometimes an overwhelming amount of signs that can influence their attitudes, beliefs and even linguistic behaviour. Also, they might feel addressed or excluded by the use of specific linguistic expressions. It can be assumed that the writers of signs, or the people who chose the message on a sign, take this into consideration and that it possibly motivates their choices (Barni & Bagna 2009: 128-129). Researchers in LL have been aiming to decipher those motivations, as well as investigate the overall sociolinguistic situation of specific societies. The next section provides a more detailed insight into how those objectives may be achieved.

3. Methodology

As Gorter (2013: 198) points out, “[r]esearch in linguistic landscapes draws on the general arsenal of available methods in applied linguistics and sociolinguistics.” Aiming at gaining a better understanding of the possibilities and issues in LL methodology, this section provides a general introduction to methods used in applied linguistics, before looking closer into LL methodology and theory. The third part of the methodology section is concerned with the specific methods used in this study.

3.1. General research methods

Research methods can be separated into three basic categories: the qualitative, the quantitative, and the mixed-methods approach (cf. Dörnyei 2007). The table below lists the main characteristics of qualitative and quantitative research. Mixed-methods research combines aspects of both methods within a project (Dörnyei 2007: 44). The mixed-methods approach has become more and more relevant in recent years, as
researchers have gained fruitful results from combining qualitative and quantitative methods, thus being able to approach more aspects of research (cf. Dörnyei 2007). Depending on the Research question(s), of course, one method can be more useful than the other. Mixed-methods research also does not mean that research is in equal parts qualitative or quantitative. It is in the interest of the researchers to make up their mind about what it is they need to do in order to get answers to their RQs. Table 1 shows the main characteristics of quantitative and qualitative research.

Table 1 Characteristics of research methods

<table>
<thead>
<tr>
<th>Quantitative research includes...</th>
<th>Qualitative research includes...</th>
</tr>
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<tbody>
<tr>
<td>Using Numbers</td>
<td>Emergent research design</td>
</tr>
<tr>
<td>A priori categorization</td>
<td>The nature of qualitative data</td>
</tr>
<tr>
<td>Variables rather than cases</td>
<td>The characteristics of the research setting</td>
</tr>
<tr>
<td>Statistics and the language of statistics</td>
<td>Insider meaning</td>
</tr>
<tr>
<td>Standardized procedures to assess objective reality</td>
<td>Small sample size</td>
</tr>
<tr>
<td>Quest for generalizability and universal laws</td>
<td>Interpretive analysis</td>
</tr>
<tr>
<td></td>
<td>(Dörnyei 2007: 33-34)</td>
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<td>(Dörnyei 2007: 37-38)</td>
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</tbody>
</table>

LL researchers have also been calling for a development towards including qualitative research into the very often quantitative approach. Quantitative surveys are very popular in LL studies, as the myriad of published papers show – many of which are being referenced in this thesis. Collaborations of linguists with professionals of other disciplines have brought new methodologies and further possibilities (Gorter 2013: 199). Barni & Bagna (2009) for example, introduced a new way of mapping quantitative data via a computer program (cf. Gorter 2013: 199-200). Other studies include qualitative methods into their LL study using for instance interviews with shop owners, in order to get better insight into actors’ motives. In general, studies consulting the population and making use of questionnaires have provided further insight into the priorities and preferences of locals. Qualitative approaches were used, for example, by Cenoz and Gorter (2008), or Todd-Garvin (2010), who made use of walking-tour interviews, whereby she was able to interview
people about their perceptions right away while passing the signs (cf. Gorter 2013: 200).

Both quantitative and qualitative elements are useful in LL analysis, as they offer different insights. The statistical, quantitative approach offers insights about "the distribution of items, uses of languages, categories of designs and texts that unveil the relative impact of different structuration principles" (Shohamy, Ben-Rafael & Barni 2010: 344). Qualitative investigation on the other hand, offers "content analyses of LL items revealing the values they stand for, perceptions of potential clients, how coercion or its rejection may be practiced in the LL and the kind of reasoning beneath tactics and strategies of getting 'close' to the public" (Shohamy, Ben-Rafael & Barni 2010: 344).

In newer publications, mixed-methods approaches have become popular. Researchers combine a quantitative data collection process with different qualitative analyses (Backhaus 2007: 61). Gorter (2013: 201) critically examines that qualitative elements are often “based on a relatively small set of nonrandom and selective empirical data”. Although they pose a disadvantage, as “replication and generalization seem difficult”, this kind of research provides insights into the “relationship of individual signs with issues of multilingualism and with wider social, economic, or political developments” (Gorter 2013: 201). Quantitative approaches on the other hand are of great value for replication, generalizations and even comparisons as “[t]hey work with a clearly defined systematically collected sample of signs” (Backhaus 2007: 60).

Replication, generalization, and comparability are crucial in establishing LL as a ‘scientific’ field. In order to make research valid and reliable, sets of quantitative data need to be similarly retrieved, so that replication, generalization and comparability are possible. Comparisons offer new possibilities and analyses on a broader level. However, it is important to “compare elements that can in fact be compared” (Connor & Moreno 2005: 154). This means that a “common platform of comparison” is desirable, a concept called “tertium comparationis” (Connor & Moreno 2005: 154). This notion of “equivalence” ensures that conclusions drawn from comparing quantitative results are relevant, reliable and valid (Hu & Cao 2001: 2798).
In this study, two differing data collection methods are compared, resulting in two datasets. Here, equivalence is achieved through similar categorization, coding procedure, and analyses of both datasets.

There have been other comparative studies in LL. Cenoz and Gorter (2006) compared two similar streets using the same technique of data-collection. Backhaus (2009) compared two case studies of Quebec and Tokyo. Barni & Bagna (2010) compared “language visibility and vitality of some of the immigrant languages present in various Italian urban contexts” (Barni & Bagna 2010: 5). Blackwood (2010) investigated the presence of regional heritage languages in two French towns. Aiestaran, Cenoz and Gorter (2010) did a study on perception and preferences of residents of Donostia-San Sebastian, in which they referred to another quantitative study by Cenoz and Gorter (2006) and concluded that their results of the later study were “in agreement with the earlier studies” (Aiestaran, Cenoz & Gorter 2010: 228). In this last study, qualitative elements were used to support the quantitative results. These are just some examples of comparative studies in LL. It is, however, striking that in all those studies, both comparative elements were always conducted by the same researchers, or in collaboration with the same researchers. In fact, Gorter (2013: 199) indicates that “an international comparative perspective” for example, is only possible when “identical sampling procedures” are applied. This indicates that surveys conducted by different researchers are not comparable, due to the use of different methodologies.

### 3.2. Theoretical and methodological issues in LL

Whatever we call it, is linguistic landscape a phenomenon calling for a theory, or simply a collection of somewhat disparate methodologies for studying the nature of public written signs? (Spolsky 2009: 25)

One often stated issue of LL is that there is neither a theory nor a methodology that is ‘universal’ and applied by all researchers, which results in a number of unrelated studies. It is this issue that stands in the way of LL becoming an independent, renowned study field. Although more recent articles tackle this issue and start critically examining the methodologies and possible theoretical starting points, there
has not yet been general agreement on one methodology or theory (Spolsky 2009: 29-32). Even recent publications still consider the absence of consensus an unresolved problem of LL (cf. Macalister 2010, Blackwood 2011).

As LL researchers often call for a theoretical framework and methodology in the same sentence, it is important to think about how theory – the “system of ideas intended to explain something” – and methodology – “a system of methods used in a particular area of study or activity” – are intertwined (Oxford Dictionary Online, http://www.oxford-dictionaries.com). Throughout time, claims have been made that either theory or data could stand alone (cf. Bowern 2008: 10-11). However, both aspects are essential to any study. Theory needs testing as well as data needs theory in order “to know what questions to ask” (Bowern 2008: 12). On the one hand, “theory’ provides ideas on where to look for data and what to test. Using a coherent theoretical framework of any sort will allow you to make testable predictions.” (Bowern 2008: 11). On the other hand, theory helps organize and explain the facts that the methodology has revealed (Crystal 1981: 2).

Summarizing, it can be stated that the methodology in quantitative analyses should be so clearly explained and defined that anyone conducting the same study would come up with a similar result. This seems to be LL’s biggest struggle. There are numerous methodologies of collecting, organizing and analysing data. Additionally, although the number of case studies concerning LL is steadily increasing, a theoretical framework that points out general principles of LL has yet to be formulated. Making LL studies more comparable by setting ‘rules’, thus being able to develop theories based on the collective results, would be a major goal and need for LL (cf. Gorter 2013). Steps in this direction have been undertaken in recent reports, as LL is going in the direction of variationist studies and drawing from various theoretical approaches made in this field (cf. Soukup 2013).

3.2.1. Theoretical framework

There are different theoretical frameworks in LL. In a recent publication, Gorter (2013) lists the theoretical approaches developed by influential researchers so far. Among the first approaches was Spolsky and Cooper’s “theoretical model that
accounts for the choice of languages in public signage” (Spolsky 2009: 37). These theory-building attempts are concerned with language choice on the basis of literacy of writer and reader, as well as symbolic value conditions (cf. Spolsky & Cooper 1991).

Sign “rules” as established by Spolsky and Cooper (1991: 81-85):

1. “write signs in a language you know”
2. “prefer to write signs in the language or languages that intended readers are assumed to read”
3. “prefer to write signs in your own language or in a language with which you wish to be identified”

The first rule presents more of a “practical limitation”, while the second rule focuses on potential readers, and the appropriate content. The third rule is more closely connected to the symbolic function of languages – “where the choice of language itself is the message” (Spolsky & Cooper 1991: 94). Later, Spolsky (2009) enhanced these suggestions by putting language policy theory in the foreground.

Ben-Rafael et al. (2006: 9-10) proposed three different principles influencing language choice on signs, which focus more on the symbolic than on the informative function of signs. Ben-Rafael, Shohamy and Barni (2010: xvii-xix), Ben-Rafael (2009: 44-48) as well as Gorter (2013: 197) have enhanced these theoretical considerations to four principles:

1. “presentation-of-self” (Goffman 1963) refers to how signs are visually presented to readers, so as to catch their attention.
2. “good-reasons perspective” (Boudon 1990) refers to the deliberate choices made by LL actors in order to persuade the public to enter, buy etc.
3. “collective-identity”, refers to identity markers on signs which bind certain groups and clients to a business.
4. “power-relations” (Bourdieu 1991) refers to the fact that there are dominant and subordinate language groups, and the way languages are displayed next to each other is of great importance.
These structuration principles are intended to help structure and organize the otherwise seemingly chaotic appearance of a LL.\(^3\) Needless to say, not all four principles are equally prominent in all LL items (Ben-Rafael 2009: 48). This system of structuration relates to social interaction in the LL on different levels: “on the relation of LL items to actors, of LL items to the public in general, of groups of LL actors to segments of the public, and of groups of LL actors among themselves” (Ben-Rafael 2009: 48).

However, these ideas can only be considered the beginnings of theory-formation, because the offered information "does not specify any precise expectation regarding how far, and in what manner, those structuring principles impact on the LL" (Shohamy, Ben-Rafael & Barni 2010: 344). Other theoretical considerations were also made. Shohamy and Waksman (2009: 313) attempted a redefinition of LL, by expanding the field towards a study of “oral language, images, objects, placement in time and space, and also people” (Gorter 2013: 197). The consideration of time and space has been developed by Scollon and Scollon (2003) and provided a new view on “discourses in place”.

Furthermore, definitions of terms such as ‘minority’ or ‘majority’ language have been questioned (Shohamy & Ghazaleh-Mahajneh 2012). Gorter (2013: 198) refers to recent studies, making use of Goffman’s (1974) frame-analysis, as “enriching for linguistic landscape studies” (for example Coupland & Garrett 2010; Coupland 2012; Kallen 2010; Jaworski & Yeung 2010). Other studies focussed on perception, or drew theoretical ideas from a variety of disciplines, such as geography or political science (Gorter 2013: 198). Gorter (2013: 198) concludes his compact list of contributions to the field stating that although “the field started from divergent theoretical assumptions and has gone in different directions, [the theoretical frameworks] have contributed valuable new insights on the use of languages and societal multilingualism” (Gorter 2013: 198).

All those inputs are, however, theorizations rather than one complete theory. Gorter (2013: 205) underlines this by pointing to the task of future studies: “A future

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\(^3\) For discussions on the ‘chaos’ aspect of the LL, see Ben-Rafael (2009), Ben-Rafael, Shohamy & Barni (2010).
challenge will be to use empirical studies to test theoretical ideas rather than provide descriptive or analytic accounts that more or less illustrate theoretical ideas.”

3.2.2. Methodological approaches

Along with the call for a unanimous theory, methodological issues have been raised. Even though numerous quantitative LL studies are produced yearly, the methodologies used for these studies have not been examined satisfactorily (Blackwood 2011: 113). Backhaus’ (2006: 54, 2007: 61) three steps of how to prepare for a LL study offer some guidance in the process of preparing for a survey. Backhaus states, “Collecting a sample of signs involves three main problems. It must be clarified how to determine (1) the survey area(s), (2) the survey items, and (3) their linguistic properties” (Backhaus 2007: 61).

Those steps are generally to be considered in preparation for any survey in LL, although there may be differences in the execution. The second step, for example, deals with making a clear statement about which items will be included in the dataset. Spolsky (2009: 32), referring to Backhaus (2007) points out the difficulty of “deciding what to count”. First of all, there is the issue of what constitutes a ‘sign’. Already at this stage one can find discrepancies. Concrete examples for these different approaches are the works by Backhaus (2007) and Cenoz and Gorter (2006). Blackwood (2011: 115) comments on their approaches as “narrow” or “broad”, as the frame of what constitutes a sign has effects on the numerical size of empirical data. While Cenoz and Gorter (2006: 70) compress a whole shop front to one sign, Backhaus (2007:66) counts “any piece of text within a spatially definable frame” separately. In this context, a poster for instance is easy to define as one sign, because the frame is obvious. Glass fronts with numerous messages written on the glass however, are harder to decide on. In these situations the researcher “needs to make ad hoc decisions about boundaries, raising problems for the reliability of counts” (Spolsky 2009: 32). Arbitrariness in data collection is a point that will be further discussed later, and shall only be mentioned here briefly.

After those considerations, the question of which items to include or exclude can finally be addressed, but further methodological possibilities arise. Some argue that
only ‘fixed’ or ‘stationary’ items are of main concern for LL studies. Others take a
different standpoint. The ‘principle of accountability’ (Labov 1969: 738; 1972) states
that in any survey all present items need to be counted (Soukup 2013: 7). Sebba
(2010:59) for example, maintains, among others, that in coherence with this principle,
all items, fixed or not, need to be included in the dataset (cf. Gorter 2013: 199).

Also the third step, establishing what defines signs as monolingual or multilingual,
ofers room for different approaches. There are for example different ways of dealing
with grammatical features, errors, scripts, proper names, etc. (cf. for example

Other methodological considerations that deal more with the general nature of LL
studies, have been made for example by Leeman and Modan (2009, 2010), who
called for a “contextualized interdisciplinary approach” (Leeman & Modan 2010: 183).
The inclusion of standardized questionnaires or semi-experimental settings also
contributed to the many methodologies in LL (cf. Gorter 2013: 199).

With this thesis I seek to provide a first insight into the possibilities and limitations of
two prevailing methods in LL. Furthermore, it is tested whether certain aspects of
methodology have to necessarily be similar, in order to account for the possibility of
replication or generalization. The methodologies I compare here, deal with the ‘first
instance’ (Blackwood 2011: 112) of a LL survey, i.e. determining what is a ‘sign’. The
main difference between these methodologies lies in the definition of the unit of
analysis (henceforth UoA).

3.3. Method I

Method I is based on Backhaus’ (2007) description in the book Linguistic
Landscapes: A comparative study of urban multilingualism in Tokyo, which is “the
first comprehensive monograph entirely centered on the linguistic landscape” (Gorter
2013: 194). He had introduced this procedure of counting signs in former
publications, and other researchers have followed this approach (cf. Backhaus 2006,
Reh 2004, Blackwood 2010). A ‘sign’ in Backhaus’ definition is “any piece of written
text within a spatially definable frame” (Backhaus 2007: 66). Backhaus further clarifies:

The underlying definition is physical, not semantic. It is rather broad, including anything from the small handwritten sticker attached to a lamp-post to huge commercial billboards outside a department store. Items such as ‘push’ and ‘pull’ stickers at entrance doors, lettered foot mats, or botanic explanation plates on trees were considered signs, too. (Backhaus 2007: 66)

In a nutshell, a ‘sign’ according to data collection method I, is clearly determined by its frame. Each item has to be counted separately, if it is physically separable from other items. Also, each of these items counts as one sign, regardless its size. Backhaus (2007: 67) claims that restricting a sign to a size-limit or word-limit would restrict the dataset, making the results less reliable. In his view, this method is the “least problematic from a methodological point of view” (Backhaus 2007: 67). It is relatively easy to recognize a sign based on its physical boundaries, and no decisions about semantic connections need to be made.

Logically, this method, respectively this definition of the UoA, leads to a relatively large number of items in the dataset. It can be assumed that this will differ from method II, which is described next.

3.4. Method II

The second method, which Blackwood (2011: 115) describes as “narrow”, was introduced by Cenoz and Gorter (2006). Their definition of the UoA, is as follows:

[I]n the case of shops and other businesses each establishment but not each sign was the unit of analysis [...]. So when a bank or a shop had its name on the front, but also a number of advertising posters on the windows it was considered one sign (or one unit). (Cenoz & Gorter 2006: 71)

Cenoz & Gorter justify this approach, by claiming that all the signs in one establishment, even if they are in different languages, have been the result of the languages used by the same company give an overall impression because each text belongs to a larger whole instead of being clearly separate. (Cenoz & Gorter 2006: 71)
Cenoz and Gorter were not the only ones who found this method appropriate. Others, such as Coluzzi (2009) or Bogatto and Hélot (2010) also adapted this approach. The difference to method I lies in dealing with a number of items that clearly belong to one establishment, e.g. a shop or a company. The main idea is that all written information displayed on a shop window was selected by the same author (the company). They insinuate that all writing is put on a shop front on purpose. This justification is closely related to the theoretical approaches introduced earlier, about reasons for language use in the LL. The importance of authorship, as well as assumptions authors make about the preferences of sign readers and potential buyers, are included in this approach. This method points out quite vividly how intertwined theory and methodology can be.

The definition of the UoA in method II, results in bigger signs, as well as fewer signs, than in method I. A shop front containing a German name and slogan, a poster stating the opening hours in English, or an English ‘open’ sign on the door, is considered a single multilingual sign in method II. In method I, the name, slogan, opening hours and ‘open’ sign would be considered one monolingual sign each. The pictures below show the front of a camera shop in the survey area. All linguistic content on the pictures constitute one sign in method II, but various signs in method I (figure 1).

![Figure 1 Shop front on Westbahnstraße](image)

Although Macalister (2010: 61) points out that both approaches are physically bound and not semantically, Cenoz and Gorter (2006: 71) refer to writing “used by the same company”. According to Goffman’s (1981) definition of ‘authorship’, the author of a
text is “someone who has selected the sentiments being expressed and the words in which they are encoded” (Young 2008: 20, 51). In Cenoz and Gorter’s (2006: 71) case, words “used by the same company” could also mean that all items by one company, irrespective of their physical placement are to be identified as one sign, thus making the distinction a discursive or semantic one. Also Backhaus (2007: 29) comments that Cenoz and Gorter’s approach “resembles the approach by the Council of the French Language in Montreal”, conducted by Monnier (1889). Also Macalister claims this approach to be a semantic one. Backhaus (2007: 29) indicates that his approach and Cenoz and Gorter’s (2006) approach, are also physical versus semantic. Monnier’s (1989) approach was semantic in a different way, namely in that he counted items not as signs but as “information units”, according to the type of sign or its function (cf. Backhaus 2007: 16-21). Notwithstanding, it can be argued that what constitutes the UoA in method II is also – in a different way – a decision based on what ‘belongs’ together.

In conclusion, the difference between the two approaches lies in defining a ‘sign’. What constitutes one sign for Cenoz and Gorter (2006:71), for example a shop window, may be a number of individual signs for Backhaus (2007: 66). Huebner (2009: 71-72) summarizes the main problems stemming from this “lack of an agreed upon, or even clearly identified, unit of analysis”:

First, the resulting analyses afford equal weight to a 3x6 inch sign reading ‘pull’ adjacent to the handle of a shop door, to a 2x5 foot banner hanging from a light pole advertising a movie, and to a 20x40 foot sign proclaiming the name, telephone number and products of the shop itself […]. Second, it provides no principled way to take into account the variety of possible intended audiences for items found in a given LL. […] Finally, it makes comparative statements across various studies virtually impossible. (Huebner 2009: 71-72)

For this survey, data was collected from the survey area according to method I in the first run and according to method II in the second. Both datasets were then analysed separately and their results compared. Additionally, a questionnaire was conducted, in order to include a perception study (see section 6). Although the main objective of this thesis is to reveal the impact of these methods, it was also necessary to choose

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5 The different counting parameters result in what will henceforth be referred to as dataset I and dataset II.
from several methodological approaches in the process (see section 7). At this point, it may be remarked that the results of my study do not necessarily reveal an overall rule for how to deal with the definition of a sign. It can only give an impulse for further comparative studies in order to develop a unified methodology in LL that makes surveys replicable, generalizable and comparable.

4. English as an international language in the LL

The dynamic relationship between the LL and the people who encounter it was already insinuated. Signs are supposed to attract people’s interest, which is the reason why LLs are assumed to reflect widely held attitudes towards languages, and thus “the relative power and status of the different languages in a specific sociolinguistic context” (Cenoz & Gorter 2006: 67). At the same time, this sociolinguistic context is influenced by the LL, as “people process the visual information that comes to them” and this encounter can “influence their perception of the status of the different languages and even affect their own linguistic behaviour” (Cenoz & Gorter 2006: 68). Especially prominent is this reciprocal influence in connection to the world language English. English is more frequently used worldwide than other languages, and it will most likely maintain this status for a very long time to come (Kennedy 2010: 87). Numerous LL studies have proved the influence of English on languages and cultures all over the world. Its important role today was determined by a number of factors.

Historical reasons lie in the great power of the British Empire and its colonialism; and later, in the material and “ideological colonialism” of US-America, mainly rooted in a strong business and political power and the entertainment qualities in the media (Malzacher 1996: 100). English is the language of globalization. In this sense, it has a symbolic function, which makes it especially interesting for international advertising. Studies examining the reasons for the prominence of English in advertising are also relevant in connection to the LL (cf. Spolsky 2009: 36). Gerritsen et al. (2007: 293), who analyzed advertisements in a women’s magazine in different European countries, suggest that their results are applicable to more than just the domain of advertising, and that they indicate “the penetration of English within society as a
whole”. The presence of English in the LL can thus be explained with the help of media analysis and its observations for the functions of English.

4.1. The functions of English

It seems as though nowadays, people are more or less expected to speak and/or understand English. However, English words and phrases in international advertising or media serve a broader function than just that of being understood by many. In their study, Gerritsen et al. (2007) interviewed a number of companies about their use of English for ads in non-English speaking countries and found three factors that qualified the English language for these ads.

- English as an international language (cf. Crystal 2003)

(All quoted in Gerritsen et al. 2007: 295-296)

The first argument refers to the notion that most people around the world – especially desired audiences – understand the English language. The second argument is a rather practical one, namely that many products invented in English-speaking parts of the world are not translatable into many non-English languages (Gerritsen 2007: 295-296). The third argument is closely related to the ‘symbolic value’ of the English language (cf. Spolsky & Cooper 1991: 84). Kelly-Holmes (2000: 67) even claims that, “it is unimportant whether the advertisee understands the foreign words in an advertisement, so long as it calls up the cultural stereotype of the country with which the language is associated.”

At this point a closer examination of the term stereotype might be necessary. A stereotype, as quoted from the Oxford English dictionary, is “[a] widely held but fixed and oversimplified image or idea of a particular type of person or thing” (Oxford dictionary, http://www.oxforddictionaries.com/definition/english/stereotype?q=stereotype). Generally, the notion of stereotypes has a rather negative connotation, as it generalizes assumptions about a certain culture and the people in it.
From a scientific point of view, however, it can be argued that to understand and analyse, humans always have to categorize first, in order to organize their thoughts.

[S]tereotyping, however regrettable, is unavoidable – the inevitable consequence of an unfortunate deficiency in human cognitive processing ability. This position was developed further in the work of Allport (1954), where it was argued that the basis of stereotyping is “categorization”. (Waters 2007: 285)

In other words, stereotypes can be seen as “almost always inevitable and ordinary starting points for perception” (Holliday 2010: 135). Of course, stereotypes can apply to more than just people or things. Languages can evoke certain cultural stereotypes as well.

In terms of the “practicality argument”, cultural stereotypes serve as “natural and useful mechanisms for aiding understanding of cultural difference” (Holliday 2010: 135). In the LL, such a cultural stereotype might be the use of French to advertise perfume or German for cars, as the cultural stereotypes of these countries, and hence languages, suggest that those fields (perfume and cars) are where their excellence lies (Gerritsen et al. 2007: 294). In this context, Kelly-Holmes (2005: 70) refers also to a “dominance of English in many technical and scientific domains”.

It could be argued that the use of English in the context of science or technical inventions is also related to the ‘linguistic aspects’-arguments mentioned earlier. In fact, Gerritsen et al. (2007: 294, 309) argue that although English can be used as an “attention getter or as an image builder”, it does not carry the strong cultural stereotypes that other languages carry, because people are less familiar with these latter mentioned languages. English on the other hand, is also widely understood (Gerritsen et al. 2007: 294). Nevertheless, the symbolic significance of English cannot be ignored. Gerritsen et al. (2007: 311) conclude that the language is “used to advertise products that could be associated with modernity”, as English is “associated globally with a modern way of life” (Gerritsen et al. 2007: 296). However, they claim that this connotation is not equivalent to an (ethno-)cultural stereotype, but presents more of an association with a specific lifestyle (cf. Gerritsen et al. 2007: 296, 309). Therefore, Piller (2003: 175) prefers the term “social stereotype”, for this association of the English language with “modernity, progress, and globalization”, as opposed to being associated with a specialization in a specific area. Whether it is a
cultural or a social stereotype, English is, in any way, important on a level beyond the informative. This holds true for most signs in the LL investigated.

A clear indication for the symbolic value of English can be shops or advertisements by international companies. Even though an international language, there are always people within a society that are less familiar with English than others, for example the older generation, or immigrants from parts of the world where English does not play as big a role as in Europe. Companies have to keep in mind that people might encounter the sign who do not understand English, let alone have it as their first language (Kennedy 2010: 89-90). In some ads English is used because the advertisements “are part of a worldwide campaign. [...] [T]he advertisers believe that the whole world can be approached with the same concept (and the same language)” (Gerritsen et al. 2007: 295). This might be accountable for the Nespresso ad, which shall serve as an example here (see figure 2 below). \(^6\) Since the idea behind it might be that “the whole world can be approached with the same concept”, again the argumentation of globalization comes into play (Gerritsen et al. 2007: 295). Spolsky (2009: 31) also points toward this factor, “With globalization, many signs in cities are international advertisements sometimes modified and localized but often simply reproductions of ones used worldwide [...]”

On the one hand, the exclusion of a certain group of people can in fact go hand in hand with the image a brand wants to maintain (Piller 2001: 173). On the other hand, it can be assumed that these companies employ of media experts who are well aware of symbolic functions of languages, and thus the earlier mentioned social or “cultural stereotype” the language conveys (Kelly-Holmes 2000: 67). Why else would companies with the financial ability to translate and adapt ads to make them culturally more familiar to local audiences around the world, choose not to? One can assume that the main idea behind this is that a larger number of people can be attracted via advertisements promoting a global image, or maybe even ‘US American’ image. This again goes hand in hand with, what Kelly-Holmes (2005) calls a “language fetish” as well as the influence of popular culture and the closely related strive for an international, cosmopolitan “fetish” (Kelly-Holmes 2005: 73). When it comes to English, one might assume that the third rule of language choice (“write signs in your

own language or in a language with which you wish to be identified”), is just as important, or even more important than the second rule (“write signs in the language or languages that intended readers are assumed to read”) (Spolsky & Cooper 1991: 83-84).

![Figure 2 Nespresso ad in the LL](image)

### 4.2. English in Austria

Although not an official language in Austria, English is rather prominent in everyday contexts. Historically, one would assume national languages of neighbouring states, Eastern European countries, as well as immigrants from other countries to have a big influence on the LL. Rather, an analysis of central areas in Vienna shows that “Austria has been influenced by the status of English as a world language” (Malzacher 1996: 100). In order to understand the connection between Austria and the English language and culture, it is helpful to draw on the research area of World Englishes. Kachru (e.g. 1985: 12-15) introduced a model explaining the spread of English throughout the world (see figure 3).
Native speakers of English make up the inner circle in Kachru’s model. This includes people from the UK, USA, Australia and New Zealand. In the outer circle nations – for example former colonies of Britain (India, Kenya, etc.) – English serves as an additional official language used within the countries. The expanding circle extends regularly – as nations worldwide begin to pick up English in order to communicate internationally, which has become more and more necessary in our globalized world (Kennedy 2010: 88). The model might be a bit misleading, as the contemporary spread of English is not spreading solely from the inner circle (Kennedy 2010: 89). The whole development is more dynamic. The European Union, migration and international companies all influence each other when it comes to English (Hunston & Oakey 2010: 85). Already Kachru (1985: 13) pointed out how English has become an international language and other formerly prestigious and widely used languages, such as French for example, are not accountable as competition for English anymore (Kachru 1985:13).

Austria belongs to this expanding circle, as English is a foreign language, mostly learned for the purpose of international communication (Promitzer 2000: 32, Soukup 2013: 1). In 1996, Pia Malzacher (1996: 24) wrote, “In Austria, English is undisputedly the first foreign language taught at both primary and secondary schools.
(...)” She also acknowledges the fact that English is required for university admissions, and many English publications are to be read during university education, especially in science studies. A number of technical terms are not translated or translatable into German, thus being directly adopted from English. Although the language’s prestige in Austria can be accredited in parts to its importance in the competitive education system and business world, it is striking that also seniors attend courses to learn English (Malzacher 1996: 100-101). From personal experience of teaching English at the Wiener Volkshochschulen, I can confirm this. The course participants are adults, mostly long out of school, many 50+ years old. When asking them why they decided to take up English, the most common answer is something among the lines of “Well, English is everywhere, you can’t escape it!”

Even in our everyday speech, Malzacher (1996: 24) finds that “terms have been taken up by most of the Austrian population, so that these days, hardly anybody would consider ‘Computer’ or ‘Jeans’ English words”.7 Furthermore, it is considered fashionable to include English words into one’s vocabulary, especially for the younger generation (Malzacher 1996: 25). Personal experiences suggest that this has not changed, even almost two decades later. Hence, the presence of English in Austria is not restricted to educational and academic environments. Language contact is made possible in Austrian’s everyday lives through media influences: Movies, music, electronics and advertising – to name but a few (Promitzer 2000: 34-35). The Austrian national broadcaster ORF provides its viewers with the possibility to watch US-American TV shows in the original version, which suggests popular demand. The English language and (US American) culture seem to be omnipresent in Austria. In her thesis Perceptions of English in Austria, Promitzer (2000) studied language attitudes of Austrians towards the English language, especially in connection to the spread of English into the German language. Her study revealed that in general, Austrians do not view American influence on German culture and language “as a threat” (Promitzer 2000: 49).

As has been argued earlier, written information can have an impact on the people who encounter it. People process signs and what they see can have positive or

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7 Cf. Section 6 Language Judgement.
negative effects on their attitudes towards a language and the way they perceive its status (Aiestaran, Cenoz & Gorter 2010: 223). Promitzer’s results allow for the hypothesis that the attitudes towards English are rather positive. Before examining this more closely with regard to LL (in chapter 6), the next chapter introduces the survey area.

5. The dataset

In order to get a good idea about the survey area, the first subsection looks at Vienna in general, then at the district in which the survey area is located and at last, at the selected street blocks which are subject to analysis. In the second subsection, the data collection process itself is reflected upon. Furthermore, various reasons for including or excluding items from the dataset are given.

My survey area includes two blocks of Westbahnstraße, from one end of the street, which is the corner of Urban-Loritz Platz, to the crossing of Schottenfeldgasse (with Kaiserstraße crossing in the middle). Blackwood (2011: 115) states, “[I]n the same way that sociolinguistic surveys use groups of respondents (rather than entire populations) to predict trends in language practices, [...] stretches of roads [...] can be understood as representative of wider regions.” Blackwood analysed 50 metres of different streets to compare them. In this study I consider about 350 metres of one street, which will later be subjected to two analyses.

5.1. Survey area

In alignment with Backhaus’ (2007: 64ff.) three steps, it is necessary to begin with a thorough description of the survey area. Coluzzi (2009: 301) considered places mostly passed by locals, but with a high density of signs, to be appropriate survey areas for his LL survey. An area like this was assumed to be desirable for this survey as well and Westbahnstraße seemed to possess these attributes. While Coluzzi (2009) collected data of two streets, other researchers, such as Rosenbaum et al.

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8 Unfortunately, the whole street could not be taken into consideration. The high number of items would have extended the scope of this thesis.
(1977) have also been focusing their research on one single street only. As my main focus is on the methodological comparison of two datasets collected from the same survey area, I collected data from one single street, as well.

Not much LL research has been done on Vienna in particular. Soukup (2013: 6) mentions only 4 studies that deal with Vienna or parts of Vienna (Scollon & Scollon 2003; Schlick 2002/2003; Dorner & Vasiljev 2010; Kral 2012). Generally, analyses of LLs within officially monolingual states have proven to be interesting (cf. Backhaus 2007, Huebner 2006, Bogatto & Hélot 2010) and Gorter (2013: 199) further points out how especially quantitative LL analysis has is useful in “predominately monolingual” linguistic landscapes.

Although the official language of Austria is German, the people living in Austria are far from monolingual and especially Vienna is a multilingual city (cf. Dorner & Vasiliev 2010: 110). Historically, reasons for this go back to the Habsburg empire, when people from Eastern Europe lived and worked here. Vienna has since then been the place of residence for people originating from other parts of the world, too. Austria’s capital city has about 1.7 million inhabitants. About 80 per cent of the population are L1 speakers of the official language German. While almost 8 per cent have Turkish or Slavic languages as their first language. Only 0.5 per cent of the population are originally from an English-speaking country, like the UK or the US (Soukup 2013: 5).

The survey area is located in the seventh district (called Neubau), a central district of Austria’s capital city. As mentioned above, the street in question is called Westbahnstraße and is about 750 metres long, the chosen area circa 350 metres. The street is comprised of older buildings, originating presumably from the 19th century, and also a number of very traditional, old shops. Interestingly enough, the street has become a rather trendy neighbourhood in recent years and a big part of what represents young urban culture is now situated there. Along with the transformation into a trendy area, some shops were opened by young, ‘hip’ designers, who apparently felt their clientele would most likely be found in this district, as the residents have a reputation for being a rather alternative crowd. The area is also the centre of Vienna’s photography art scene - which is kind of a ‘young’ art itself – with exhibitions by international artist and for international visitors.
Also, there are art galleries, and art auctions take place regularly. Statistics show that residents of Vienna’s seventh district take part in cultural events and activities more frequently than residents of outer districts, which could of course also be related to the (local) availability and short distance to these cultural events (Anreitter 2010: 82).

The seventh district is also more expensive to live in, so residents can be assumed to be rather wealthy. Although this cannot be generalized, Neubau is called by some Viennese and some travel guides the ‘BoBo’-district (cf. Eder 2010; Stadtbe kannt) or Boboville (Dusl 2007: 44; cf. for example Hackenberg & Hanta 2011: 98). The Bobos’ lifestyle and state of mind are characterised as a combination of two seemingly contradictory positions; that of rebellion and riches (Dusl 2007: 43).

These are highly educated folk who have one foot in the bohemian world of creativity and another foot in the bourgeois realm of ambition and worldly success. The members of the new information age elite are bourgeois bohemians. Or, to take the first two letters of each word, they are Bobos. (Brooks 2000: 10-11)

The seventh district has thus attracted new, young renters, in addition to the long-time residents. It can be assumed that the people here might be willing and able to pay for design products, and support young, new labels, artists and designers, which are more expensive than retail chains.

All in all, this is an area where tradition meets modernity. In this sense, the street is undergoing a constant transformation. It is also representative for larger areas of the inner districts of Vienna, as it is not an area of extremes. Macalister (2010: 61) claimed that an optimal research area in an officially monolingual country, is one that is on the one hand, “not obviously an ethnic, cultural or minority/community language enclave” and on the other hand does “not represent extremes of wealth or poverty” (Macalister 2010: 61). Besides these attributes, it is also not a very touristic area. Language diversity in the LL can be assumed to be more of an indication for the multilingualism of the population, rather than being aimed at tourists.

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9 The term ‘Bobo’ was allegedly coined by the US-American author and New York Times columnist David Brooks (Dusl 2007: 43).
5.2. Data collection process

All items containing written information of any sort were being photographed with a digital camera. The photos were taken in October 2013, on a work day, before noon. It was assumed that at this time most stores would be open, and have their info boards out. Unfortunately not all stores were open, but this just presents the reality of linguistic landscaping. After all, if a store has the sign ‘closed’ in English on their door, it can be assumed that the sign for ‘open’ will also be in English. The landscape does of course not only consist of shops, but also includes restaurants and cafés, a museum, art galleries, graffiti, stickers, etc. The stores included a variety of design shops but also tailors, flower shops, camera shops, clothing stores and others.

The process of collecting and categorizing data is rather time consuming. Especially when such a survey is being conducted alone, it is important to be very systematic and focussed in order not to oversee a sign. The pictures taken have to be saved on a harddrive and studied carefully. During this process it became clear that not all signs were clearly readable. Sometimes the writing was too small, or the camera’s zoom had not focussed, or the sun reflected from the shop window. Consequently, certain pictures had to be taken again.

5.3. Included and excluded items

Backhaus’ second step (2007: 65) seeks at defining the LL items. Labov’s earlier mentioned ‘principle of accountability’ is intended to ensure the production of “meaningful results” (Gordon 2013: 96). Researchers must not “pick and choose” examples in order to get the answers they wish to obtain (Gordon 2013: 96). In order to get a proper dataset, the documentation should be as complete as possible. Since there needs to be a clear frame within which the data are collected, not only for the sake of completeness and reliability of the study itself, but also in terms of comparability, it is crucial to document exactly what the dataset is composed of. Nonetheless, it is common in LL to exclude certain items in the process of defining the dataset. Data collection is not as simple as it may sound, and even Backhaus who tried to include as many signs in his study as possible, had to make exclusions, in order to maintain a logical, clearly definable sample of data (cf. Backhaus 2007: 95).
67). This study, like others, aims at being as complete as possible. However, some questionable cases had to be excluded, which are pointed out below.

Pictures of written evidence were taken from both sides of the street within the designated survey area. The dataset includes all items on the ground level of buildings. If an establishment or company had an advertisement or logo up higher on one of the buildings, it was also included. This can be considered as part of the establishment and was put there on purpose by the business owners. Since the roadside was rather repetitive, containing mostly cars and dustbins, I decided to concentrate only on the house fronts, and items directly in front of them, thus excluding the road side.

The road did not feature any written signs, except manhole covers, which included only company names, or codes of numbers and digits that were unintelligible to passers-by not affiliated with street-construction companies. Scollon and Scollon (2003: 185-186) refer to these items as “public functional notices”, as they are directed much more closely to a specific audience such as workers who maintain the municipal infrastructure of water, power, and gas. One does not imagine most pedestrians would have much idea what these are about, but various workers would know [...]. (Scollon & Scollon 2003: 185-186)

For the sake of completeness, such notices were included in the dataset, if the information on them was comprehensible to most people. That means that even people without specialized training in a specific field are likely to understand the message on the sign.

In terms of intelligibility, I had to exclude all things too torn apart or washed out to identify language, as was the case with some posters or stickers. All but one graffiti was excluded, since the others were not intelligible. Pennycook (2009: 307) claims that “[g]raffiti are generally not intended to be interpretable by people outside the subculture of hip-hop/graff writers.” Stickers and smaller notes, even if parts of them were missing were included, given that the message on them was still clearly readable. Such items, like Graffiti, stickers or other small notes, represent a relatively substantial part of the LL, put there by people with a specific purpose, for the
passers-by of *Westbahnstraße* to see. For this reason, careful consideration was given to collecting all of them.

Items of a LL can include stationary, semi-stationary and mobile signs (cf. Reh 2004: 3-5, Blackwood 2011: 115-116, among others). Blackwood (2011: 116) includes only those signs which can be “considered to be semi-permanent”. Semi-stationary signs like boards and blackboards put up in front shops each morning by shop keepers/employees are also part of the image of a business. Thus items such as newspapers, leaflets, etc. were included if there were part of the semi-fixed category. Blackwood (2011: 115-116) points out that those items are likely to be put out repeatedly every morning. Even if the information (i.e. the daily menu or a special offer) might change daily, the authors, and thus the language choices they make, are very likely to remain the same. Similarly, electronic signs, like screens showing interchangeable pictures can also be considered semi-permanent, as they are more easily changed than wooden panels on shop fronts, and messages are changed easily and repeatedly. There are two possible ways of dealing with these electronic items. One would be to collect all pictures of texts displayed, that means waiting until the electronic picture frame has run through all the pictures, and documenting all of them. I opted for the second option. I decided to always count the one image captured with my camera at the certain time the picture was taken. The LL changes all the time and a passer-by would normally also only see one of the many displays. Neon signs were counted even if they were not lighted because the writing was still clearly visible. Another matter of discussion is whether or not to include mobile signs, i.e. “non-fixed items” (Blackwood 2011: 115). Backhaus (2007: 67) dismissed them from his data. I excluded leaflets, torn apart newspapers on the floor, and other items that are very likely to vanish within minutes. Leaflets, posters, and other mobile signs were included, given that they were in some form attached to another at least semi-permanent carrier. Also excluded were people, texts on clothing or tattoos (cf. Blackwood 2011: 116).

Besides traffic signs, also street signs saying ‘*Westbahnstraße*’ and signs with only the name of the street and the house number, were excluded from the dataset. As Macalister (2004, 2010: 71) argues, “place names are [...] arguably the least revealing of all the semantic domains.”
Also doorbells were excluded if containing only the residents’ names. Of course, if there was any written information other than that, these had to be included. When it comes to shops, all the written information on the house fronts and in the shop windows was taken into account. Like Coluzzi (2009: 302), I also included doors and gates, closed and open ones, as well as signs on the side display of shop windows. On the other hand, the inside of a store, if visible, but not part of the shop window, was excluded, as well as price tags that contained only the price and the product name (or company name, serial number, etc.) (cp. Backhaus 2007: 67).

Words referring to food (‘Curry’, ‘Falafel’) and drink names as well as first names and family names were excluded, too, as it is too difficult to (etymologically) determine the origin of these words. It is a complex process and bound to cause mistakes (cf. Bogatto & Hélot 2009: 287, Edelmann 2009, Backhaus 2007). Like Gerritsen et al. (2007: 301), it was decided that names were included only “if they had a meaning that was associated with the product.”

Foreign grammatical features were ignored if the rest of the message was in a different language. For example, in German, the possession indicating <s> is normally not indicated with an apostrophe, although this spelling is seen more and more these days. Examples from the survey area were Baier’s Enkel and Papa Freddy’s Wiener Beisl. It is not necessary to be familiar with the English language to understand these titles, so they were classified as German items.

Word play on the other hand is an important part of LLs and was also found and included in this analysis. The Austrian cosmetics company BIPA, for example, had stickers on their shop windows displaying the writing ‘bi good’ (see figure 4). The first word is a hint at the beginning of BIPA’s name. People reading the sign need to be familiar with the English expression ‘be (good)’, in order to catch the word play and comprehend the message. This expression was thus considered ‘English’, and due to the additional text in German, this is a multilingual sign.
As Spolsky (2009: 32) points out, there are some *ad hoc* decisions to be made in the process of data collection. The above mentioned limitations were helpful and necessary in order to get an overview and avoid mistakes. The principle of accountability was still kept in mind: No items were included or excluded in order to secure certain results.

Striving for completeness in LL analysis is not possible, without considering the people that act in it.

It is quite clear that straightforward counting cannot lead to general and absolute conclusions as it does not take people’s perceptions into account. Obviously, there is a considerable degree of subjectivity involved as signs may be perceived differently by different people, and this includes both sign initiators/makers and the public. (Coluzzi 2009: 302)

While the scope of this thesis does not allow for a closer consideration of people’s attitudes and beliefs, the next section allows for a small glimpse into the perception of people encountering the LL. The subsection ‘Language Judgement’ presents the results of a survey undertaken in order to decipher people’s language perceptions in connection to the English language.

6. **Language judgement – What is ‘English’?**

   [W]hat counts as English for different people in different contexts manifests itself in the way that people regulate and respond to the language [...].
   
   (Seargeant 2012: 189)

This section provides a discussion of the difficulty of categorizing words according to language, especially in connection to the world language English.
Further, it introduces the questionnaire conducted in order to provide answers to the question stated in the chapter heading.

Classification of words according to languages is another methodological step that is approached in various different ways. Kelly-Holmes (2005: 14) remarks that “the definition or categorization of a word as foreign is not a straightforward process. It is instead rather laden with potential pitfalls.” This can be explained by pointing out that etymologically, many English words, originate from other languages. There are influences of other Indo-European languages, like Greek or Latin, later French and others (Kelly-Holmes 2005: 14). However, a large number of these words have ‘travelled’ to German-speaking parts of the world through the English language, or are now associated more with English than the language they originally came from. The word ‘vintage’ being one example.

It seems especially difficult to avoid “pitfalls” in connection to English. This issue has also been addressed by Gerritsen et al. (2007: 301) and referred to the following complexity: Since English words have infiltrated the German language for many years now, and are often used by locals, it is not always easy to tell whether people still acknowledge these words as ‘foreign’. “[S]ince English lexical items have been assimilated into so many languages, it is often difficult to say whether a lexical item is still English or whether it has become a part of the local language” (Gerritsen et al. 2007: 301).

In Austria, French influences used to be very common. However, given how long some French words have been in use, it was decided, that words like ‘Restaurant’ or ‘Café’ are in fact “adopted into” German (Schlick 2003: 5). The fact that these words are also still used today, further qualified them for the classification ‘German’. The word ‘Boutique’, counted as a German word in Schlick’s (2003: 5) analysis, presented a more complex case. It seems that this word is used for very specific types of small shops, and as it is a word used less and less today, it can be assumed that the declaration of a business being a ‘Boutique’ is a choice that plays with this French connotation – a cultural stereotype of French as being specialized and especially refined in relation to clothing and accessories. It was thus decided in this study, to classify this word as French.
Considered an international language and being used for communication with people from other countries regularly, the English language has also influenced our linguistic repertoire. English words like ‘taxi’ are used internationally, and some have been borrowed for specific purposes (Lawrence 2012: 70). Although borrowings are “externally driven”, by influences of globalization for example, over time these words and phrases can become not only “part of the host language”, but also “of a local identity” (Kennedy 2010: 89).

In the categorization process, some of these words made classification according to language rather difficult. Some were easily classified, as their linguistic environment indicated the language they were supposed to display. English words embedded in English sentences were counted English. But if a sign was in German and had just one English word in it – was that to be counted as a multilingual sign? Especially words standing on their own required closer consideration. Originally English words standing on their own, or embedded in otherwise German phrases, were considered ‘questionable’. This was the case for 62 items in the LL investigated.

Whether we perceive what were once ‘foreign’ words, as part of our language or not, depends on our attitude towards them. In order to make categorization according to languages as authentic as possible, Gerritsen et al. (2007: 301) decided to compare dictionary entries of questionable words of an authoritative English dictionary with authoritative dictionaries of the respective language. An item was classified as ‘English’ if it appeared in the English dictionary with the identical meaning and was not enlisted in the dictionary of the local language. As a first step for this thesis, the Online Duden dictionary was employed, in order to get an idea of how an authoritative German dictionary would deal with the questionable words collected from the survey area (Duden Online, www.duden.de). The use of an Austrian dictionary was considered, but the Duden has certain advantages. The main Austrian dictionary is mainly used in schools, and has fewer entries than the Duden. Also, the access to the Online Duden was a considerable advantage, as it can be regularly updated and thus presents the latest developments. In this respect it can be considered more up to date than a printed copy. Furthermore, the website provides more information on the etymology, as well as possible uses of a word in the German language. Additionally, it states the year when a word was first entered into the
dictionary. Last but not least, it also provides information on words of different origin (for example English) as being part of what is called the *Zertifikat Deutsch*. This is a certificate of proficiency in the German language, also offered in Austria. If a word is labelled as part of the testing for the *Zertifikat Deutsch* that means that the testee is expected to know this word in order to receive the certificate (cf. ÖSD, http://www.osd.at/default.aspx?Slid=9&LAid=1). Interestingly, 44 of the 62 items in question were listed in the *Duden*. The additional information of their English origin was not acknowledged for all of them, eleven were labelled part of the *Zertifikat Deutsch*.

From the point of view of a student of English, it seemed difficult to consider some of these words ‘German’. However, the majority of the population, and hence the people sign initiators had in mind as sign readers, might have a different approach to language. In relation to this, Gerritsen et al. (2007: 301) pointed towards one limitation in their study, namely that “words that do not appear in an authoritative dictionary may still be considered by some native speakers as part of their language” (Gerritsen et al. 2007: 301). In the same way, one might want to consider that some of the words listed in a dictionary, may still be considered foreign by some locals, as it depends highly on people’s profession (cf. linguistic aspects-argument), age, or area of residence, hence how exposed they are to these language items. It was thus decided that a survey among Viennese residents might be more revealing about the actual state of mind of the population and their perception of these items (see Appendix A: Questionnaire form).

### 6.1. The questionnaire

Landry and Bourhis (1997) saw value in conducting questionnaires. To them,

> LL was a construct based on answers to questionnaires [...]. Their LL factor (which perhaps should have been labeled perception of linguistic landscape) emerged as a separate factor and was significant related to vitality beliefs [...]. (Spolsky 2009: 28)

In general Applied Linguistics makes use of questionnaires, wherever “the intention is to find out about people’s attitudes to language change” and thus to their perception
of languages and the eminent role they play in their everyday lives. (Bloomer 2010: 145). This was also the objective of this questionnaire.

In order to get people to participate in the survey, certain factors concerning structure and form had to be considered. First, I wanted to make the process simple and not too time consuming for the participants, so the questionnaire was constructed in a way that would make it possible to answer it in about five minutes. Secondly, I wanted the questionnaire to also visually seem simple and diverting, so it was restricted to one A4-sized sheet of paper (see Appendix A). This appealed to the people as it did not seem like too much work (cf. Bloomer 2010: 150).

When considering the question of whether to provide printouts or distribute the questionnaire electronically, a number of pros and cons had to be considered (cf. Bloomer 2010: 150). Sending the questionnaire to people via email, or posting it on a social network site would have been less time consuming and more people could have been reached. Despite these advantages, I decided to provide print outs and meet up with the participants. That way I could ensure that the participants were appropriate for my uses: residents of Vienna, without a background in linguistics. I could explain to them orally what the questionnaire was about and answer comprehension questions beforehand. It is very interesting for a researcher to hear the questions and verbal remarks of the informants, as well as their reactions while taking the survey. One participant for example, exclaimed half way through, “Oh mein Gott, mein Leben ist so anglifiziert!” (“Oh my God, my life is so infiltrated with anglicisms!”).

As pointed out, the appropriateness of the informants for the research topic is an important aspect of surveys like this (Bloomer 2010: 145). The informants were inhabitants of Vienna, who are likely to encounter these words on signs regularly, some of my informants were even residents of the seventh district, but obviously also residents of other districts happen to pass Westbahnstraße and thus (consciously or unconsciously) make up their minds about – or at least have to deal with – the signs they encounter there. Subjects were of course asked if they would volunteer to take part in the survey. The research question for this mini-survey was explained to them in German. Also, information on the questionnaire itself was provided in German, as
this was the participants’ L1 (cf. Bloomer 2010: 146). At first it seemed suitable to have 5-6 Viennese citizens of each age group (summarized into 4 age groups) as participants. Later, it was decided to summarize the participants into two bigger age groups, ages 15-39 and 40-65. This way there were more participants in each group (12 each), and the age groups are more realistic in relation to the desired clientele of the shops in the street.¹⁰

The questionnaires were filled out at my home and work place or public places like cafés. The 24 participants were asked – verbally and in writing – to enter the date (which most of them ignored) and tick the appropriate age box. The sheet included four columns. The first one was a list of the 62 linguistic items. All items were displayed in capital letters, so the form would not be distracting.¹¹ The two columns to choose from were titled Deutsch (‘German’) and Englisch (‘English’). The participants simply had to tick a box, either in the Englisch section of the table, for words that they clearly perceived as foreign; or the Deutsch section for those words that they considered to be already a fixed and integral part of the German language.

Two items are originally French words and were added as distracter items. The function of these items was twofold. Firstly, it would show how much attention participants paid to the spelling of the words, in order to assign them to a language. Secondly, it would reveal whether French words, already integrated in English vocabulary, are still recognized as French or now viewed as English. The distracter words were ENSEMBLE (a word which has been in the German language probably since the 19th century, but also used in English speaking countries) and MANICUERE (the spelling suggests this word to be French). The English spelling of the latter item also appeared in the LL and was thus also part of the questionnaire. It was clarified in the beginning of the survey that the participants could also use the fourth column ‘Anmerkungen’ (‘remarks’), if they felt an item did not appear ‘English’ or ‘German’ to them, but rather another language. The questionnaire was piloted with 2 participants and myself, in order to ensure the explanations were clear and the questionnaire itself was not flawed (cf. Rasinger 2008: 67-68).

¹⁰ There are no shops specialised on children or elderly people in the survey area.
¹¹ German nouns start with a capital letter as opposed to most English nouns.
6.2. Results

As mentioned before, all 62 items on the list were actually encountered in the LL. The items included mostly single words, but also phrases or word pairs that belonged together, for example ‘permanent make-up’ or ‘cut & go’. The items were coded according to the language which had the majority of ‘votes’. The results were considered explicit, if the discrepancy was higher than by four votes. When items had an equal amount of votes or just up to four votes of discrepancy, they were double checked with the Online Duden. Those questionable words were then coded according to whether they were enlisted as foreign in the Duden.

The distracter items seemed to have indeed distracted some participants. ‘ENSEMBLE’ was left unmarked by 2 people, while 6 indicated that the word appeared French to them. However, 8 participants thought it was an English word, 8 thought it to be German. With ‘MANICUERE’ it was similar. One participant ignored it completely, while 5 people remarked it to be French. However, while 6 people declared it as German, 12 thought it to be English. This could be an indication for the fact that the formerly prestigious language French is less vivid in people’s minds nowadays, while English is rather established, as has been suggested by Kachru (1985: 13). In contrast, the word spelled ‘MANICURE’ had 3 votes for French.

The remark section was mostly left blank. One participant only marked words which were considered German, indicating the rest was to be counted as English. Sometimes items were left completely unmarked, mostly the ones were the same word appeared in different forms. For example electronic mail was referred to as ‘E-MAIL’, ‘EMAIL’, or ‘MAIL’ on signs in the LL. I wanted to test whether the form had influence on people’s perception of a word. Interestingly enough, it was necessary to point out the different form to participants, as most tried to inform me that I had made a mistake in writing the same word multiple times. It can thus be concluded that, at least for some people, form does not influence the perception as much as the lexicon itself.

Some results were quite distinct. For example, all 24 participants decided on German for the words ‘JEANS’ and ‘INFOS’. This underscores Malzacher’s (1996: 24)
assumption, that those words are hardly perceived as foreign words anymore. Also ‘INTERNET’ was considered German by 22 participants. Other times the results were not as distinct: in three instances, it was a tie (‘INTERNET EXPLORER’, ‘HAPPY HOUR’, ‘ENSEMBLE’). All in all, 20 items had a divergence of under 4 votes:

**CALL CENTER, DISCO-MIX, ENSEMBLE, HAPPY HOUR, (INTERNET) EXPLORER, JERSEY, MAIL, MAKE-UP, MANICURE, MOUNTAIN-, CITY-, TREKKINGBIKES, NEWS, PATCHWORK, PERMANENT MAKE-UP, SECOND-HAND, SECOND HAND, SHOPPING, SWEATSHIRT, WEB, W-LAN, WEST.**

After double-checking these 20 questionable items with the *Duden*, and deciding on how to classify them, the following overall results emerged: Of 62 items, 34 were considered to be part of the German language, 28 were still considered to be foreign words. Of those, 26 were classified as English, 2 as French (*ENSEMBLE*, *MANICUERE*). Figure 5 shows the distribution of votes on the items of the questionnaire (see Appendix B: Results of the questionnaire). Significant differences between the age groups could not be detected.

![](image)

**Figure 5 Results of the survey**

Items counted as German:

**BAR, DESIGN, DJ, E-MAIL, EMAIL, EVENT, FESTIVAL, HIT, HITS, INTERNET, INFOS, JEANS, LIFT, LIVE, MAKE UP, MAIL, ONLINE, PARTY, PARTYSERVICE, PERMANENT MAKE UP, POOL, SERVICE, SCAN, SHAMPOO, SHOP, SONGS, STUDIO, STYLING, TEAM, TICKET, TV, WEB, WEST, ZIPP (34)**
Items counted as English:

AIRCONDITION, CALL CENTER, COACHING, CUT & GO, DISCO-MIX, EXTENSIONS, FREE WIFI, FREE WLAN, FRENCH GEL, HAPPY HOUR, (INTERNET) EXPLORER, JERSEY, MAKE-UP, MANICURE, MOUNTAIN-, CITY-, TREKKINGBIKES, NEWS, PATCHWORK, PERMANENT TATTOOS, SECOND-HAND, SECOND HAND, SET, SHOPPING, SWEATSHIRT, VINTAGE, WELCOME-DRINK, W-LAN (26)

Although this study cannot make implications about the attitudes towards English as such, it might indicate that the English influence is being welcomed and accepted, and people do not resent it. The high number of items decided on as German (over half of all items), suggests this conclusion, because it gives prominence to the notion that the participants have included many of the words into their everyday language and do not view them as foreign words anymore. Language purists seem to be a rarity. This is in concordance with Promitzer’s (2000: 49) remark mentioned in chapter 4, that American influence is not viewed as a threat. It also confirms Kelly-Holmes’ (2005: 15) statement, quoted below:

Languages also earn – deservedly or not – reputations as being ‘open’ or ‘closed’ to foreign words. For instance, English is seen as flexible, German too is seen as more open to English words than French, which has a reputation for purism [...].

Another indication of these results may be that these words are also part of most of the participants’ inherent vocabulary which they encounter and use on a daily basis. The sign author’s intentions stay unrevealed.

6.3. Limitations

There are limitations to every survey. One general limitation is related to the reliability of participants’ answers.

It is not always clear that human beings act in accordance with what they claim to be their views about language use (or anything else, for that matter). They can only tell you what they think they believe or think that they do. [...] Questionnaires tell us what the informant (or the subject) thinks they think and tells us how they think they behave [...]. (Bloomer 2010: 145)
First of all, it is likely that the informants have never before given conscious thought to how they would categorize words according to languages, especially such words encountered on a daily basis. Additionally, although the questionnaires were anonymous, some people might have voted based on the way they want to be perceived (for example as more of a language purist, or the opposite). It can be assumed that some may not have chosen the answers according to their actual first impulse, but rather according to how they want me to think of them.

Another limitation is connected to the number of participants. The sample is supposed to fit to the intended clientele of Westbahnstraße’s shops, and the more people participate, the more reliable the results are. “The more informants there are, then the greater validity can be claimed for any statistical results of the survey” (Bloomer 2010: 146). Due to the decision to use paper-based questionnaires, a convenience sample, based on availability of participants was collected. A bigger sample might also have provided clearer results on differences between age groups.

In addition to the section for remarks, the option of “international” language could have been offered (cf. Tufi & Blackwood 2010). The word ‘taxi’, as mentioned above, is the epitome of an international word. Also an option of ‘undecided’ could have given further insight into the perception of the participants. The fact that some items were left unmarked, or equal votes cast for both languages, indicates that the distinction is neither clear-cut, nor easy for LL actors. This survey supports the notion that some words inherit an in-between-status.

Summarizing, the results of the questionnaire further support three basic statements, made throughout this thesis.

(1) Changes in people’s linguistic repertoire. As Kennedy (2010: 88) observed, “As well as English performing particular functions in the world, its spread and the different roles it plays have led to local changes to grammar and discourse and more obviously vocabulary.”

(2) Other formerly prestigious languages have given way to English, as was already insinuated by Kachru (1985: 13).
German as a language, or at least Austrians speaking it, is/are open to foreign language influence (cf. Kelly-Holmes 2005: 15).

The objective of this survey was to provide insight into people’s perception of the Viennese LL, and thus make categorization of LL items more reliable. The questionable items are now assigned to a language, which is helpful for the categorization process described below. There are some limitations to this survey as well as some room for improvement. It will however, hopefully, serve as a reference point for future studies, as the inclusion of the perceptions of LL actors should not be left unconsidered.

7. Categorization of data

One of the major tenets of the “Labovian Paradigm” states that, “[q]uantitative methods can reveal patterns where casual observation sees only chaos” (Gordon 2013: 78). While structuration principles aim at sorting out motives for languages on signs, thus bringing a certain order into the LL on a theoretical level, categorization sorts units on the methodological level.

The items collected in the survey area were categorized, organized and evaluated with the help of the Microsoft office programme Excel. After carefully considering what can be analysed with quantitative data, and taking into account what other researchers have done, the following taxonomies were selected. The subsections below will refer to these five taxonomies and their various categories.

(1) Languages
(2) Monolingual vs. multilingual
(3) Top-down vs. bottom-up
(4) Functions of signs
(5) Domains
7.1. Languages, monolingualism and multilingualism

Firstly, the language(s) encountered on a sign were noted (1). At this stage it was possible to make use of the results of chapter 6, as even the questionable items were now assigned to a language. Secondly, each sign was classified as either monolingual or multilingual (2). A sign was considered monolingual, if every piece of written information was in the same language. All signs containing more than one language were counted as multilingual signs, independent of the amount of information given in the other language(s).

It was decided to refrain from using the term ‘bilingual’ for signs with two languages, as there is a certain ambiguity in what bilingual really means (Reh 2004: 2). According to Adams (2003: 30), the term can be assigned correctly only to multilingual texts, in which at least part of the information provided is repeated in the other language. He proposes the term ‘mixed-language’ text, for items with text written in more than one language, but without translated elements. To avoid ambiguity it was decided to use the term multilingual.

Multilingual signs were further categorized according to the type of multilingual writing they presented. Reh (2004: 8) acknowledges “four main types of combination of languages and information”:

- duplicating
- fragmentary
- overlapping
- complementary

The first category, duplicating multilingual writing, might be the least relevant in an Austrian context. It refers to mutual translations, were the whole text is presented in different languages (Reh 2004: 8). Reh (2004:8) assorts these kinds of display mostly to multilingual countries, where it can be expected that only one of the languages provided will be understood by a reader. In Austria duplicating multilingual writing is more likely to be encountered in connection to educational purposes or in touristic areas.
Secondly, fragmentary multilingualism refers to items were the complete text is written in one language, but some parts of the text are also available in another language, or other languages (Reh 2004: 10). Again, this type may be more commonly encountered in multilingual/multicultural communities. Thirdly, overlapping multilingual writing is very similar to this second type. Some information is given in more than one language, while some is only featured in one language. This type of sign addresses a multilingual readership to understand the full information (cf. Reh 2004: 12-13). Huebner (2009: 78) and Spolsky (2009: 28-29) both ignore the difference between the two, and provide only one definition for both types. Henceforth, the term ‘fragmentary’ will refer to any sign “in which some but not all of the information contained in one language is also contained in the other(s)” (Huebner 2009: 78).

The last type of multilingualism is complementary multilingual writing. For this type of sign it is necessary to know all languages involved in order to comprehend the overall message of a text (Reh 2004: 14).

7.2. The top-down/bottom-up distinction

The top-down/bottom-up classification (3) is concerned with the commissioner of a sign. Ben-Rafael et al. (2006: 10) refer to top-down and bottom-up “flows”, which they distinguish as “LL elements used and exhibited by institutional agencies which in one way or another act under the control of local or central policies” on the one hand, “and those utilised by individual, associative or corporative actors who enjoy autonomy of action within legal limits”, on the other hand (Ben-Rafael et al. 2006: 10). Especially in terms of language policies, one might find significant differences in language use on signs that “reflect a general commitment to the dominant culture”, and provide insight to how minority languages, and thus minority communities, are dealt with. Bottom-up signs are “designed much more freely according to individual strategies”. This classification has been adapted by a number of researchers, some also refer to the distinction as “governmental” versus “private” (Bruyel-Olmedo & Juan-Garau 2013: 5). Ben-Rafael et al. (2006: 14) provided a table listing signs belonging to each category (table 2).
Table 2 Top-down and bottom-up items in a LL (Ben-Rafael et al. 2006: 14)

<table>
<thead>
<tr>
<th>Top-down</th>
<th>Bottom-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Public institutions: religious, governmental, municipal-cultural and educational, medical</td>
<td>1. Shop signs: e.g. clothing, food, jewellery</td>
</tr>
<tr>
<td>2. Public signs of general interest</td>
<td>2. Private business signs: offices, factories, agencies</td>
</tr>
<tr>
<td>3. Public announcements</td>
<td>3. Private announcements: ‘wanted’ ads, sale or rentals of flats or cars</td>
</tr>
<tr>
<td>4. Signs of street names</td>
<td></td>
</tr>
</tbody>
</table>

The dichotomy top-down/bottom-up has been criticized for being too simple. Barni and Bagna (2010: 134) refer to these categories as “macro-types of author” as they indicate “orientation” of a text, but could be divided into more levels. Other researchers like Huebner (2006), Kallen (2009) or Malinowski (2009) have also criticized this model for being too plain (cf. Bruyel-Olmèdo & Juan-Garau 2009: 388). Kallen (2009: 273) refers to an ambiguity of the term ‘bottom-up’. He argues that there is no “upward” flow of shop owners to customers, and would suggest that there are also “horizontal” flows (Kallen 2009: 273). He furthermore maintains, “In addition to simplifying the different domains of power and direction, the vertical metaphor relies on a model of social consensus, whereby all participants agree on who is at the ‘top’ or the ‘bottom’ (Kallen 2009: 273).

In a later publication, Ben-Rafael (2009: 49) acknowledges international corporations, as influential enough to “overpower any directive ‘from above’”. Spolsky (2009: 31) also argues for a distinction between “local and global signs”. Subdivisions would also profit LL analysis on a theoretical level, as structuration principles could be identified more easily (Ben-Rafael 2009: 50). However, Ben-Rafael et al. (2006: 15) note that “in practice we often neglected this categorisation for purposes of statistical analysis because of the restricted number of items obtained in the different categories.” Hence, also Kallen (2009: 280-281), who criticizes the model, makes use of the distinction into public and private signs in his own quantitative analysis. In the same manner, the distinction top-down/bottom-up is also sufficient for the purpose of
this thesis. It is well established in LL and practical in terms of establishing a separation on a basic level.

7.3. The functions of signs

The function of signs categorizes text on signs according to their purpose. In terms of the functions of signs (4), Spolsky and Cooper (1991: 76-81) identified eight main types. Those eight types, however, also include types of signs classified according to their “function and use”, rather than the actual function of the signs’ messages. In addition to prohibitions and informative signs, Spolsky and Cooper's (1991: 76-81) types also include building names, commemorative plaques, advertising signs, and others, as categories. It could be argued that these categories represent two different criteria, namely that of function and that of usage. It was decided for this thesis to focus solely on functions. In the LL of this survey, text on signs seemed to have three basic functions.

- identifying
- informing
- regulating/warning

The purpose of identifying signs is to provide the name of a company/an establishment, and to introduce the products with which the business identifies itself, and which are sold there. They simply identify a place as to how it wants to be perceived. This category includes names, slogans, advertisements and commemorative plaques. The second function in the data is informative, and those signs mostly contain some numerical information. It includes all signs informing the reader about something, like signs displaying opening hours, directions, price lists. The last category is related to (safety) warnings, regulations and prohibitions. Their purpose in the LL is to “regulate actions, movements, or behavior in the public realm” (Huebner 2009: 75). Examples are Achtung Stufe! ('Watch out for steps!'), Ich darf nicht hinein ('I am not allowed in', a sign pinned next to hooks for dog leashes), or Plakatieren verboten ('post no bills') as well as signs declaring tow-away zones. Huebner (2009: 75) points out that “artifacts of the LL often perform multiple functions”. If this was the case, it resulted in combinatory signs. For instance, if a sign
displayed the name and slogan of a shop plus the opening hours within its frame, it was categorised as ‘identification & information’.

7.4. Domains in the LL

Domain (5) basically refers to a ‘type’ of business (clothing, technology, food, etc.). The survey area of course also includes non business-related domains. A domain is a semantic category, putting together what belongs together on a broader level. The categorization helps reveal whether the LL makes use of certain cultural stereotypes, like a significantly increasing use of Italian in the ‘food’ domain, for example (cf. Spolsky 2009: 34). While Cenoz & Gorter (2006: 71) found domains like books and furniture in their observed areas, and Reh (2004: 1) discovered domains such as health and politics, this LL had other foci. Business domains included beauty, clothing, and art. Shops selling technical supplies were strictly camera shops, so the domain was labelled ‘camera shops’. Non business-related domains were for example apartment buildings, which included all signs found on a house front. Also objects (stickers, posters, and graffiti) formed their own domain. The domain ‘other’ includes single shops that did not fit into any other domain and only appear once each. All in all there are eleven domains (see table 3).

Table 3 Domains in the LL

<table>
<thead>
<tr>
<th>Name of domain (alphabetically)</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>apartment building</td>
<td>signs that belong to the apartment building: private business signs (plates identifying doctors' offices, psychiatrists and personal businesses), commemorative plaques, official signs and house maintenance signs (cleaning and snow clearing companies)</td>
</tr>
<tr>
<td>art</td>
<td>museums, galleries</td>
</tr>
<tr>
<td>arts &amp; crafts</td>
<td>stores providing tools and materials for do-it-yourself projects, and producing items</td>
</tr>
<tr>
<td>beauty</td>
<td>beauty parlours (hair dressers, nail salons)</td>
</tr>
<tr>
<td>camera shop</td>
<td>shops selling cameras and (photography) supplies</td>
</tr>
</tbody>
</table>
The general aim is to categorize both datasets similarly, in order to make comparisons possible. The need of a tertium comparationis has been mentioned earlier. However, the different UoAs demands different handling in some areas. While categorizing signs in method I seemed rather straightforward, Cenoz and Gorter’s approach brought up some issues for discussion.

Although not clearly pointed out in their paper of 2006, Huebner (2009) and Gorter (2013) mention that while one shop front is considered one unit in the 2006 paper, “an individual street sign or a poster is one unit as well” (Gorter 2013: 199). Besides store fronts which are relatively easy to define, other linguistic items are treated as single tokens as well (Huebner 2009: 71), which means that they are seen to be comparable to a storefront. Cenoz and Gorter (2006: 71) justify their definition of ‘one shop front equals one sign’ due to the fact that “all the signs in one establishment [...] have been the result of languages used by the same company.”

If posters or are part of a shop window, they are easily identified as part of the company, because they are put up mostly from behind the glass of the shop window and feature the shop’s logo, or advertise items available for purchase in the store. There are, however, items in the LL that do not belong to a shop front, but are still initiated by a company. These decontextualised items are stickers and posters that

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12 As mentioned earlier, I will refer to two datasets, as the collected data was categorized twice, according to the two methods.
belong to the category ‘objects’ in this thesis. In accordance with Cenoz and Gorter’s (2006) definition, it can be argued that objects should also be classified according to the company that initiated them. Objects play a special part in the LL, as they are decontextualised, in that they “appear in multiple contexts but always in the same form”. They are also transgressive, because they are “in some way unauthorized” (Scollon & Scollon 2003: 145-146). Of course, it is much more difficult to discover the company responsible for a printed poster or sticker than for items in a store front – but as authorship is always problematic to decide on, the decision to count them all as single items seems arbitrary. It was decided, that all objects that obviously come from the same initiator (which is mostly apparent because of identical messages and layout) are also to be categorized as belonging to one company. In other words, effort was made to identify which objects belong together, and identical objects were only counted as one item, as this seems in concordance with the justification of the definition of the UoA (“languages used by the same company” Cenoz & Gorter 2006: 71).

A second obstacle was classifying linguistic items on apartment buildings. Following Backhaus (2007: 29), “Single items that could not be classified to be part of a specific establishment were categorized as ‘others’ (Cenoz & Gorter 2006: 71)”. When it comes to signs on apartment buildings, it is also very difficult to decipher who the initiator of each sign is. Signs from various different authors are displayed: notes from the property management, snow clearing companies, the road traffic licensing department, and many more. After an e-mail exchange with Mr. Gorter (2014) himself, the discussion on the difficulty of assigning authorship, led to the decision to count an apartment building as one single unit as well, in other words, one apartment building front equals one sign.

As Cenoz & Gorter (2006:71) pointed out, their methodology requires from the researcher to take arbitrary decisions. At the same time, this classification is sensible to a number of factors. First of all, the signs are not so differently sized anymore, as one house front is about the size of a shop front in many cases. Secondly, passers-by are most likely to categorize signs on an apartment building as part of the building as such, in their minds. In relation to this, apartment buildings were also categorized as bottom-up signs in the second dataset. LL inhabitants are not likely to classify their
homes as governmental, or top-down, and a vast amount of items on house fronts was personal, rather than official.

### 7.6. Limitations

The taxonomies selected for analysis cover a range of different aspects that a LL survey can include. They offer a good basis for comparing results, which is the main focus of this thesis. Other variables, analysed frequently in LL studies, include determining the hierarchy of languages by font, font size and order of languages on signs (cf. Cenoz & Gorter 2006, Backhaus 2007: 103-110, Huebner 2009: 75-79, among others). As Blackwood (2010: 125) points out, such a “code preference system” is only of relevance “in places where a language ideology articulated by some form of authority – most often a national government or a local authority such as a town or regional council – is clear and widely publicised.” As this is not the case in Austria, analysis of such variables was disregarded.

Categorization is supposed to bring a certain order into the “jungle that is the LL” (Ben-Rafael, Shohamy & Barni 2010: xv). However, it must be noted that taxonomy cannot be expected to provide comprehensive answers to the questions that arise, or even to work unambiguously; some signs for instance, fall into two or more groups, as when a sign is giving the name of a commercial establishment goes on to advertise its wares or to inform of its hours. Moreover, a taxonomy is not an explanation; without further clarification, classifying a sign does not explain the language chosen. Some deeper analysis is needed [...]. (Spolsky & Cooper 1991: 81)

The following sections aim at contributing to exactly that. Data is being analysed and the results interpreted, in order to get answers to the RQs.

### 8. Analyses

The datasets of the two blocks of Vienna’s Westbahnstraße include 12 different languages: German, English, French, Chinese, Czech, Dutch, Spanish, Hungarian, Japanese and even instances of ancient languages such as Ancient Greek, Latin and even "Mayan language" (Pura Utz, http://purautz.tumblr.com/post/61981476537/this-
is-it).\textsuperscript{13} The German texts were standard German, except for one graffiti in Viennese dialect. This item was counted as German, too.

### 8.1. Analysis of method I

This section includes the full analysis and results of the LL, using the first dataset, which resulted from collecting data according to Backhaus’ counting method. All factors introduced in the categorization chapter, are now being evaluated quantitatively.

#### 8.1.1. Monolingual vs. multilingual

As mentioned above, signs counted according to Backhaus’ methodology, resulted in a dataset of 719 signs. Table 4.1 presents the amount of monolingual and multilingual signs.\textsuperscript{14}

**Table 4. 1 Monolingual and multilingual signs (method I)**

<table>
<thead>
<tr>
<th></th>
<th>Number of signs</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monolingual signs</td>
<td>507</td>
<td>70.5</td>
</tr>
<tr>
<td>Multilingual signs</td>
<td>212</td>
<td>29.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>719</strong></td>
<td><strong>100 %</strong></td>
</tr>
</tbody>
</table>

As can be seen in the table, 507 of the 719 items are monolingual signs, 212 items were assigned as multilingual. Percentage-wise, this results in monolingual signs taking up over 70 percent of the LL.

Six different languages were used on monolingual signs, while 11 language combinations were found on multilingual signs. Table 4.2 presents a complete

\textsuperscript{13} The brand *Pura Utz* works with Mayan women from Guatemala (*Pura Utz*, http://purautz.tumblr.com/post/61981476537/this-is-it).

\textsuperscript{14} For the analyses, percentages were rounded to one decimal space, which sometimes results in totals with minor deviations from 100\% (99,9\% or 100,1\%). Totals will still be ascribed as ‘100\%’.
inventory of all languages and language combinations, as well as a list of numbers and percentages, total and of mono- and multilingual items.\textsuperscript{15}

Table 4. 2 Languages in the LL (method I)

<table>
<thead>
<tr>
<th>Language(s)</th>
<th>Number of signs</th>
<th>% of monolingual signs</th>
<th>% of total signs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monolingual G</td>
<td>409</td>
<td>80.7</td>
<td>56.9</td>
</tr>
<tr>
<td>Monolingual E</td>
<td>94</td>
<td>18.5</td>
<td>13.1</td>
</tr>
<tr>
<td>Monolingual F</td>
<td>1</td>
<td>0.2</td>
<td>0.1</td>
</tr>
<tr>
<td>Monolingual Jap</td>
<td>1</td>
<td>0.2</td>
<td>0.1</td>
</tr>
<tr>
<td>Monolingual Sp</td>
<td>1</td>
<td>0.2</td>
<td>0.1</td>
</tr>
<tr>
<td>Monolingual Mayan</td>
<td>1</td>
<td>0.2</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>Total monolingual signs</strong></td>
<td>507</td>
<td><strong>100%</strong></td>
<td><strong>---</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Language combinations</th>
<th>Number of signs</th>
<th>% of multilingual signs</th>
<th>---</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multilingual G, E</td>
<td>186</td>
<td>87.7</td>
<td>25.9</td>
</tr>
<tr>
<td>Multilingual G, E, Dutch</td>
<td>7</td>
<td>3.3</td>
<td>1</td>
</tr>
<tr>
<td>Multilingual G, F</td>
<td>4</td>
<td>1.9</td>
<td>0.6</td>
</tr>
<tr>
<td>Multilingual G, E, F</td>
<td>3</td>
<td>1.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Multilingual G, Lat</td>
<td>3</td>
<td>1.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Multilingual G, E, Chin</td>
<td>2</td>
<td>0.9</td>
<td>0.3</td>
</tr>
<tr>
<td>Multilingual G, Anc. Greek</td>
<td>2</td>
<td>0.9</td>
<td>0.3</td>
</tr>
<tr>
<td>Multilingual G, Sp</td>
<td>2</td>
<td>0.9</td>
<td>0.3</td>
</tr>
<tr>
<td>Multilingual G, E, F, Czech</td>
<td>1</td>
<td>0.5</td>
<td>0.1</td>
</tr>
<tr>
<td>Multilingual G, E, Sp</td>
<td>1</td>
<td>0.5</td>
<td>0.1</td>
</tr>
<tr>
<td>Multilingual E, Hu</td>
<td>1</td>
<td>0.5</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>Total multilingual signs</strong></td>
<td>212</td>
<td><strong>100%</strong></td>
<td><strong>---</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>719</td>
<td><strong>---</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

\textsuperscript{15} G= German, E=English, F= French, Jap= Japanese, Sp= Spanish, Lat= Latin, Chin= Chinese, Anc. Greek= Ancient Greek, Hu= Hungarian.
Of the monolingual signs, which take up 70.5% of the LL, the majority of signs (80.7%) are written in German. This equals 56.9% of all 719 signs. The second highest proportion of monolingual signs are monolingual English items, although the amount is significantly smaller (18.5% of monolingual, 13.1% of total signs). The other monolingual signs, written in French, Japanese, Spanish or Mayan make up only 0.8%, respectively 0.4% of the whole LL, with only one sign each. The dominance of German and English monolingual signs is striking.

Taking a closer look at language distributions on multilingual signs, the most prominent combination is German and English (87.7% of all multilingual, 25.9% of total signs), whereas the other language combinations only appear sparsely. 12.2% of multilingual signs contain language combinations other than German and English, which makes 3.6% of the total number of signs. Second to the most prominent language combination are multilingual signs containing German, English and Dutch. These seven items were found on the same shop window. The other language combinations appear 4 times or less.

Table 4.3 shows how often languages appear in the LL. That is, how many occurrences of each language there are in total (cf. Marten 2010: 119).

Table 4.3 Language appearances in the LL (method I)

<table>
<thead>
<tr>
<th>Language</th>
<th>Appearance (on 719 signs)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>620</td>
<td>86.2</td>
</tr>
<tr>
<td>E</td>
<td>295</td>
<td>41</td>
</tr>
<tr>
<td>F</td>
<td>9</td>
<td>1.3</td>
</tr>
<tr>
<td>Other</td>
<td>22</td>
<td>3.1</td>
</tr>
</tbody>
</table>

The majority of all 719 signs, monolingual and multilingual combined, contains German (86.2%). Significantly fewer signs (41%) make use of English words or phrases. The next language in the ranking according to frequency is French, which has a long tradition of being a prestigious language in Austria (Schlick 2003: 5). Schlick (2003: 5) claims that the importance of French “declined due to the emergence of English as the world language.” With only 9 instances in this dataset, it becomes obvious that, in fact, French has given way to English. It can be assumed
that a diachronic comparison would prove shrinking of French instances in the LL of Vienna. Other languages were summarized as ‘other’ in table 4.3, as they appear quite marginally. With seven signs containing Dutch, this language is the most prominent of the languages categorized as ‘other’. It is followed by Spanish with 4 occurrences. Again, it becomes clear that the languages presenting themselves most prominently to passers-by of this LL are German and English, whereby German is clearly dominant.

Looking at how many languages appear on LL items can give insights into the linguistic variety of an area (cf. Cenoz & Gorter 2006; Marten 2010: 118). Table 4.4 provides a list of the number of languages per sign in the survey area. The table’s format was adapted from Marten (2010: 118).

<table>
<thead>
<tr>
<th>Number of languages per sign</th>
<th>Number of signs</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>507</td>
<td>70.5</td>
</tr>
<tr>
<td>2</td>
<td>198</td>
<td>27.5</td>
</tr>
<tr>
<td>3</td>
<td>13</td>
<td>1.8</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Total</td>
<td>719</td>
<td>100</td>
</tr>
</tbody>
</table>

As noted before, the number of monolingual signs is rather high (70.5%). Multilingual signs contain two to four languages. The majority of these feature two languages (27.5% of all signs), 13 signs three (1.9%) and only one sign displays four languages.

At this point it has been established that German is the most prominent language in the sample, followed by English. Additionally, the bulk of the multilingual signs are combinatory signs of German and English language items. Of all the signs containing two languages (27.5% of the total number of signs), 25.9% are German and English multilingual signs.

In terms of multilingualism, attention can also be drawn to the particular type of multilingual writing these signs display (see table 4.5).
Table 4.5 Types of multilingual writing (method I)

<table>
<thead>
<tr>
<th>Type of multilingualism</th>
<th>Number of signs</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complementary</td>
<td>182</td>
<td>85.5</td>
</tr>
<tr>
<td>Duplicating</td>
<td>11</td>
<td>5.2</td>
</tr>
<tr>
<td>Fragmentary</td>
<td>19</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>121</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Table 4.5 demonstrates that the most common multilingual signs are those featuring complementary multilingualism, totalling in 85.5% of all multilingual signs. There are also instances of duplicating and fragmentary translations, however, complementary signs are undoubtedly the most relevant. 9% of all multilingual signs provide fragmentary translations, and only 5.2% mutual translations. These are 11 items, 7 of which are the ones containing Dutch, as mentioned above. They are part of an advert-leaflet which displays information in three languages. The mutual translation here was the choice of the company advertising the products, probably in different countries. The high general dominance of complementary writing in the LL indicates that different languages do not serve the purpose of support for understanding, but are either expected to be understood by all potential readers, or mostly of symbolic importance. In any way, the linguistic minority of immigrants and tourists is not the main focus of the usage of different languages in the LL.

**8.1.2. Top-down vs. bottom-up**

It was pointed out how the top-down/bottom-up distinction is not unproblematic. Nevertheless, it helps determining authorship on a first, very basic level, and as such serves the purpose of this thesis adequately. Table 4.6 shows the distribution of signs according to the top-down/bottom-up classification.

Table 4.6 Top-down vs. bottom-up (method I)

<table>
<thead>
<tr>
<th></th>
<th>Number of signs</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bottom-up</td>
<td>684</td>
<td>95.1</td>
</tr>
<tr>
<td>Top-down</td>
<td>35</td>
<td>4.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>719</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
Over 95% of all signs are bottom-up signs. The amount of top-down signs is very low (4.9%) because the survey area is a shopping and residential area, not hosting any government buildings or similar. However, it is noteworthy that the top-down signs are, without exceptions, monolingual German signs. They include a sign identifying a police station, signs indicating tow-away zones, and commemorative plaques that were “issued by the state” (Backhaus 2007: 27). The decision on what constitutes a top-down sign was also based on whether ignoring or disobeying the sign would result in legal consequences.

### 8.1.3. Functions of signs

This taxonomy was divided into the categories Identification, information, and warning. In the categorization process the distinction turned out to be not as straightforwardly applicable as first assumed. Since the original definition of signs was according to physical boundaries, not semantic boundaries, combinatorial signs were no exception (see table 4.7).

<table>
<thead>
<tr>
<th>Function of signs</th>
<th>Number of signs</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification</td>
<td>388</td>
<td>54</td>
</tr>
<tr>
<td>Information</td>
<td>92</td>
<td>12.8</td>
</tr>
<tr>
<td>Warning</td>
<td>46</td>
<td>6.4</td>
</tr>
<tr>
<td><strong>Combinations:</strong></td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Identification &amp; Information</td>
<td>191</td>
<td>26.6</td>
</tr>
<tr>
<td>Identification &amp; Warning</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Identification, Information &amp; Warning</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>719</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 4.7 shows that over half of the items have the function of identifying an establishment. The second most prevailing type of signs (26.6%) are the ones identifying as well as informing about something. For example, signs with the shop’s name and logo as well as the opening hours or price lists – all within one physically definable frame. Other combinations only appear once each. The third largest category are informative signs (12.8%), followed by regulatory signs (6.4%).
8.1.4. Domains

Domains provide insight into the composition of a LL. They also give further insight into the distribution of top-down/bottom-up items. Another insight can be gained through looking at the languages occurring on signs within domains. Through this categorization the use of languages in terms of potential cultural stereotypes can be evaluated. Table 4.8 lists the domains and provides the numbers and percentages of how many items belong to the respective domain. Domains are listed according to their frequency.

Table 4.8 Domains in the LL (method I)

<table>
<thead>
<tr>
<th>No. of domain</th>
<th>Name of domain</th>
<th>Occurrences in LL:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>n</td>
</tr>
<tr>
<td>1.</td>
<td>food</td>
<td>127</td>
</tr>
<tr>
<td>2.</td>
<td>camera shop</td>
<td>101</td>
</tr>
<tr>
<td>3.</td>
<td>apartment building</td>
<td>97</td>
</tr>
<tr>
<td>4.</td>
<td>objects</td>
<td>88</td>
</tr>
<tr>
<td>5.</td>
<td>beauty</td>
<td>84</td>
</tr>
<tr>
<td>6.</td>
<td>arts &amp; crafts</td>
<td>75</td>
</tr>
<tr>
<td>7.</td>
<td>clothing</td>
<td>56</td>
</tr>
<tr>
<td>8.</td>
<td>other</td>
<td>39</td>
</tr>
<tr>
<td>9.</td>
<td>house &amp; home</td>
<td>27</td>
</tr>
<tr>
<td>10.</td>
<td>art</td>
<td>21</td>
</tr>
<tr>
<td>11.</td>
<td>official</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>11 domains</strong></td>
<td><strong>719</strong></td>
</tr>
</tbody>
</table>

According to table 4.8, the ‘food’ domain is the one with the most items displayed in the survey area. This does not mean that establishments offering food and refreshments are the most frequent establishments, but rather that they are the most ‘pasted up’ with signs. Second in this list is the domain of ‘camera shops’ which have lots of info and advertisements for their products in the shop windows. Worth mentioning is also the domain ‘objects’ which indicates that the density of posters and stickers is quite high. These objects do not belong to any particular
establishment on the survey area, but function almost as distracters to how shop owners designed the outside of their business.

Items listed as top-down earlier, are part of the ‘official’ domain, but there are also some top-down signs on apartment buildings and the entrance of the photography museum (e.g. indication of a tow-away zone).

On a deeper level, the analysis shows that, with the exception of only two signs, all others contain German. 85 of 97 items in this domain are actually monolingual German signs. The most variation of languages was found in the ‘clothing’ domain, with 5 different languages appearing on signs. All ‘official’ signs are German, whereas the domain ‘objects’ is the only domain with more English than German instances: 49 monolingual English signs, 20 monolingual German signs and 19 German and English multilingual signs. Within the domain ‘house & home’ all four types of multilingualism are featured (see also Appendix C: Domains, languages and language combinations on signs in both datasets). This is however, not as much related to the shops themselves, as it is related to the products advertised, which are seemingly produced for more than one country, thus feature several languages.

8.2. Analysis of method II

The following subsections present the same quantitative analyses as in the previous chapter, but of course with the second dataset, which was collected in accordance with Cenoz and Gorter’s (2006) method of counting signs.

The different definition of the UoA results in a lesser number of signs. For the second analysis the dataset includes 143 items, which is about one fifth of the items counted with the first method. This dataset consists of 56 businesses (=56 signs), 23 apartment buildings which were also counted as one sign each, and furthermore 64 objects (stickers, posters and graffiti). Instead of counting each object separately, identical objects were counted only once, since they were obviously from the same ‘author’, *id est* initiated by the same company (cf. discussion 7.5). Objects play a special role in the LL, as they are not put on shop fronts by the owners, but rather pose some kind of violation.
8.2.1. Monolingual vs. multilingual

The signs here very often contain more written information per sign, because the sign itself is bigger. Thus, what constitutes one multilingual sign in method II, could be a number of monolingual signs in method I. This becomes obvious by the distribution of monolingual and multilingual signs in this dataset (table 5.1).

Table 5.1 Monolingual and multilingual signs (method II)

<table>
<thead>
<tr>
<th></th>
<th>Number of signs</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monolingual signs</td>
<td>81</td>
<td>56.6</td>
</tr>
<tr>
<td>Multilingual signs</td>
<td>62</td>
<td>43.4</td>
</tr>
<tr>
<td>Total</td>
<td>143</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 5.1 shows that over half of a total of 143 signs are monolingual signs. In actual numbers, there are only 19 more monolingual signs than multilingual ones. This results in 56.6% monolingual and 43.4% multilingual signs.

Table 5.2 below gives a more detailed overview of the languages and language combinations found in the sample. The table shows that monolingual signs only appear in 2 languages, while multilingual signs can have 11 different language combinations. Monolingual items of the sample are written either in German or in English, whereas German signs are more frequent (59.3% of monolingual, 33.6% of total signs). As far as multilingual signs are concerned, German and English multilingual signs predominate the LL (34.3%), followed by before mentioned monolingual German signs. Monolingual English signs are the third most frequent signs in the LL (23.1%). Language combinations other than German and English make up only 9.1% of all signs, whereby trilingual signs featuring German, English and French appear four times, other language combinations only once.
### Table 5.2 Languages in the LL (method II)

<table>
<thead>
<tr>
<th>Language(s)</th>
<th>Number of signs</th>
<th>% of monolingual signs</th>
<th>% of total signs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monolingual G</td>
<td>48</td>
<td>59.3</td>
<td>33.6</td>
</tr>
<tr>
<td>Monolingual E</td>
<td>33</td>
<td>40.7</td>
<td>23.1</td>
</tr>
<tr>
<td><strong>Total monolingual signs</strong></td>
<td><strong>81</strong></td>
<td><strong>100%</strong></td>
<td>---</td>
</tr>
<tr>
<td><strong>Language combinations</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multilingual G, E</td>
<td>49</td>
<td>79</td>
<td>34.3</td>
</tr>
<tr>
<td>Multilingual G, E, F</td>
<td>4</td>
<td>6.5</td>
<td>2.8</td>
</tr>
<tr>
<td>Multilingual G, Anc. Greek</td>
<td>1</td>
<td>1.6</td>
<td>0.7</td>
</tr>
<tr>
<td>Multilingual G, E, Chin</td>
<td>1</td>
<td>1.6</td>
<td>0.7</td>
</tr>
<tr>
<td>G, E, F, Czech</td>
<td>1</td>
<td>1.6</td>
<td>0.7</td>
</tr>
<tr>
<td>G, E, Hu</td>
<td>1</td>
<td>1.6</td>
<td>0.7</td>
</tr>
<tr>
<td>G, E, Jap</td>
<td>1</td>
<td>1.6</td>
<td>0.7</td>
</tr>
<tr>
<td>G, E, Lat</td>
<td>1</td>
<td>1.6</td>
<td>0.7</td>
</tr>
<tr>
<td>G, E, Dutch</td>
<td>1</td>
<td>1.6</td>
<td>0.7</td>
</tr>
<tr>
<td>G, E, Sp, Mayan</td>
<td>1</td>
<td>1.6</td>
<td>0.7</td>
</tr>
<tr>
<td>G, F</td>
<td>1</td>
<td>1.6</td>
<td>0.7</td>
</tr>
<tr>
<td><strong>Total multilingual signs</strong></td>
<td><strong>62</strong></td>
<td><strong>100%</strong></td>
<td>---</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>143</strong></td>
<td></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

The following table shows the distribution of languages on signs in the LL (table 5.3).

### Table 5.3 Language appearances in the LL (method II)

<table>
<thead>
<tr>
<th>Language</th>
<th>Appearance (on 143 signs)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>110</td>
<td>76.9</td>
</tr>
<tr>
<td>E</td>
<td>93</td>
<td>65</td>
</tr>
<tr>
<td>F</td>
<td>6</td>
<td>4.2</td>
</tr>
<tr>
<td>Other</td>
<td>9</td>
<td>6.3</td>
</tr>
</tbody>
</table>
Table 5.3 shows that German and English language items appear most frequently on written signs in the LL. The third language listed is French, but with just over 4%, German and English clearly dominate the landscape. Other languages only appear once, each taking up only 0.7% of the LL.

The table below provides information on how many languages appear on signs in the LL (table 5.4). The high proportion of monolingual signs was already established (56.6%).

**Table 5.4 Number of languages on signs (method II)**

<table>
<thead>
<tr>
<th>Number of languages</th>
<th>Number of signs</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>81</td>
<td>56.6</td>
</tr>
<tr>
<td>2</td>
<td>51</td>
<td>35.7</td>
</tr>
<tr>
<td>3</td>
<td>9</td>
<td>6.3</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>1.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>143</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Table 5.4 shows that 35.7% of all signs feature two languages. A look at table 5.2 reveals that 34.3% of those are German and English signs, the other two signs (each 0.7%) are one German and French and one German and Ancient Greek sign. Only nine signs contain three languages (6.3%), and even fewer (1.4%) feature 4 languages. Those multilingual signs were also differentiated according to the type of multilingualism they carry. The dataset only presents two types of multilingual writing, as there are no instances of duplicating translations, as table 5.5 shows.

**Table 5.5 Types of multilingual writing (method II)**

<table>
<thead>
<tr>
<th>Type of multilingualism</th>
<th>Number of signs</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complementary</td>
<td>51</td>
<td>82.3</td>
</tr>
<tr>
<td>Fragmentary</td>
<td>11</td>
<td>17.7</td>
</tr>
<tr>
<td>Duplicating</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>62</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

The vast majority of multilingual signs (82.3%) provides written information with complementary elements in different languages. The rest (17.7%), were at least partially translated, thus categorized as fragmentary multilingualism.
It is important to keep in mind what constitutes a sign here. A shop window displaying an English name and a price list in German would result in a sign of complementary multilingual writing. Duplicating signs would only be possible if every single written item on a shop front or house front was available in more than one language. The seven mutually translated advertisements mentioned in the analysis of method I, are now only a part of a sign containing other written information, too. This is just one example of why the physically rather big signs in this dataset make duplicating multilingual writing very rare.

8.2.2. Top-down vs. bottom-up

Once again, it is important to point out that the categorization of top-down/bottom-up signs had to change with this UoA. Because the items categorized as top-down in method I, for example tow-away zones and other regulatory signs, do not stand on their own anymore, but are just one part of a sign which also includes other information, formerly identified as “bottom-up” signs. Thus the distinction had to be re-evaluated. Shop fronts and other advertisements are still considered bottom-up; and signs issued by the state are still considered top-down – if they stood on their own. However, an apartment building, now functioning as one sign, was considered bottom-up, since most of the written text consisted of private notices. It was decided to avoid ‘combinatory signs’ and try to see the bigger picture, such as, how would a passer-by categorize an apartment building. Surely, if it is not a governmental office, or an embassy situated there, it would much rather be regarded as a place of private homes. Also, a preponderance of items on apartment buildings are private business signs, which can be designed freely by each individual (cf. Ben-Rafael et al. 2006: 10). Hence, apartment buildings constitute one bottom-up sign each, which results in a decrease of top-down signs.\(^\text{16}\)

<table>
<thead>
<tr>
<th></th>
<th>Number of signs</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bottom-up</td>
<td>140</td>
<td>97.9</td>
</tr>
<tr>
<td>Top-down</td>
<td>3</td>
<td>2.1</td>
</tr>
<tr>
<td>Total</td>
<td>143</td>
<td>100%</td>
</tr>
</tbody>
</table>

\(^\text{16}\) See section 7.5.
Table 5.6 shows that only three signs are considered top-down signs. These include a police station and two warnings by the official public transit network (*Wiener Linien*) and a cable operator (*Telekabel*). 97.9% of all signs belong to the bottom-up category.

### 8.2.3. Functions of signs

As far as functions of signs are concerned, re-defining the categories was first considered, in order to avoid too many combinatory signs. However, for the sake of comparability, this idea was discarded. When a whole shop front constitutes one sign, one would expect to have a few elementary parts in every sign. An identification, for example the shop name and a slogan, informative elements such as the opening hours or price lists, and maybe even warnings about alarms, steps, etc. However since the dataset includes not only shops but also apartment buildings and other objects, the functions of signs are more diverse. There are for example, three signs without any identifying elements. Also, there is not a single sign that works strictly as an informational unit (see table 5.7).

<table>
<thead>
<tr>
<th>Function of signs</th>
<th>Number of signs</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification</td>
<td>63</td>
<td>44.1</td>
</tr>
<tr>
<td>Information</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Warning</td>
<td>2</td>
<td>1.4</td>
</tr>
<tr>
<td>Combinations:</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Identification &amp; Information</td>
<td>52</td>
<td>36.4</td>
</tr>
<tr>
<td>Identification, Information &amp; Warning</td>
<td>23</td>
<td>16.1</td>
</tr>
<tr>
<td>Identification &amp; Warning</td>
<td>2</td>
<td>1.4</td>
</tr>
<tr>
<td>Information &amp; Warning</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>143</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Identifying signs make up the biggest part of the LL (44.1%), followed by combinatory signs containing identifying as well as informative text in one sign. The third largest category is that of signs functioning as informative, identifying and regulatory signs (16.1%). Again, the UoA is the reason for the lack of strictly informative signs.
Regulatory signs appear twice (1.4%), the remaining 2.1% are other combinatory signs containing regulatory texts.

### 8.2.4. Domains

Table 5.8 lists the domains ranked according to their dominance in terms of number of signs in the LL. A discussion of these results follows below.

**Table 5. 8 Domains in the LL (method II)**

<table>
<thead>
<tr>
<th>No. of domain</th>
<th>Name of domain</th>
<th>Occurrences in LL:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>n</td>
</tr>
<tr>
<td>1.</td>
<td>objects</td>
<td>64</td>
</tr>
<tr>
<td>2.</td>
<td>apartment building</td>
<td>23</td>
</tr>
<tr>
<td>3.</td>
<td>food</td>
<td>11</td>
</tr>
<tr>
<td>4.</td>
<td>beauty</td>
<td>8</td>
</tr>
<tr>
<td>5.</td>
<td>arts &amp; crafts</td>
<td>8</td>
</tr>
<tr>
<td>6.</td>
<td>clothing</td>
<td>6</td>
</tr>
<tr>
<td>7.</td>
<td>house &amp; home</td>
<td>6</td>
</tr>
<tr>
<td>8.</td>
<td>other</td>
<td>7</td>
</tr>
<tr>
<td>9.</td>
<td>camera shops</td>
<td>4</td>
</tr>
<tr>
<td>10.</td>
<td>art</td>
<td>3</td>
</tr>
<tr>
<td>11.</td>
<td>official</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>11 Domains</strong></td>
<td><strong>143</strong></td>
</tr>
</tbody>
</table>

Stickers, posters and graffiti make up the biggest domain of the LL (44.8%). Despite the unquestionably high proportion of signs in this domain, it must be kept in mind that these signs are rather small individually, and appear in rather odd places, like rain water downpipes or window sills. Apartment buildings on the other hand, although big and clearly visible, are not as attractive for shoppers or tourists as shops with their big, bright and inviting shop signs. The linguistic items on house fronts are rather small and passers-by would probably only pay attention to them when looking for something in particular. This would be the case if they were visiting someone, or entering for a doctor’s appointment, or looking for a parking spot.
Consequently, it can be argued that the quantitative dominance of a domain does not always indicate the visibility and salience of items to passers-by. Again, perception plays a part in terms of noticing and identifying signs in the LL.

As insinuated above, the fact that official signs only take up 2.1% should also be examined critically. Businesses range in the middle of these extremes, ‘food’ being the most prominent business domain.

Looking more closely at domains and languages, the analysis has revealed that all items included in the ‘apartment building’ domain feature German language items. All three items classified as belonging to the ‘art’ domain are German and English multilingual signs. ‘Clothing’ is the domain featuring the highest number of languages, namely five. All signs in this domain are multilingual, and all contain German. All multilingual items of the ‘house & home’ domain feature fragmentary translations, the remaining two monolingual signs are German. There are more instances of English than of German in the domain ‘objects’, while the three items in the ‘official’ domain are monolingual German signs. The domains ‘art’, ‘beauty’, and ‘camera shops’ do not contain any monolingual German signs (see also Appendix C).

9. The comparison

The aim of this section is to decipher the differences and similarities between the results of the two analyses. The quantitative outcome of both analyses is being compared and interpreted accordingly. The main goal is to derive a hypothesis about the usefulness of each method, and what each method reveals or disguises in terms of quantitative LL research. At this point, it can be said that due to the different UoA the total number of signs in each dataset is significantly different. While signs counted according to method I resulted in a total of 719 signs, method II results in a total of 143 signs.
9.1. Monolingual vs. multilingual signs

The charts below show the distribution of monolingual and multilingual signs revealed by the use of each method (figures 6.1). Instead of just tables, this section also makes use of graphs in order to provide a clearer visual image of the differences and similarities revealed in the analyses.

![Pie charts showing distribution of monolingual and multilingual signs](image)

Figure 6.1 Distribution of mono- and multilingual signs (comparison)

The pie charts above show that the amount of multilingual signs is smaller in method I than in method II. Due to the different interpretation of the UoA, the number of multilingual signs increased in the second analysis by about 14%. Conversely, the charts show a bigger proportion of monolingual signs in the first dataset. However, the overall conclusion, that there are more monolingual than multilingual signs in the LL, holds true for both figures.

Figure 6.2 below illustrates how frequently a language appears in the LL. Although the overall number of signs is significantly smaller in the second dataset, the amount of signs containing English is 24% higher. German, on the other hand appears 9.3% less often on signs in the second dataset. French and other languages are present on more signs than in the first dataset, which is related to the higher amount of multilingual signs in general. Especially the different results in connection to English are significant. Method II, resulting in fewer instances of German on signs and more occurrences of English, forces the researcher to draw different conclusions about the overall importance of English and consequently multilingualism in the LL.
Nevertheless, one general statement can be made that holds true for both results: The overall ranking of the languages presents German as the most prominently occurring language on signs, followed by English.

![Figure 6.2 Language appearances in the LL (comparison)](image)

Both analyses resulted in eleven language combinations on multilingual signs, some of which contain English. Hult’s (2009: 96) table displaying the “relationship between English and other languages” was adapted below. It gives insight into language combinations in the LL, especially in connection to English (table 6).

**Table 6 Language combinations (comparison)**

<table>
<thead>
<tr>
<th>Language combinations</th>
<th>Number of signs for each method (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Method I</td>
</tr>
<tr>
<td>German only</td>
<td>409 (56.9%)</td>
</tr>
<tr>
<td>English only</td>
<td>94 (13.1%)</td>
</tr>
<tr>
<td>Monolingual other language</td>
<td>4 (0.4%)</td>
</tr>
<tr>
<td>German and English</td>
<td>186 (25.9%)</td>
</tr>
<tr>
<td>German and other language</td>
<td>11 (1.6%)</td>
</tr>
<tr>
<td>English and other language</td>
<td>1 (0.1%)</td>
</tr>
<tr>
<td>German, English and other language(s)</td>
<td>14 (1.9%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>719 (100%)</strong></td>
</tr>
</tbody>
</table>
This table clearly shows that monolingual German signs are far more frequent in the first dataset, while the number of monolingual English signs is higher in the second dataset. The data collected with the help of counting-method II also results in a greater prominence of signs featuring German and English (+8.4%). The percentage of signs containing German, English and other languages is higher in the second dataset (+5.8%). The difference between other language combinations in the two datasets is minimal and does not influence the overall results.

The most common language combination in the LL is German and English. This result is similar in both datasets. The charts below reveal how language combinations are distributed in the LL (figure 6.3).

<table>
<thead>
<tr>
<th>Method I</th>
<th>Method II</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 language</td>
<td>1 language</td>
</tr>
<tr>
<td>(70.5%)</td>
<td>(56.6%)</td>
</tr>
<tr>
<td>2 languages</td>
<td>2 languages</td>
</tr>
<tr>
<td>(27.5%)</td>
<td>(35.7%)</td>
</tr>
<tr>
<td>3 languages</td>
<td>3 languages</td>
</tr>
<tr>
<td>(1.8%)</td>
<td>(6.3%)</td>
</tr>
<tr>
<td>4 languages</td>
<td>4 languages</td>
</tr>
<tr>
<td>(0.1%)</td>
<td>(1.4%)</td>
</tr>
</tbody>
</table>

**Figure 6.3 Number of languages on signs (comparison)**

The pie charts once again indicate the different distribution of monolingual and multilingual signs in the datasets. Signs counted with method II also show higher percentages in all multilingual categories in this figure. In other words, signs featuring two, three, or four languages are more frequent in the second analysis. The biggest difference is found between signs with two languages (+8.2% in the second dataset). This is not especially surprising, as one sign counted according to method II, can result in a number of separately counted signs in method I. Thus the number of signs with more than one or two languages also increases in method II. The following charts show the degree to which these multilingual signs are translated or not (figure 6.4).
Figure 6.4 shows an interesting divergence. While both methods result in an amount of over 80% of complementary multilingual writing, duplicating multilingualism on signs is completely lost in method II. This is due to the fact that no establishment had completely translated content on their shop front. Duplicating multilingual writing in method I always presented an add-on, to the main signs on shops, for example the small signs hanging on entrance doors indicating whether a store was open or closed. These add-ons in combination to other items such as slogans or price lists only present a partial translation of the overall message on one ‘sign’ in method II. This makes them types of fragmentary multilingual writing in the second analysis.

### 9.2. Top-down vs. bottom-up

It was pointed out earlier that the classification of signs as top-down or bottom-up is considered rather problematic among researchers: “The dichotomy appears useful until it is applied to real data” (Huebner 2009: 74). In this survey, the difficulty crystallized especially in the process of categorization of the second dataset. Due to the change in categorization, there is also a change in distribution, which can be seen in figure 6.5. Since the decision was made to categorize all written items on apartment buildings as one sign, some items classified as top-down in method I, become part of an apartment building (or shop front) in method II. Top-down signs in method II can only be signs standing on their own. This confirms that top-down/bottom-up classification “fails to capture the notion of agency and how it
impacts language forms in the LL” (Huebner 2009: 74). The main findings are similar in both methods: there are more bottom-up signs than top-down signs. Over 95% of all signs are bottom-up items. This shows that this distinction is meaningless for this LL.

![Top-down/Bottom-up](image)

**Figure 6.5 Top-down vs. bottom-up (comparison)**

### 9.3. Functions of signs

Both analyses reveal that signs do not always serve one purpose only. The table below lists the functions of signs in the LL, according to both datasets (table 7). The pie charts beneath provide a visual image of the different distribution of functions (figure 6.6)

<table>
<thead>
<tr>
<th>Function of signs</th>
<th>Method I (%)</th>
<th>Method II (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification</td>
<td>54</td>
<td>44.1</td>
</tr>
<tr>
<td>Information</td>
<td>12.8</td>
<td>0</td>
</tr>
<tr>
<td>Warning</td>
<td>6.4</td>
<td>1.4</td>
</tr>
<tr>
<td><strong>Combinations:</strong></td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Identification &amp; Information</td>
<td>26.6</td>
<td>36.4</td>
</tr>
<tr>
<td>Identification, Information &amp; Warning</td>
<td>0.1</td>
<td>16.1</td>
</tr>
<tr>
<td>Identification &amp; Warning</td>
<td>0.1</td>
<td>1.4</td>
</tr>
<tr>
<td>Information &amp; Warning</td>
<td>0</td>
<td>0.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
For both datasets, signs identifying an establishment are the most common. However, dataset II lacks solely informational signs, but has more combinatory signs than the first dataset. The overall ranking remains the same for both datasets, as identification is the most frequent function of signs in the LL, followed by combinatory signs, combining the functions of identification and information. While method I results in approximately 10% more identifying signs, method II results in about 10% more combinatory signs identifying and informing. Also, method II has fewer regulatory signs, as there are more signs combining warnings with other functions. Informative signs in the first analysis are replaced in the second dataset by combinatory signs, serving the purpose of all three main functions, identification, information and warning.

9.4. Domains

The charts below offer a visualization of the distribution of signs in the different domains discovered in the LL (figures 6.7 & 6.8). By looking at both figures, the differences caused by the different classification become quite obvious. The charts are discussed below.
The comparison of the distribution of domains in the two datasets reveals striking differences. The biggest domain in dataset I is the domain ‘food’. It is dominant with 17.7%, and following domains only show slight reductions in the ranking. The most prominent domain in the second dataset is ‘objects’, and it prevails by far, with 44.8%. The relative dominance and thus importance of domains is completely...
different in the two analyses. It is the numerous objects (especially stickers), initiated by various authors, that lead to the high amount of objects in the second dataset (44.8% as opposed to 12.2%). However, it must be kept in mind that objects are overall not as big and obvious in the LL as for example the neon lights advertising big shops. The results are thus misleading as they do not represent the actual impact signs have (see figure 7).

Not shown in these charts is the relation of domains and languages (see Appendix C). The analysis exposed interesting results here, too. First, I want to point out the results that both analyses have in common. In both datasets, all signs belonging to the ‘official’ domain are monolingual German signs. Also, German is present in all domains, so there is no domain that is strictly English, or any other language. Although all domains feature German on their signs, in method II there are three domains (‘art’, ‘beauty’, ‘camera shops’) lacking monolingual German signs. The only domain with more monolingual English signs than monolingual German signs is that of objects, whereby also the overall amount of English occurrences is higher than that of German language items. There are 68 signs featuring English in dataset I and 48 signs featuring English in dataset II. This is explainable by the fact that objects placed in the LL are mostly initiated by young groups promoting music, art, or clubbing. It was pointed out in section 4, that the younger generation is even more intrigued by the use of English and the lifestyle it symbolically promotes.
The highest number of different languages can be found in the domain ‘clothing’, where five different languages are featured on signs. The domains ‘beauty’, ‘camera shops’, ‘food’ and ‘house & home’, feature four different languages each. Still, the theory of cultural stereotyping is not valid for this LL. There is no clear dominance of English in the technological department, French in the ‘beauty’-domain or Italian in ‘food’ (cf. Kelly-Holmes 2005: 70; Gerritsen et al. 2007: 294).

There were also instances where the two datasets showed differences in the analyses. According to method I, English is also rather frequent in the domain ‘camera shops’. With 71 signs, it comes in the ranking right after the domain ‘objects’. Method II paints a different picture: this domain only counts four occurrences of English. In the second dataset the domain with most English instances after ‘objects’ would be ‘apartment buildings’, however, with only 6 occurrences.

Method II, in contrast to method I, allows for a differentiation between businesses and non business-related entities in the LL. Table 8 shows that all monolingual English signs in the second dataset are objects. German monolingual signs are equally distributed among the three categories. An allocation like this is very useful as a first, basic insight into language use in the LL. In order to get a complete and structured picture of a LL, it might be most rewarding to take the following steps: First, an analysis of items according to method II and then a micro-analysis in terms of method I, of the items within the units of method II.

Table 8 Distribution of businesses, apartment buildings, and objects in the LL

<table>
<thead>
<tr>
<th></th>
<th>German only</th>
<th>English only</th>
<th>Multilingual</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Businesses (incl. 3 official)</td>
<td>16</td>
<td>0</td>
<td>40</td>
<td>56</td>
</tr>
<tr>
<td>Apartment buildings</td>
<td>16</td>
<td>0</td>
<td>7</td>
<td>23</td>
</tr>
<tr>
<td>Objects</td>
<td>16</td>
<td>33</td>
<td>15</td>
<td>64</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>33</td>
<td>62</td>
<td>143</td>
</tr>
</tbody>
</table>
10. Findings and results

The general findings of the LL under consideration can be summarized as follows. In the LL of the survey area, two languages are predominantly present. First and foremost, the local and official language German, secondly, the world language English. Instances of other languages appear on a much smaller scale, and are mostly connected to specialty stores or product advertisements. Monolingual signs outnumber multilingual signs, the latter being mostly signs in complementary multilingualism. Multilingual signs display mostly two, but up to four languages. Top-down elements are relatively rare, but always monolingual German items. The main function of signs in the LL is that of identifying a business.

The following subsections discuss the implications for the most dominant languages in the LL, especially the world language English. Then, conclusions are drawn from the observations of the comparison in the previous chapter. Finally this leads then to answering the RQs formulated in the introduction of this thesis.

10.1. Language dominance and sociolinguistic implications

The language-related results of the LL survey do not necessarily indicate that the actors in the LL are mainly L1 speakers of the most prominent languages displayed. It can, of course, be assumed that the majority of the locals are native speakers of German. Dorner & Vasiljev (2010: 110), who also analysed an area in Vienna (among others), state that in the LLs they observed, minor language communities “did in no way challenge their respective environments of uncontested political and hence linguistic power: That of German in Vienna [...]”, the top-down signs being a solid testimony” (Dorner & Vasiljev 2010: 110). Although the majority of signs in this LL represent bottom-up flows, the limited number of top-down signs indicates the relative power and influence put on the local language, as all of those signs are monolingual German signs. Indeed, monolingual German signs constitute the majority of the LL, which shows that even the bottom up signs reflect the official language policy.
Dorner and Vasiljev (2010: 110) also found that

the power perspective, i.e. the fact that the overall linguistic landscape dominated by German [...] serves as the ‘most observable and immediate index of the relative power and status of the linguistic communities inhabiting a given territory’ (Landry & Bourhis 1997: 29), is still by and large applicable [...]. (Dorner & Vasiliev 2010: 110)

The prominence of English, as the second most prominent language in the LL, and the most prominent foreign language, however, cannot be connected to the “geographical territory inhabited by a given language community” (Landry & Bourhis 1997: 25). Studies have indeed shown that there need not be a “direct relationship between the presence of a language in an area, its vitality and its visibility”, because the “relationship depends on numerous linguistic, extra-linguistic and contextual factors” (Barni & Bagna 2010: 15). In other words, “simply identifying the languages present within a country or area in quantitative terms does not provide us with any information about the relations between the languages observed and their uses in a given place” (Barni & Bagna 2010: 4).

Dorner and Vasiljev (2010: 109) too, found that the presence of languages in the LL is in no connection to the “relative strength of the respective population groups”. They concluded that the LLs in their studies “cannot be seen as indicators of ‘ethno-linguistic vitality’” (Dorner & Vasiljev 2010: 109). Despite the fact that English poses the most common foreign language in this study, Vienna’s whole population is only comprised of 0.5% nationals of English-speaking countries (Soukup 2013: 5). This stands in contrast to Landry and Bourhis’ (1997: 25) assumption quoted earlier, that the LL serves as a “distinctive marker of the geographical territory inhabited by a given language community”. The prominence of English can thus be suggested to relate to the passers-by and inhabitants in large parts on a symbolic level. In this respect it may be pointed out that the general ‘Bobo-attitude’ towards English is supposedly open and welcoming, as American culture seems to be the root of this movement. Hence, English is considered modern and stylish. Additionally, the presence of English has been reported in other LL studies to have “no other justification than the prestige of the language itself” (Barni & Bagna 2009: 135). Both analyses also show that most multilingual signs display complementary multilingual writing. Lengthy texts in English are rare which indicates once more that additional languages are mostly used as attention-getters, hence for symbolic purposes.
10.2. Conclusions drawn from the comparison in section 9

Due to the dissimilar definitions of the respective UoA, it was assumed beforehand that numerical differences would occur. There are also minor and bigger discrepancies percentage-wise. Overall, however, certain main aspects of the analysis are similar in both results. The general ranking of language use, for instance, is the same in both analysis. German is the most frequently appearing language, followed by English, then French, then other languages. Other main conclusions which hold true in both analyses have already been summarized in the introduction to this chapter.

One significant divergence is that in the second analysis, the amount of multilingual signs, as well as signs featuring English in general, appears to be higher. Also there seem to be more multi-language signs with more than just two languages than in the results of method I. This result gives a different importance to multilingual signs, which also leaves the researcher to draw different conclusions as to the sociolinguistic implications of this distribution of multilingualism in the LL. English, and multilingualism in general seem more relevant in the results of method II. This is of course a consequence of the combination of different pieces of writing into one (large) sign, with lots of linguistic components. As has been insinuated before, it may be useful to analyse the LL according to the second method first, and then, offer a microanalysis of the different establishments and apartment buildings, by applying method I. In this way, possible misinterpretations could be prevented.

In terms of the different types of multilingual writing, both datasets provide the same insight in that complementary multilingualism is the most common type in the LL. However, the results of method II show an absence of duplicating multilingualism. In this sense, the second method presents the LL in a way that seems more reliable from the perspective of a passer-by of the survey area. One disadvantage of method I is that it offers no insight as to the way in which signs are connected or belong together on a larger level. Backhaus’ approach gives equal importance to each one of the seven earlier mentioned A4-sized advertisements in duplicating multilingualism, as to a several foot long shop logo (cf. Huebner 2009: 71-72). It insinuates a certain importance of duplicating multilingualism, which is completely
absent in method II, as no business in the LL has committed itself to offering mutual translations.

Another example is the rather small ‘open’ and ‘closed’ signs on store doors. As an observer, it was obvious that a number of stores had these same signs in duplicating multilingualism on their doors. It is very likely that the signs had been handed out for free by some other company or association (for example the Wiener Einkaufsstraßen). It was then the shops decision to put them up or not, but the actual layout of the sign and the fact that it offers a mutual translation, has very little to do with the shop itself, wanting to be identified as ‘modern’ or ‘international’, but more with the availability of the sign. This of course is only an assumption. However, the second method completely disguises the existence of these duplicating writings in the LL, as they are always just one part of a shop window. It seems thus closer to the observed reality of the passer-by that these businesses offer fragmentary translations. Once again, the lack of duplicating translations in method II is not, in fact, a willing decision of the shop owner, but the sign maker. So although it can be argued that method II offers a more reliable picture as to what the functions of multilingualism in this LL actually are, the main issue of the second method, namely that of authorship also becomes apparent. A semantic distinction between types of signs (advertisement, pricelist, menu, etc.) according to Monnier (1989) would be more efficient, as it gives information about authorship and initiators and the actual motives for use of several languages and how they are or are not translated.

The problem of authorship has been thoroughly discussed in the paper, especially in connection to top-down/bottom-up flows. In the course of the analysis it became clear that top-down/bottom up classification of the first dataset needed less argumentation and discussion. The overall results however are compatible, as both indicate a very small amount of top-down signs in the survey area. The same holds true for the analysis of sign functions. Both analyses revealed that identification is the main function of LL signs. However, the other results are different, as the combinatory signs are more relevant in the second dataset than in the first. Again, the semantic distinction of what kind of sign it is (shop name, price list, etc.) seems to provide more relevant information, than just the function itself. The way it was done here may provide information about how functions are distributed, but the qualitative outcome
or possible interpretations of this result are not particularly beneficial. This holds true for both methods.

The domain-related analysis was informative on a number of levels. The classification of items according to company association in method II, altered the amount of objects significantly. Objects, which play a special role in the LL due to their transgressive and displaced nature (cf. Scollon & Scollon 2003: 145-146), are numerous, and even more so, had they been counted as single tokens each, like Cenoz and Gorter had originally suggested. Again the discrepancy between numerical dominance and relative visibility and prominence in the LL comes to light. The high amount of widely distributed small objects does not necessarily result in dominance, or particular visual presence for passers-by.

In connection to domains and language use, there are a number of overall similarities – which is logical, as the languages do not change with the redefinition of the UoA. Also both analyses reveal the same results in connection to the notion of symbolic meaning of languages and cultural stereotyping. Both analyses show that there is not a drastic increase of a specific foreign language according to a specific domain. In fact the most dominant language in all domains is German. English is very prominent in the objects domain. Again another insight might be revealed through a semantic distinction of signs. Language variation is more frequent in advertisements and on shop signs, than on other types of signs and thus not related to domains or the specific establishments as much.

So in terms of a quantitative, complete inventory of signs, a combination of the two methods, method II as macro-analysis and method I as micro-analysis would give the most insight about the LL overall, but also about the connection and relation signs have to each other. A more in-depth analysis would be possible through an additional semantic categorization of signs. For a sociolinguistic investigation, each method offers its own insights. This leads to the RQs, which can now be answered with the help of the results formulated here.
10.3. Answering of the research questions

RQ 1: What are the advantages and disadvantages in the application of each method?

While in both methods all written items need to be looked at and collected, the process of coding and entering the signs into software is less time consuming with method II, as the overall number of signs is smaller. The counting and sorting of items can be easier, because the amount of data is not as overwhelming. Thankfully, technological advantages in terms of statistics programmes have made it simpler to do quantitative research, irrespective of the size of the dataset. Given that researchers have the opportunity to be schooled in the use of those programmes, this aspect should become obsolete.

The different definition of the UoA however, also results in other differences. While the Backhaus approach deals with every sign individually, thus putting more insight into the details of every written piece, Cenoz and Gorter provide an analysis of a bigger picture, as they summarize these single items into one semantic unit. This offers the possibility to analyse language choice of companies, rather than unconnected items counted separately. The way in which signs are connected to each other, in which relation they stand to each other, is not considered in Backhaus’ approach.

Although a certain arbitrariness cannot be avoided in both approaches, in this thesis, it seemed that the second method brought up more decisions to be made in connection to the concept of affiliation or belonging. Cenoz and Gorter avoided subsuming items not displayed on shop fronts. On the other hand their idea of written items belonging to one company – which has been discussed at large – does not indicate the local position of these signs. Summarizing shop fronts to one sign and counting all other linguistic items as single tokens, puts the overall distribution of items in disorder. In other words, the amount of other signs would be much higher, which does not represent the way the dominant shop fronts present themselves to passers-by. Closely related to this, is the difficulty of determining authorship. Cenoz and Gorter assume that all written items in a shop window are authorized by the
same person. Depending on the size of the business, the question is the following: Is this initiator a shop assistant, the manager or even the head of the company? In the case of business chains, would that not mean that every single branch store, designed by the head of the company could be summarized to one sign? It can be assumed that McDonald’s employees, for example, have very little authority in adding signs to the stores they work in, whereas other restaurants or cafès willingly let people put leaflets on display for free disposal. The initiators or authors of signs can only be assumed and are numerous, for example in the case of apartment buildings. In respect of the above mentioned difficulties, it can be summarized that Backhaus is right in stating that “the count-all procedure, which, though not very sophisticated, turned out to be least problematic from a methodological point of view” (Backhaus 2007: 67).

However, as far as the results are concerned, this methodology gives the same amount of relevance to each sign irrespective of its size, which is not very reliable if the perception of passers-by is considered important. With the inclusion of businesses and apartment buildings to signs, at least the size of those elements is about similar.

**RQ 2: Does the use of one specific method influence the overall result of a study in a significant way? And if so, in what way(s)?**

In a nutshell, it can be said that the overall results are similar in both studies. The relevance of different languages in the LL are revealed. Both analyses prove that German is most dominant and English is the second most dominant language. Languages of larger immigrant communities, like Turkish or Serbian, for example, are completely absent in this area. Also the most frequently appearing function as well as the biggest group of multilingual writing are revealed in both methods. Differences occur in the smaller categories. Also in terms of cultural stereotypes and domains, although the datasets show different results, the overall fact that besides the youthful objects, no other language than German is dominant in any domain, comes out clearly. Significant differences are however revealed in the distribution of signs according to mono- or multilingualism, as well as the higher occurrence of English of signs in method II, as this gives implications about a multilingual society.
RQ 3: Which method should researchers use in order to answer which research question(s)?

In terms of statistical findings, Cenoz and Gorter’s approach reveals the relative dominance of languages. In fact, as they did in their paper (2006), every information that is language related can be answered satisfactorily with method II. It is also convenient for identifying language policy issues in multilingual settings (Cenoz & Gorter 2006: 79). This method also provides for an interesting interpretation on businesses/companies in the LL, if that is of interest to the researcher. Backhaus’ approach on the other hand, seems more useful in terms of determining linguistically unrelated things, like the functions of languages, domains, as well as the top-down/bottom-up distinction (which in itself is rather problematic, as has been discussed earlier). All analyses not directly related to language and language diversity (the functions, or authorship, etc.) are less problematic with method I.

All in all it can be said, that each method offers advantages and disadvantages in comparison to the other. However, the most important revelation is that the use of the different methods does not influence most of the overall results. However, method II reveals higher numbers in terms of multilingualism and English influence, which makes a relevant difference in terms of overall perception of the LL. Future analytical explorations should include either a semantic approach or the combination of both methods, which would provide for an overall analysis, avoiding a number of pitfalls.

11. Limitations and further research suggestions

The research scope of this thesis has its limitations. This section expounds on factors that could not be considered thoroughly. These limitations also pose possible considerations for future research.

One problem with LL, is the multitude of methodological approaches. Even in this thesis, some decisions were made that other researchers have approached in a different way. For example, which items to include or exclude. A number of different papers were consulted, and aspects that seemed most appropriate were chosen from
some of them. As has been emphasized at length in the thesis, a cohesive methodological approach needs to be established.

Furthermore, not only the methodology effects the results of a LL survey, but also the survey area (Macalister 2010: 71). The survey area for this thesis was representative of a non-touristic residential neighbourhood in the centre of Vienna. Other areas, like the first district with its many tourist attractions, or the sixteenth district with a higher density of immigrants, might have brought about a different outcome. This assumption, however, needs to be tested, as language vitality and visibility are not always correspondent (cf. Barni & Bagna 2010, Dorner & Vasiljev 2010).

As far as the analyses of the two datasets are concerned, this thesis only presents a selection of possible factors for analysis. Other aspects can be included and different approaches taken. An additional analysis of extra-linguistic data, like the size and font of writing on display, may alter the results. On a related note, another improvement of LL studies that would help reveal the relative significance of signs, would be the differentiation of signs according to their actual size. This way, also the importance of a sign to the sign reader, id est the actual visibility of a sign in the streets, could also be taken into account.

For this thesis, the quantitative approach proved appropriate, as quantitative studies do not just contribute to insight in the relative prominence of different languages [...], but these studies also provide a better understanding of the spread of English. They are examples of what is possible now in the study of the linguistic landscape in relationship to gain more knowledge about multilingual phenomena. (Gorter 2006b: 82)

However, the addition of qualitative analyses, in order to reveal LL actors’ motives and motivations, as well as the integration of research tools from other disciplines has proven fruitful in other studies. In the future, more mixed-method approaches and multi-modal analyses will help evaluate LLs on different levels.

Last but not least, I would propose revisiting the survey area in a few years. As LL analysis is always “a snapshot of one moment in time”, diachronic studies are quite revealing (Todd Garvin 2010: 254). Due to economic and environmental changes in recent years (economic crises, global warming), people’s mind set has slightly
changed and more businesses offering local goods are emerging. Although it is generally assumed that English will remain dominant in LLs around the world, one might suggest recent developments to cause a decrease in foreign languages, including English. As more organic supermarkets go into business and offer regional and seasonal goods, German language use in the LL might increase even more, in order to symbolically represent this mind frame of regional produce. In order to see if this idea holds true, an insight into the diachronic development of this ‘Bobo’-Area might be revealing: “Linguistic Landscape, quo vadis?” (Backhaus 2007).

12. Conclusion

The findings and results drawn from this project have already been discussed in great detail in chapter 10. This chapter serves as a recapturing of the steps taken in the course of this thesis and shall provide a summary of the main concerns and achievements.

The principle objective of this thesis was to provide a new understanding of the possibilities and drawbacks of two methods frequently used in Linguistic Landscaping. The methods promoted by Backhaus (2007) and Cenoz and Gorter (2006), respectively, differ in the definition of the unit of analysis. The relative importance and quality of each method had not been subject to analysis yet.

In the course of the thesis a number of theoretical and methodological issues were discussed. The field is still lacking one unified methodology, and researchers can choose from a myriad of possibilities at different stages of a research project. This results in numerous papers that do not provide enough similarities to be considered replicable, generalizable and comparable. However this survey has shown that, while a concept for one agreed upon methodology is being figured out, researchers should decide the method which suits their research focus best. In other words, the method should be adapted to the research questions. Furthermore, sub-divisions and micro-analysis of categories help untangle the sign-chaos and provide useful insights into the ecology of Linguistic Landscaping.
Another topic discussed in the thesis is the importance of English in the world and in the Linguistic Landscape in particular. The symbolic value of this world language was thoroughly examined, especially in a neighbourhood that is not inhabited by a community of native English speakers, but supposedly by open minded, internationally orientated so-called ‘Bobos’. The perception study conducted via the distribution of questionnaires also indicated two things: For one, English has replaced French as a prestigious language in people’s minds. Secondly, people are more flexible and open to English influences on the German language insofar as English words and phrases have become part of their everyday lives and inherent vocabulary. The analysis of the Linguistic Landscape in question revealed English as the most prominent foreign language on display. Additionally it can be established that language vitality and visibility are not always indicators of the cultural community inhabiting a certain area.

The comparison of the two datasets exposed strengths and weaknesses of both methods. The first method is valuable in terms of extra-linguistic variables, like functions, authorship (top-down/bottom-up) and domains, whereas the second method is convenient for analysing language-related variables, like distribution and hierarchies. Both methods are valid in their own right, as similar overall results emerged. From a holistic point of view, a combination of the two counting methods in terms of a macro- and a micro-analysis of the Linguistic Landscape could prove to be beneficial to Linguistic Landscape studies.
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14. **Appendix**

Appendix A: Questionnaire form

Appendix B: Results of the questionnaire

Appendix C: Domains, languages and language combinations on signs in both datasets

Appendix D: Abstract in English

Appendix E: Zusammenfassung auf Deutsch

Appendix F: Curriculum Vitae
### Appendix A: Questionnaire form

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>DEUTSCH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>1) TICKET</td>
<td>30) PATCHWORK</td>
</tr>
<tr>
<td>2) SERVICE</td>
<td>31) SHOP</td>
</tr>
<tr>
<td>3) PARTYSERVICE</td>
<td>32) ONLINE</td>
</tr>
<tr>
<td>4) EMAIL</td>
<td>33) FRENCH GEL</td>
</tr>
<tr>
<td>5) MAIL</td>
<td>34) EVENT</td>
</tr>
<tr>
<td>6) MAKER</td>
<td>35) WEST</td>
</tr>
<tr>
<td>7) EXPLORER</td>
<td>36) STUDIO</td>
</tr>
<tr>
<td>8) MOUNTAIN-CITY-TREKKING</td>
<td>37) MAKE UP</td>
</tr>
<tr>
<td>9) VINTAGE</td>
<td>38) MAKE UP</td>
</tr>
<tr>
<td>10) ENSEMBLE</td>
<td>39) MAPE UP</td>
</tr>
<tr>
<td>11) PLACE</td>
<td>40) PERMANENT TATTOOS</td>
</tr>
<tr>
<td>12) SONGS</td>
<td>41) NEWS</td>
</tr>
<tr>
<td>13) HF</td>
<td>42) TV</td>
</tr>
<tr>
<td>14) HITS</td>
<td>43) EXTENSIONS</td>
</tr>
<tr>
<td>15) BAR</td>
<td>44) CUT &amp; GO</td>
</tr>
<tr>
<td>16) FREE WIFI</td>
<td>45) WACOME-BEER</td>
</tr>
<tr>
<td>17) FREE WIFI</td>
<td>46) DISCO MIX</td>
</tr>
<tr>
<td>18) INGES</td>
<td>47) JEANS</td>
</tr>
<tr>
<td>19) POOL</td>
<td>48) AIR CONDITION</td>
</tr>
<tr>
<td>20) LIFT (SEASON)</td>
<td>49) WFF</td>
</tr>
<tr>
<td>21) SEASON</td>
<td>50) SHOPPING</td>
</tr>
<tr>
<td>22) FESTIVAL</td>
<td>51) WANNI</td>
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<tr>
<td>23) SCARF</td>
<td>52) DJ</td>
</tr>
<tr>
<td>24) MANICURE</td>
<td>53) COACHING</td>
</tr>
<tr>
<td>25) TEAM</td>
<td>54) SHAPING</td>
</tr>
<tr>
<td>26) JERSEY(SUM)</td>
<td>55) PARTY</td>
</tr>
<tr>
<td>27) SECON-HAND</td>
<td>56) INTERNET</td>
</tr>
<tr>
<td>28) INTERNET</td>
<td>57) CALL CENTER</td>
</tr>
<tr>
<td>29) SWEATSHIRT</td>
<td>58) SET</td>
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</tbody>
</table>

**Umfrage Diplomarbeit Katharina Prötis**

**Datum:**

**Alter:** 10-19 | 20-39 | 40-59 | 60+
## Appendix B: Results of the questionnaire

<table>
<thead>
<tr>
<th>Language chosen</th>
<th>Linguistic Items (alphabetically)</th>
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<tbody>
<tr>
<td><strong>German</strong></td>
<td>BAR, DESIGN, DJ, E-MAIL, EMAIL, EVENT, FESTIVAL, HIT, HITS, INTERNET, INFOS, JEANS, LIFT, LIVE, MAKE UP, MAIL, ONLINE, PARTY, PARTYSERVICE, PERMANENT MAKE UP, POOL, SERVICE, SCAN, SHAMPOO, SHOP, SONGS, STUDIO, STYLING, TEAM, TICKET, TV, WEB, WEST, ZIPP</td>
</tr>
<tr>
<td><strong>English</strong></td>
<td>AIRCONDITION, CALL CENTER, COACHING, CUT &amp; GO, DISCO-MIX, EXTENSIONS, FREE WIFI, FREE WLAN, FRENCH GEL, HAPPY HOUR, (INTERNET) EXPLORER, JERSEY, MAKE-UP, MANICURE, MOUNTAIN-, CITY-, TREKKINGBIKES, NEWS, PATCHWORK, PERMANENT TATTOOS, SECOND-HAND, SECOND HAND, SET, SHOPPING, SWEATSHIRT, VINTAGE, WELCOME-DRINK, W-LAN</td>
</tr>
<tr>
<td><strong>French</strong></td>
<td>ENSEMBLE, MANICUERE</td>
</tr>
</tbody>
</table>
Appendix C: Domains, languages and language combinations on signs in both datasets

<table>
<thead>
<tr>
<th>Domain</th>
<th>Method I</th>
<th>Method II</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Art</td>
<td>9 G; 3 E; 9 G, E;</td>
<td>3 G,E;</td>
</tr>
<tr>
<td>3. Arts &amp; Crafts</td>
<td>55 G; 3 E; 10 G, E; 7 G, E, Dutch;</td>
<td>3 G; 4 G, E; 1 G, E, Dutch;</td>
</tr>
<tr>
<td>10. Official</td>
<td>4 G;</td>
<td>3 G;</td>
</tr>
</tbody>
</table>
Appendix D: Abstract in English

This thesis deals with the research field of Linguistic Landscaping. Via collection, categorization and analysis of written items displayed in public space, Linguistic Landscaping’s objective is to gain insight into societal multilingualism and the effects it has on society as a whole.

The research questions of the thesis focus on two regularly applied methods of data collection, which differ in the definition of the unit of analysis, thus result in different counting parameters. In a quantitative analysis, the Linguistic Landscape of Vienna’s Westbahnstraße is being analysed according to both methods and the results of both analyses are being compared to each other. Graphs and tables help visualize the similarities and differences of the results. The comparison reveals the potential of each method and presents the strengths and weaknesses of both methods in relation to different research variables.

A second focus, connected to the categorization of data according to language, lies on the global language English. A survey was conducted, aimed at revealing the way potential clients of Westbahnstraße’s shops deal with foreign words. The main concern is the nativization of English words, which have infiltrated the German Language and also the Austrian Linguistic Landscape.

This thesis also presents the different theoretical and methodological approaches that have emerged in the research field. Special consideration is given to describing in detail the process of collecting, categorizing, and analyzing data.

The results of the main analysis reveal that, while both methods are relevant in their own right, it is beneficial to choose the method according to the research focus. While the first method offers valuable insight into variables like functions, authorship, and domains, the second method proved especially convenient for the analysis of variables like language distribution and hierarchies.
Appendix E: Zusammenfassung auf Deutsch


Die Hauptanalyse der beiden Forschungsmethoden bestätigt, dass, obwohl beide Methoden forschungsrelevant sind, es von Vorteil ist die Methodenwahl den Untersuchungskriterien anzupassen. Während die erste Methode vor allem Faktoren, wie Funktionen, Urheberschaft und Domänen der sprachlichen Elemente sehr gut
aufzeigt, ermöglicht die zweite Methode eine kompakte Analyse von Sprachverteilung und -hierarchien.
Appendix F: Curriculum Vitae

Persönliche Daten:

Name: Katherina Piritidis

Geburtsdatum: 09. 06. 1988, in Wien

Ausbildung:

seit Okt. 2008: Lehramtsstudium UF Englisch UF Geschichte, Sozialkunde, Politische Bildung an der Universität Wien


Okt. 2006 – Juni 2008: Kunstgeschichtestudium an der Universität Wien

Juni 2006: Matura mit ausgezeichnetem Erfolg bestanden


Beruflicher Werdegang:

seit Feb. 2014: Erstellung von Unterrichtstranskripten für das Forschungsprojekt 'Fachspezifisch auf Englisch kommunizieren: Fähigkeiten und Fertigkeiten österreichischer CLIL-SchülerInnen der HBLA'

Okt. 2013 - Feb. 2014: Sprachkursleiterin für Englisch an der Volkshochschule Ottakring, 1160 Wien


Okt. 2012 – Juni 2013: Sprachkursleiterin für Englisch an der Volkshochschule Landstraße, 1030 Wien

Sprachen:

Deutsch: Muttersprache
Griechisch: Fließend in Wort und Schrift
Englisch: Fließend in Wort und Schrift
Spanisch: Grundkenntnisse

Weiterbildung:

Sept. 2012: Grundlehrgang für SprachkursleiterInnen