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# Multilingual Trends in Five London Boroughs: A Linguistic Landscape Approach

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ABSTRACT

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      Although multilingualism has been investigated in London, no studies have addressed the multilingual linguistic landscape of this linguistically diverse globalized mega-city. In addition, no previous research has addressed the linguistic impacts of colonialism on the colonizer with respect to signage in the linguistic landscape. With increasing rates of immigration and globalization in London, it is advantageous to fully document and research the nature of the linguistic landscape in order to create a baseline for future comparison. Consequently, aspects of the linguistic landscape of five London boroughs were collected and analyzed in terms of 2,062 signage items. The study noted multilingual signage situations in each borough with respect to the formal top-down and informal bottom-up nature of the signage. The results of this study document the significant impact of colonial and EU languages on London's linguistic landscape. These findings suggest that Britain's colonial languages make up the majority of London's multilingualism, followed by European Union languages. We suggest that future research attempt to track the changes of London's linguistic landscape by comparing future data to the data presented in this study as immigration laws change.

ACKNOWLEDGEMENTS

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CHAPTER ONE: Introduction

Multilingualism is a worldwide phenomenon that is the result of an increasingly globalized world. A current method of analyzing and understanding urban multilingualism within a sociolinguistic context focuses on the written signs in public areas using a linguistic landscape research approach. Linguistic landscape (hereafter referred to as "LL") studies give insight into the linguistic situation of a city, as well as the social stratification of languages, and detect the movement of people and languages, often before other methods of study.

The study of LLs is concerned with the issue of language in the written form found in the public sphere. It is an empirical investigation of the degree of multilingualism that exists in urban areas. What is lacking in the current research is a study of London's LL, as well as exploring the effect of post-colonial immigration on current LLs. Ben-Rafael et al (2006, p. 27) stated that "LL analysis allows us to point out patterns representing different ways in which people, groups, associations, institutions and government agencies, cope with the game of symbols within a complex reality." These qualities of an LL study make it a useful and still relatively underexplored research tool for the study of multilingualism.

Consequently, this study focuses on the signs of a previously unexplored LL and builds upon previous LL methodologies. Results provide a baseline of data for which future studies will be able to measure the changing LL of London, an analysis of the current multilingual situation in London with specific focus on the languages of the former colonies and the EU, as well as a top-down, bottom-up analysis of the data.

London is a global city in part due to the large-scale influx of immigrants from around the world (Preece 2010). Second only to New York City, London has one of the highest numbers of immigrants in the world. The 2011 British census reported that 37% of London's population

was born outside of the U.K. While some self-reporting on languages was part of the 2011 census, it was not sufficient to provide a full picture of London's LL. Census data lacks information regarding which linguistic groups are in which parts of the city, which linguistic groups are maintaining their first languages, and which linguistic groups are relating or accommodating to other groups. This lack of refined data led to the research questions investigated in this study.

The study of linguistic landscapes is a fairly new area of research within sociolinguistics, and so it is not surprising that no studies have attempted to document the linguistic landscape of London. In addition to conducting a general study of the LL, this study specifically looks at the impact of the languages of the former British colonies and European Union (hereafter referred to as "EU"). By so doing, it provides the only baseline data of its kind collected in London, and—possibly more importantly—the only data collected in the city before the U.K. voted to leave the European Union in 2016.

*Figure 1 Map of the British Empire in 1921 (darker areas ruled by Great Britain).*

As Figure 1 indicates, at its height, the British Empire was the largest and most powerful empire in the history of the world (Ferguson, 2004). A century ago it controlled nearly one quarter of the world's population. (See Appendix for an exhaustive list of British involvement worldwide.) Since 1945, immigration to the United Kingdom under the British Nationality Law has been significant—particularly from the former British colonies. Salhi (2002:319) notes a salient legacy of colonial empire building. He states: "This process, the legacy of colonialism, is disseminated from within. What is often little realised about the empire is that in the act of seemingly colonising its subject nations, these nations themselves, though unknowingly, colonised the empire" (Salhi 2002:319). This insight indicates that the United Kingdom's colonized languages and these language speakers may now be colonizing their historical colonizers and are investigated in this study.

In addition, other immigrants have come seeking protection as refugees under the United Nations 1951 Refugee Convention, or have come from countries in the EU, exercising one of the EU's Four Freedoms (guaranteeing the free movement of goods, capital, services, and people). Britain's past influence as an empire is still in effect today, as well as its membership in the EU—both in the movement of people and the movement of language. These historical and contemporary variables led to the development of the following research questions:

1. To what extent is London a multilingual city?

2. How representative are the languages of the former British colonies in London's linguistic landscape?

3. How representative are the languages of the EU in London's pre-Brexit linguistic landscape?

The following chapter will provide an overview of the related research literature. Chapter Three will present the research design and methodology. Results and analysis of the data will be presented in Chapter Four and Chapter Five will provide discussions and conclusions drawn from the research.

CHAPTER TWO: Literature Review

This chapter will provide an outline of the background, history, and purpose of linguistic landscape studies. Current and prominent research methods and findings are addressed in order to establish the relevance of the research methods and findings utilized and discussed later. Additionally, top-down, bottom-up analyses of LL data will be explained, and the purpose of such analyses will be explored based on current LL research.

*Background and purpose of the LL*

The coining of the term linguistic landscape is attributed to Landry and Bourhis in their widely cited 1997 study:

> The language of public road signs, advertising billboards, street names, place names, commercial shop signs, and public signs on government buildings combines to form the linguistic landscape of a given territory, region, or urban agglomeration. The linguistic landscape of a territory can serve two basic functions: an informational function and a symbolic function.

Based on the parameters defined by this hallmark study, the presence (or the absence of) languages in the public space communicates a symbolic message that warrants investigating. The importance, power, significance, and relevance of specific languages as well as the irrelevance and the insignificance of other languages within a linguistic community is explored through LL research (Hult 2009). It is a worthwhile area of study in order to understand how languages, ethnolinguistic groups, and speakers are interacting with one another, identifying and understanding linguistic in-group and out-group behavior (Landry and Bourhis, 1997), and their

relative importance in a community. The study of the linguistic landscape utilizes the public marking by examining the language on display through documenting the written language of the public space (Ben-Rafael, 2008). In 2003, Scollon and Scollon called for further study of the relationship between language and the public space through LL studies in order to examine the unique relationship between linguistic presence and the space it occupies.

Blommaert (2014) stated that through the LL study we see signs as indexes that point toward the social, cultural, material, and ideological contexts that generated them. The concrete features of a sign tell not only a linguistic story but also a social, cultural, and political story. Every sign points backward to its production, as well as sideways to the surrounding context, and it points forward to its possible uptake and effect (Blommaert 2014). The study of the LL, as proposed by Blommaert, allows a visual of rapid change-in-action, far more so than statistical demographics such as census records. Taking on an LL study is both a historical and sociolinguistic venture as it analyzes the past and present processes impacting the surrounding social environment as well as the people and practices of these spaces (Pietikäinen, Lane, Salo, and Laihiala-Kankainen, 2011).

The study of the LL is a developing area of research, though the concept has existed since the 1970s, particularly within the scope of sociolinguistics. The development of digital photography has made the study of the LL recently more accessible for researchers, which is no doubt one of the reasons why this area of multilingualism study is experiencing growth. Through such studies researchers examine the ecology of linguistic communities within a defined geographical area (Backhaus, 2010). LL studies allow different facets to be explored such as the languages utilized in the public space, their relative saliency, and semantic aspects of language, (Ben-Rafael, 2009). LL studies assist in understanding the relationships between linguistic

groups, the locally accepted versus the official linguistic policies, local literacy, and the linguistic practices of different groups in the public space (Spolsky, 2009). One of the chief aims in most prior LL studies is to pinpoint the representative strength of languages on public display in a given area (Backhaus, 2007), and thereby understand the social layering of a community.

LL analysis allows researchers to identify the ways people, groups, associations, institutions, and government agencies cope with communication within a complex reality (Ben-Rafael et al, 2006). These qualities of the linguistic landscape make LL studies an effective and still under-utilized research method for studying multilingualism; one that deserves closer attention (Backhaus, 2007) as people and languages come into contact more frequently.

The study of multilingualism specifically through sociolinguistic studies such as LL sheds light and furthers our understanding and implementation of policies that foster better contact and cohabitation between differing ethnolinguistic groups. Previous research in multilingualism has focused on individual speakers and dialectology (Backhaus, 2007), but research in the LL is a method that can be used across disciplines to understand more about human language and sociolinguistic experiences.

Previous LL studies are generally focused on urban, bi-lingual and multilingual environments. Prior studies have investigated linguistic ecologies in cities and neighborhoods within Jerusalem, Israel (Rosenbaum, Nadel, Cooper, and Fishman, 1977; Spolsky and Cooper, 1991; Ben-Rafael, Shohamy, Amara, and Trumper-Hecht, 2006); Hong Kong, China (Lai, 2013); Tokyo, Japan (Backhaus, 2007); Dingle, Ireland (Moriarty, 2014); Brittany, France and Corsica (Tufi and Blackwood, 2011); Seoul, South Korea (Lawrence, 2012), Antwerp, Belgium (Blommaert, 2014); Bangkok, Thailand (Hammett, 2003; Huebner, 2006); Montreal, Canada (Monnierr, 1989); the Netherlands and Spain (Cenoz and Gorter, 2006); Veneto, Italy (Vettorel

and Franceschi, 2013); Kohtla-Järve and Paldiski, Estonia (Küün, 2015); rural South Africa (du Plessis, 2012); and various locations in the United States mostly with significant Hispanic populations (Dailey, Giles, and Jansma, 2005). The main focus of most of these LL studies involved locations near linguistic or national borders. Focusing where language use is mixed in terms of numbers of speakers, or the presence or absence of English signage, such as Lawrence's 2012 study in Seoul, Korea, allows us to identify languages such as English as status markers rather than just linguistic forms of communication.

Cities and areas where bilingualism and minority languages have significant presence and history are often the focus of LL studies. Tufi and Blackwood's 2011 study of the Brittany region in France and the island of Corsica, where the use of France's heritage languages specifically Breton and Corsican were studied, are an example of such focuses. Further analysis of the nature of the signs was also conducted in Tufi and Blackwood's study.

Cities provide an environment for studying language contact and multilingualism. According to Tufi and Blackwood's 2015 study of the Mediterranean, the city is symbolic of the epitome of social breakdown and is the place where studying language and multilingualism is vital.

> [The city is] the privileged site of encounter and mobility, a laboratory of social and cultural activity, and a magnet for human energy. It is the repository of political and economic power and a container of crowds engaged in a wide variety of actions and with shifting boundaries . . . Urban Linguistic Landscapes are constantly involved in the construction of urban culture.

Cenoz and Gorter stated in their 2006 LL comparative study of the minority languages Basque and Frisian in Spain and the Netherlands that the LL can reflect the use of the languages in written communication. Specifically, it can provide information about written communication between language users, such as group identity, and the literacy situation in the area designated. A sign written solely in Arabic in London's East End is obviously not intended to be read by monolingual English speakers, nor is it directed to anyone who cannot read Arabic. The purpose then, based on the sign's context, is to reach a certain audience and to exclude others. The use of language on signs reflects such inclusion and exclusion. Johnston (2006) stated in a study of ethnic composition of British schools, ". . . literacy, language and communication represent a potent form of cultural capital, which can be exchanged . . ." This so-called culture capital is further understood through LL studies.

The relationship between a linguistic landscape and the sociolinguistic context is bidirectional (Cenoz and Gorter, 2006) as the LL reflects the status of the languages found within the area surveyed. As such, the study of the LL is a source of information about the sociolinguistic makeup of a city or neighborhood along with statistical records, and surveys. Regarding this kind of study, Blommaert (2014) stated:

> When populations change, and relationships between populations, one of the first things that gets affected is language—people talking differently, different languages and scripts appearing in a neighborhood. Sometimes, years before such changes become visible in statistics, detailed sociolinguistic ethnographies of "linguistic landscapes" can signal important features of change—often, paradoxically, on the basis of seemingly insignificant bits of evidence, details often

dismissed as "fluctuations" by others but proven to be accurate indexes of nature and direction of social processes.

Through public display, some ethnolinguistic groups make their presence more visually dominant than others. This has been noted by many researchers, but particularly by Backhaus (2007) who also stated that we can draw conclusions from the nature of those signs as well as the volume of some languages over others, which he did with English in Tokyo. Reh (2004) emphasized that the study of language on signs enables conclusions to be drawn about the social layering of a community including the status of the various societal segments and languages, and the cultural ideals dominating the societal observations and conclusions that cannot be drawn from other statistical data.

*Methodological approaches*

For the first time of the U.K.'s census in its 210-year history, residents who took the survey were asked what language they used as their "main language." The majority of London's residents reported that English was their main language. But how reliable is that data point? Küün's 2015 study of language shift in post-Soviet Estonia addressed the LL versus census records. That study demonstrated the linguistic impacts on environments and noted that self-reported mother-tongues do not indicate the real usage of the corresponding languages within society. It was argued that the LL sheds light on language usage as well as identity. For example, a reporting of another language being someone's L1 does not indicate a linguistic community, regular usage, or even household usage of that language, only a self-identified relationship with that language. The use of LL studies provides an insight into the usage and movement of people and languages in a way that other studies cannot.

Different methodological approaches have been and continue to be examined and employed as well as debated in attempts to identify the most effective and reliable method for gathering data in LL research. Backhaus's 2007 LL study of Tokyo used signage documentation and states:

> Public signs are a specific type of semiotic sign in that they too stand for something other than themselves . . . A sign need not necessarily be attached to its referent. Instead, it can give a direction how to get there, as in the case of guidance signs, or simply call attention to it, as advertisement signs do . . . From a semiotic point of view, a public sign makes sense only in combination with its referent. The sign of company X does not fulfill its designating function properly on the sign writers desk or when attached to the building of company Y. It has to be put up at the right point in time and space. This applies not only to signs designating material objects but to all types of public messages too.

Many LL studies, like Backhaus's Tokyo study, build upon the Landry and Bourhis 1997 method by restricting the collection of data to public signage with a focus on the written language of a community. These subsequent studies often cite the Landry and Bourhis study as support for their definition of signs. Thus, their study provides the framework for this present study of London as well as most LL studies, addressing the visibility and salience of languages on the signs of a community in the public sphere. However, on this point, we encounter debate among some LL researchers in determining what data should be included in the LL, such as what is to be defined as a sign?

Landry and Bourhis proposed that construction of the LL be composed of public road signs, billboards, street names, commercial shop signs, and government signs, with the emphasis

on visible language. This method of assessing the written language within the public sphere has been debated by some researchers who claim the study of signage is too limiting. Dailey et al (2005), propose that data collection should include more than just documentation of signs but also fliers received at home, languages heard on TV, languages heard throughout the neighborhood, teacher-student interaction, etc. This approach, while thorough and encompassing of the various forms of language found within the defined region, is also limiting in the sense that the volume of data collected would be very large and nearly impossible to code in a cohesive way.

The volume of data required for this approach on the LL will require a smaller geographical area to create a feasible data collection method, which in its attempt to be less limiting becomes limiting. Geographically limiting the scope of an LL fails to see a broader scope of the linguistic environments that make up a city and instead becomes microcosmic studies of communities and micro-communities, which is worthwhile but perhaps not an LL study on a city-wide scope. This approach would also require entry to homes, schools, etc., which creates access issues, making its variability high and replication less feasible. While the value of such endeavors should not be discounted, particularly since this approach attempts to treat space as dynamic and fluid (Pennycook, 2010), the inclusion of this kind of data perhaps should be separated, or used as additional data to supplement quantitative studies.

This present study differs from previous LL studies in the volume of data collected. A total of 2,062 signs were documented and coded from five boroughs. This study differs from other studies by analyzing more data overall, and concentrating on fewer locations to determine the city's LL in attempts to gain a more in-depth understanding of the multilingual situation. Additionally, many previous LL studies glossed over location as a variable and only coded large

signage. But volume and location size are both important in understanding linguistically what is occurring beneath the surface.

One approach to this debate has been to narrow the focus on the "graphic environment" of a location. This is achieved by including data and analysis of printed materials that are "part of everyday consumption, such as labels, pamphlets, fliers and leaflets, handbills, stamps, tickets, bills (Sebba, 2010) menus, (Kasanga, 2012), and mobile, often transitory, signage that includes handheld signs, posters, place cards, banners. This more balanced approach proposed by Sebba (2010) includes mobile and unfixed signs, stickers, pamphlets, etc. within the defined research area. It still treats space as dynamic and fluid without compromising variables. Sebba's methodology, building on Landry and Bourhis's methodology, is less limiting than the earlier suggested methodology frameworks. It is able to control variables by focusing on an analysis of written language. Sebba suggests an updated and balanced approach to data collection that builds on early methods as well taking into account more modern liberal approaches to defining signage. It acknowledges the ever-changing nature of language in the public space. While some argue that LL research should not be limited to written language found in public spaces, it is a worthwhile effort to research the written signage because it gives visual representation to the instability of language contact situations (Backhaus, 2007).

By including data that has potential to change month to month, week to week, or even day to day, instead of focusing solely on fixed and more permanent signage on display, a balance is struck that manages to be thorough in its scope of language but also manageable in the scope of data collection and analysis. The argument for documenting the signage of a place is valid because it is a form of language serving its own purpose. Written language is not bound to the immediate time of pertinence (Coulmas, 2003) though it does require context. In addition,

written languages are not bound to the impermanence of spoken language (Backhaus, 2007). A study of LL written language provides a snapshot of the linguistic lives of those in a community. As suggested by Backhaus, language that is found on signs in the public sphere is characterized as part of one distinguishable type of language that is used in everyday life.

Some studies propose two coding systems—official and non-official, or simply top-down, bottom-up. Top-down data were coming from official sources like local and federal governments and bottom-up data were coming from individual, private sources. Other studies like Lai's Hong Kong study (2013) use more detailed coding criteria such as official, commercial, private, etc. on the source of the signage. Ben-Rafael et al. (2006), as well as Lai's (2013) studies propose frameworks where the signs in each study were classified into (1) official, (2) public, (3) private, and (4) commercial as well as (A) monolingual (English) and (B) multilingual (containing monolingual non-English, bi-lingual, or multilingual characters).

*LL study findings*

Backhaus's (2007) LL study of Tokyo is one of the most prominent in investigating the multilingualism of an urban location without an official bi- or multilingual policy. It addresses a common element found in LL studies, namely the prevalence of English in the LL of cities where English is not an official language. Studies like Backhaus's in locations without official or unofficial bi- or multilingual language policies often focus on the presence of English and investigate the role of English as an international language. Studies have also been conducted in locations where colonizing powers (and therefore a colonizing language) in the past have moved in and influenced other languages such as English and Irish Gaelic in Dingle, Ireland (Moriarty),

or Russian in Estonia (Küün). These studies are related to the approach used in this present study.

In his study of Tokyo, Backhaus (2007) determined that the use of English was usually not intended for foreign readers, as one might assume, but English use was an attempt to add prestige to a brand or shop. In other words, English was not being used in a functional manner, but as a branding tool to shape the image of a store. Different practices of language use on signs represent different views on the linguistic regime of a place, and thus research into the LL of a place produce differing views on the conclusions drawn from those studies. Scollon and Scollon (2003) determined that in Beijing, China, English on signage is not used for the benefit of foreign residents or tourists, but to symbolize foreign taste. Reh's (2004) study of Lira Town, Uganda found that English was used in the domains of health, stationery, bookshops, photocopying and computer services, whereas the local language of Lwo was used in agricultural domains, suggesting that the languages served different functions in the community.

Monnierr (1989) expresses distress in his concluding remarks in a study of the linguistic situation of Montreal, Canada. As a famously bilingual area, the results of his study show that the situation there is not as monolingual French as, in view of the overall seeming dominance of the Francophile culture, it should be expected to be (Backhaus). His conclusions are dotted with the personal belief that French should be spoken more widely than it is now, which is not an uncommon conclusion from LL studies of bi- and multilingual cities, particularly in studies where the prevalence of English has been assessed.

Rosenbaum, Nadel, Cooper, and Fishman (1977) studied Jerusalem's LL. The LL of Jerusalem was again studied by Spolsky and Cooper (1991), and again by Ben-Rafael, Shohamy, Amara, and Trumper-Hecht (2006). Through their research, they found that signage in the west

side of Jerusalem is dominated by Hebrew, while the eastern parts, including the Old City, are dominated by Arabic. This finding suggests a linguistic separation. A pattern emerging from these LL research reports indicated that public signs (top-down) have much more Hebrew and private signs (bottom-up) have more English, suggesting that English is considered to be a 'neutral' language in the city. Similarly, Monnier (1989) found, in his study of Montreal's LL, that French dominated the east side of the city and English the west. In addition, Monnier noted that 90% of store signage was monolingual French, whereas only 39% monolingual French was evident in hotels and restaurants, suggesting the use of English as a lingua franca in the tourism domain in Montreal.

Moriarty's (2014) study explored the relation between Irish Gaelic and English signage and the use of typography between the two languages, exploring the function each language served in a small coastal town with a population of dying bilinguals. Exploring the LL and documenting the language of the public spaces allows for understandings of the future and past of languages in terms of their vitality. Moriarty found that Irish names and fonts lent themselves to establishments and events jockeying to be seen as authentic Irish, but they were not necessarily actually authentic Irish. Ireland's bilingual linguistic policies accommodates the use of Irish. However, Mortiarty's study found that the use of Irish was more complex than simply offering Irish language services. Here we see an example of the relationship between the accepted and official linguistic and cultural policies playing out in the public space as being more complex in usage than perhaps previously understood.

*Top-down and bottom-up analyses*

As suggested previously, there is an overt and covert policy in informing LL practices (Cenoz and Gorter, 2006). In essence, there is a negotiation between the official policies from a top-down process that guides for example the naming of streets, and the unofficial practices of other signs coming from bottom-up processes such as posters and fliers. When accounting for this negotiation in the public space there are unofficial practices that significantly influence the LL. It appears that there is an accepted community practice that allows for unofficial posting of signage in a particular language in the public space (Anuarudin, Heng, and Abdullah, 2013). As Moriarty states, "The LL provides important clues to the nature of multilingualism in the community and often provides a more accurate account of the lived sociolinguistic reality of a given community than official language policies do" (Moriarty, 2014).

Top-down signage most often reflects the official language policies of state majority languages. Top-down signs are most visible in place names and other government controlled signage like traffic signs (Backhaus 2006). Bottom-up language is reflected in the use of other linguistic resources, such as minority and global languages in marketing and personal signs placed in the public space (Pietikäinen, et al., 2011). Most studies analyzing this top-down versus bottom-up approach to LL research report multilingualism being most prolific in bottom-up signage. One exception involves locations where bi-or multilingual language policies dictate official postings in more than one language e.g. Welsh, and Irish Gaelic. Top-down, bottom-up LL analysis is a relatively new approach to analyzing LL data. This present study will contribute to the development of more concrete theories in that area by contributing a sizeable amount of data. Clearly, language is a visual index of ethnicity (Moriarty, 2014). With globalization

processes and pressures has come the realization that language can be commoditized for tourism and commercial processes, which is in part, understood by top-down, bottom-up analyses of LL data.

Backhaus (2010) and Ben-Rafael (2008) particularly focused on the language of official versus non-official signage. Spolsky (2004) makes the argument that true language policy is to be found in the practices of the community rather than in the regulation or defining of the official policy. LL studies facilitate the understanding of the unofficial language policies of a community despite official linguistic policy. LL aids in the comprehension of how language policies are played out by the authorities (a top-down process) while at the same time the study of the LL uncovers how those policies are actually implemented by the community and what is accepted (a bottom-up process) (Anuarudin, et al., 2013). Moreover, Hult (2009) proposed that, in expensive neighborhoods, minority languages do not hold the power they experience in less affluent neighborhoods.

*Multilingualism in London*

Thus far, few if any, studies have explored the LL of major colonizing powers in their home country with a focus on investigating the languages of the former colonies within the colonizing country. There is no place to study this effect more than in London, the heart of the British Empire. To date, no sociolinguistic studies have addressed the multilingual situation in London, or attempted to study the LL of London in any respect. Some studies have focused on certain ethnolinguistic groups in London. For example, multilingual research focused in London has addressed code switching and language vitality in second generation Bangladeshis (Azad and Ali, 2017; Rasinger, 2013); immigrant children in higher education (Martin, 2010); Latino

presence (Block 2008); London-based transnational media production in Arabic (Aly, 2010);

bilingual behaviors and attitudes of Japanese speakers (Brown and Sachdev, 2008); and the

emergence of a multicultural London English dialect amongst young, diverse Londoners

(Cheshire, Kerswill, Fox, and Torgersen, 2011). These studies focus on one linguistic group and

revolve around language and identity. Prior studies of multilingualism in London also tend to be

case studies limited to interviews with only a few participants.

As Landry and Bourhis (1997) point out, language territories are seldom linguistically

homogenous, and the LL can provide information about the sociolinguistic composition of the

language groups inhabiting the territory in question. Discovering the predominance of one or

more languages in the public space reflects the relative power and status of that language in the

area, a worthwhile attempt to study and to understand in the field of multilingualism, particularly

as more and more languages and ethnolinguistic groups come into contact in these urban spaces.

Sizeable populations of ethnolinguistic groups have settled in London throughout its

history creating patterns for written language use that differ across neighborhoods, cities,

language groups, and national borders. This present study seeks to understand those patterns

better by documenting London's LL. In one study, Martin (2010) suggested, in a case study of

four immigrant students attending a university in London, that the students had lost their original

identity, but had not gained a British identity, and that L1 preservation was a way of negotiating

the loss of a home country identification and a non-gained British identity. Rasinger's (2013)

study of Bangladeshi Muslims in London stated that, in a post-9/11 world, the concentration of

migrants to one area and maintenance of the L1 acted as a buffer for such groups from outside

hostilities. Rasinger also found that "Bangladeshiness" and language maintenance is important to

second generation Bangladeshis, though the home country may not be part of that identity. Of

migrant Londoners, Cheshire, et al., (2011) stated that there is a tendency to be globally connected but locally disconnected, which can also be seen linguistically.

On a wider scope, most multilingual research in and around the EU focuses on the laws and policies surrounding EU language use. One salient study (Singleton 2013) in particular, however, addressed the changing nature of migration in the EU by contrasting two migration movements of Poles into France in the 1980s, and Poles into Ireland following Poland's accession to the EU. The first wave involving immigration into France is characterized by a strong desire to assimilate into French culture and language. The second wave involving immigration into Ireland was found to be quite different. In this case, L1 and cultural maintenance outweighed assimilation, and movement between the home country and Ireland was highly valued. Attitudes toward permanence of residency also differed from a permanent-move stance to an impermanent stay attitude. It was also noted that a common goal with the first wave was to pass as a native speaker in the L2, but this perspective was no longer a goal for the second wave. This shift in language attitudes is attributed to the EU's policies of linguistic accommodation and free-movement between EU nations (Singleton, 2013). This change in EU immigration policies and attitudes is addressed in this present study through the inclusion of an analysis of EU language LL.

To conclude this chapter, while it is evident that past and current LL studies have focused on locations with either official or accepted bi- and multilingual policies, few have addressed circumstances where the situation is less clear, such as in the UK, and in London in particular. Studies in LL have not looked at post-colonial linguistic situation of former colonizing powers and the current linguistic impact of immigration within the former colonizing country. No sociolinguistic studies have covered London's LL at any time, so no baseline data exists for

comparison. This study attempts to fill in these gaps in the field of LL research, while utilizing the current accepted methodological processes evident in other current studies. Future studies will be able to use this study as a baseline for understanding the linguistic situation of London and how it evolves. This study differs from other studies such as that done by Cenoz and Gorter (2006) and others in that it is not a study of the linguistic landscape of a location with two or more official languages (e.g. Canada, Ireland, and Belgium). Rather, it builds on past research and explores the LL of a former colonizing power in order to more fully understand the modern impact within its own capital of being a former colonizer.

CHAPTER THREE: Methods

As noted, this study utilizes the documentation of written language in London's public space. It includes the documentation of all forms of written language: fliers, graffiti, stickers, advertising, and so on, in order to create an LL study of London as a visual and discernible representation of the linguistic situation in modern London. The study seeks to answer the following questions,

1. To what extent is London a multilingual city?

2. How representative are the languages of the former British colonies in London's linguistic landscape?

3. How representative are the languages of the EU in London's pre-Brexit linguistic landscape?

The aim of this research is to establish an understanding of the current ecology of London's linguistic landscape as well as to establish a baseline for the future documentation of linguistic changes in the city of London.

As a first step, impressionistic interviews were conducted as part of the process of selecting streets and boroughs targeted for data collection. These interviews are not included as they do not pertain to actual linguistic analysis. The interviews were conducted to document and understand the general nature of each of the boroughs in order to create an authentic representation and to avoid arbitrary location selection. Interviews were not conducted for data purposes. Some past LL studies have used a qualitative or combined quantitative-qualitative approach to data collection by including interview information in data analysis, but this study does not use a mixed approach. A follow up study could include a more blended qualitative-

quantitative approach by conducting more interviews in order to add that dimension to the data. In sum, this study's empirical, quantitative approach to data collection and analysis provides a framework of the current linguistic landscape of London by using data collected from five inner boroughs in the summer of 2015.

*Location*

This study follows a similar research design employed by Lai (2013) in Hong Kong and builds on pioneering research from Landry and Bourhis (1997). The data for this study was collected from one main street and one side street in each of the five selected London boroughs (Chelsea, Hammersmith, Southwark, Hackney, and Tower Hamlets) that were surveyed. It should be noted that a main street in this study is defined as a large street on the double-decker bus route. Additionally, a main street in this study is a major artery of a borough and therefore presents high visibility for data (Lai, 2013). A side street for this study is defined as a smaller street that is not on a bus route but still sustains pedestrian and private car traffic. Side streets were included in the data sampling in order to adhere to the basic structure of Lai's (2013) Hong Kong study design. Such an approach, increases the ability to capture smaller idiosyncratic signs that better reveal personal and
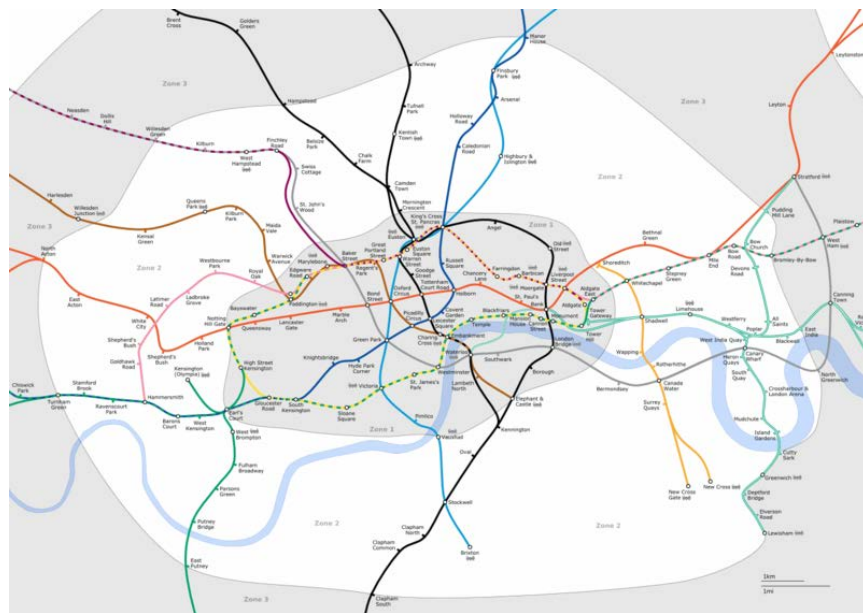


*Figure 2 Map of London's transportation zones*

group identifiers as opposed to mass market and commercial advertising expected on main streets. A total of 2,062 signs were analyzed from the five selected boroughs in the inner London area. The inner London area referred to here is defined as being within Zones One and Two of the London underground metro system, along major Transport for London (ToL) lines, along major transportation routes pictured in Figure 2.

*Location selection*

Two boroughs from London's public transport Zone One (central London), and three boroughs from the public transportation Zone Two were selected. This study is limited to Transport for London's Zones One and Two in order to create a manageable area that still demonstrates an even representation of the population of London.

There are 12 boroughs that compose inner London—five are surveyed here. The boroughs selected for this study are representative of a range of socioeconomic and ethnic diversity based on the reports of the 2011 London census records. In order to provide an accurate and manageable view of the residents of London a range of boroughs from the least to most socioeconomically advantaged are represented.

Once a borough was determined to be suitable for data collection based on income demographics and location, an impressionistic survey of the selected boroughs identified main street and side streets. The survey determined whether enough signage could be documented to provide an accurate amount of data to represent the area and for proper analysis. If a selected borough could not provide enough data due to a lack of signage, then a borough of similar socioeconomic makeup was selected and surveyed. In order to maintain consistency, the researcher identified all of the areas from which the data were collected to ensure signage was

collected from similar environments. These similarities were determined by the following factors: number of people living in the area, distance from major tourist areas, size of the main street, proximity to major tube lines, and extent of commercial and communal activity. The only difference between the selected areas was the socioeconomic demographics as it is expected, in keeping with London's historical trends, that lower income boroughs attract more immigration and therefore exhibit more multilingualism than high income boroughs. Special care was taken in selecting boroughs that are residential in an effort to provide an authentic snapshot of the people of London. This study is concerned with the residents of London, not the tourists. Though tourism does play a role in shaping the LL of a city, it was not considered as a factor in this study in order to focus on the residents of London. Therefore, popular tourist areas and sites were avoided.

*The boroughs*

**The Royal Borough of Kensington and Chelsea** (referred to as Chelsea in this study). Chelsea is one of the most affluent boroughs of inner London. It lies to the west of the center of London and is bordered by the River Thames. In the 2011 census, the borough had a population of 158,649 with a racial makeup of 71% White, 10% Asian, 5% of multiple ethnic groups, 4% Black African, and 3% Black Caribbean. This area of London is known for attracting French expatriates. Per a 2013 report on London's Poverty Profile (operated by the Trust for London), this borough has the greatest imbalance between high and low earners of any borough in the city.

**The London Borough of Hammersmith and Fulham** (referred to as Hammersmith in this study). According to the 2011 census, Hammersmith has a population of 165,242 with 60% being White British, 20% White non-British, 5% black Caribbean, 8% black African, and

various other ethnicities making up the remaining 11%. Hammersmith borders the River Thames to the south, stretching northward. Many international companies have headquarters in this area of London.

**London Borough of Tower Hamlets** is located in what is referred to as the East End of London, north of the River Thames. This area is known for housing London's docklands and for having the highest ethnically diverse population in the U.K. The docks made this borough a target for bombing in World War II, damaging the already impoverished area. Tower Hamlets still contains some of the worst poverty in Great Britain. Residents are 41% Asians, (with 32% of the Asian population being Bangladeshi), which is the largest ethnic minority in the borough. A small proportion of the population is of Black African and Caribbean (7%). Somalis are estimated to be the second largest ethnic group in Tower Hamlets behind Bangladeshis. The percentage of primary school pupils who speak English as a second language is estimated to be 78% (Rassool, 2008).

**The London Borough of Hackney** is situated in northeast London. Hackney has been the site of extensive post-war development and immigration in the late 20th century. There are many Georgian and Victorian buildings in this borough which have seen a shift to gentrification in the last 20 years. Hackney's primary geographic feature is the River Lea. Of the resident population, 41% describe themselves as White British, 14% are in other White ethnic groups, and 29% are Black or Black British, 9% are Asian, 4% describe themselves as Mixed, 3% as Chinese. Traditionally there is a large Turkish and Kurdish population in Hackney. Two-thirds of the resident population were British born. A further 5% were born in other parts of Europe, and the remaining 29% born elsewhere in the world.

**The London Borough of Southwark** spans the River Thames and is connected by several bridges. The racial makeup at the time of the 2011 census was reportedly 63% White, 16% Black African, and 8% Black Caribbean. Southwark has a wide range of socioeconomic housing, including council (government) housing to provide homes to low-income residents, into which the London Borough has invested tens of millions of pounds. Southwark had the greatest proportion of social housing in England (31.2%, at the time of the 2011 census), but is also home to high-end housing.
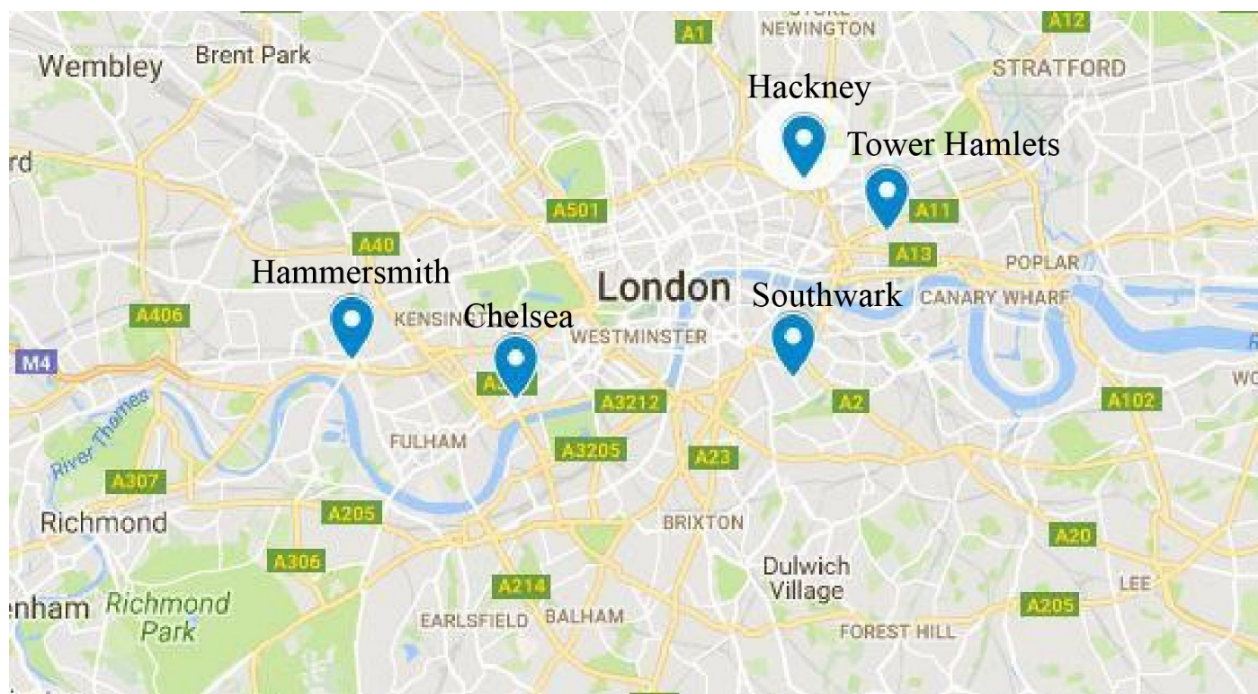


*Figure 3 Map of the five boroughs included in this study.*

*Methods*

As previously mentioned, each borough was chosen building on Lai's Hong Kong data collection criteria which follow: (1) The main and side streets in each borough that were selected

were of comparable length to the streets of the other selected boroughs. (2) The surveyed streets were selected if they were determined to be the site of vibrant commercial and communal activity. Additionally, for this study, each street was located within one block of a Tube station on a busy line to ensure local foot traffic was common in the borough. The streets were selected in residential areas to avoid purely commercial, tourist, or industrial areas. These parameters were used as criteria for selecting sampling streets to ensure that the data were collected from places where advertising and postings would be catered to local pedestrians in order to provide an authentic representation of the city's language usage. A sign was defined to be any piece of written text within a spatially definable frame (Backhaus, 2010). This included anything from large billboards to small handwritten leaflets and stickers.

Documenting London's linguistic landscape included photographing all of the public road signs, billboards, fliers, street names, place names, commercial shop signs, public and local government signs, language found on vehicles, graffiti, stickers, and posters found in the public areas of the five boroughs. Five teams comprised of three to four undergraduate students and one graduate student were assigned to document the signage on the pre-identified streets in each borough. Data collection included photographing each piece of signage along the designated routes on identified main and side street in the five boroughs. Photos of the signage from each of the five boroughs were collected from five blocks on each side of the block from one main street and one side street. Signage above the street level was included in the collection and analysis as London is not an exceptionally vertical city. This is a break from Lai's research design for Hong Kong. Ultimately, data were collected by documenting a total of ten streets in five areas and a total of 2,062 signs were used in the analysis. Some boroughs produced more data than others

despite efforts to select streets of similar composition and communal importance. As such, some boroughs have less signage data than others.

Following collection, it was determined that a sign should be excluded from the data if it appeared elsewhere on the same street (e.g. when a store with commercial signage had two branches on the same street, the signs were counted one time and the



*Figure 4 Multilingual, bottom-up signage.*

duplicate signs were excluded from analysis). This was done in an effort to avoid skewing the data by avoiding over-representation of one group or commercial business in the analysis. Signs with no linguistic text were also eliminated from the data to maintain a focus on the multilingualism of the city. Entities like ATMs that had multiple pieces of smaller text were treated as one sign if each piece of signage came from the same source and was meant to be viewed together. If multiple signs appear in one photograph, then each sign was counted as its own sign within the photo.



*Figure 5 Top down, multilingual sign.*

Generally following the Ben-Rafael et al, as well as Backhaus's proposed frameworks the signs in this study were classified as being either top-down or bottom-up. Top-down signage was any official government posting, street names, and local government signage in origin. Bottom-up constituted any signage that was posted by individuals, businesses, or any non-government issued sign. These classifications are less detailed than Lai's study of Hong Kong, which also follows Ben-Rafael, Shohamy, Amara, &



*Figure 6 Top-down, monolingual sign.*

Trumper-Hecht's 2006 proposed sign classifications. However, it was determined that the two criteria used in this study were beneficial to differentiate the origin of the signs and to evaluate the origins of multilingual signage. Each piece of signage was coded as to the nature of its contents based on these definitions.

A second coding was assigned to each that determined its multilingualism. The sign was classified as monolingual English or multilingual. The multilingual classification included bilingual signs, monolingual non-English signs, and multilingual signs. Each sign documented was



*Figure 7 Multilingual, bottom-up sign*

coded with classifications of posting origin, multilingual status, and languages present. If an effort to distinguish the sign from British English occurred, such as the use of a flag from another English-speaking country, or its message specifically targeted a certain minority group, it was classified as English with an ESL/foreign audience. The final results collapsed these categories in to either multilingual signage or monolingual (English only) signage to create a manageable number of categories. This method of coding also keeps with Backhaus's coding as the two studies have a high volume of data. The results reflect both the multilingualism of the city and the multiculturalism of the city. In cases of transliteration on signage, the transliteration was coded according to its origin language. Native or bilingual speakers identified or confirmed the languages identified where the researcher was unsure. After identifying the origins of the languages in the data, the researcher examined which languages were from former colonies, European Union (EU), or neither, in which case the language was classified as "other." Then an analysis was performed to determine the origins of the languages that contribute to the current broad linguistic landscape of London. The LL of each borough was investigated, and the prominence of each language classification determined.

CHAPTER FOUR: Results and Discussion

As noted earlier, the research questions guiding this study are the following:

1. To what extent is London a multilingual city?

2. How representative are the languages of the former British colonies in London's linguistic landscape?

3. How representative are the languages of the EU in London's pre-Brexit linguistic landscape?

This chapter details the results from the data collected from each of the boroughs and finishes with the combined data to build a broad view of the LL in London. Each borough's data were broken down into a multilingual analysis of the origins of the languages found in that borough's signage and is followed by an analysis of the borough's data from a top-down, bottom-up perspective. A breakdown of the findings from each borough is provided. The final, combined data that makes up London's LL completes the chapter.

*Chelsea results*

The following tables, figures, and graphs detail and illustrate the results of the surveyed data collected in the Chelsea borough of London. Table 4.1 breaks down the identified languages from signage collected in Chelsea, the number of multilingual signs, and the total number of signs collected from the borough.

*Table 4.1*

| Chelsea language counts | |
|---|---|
| Language | Number of signs |
| Dutch | 1 |
| Hindi | 1 |
| Malay | 1 |
| Korean | 1 |
| Thai | 2 |
| Latin | 2 |
| Polish | 2 |
| Japanese | 2 |
| German | 2 |
| Turkish | 3 |
| Swedish | 4 |
| Spanish | 5 |
| Italian | 7 |
| Arabic | 16 |
| French | 19 |
| Total Multilingual | (68) 68 |
| Total Signs | 460 |

Table 4.2 breaks down the numbers and percentages of the multilingual signage from

Chelsea. The counts of multilingual signage are sorted by colonial multilingual signs, EU

multilingual signs, and other multilingual signs. The percentages given are what portion of the

multilingual data were coded as colonial, EU, or other. Graph 4.1 is a visual representation of the

numerical data listed in Table 4.2.

*Table 4.2*

| Chelsea data breakdown | | |
|---|---|---|
| | Number of signs | Percentage of Borough Data |
| Colonial Multilingual Signs | 21 | 30.8% |
| EU Multilingual Signs | 40 | 58.8% |
| Other Multilingual Signs | 7 | 10.3% |
| Chelsea's total multilingual signage | 68 | 14.8% |

**Chelsea's multilingual signage**
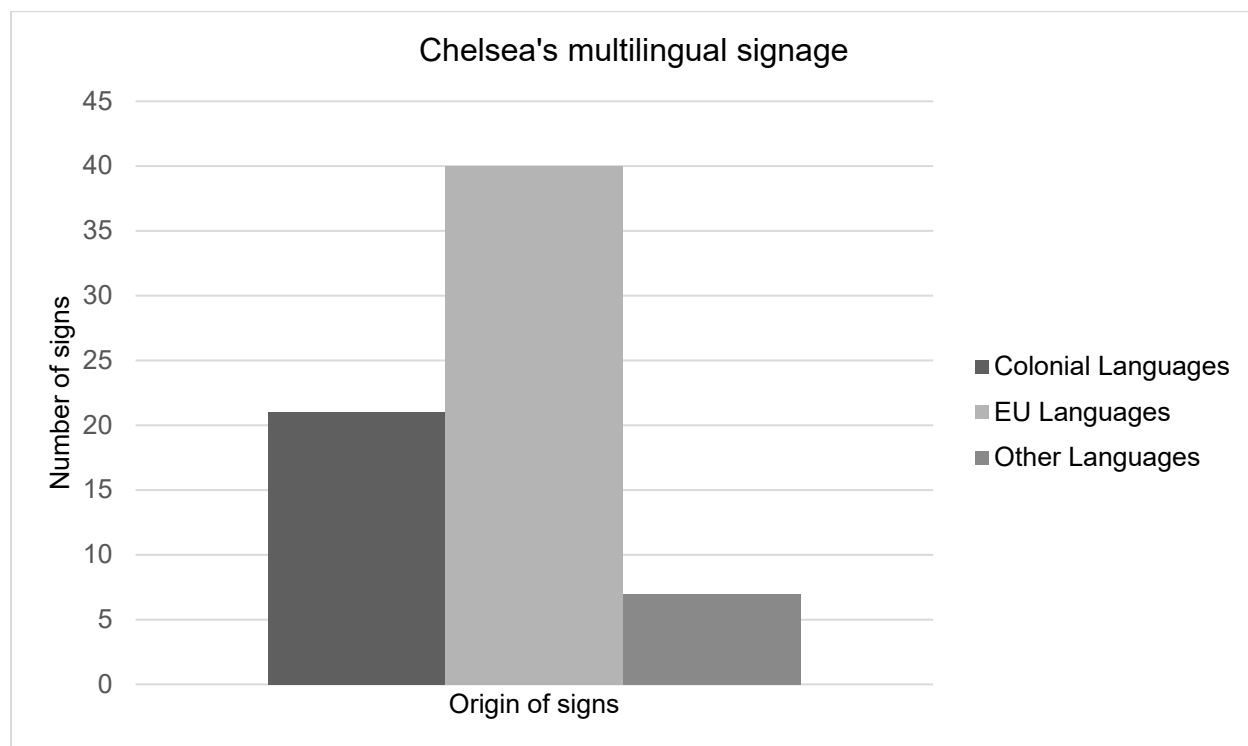
*Graph 1 Chelsea's multilingual signage*



ENTREE DES ELEVES
PAR LE ROND-POINT
QUEENSBERRY WAY SVP
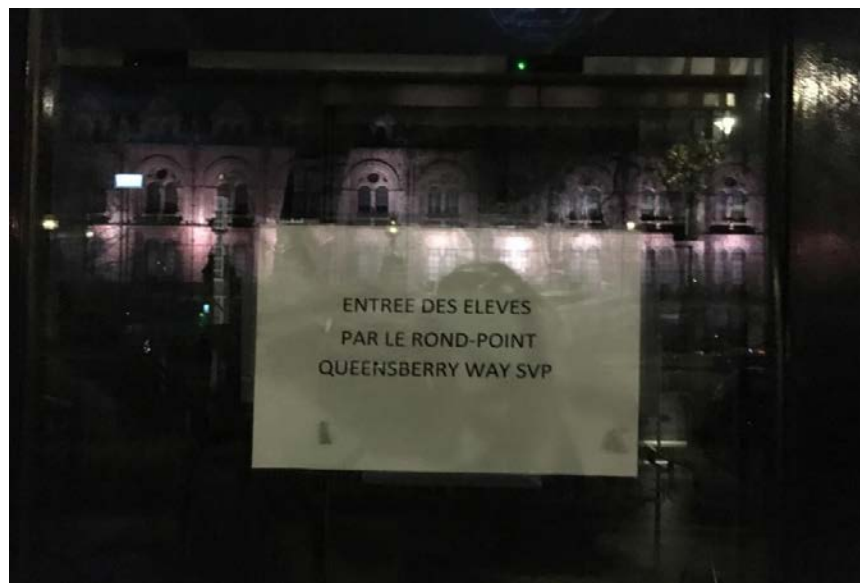
*Figure 8 Multilingual signage in Chelsea.*

Chelsea had the second lowest frequency of multilingual signs in this study. A total of 14.8% of the signage was multilingual. Of the multilingual signs found in Chelsea, the languages of the European Union were the most prominent in the landscape. Low frequency of multilingualism was expected as this

borough is the most affluent of the boroughs surveyed. There is a particular presence of French around the Chelsea area—particularly concentrated in South Kensington—the presence of French was evident of this immigration in the signage. Figure 8 is an example of French signage in Chelsea. French accounts for most of the European Union language counts in Chelsea's signage. Italian was the second most common EU language, and third overall in the borough. The second most common language overall in Chelsea was Arabic. Arabic made up the majority of the colonial language signage that was found in this borough. The strong presence of Arabic was unexpected, particularly as the second most frequent language in the borough.

*Chelsea top-down, bottom-up results*
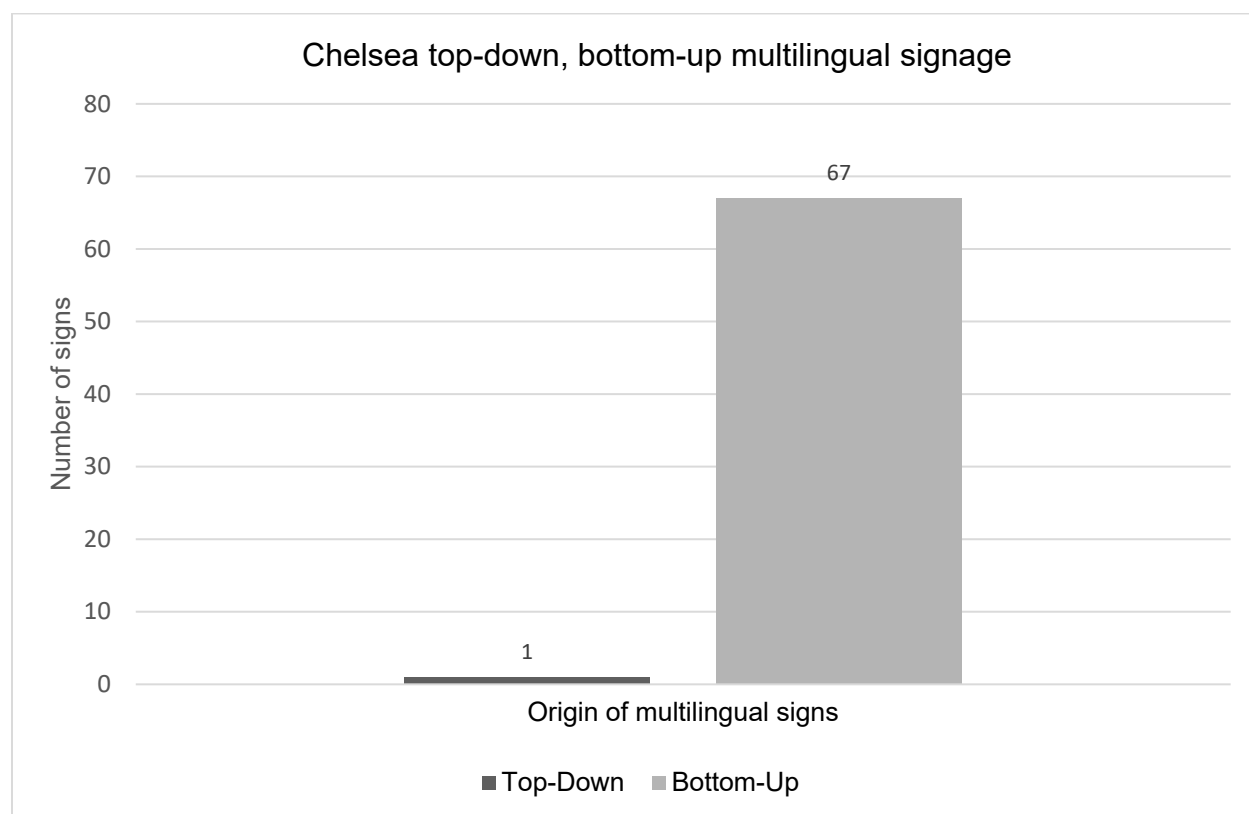


*Graph 2 Chelsea's top-down, bottom-up multilingual data*

Addressing a top-down, bottom-up analysis of the data, Chelsea's signage was 69.7% bottom-up, and 30.3% of the data were top-down. The top-down data were nearly all monolingual English. Conversely, the bottom-up data were overwhelmingly made up of multilingual signage. All of the colonial languages, EU languages, and other languages recorded in Chelsea's signage are bottom-up in origin, and the evidence shows that no significant language accommodation is coming from top-down sources such as local governments in this borough. None of the data marked multilingual was issued by the U.K. government or an official acting in behalf of the government.

*Hammersmith results*

The following tables, figures, and graphs detail and illustrate the results of the surveyed data collected in the Hammersmith borough of London. Table 4.3 is a breakdown of the identified languages from signage collected in Hammersmith, the number of multilingual signs, and the total number of signs collected from the borough.

*Table 4.3*

| Hammersmith language counts | |
|---|---|
| Language | Number of signs |
| Bengali | 1 |
| Yoruba | 1 |
| Romanian | 1 |
| Latvian | 1 |
| Bulgarian | 1 |
| Hungarian | 1 |
| Somali | 1 |
| Lithuanian | 1 |
| Russian | 1 |
| Polish | 2 |
| Total Multilingual | 11 (11) |
| Total Signs | 250 |

Table 4.4 contains the numbers and percentages of the multilingual signage from Hammersmith. The counts of multilingual signage are sorted by colonial multilingual signs, EU multilingual signs, and other multilingual signs. The percentages given are what portion of the multilingual data were coded as colonial, EU, or other. Graph 3 is a visual representation of the numerical data given in Table 4.3.

*Table 4.4*

| Hammersmith data breakdown | | |
|---|---|---|
| | Number of signs | Percentage of borough data |
| Colonial Multilingual Signs | 3 | 27.3% |
| EU Multilingual Signs | 7 | 63.7% |
| Other Multilingual Signs | 1 | 9% |
| Hammersmith total multilingual signage | 11 | 4.4% |

## Hammersmith Multilingual Signage
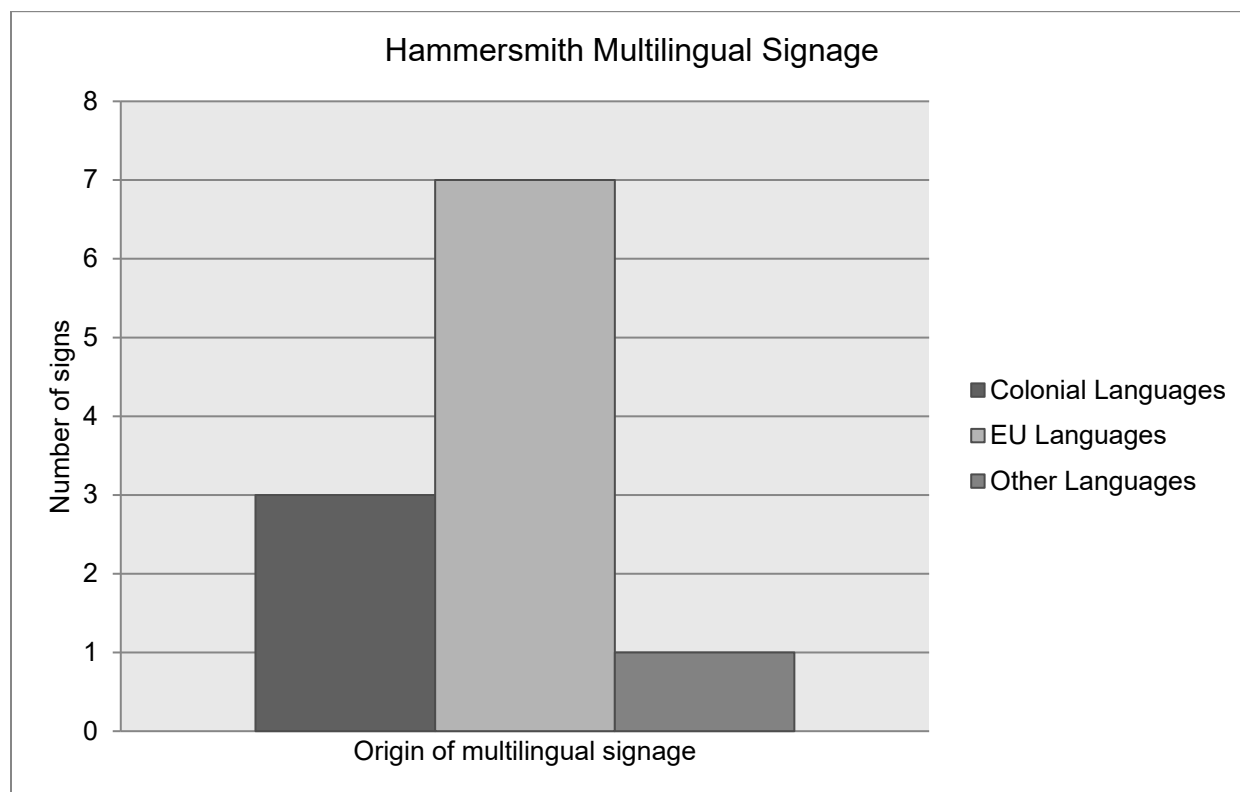
*Graph 3 Hammersmith's multilingual signage*

Hammersmith had the lowest frequency of multilingual signs. High rates of multilingual signs were not expected, indeed just 4.4% of the signage was multilingual. Though the rates of multilingualism are not particularly mentionable, the nature of a few signs is interesting. For example, in front of a primary school advertising services for families the same informational poster has been printed and hung in English, Polish, Somali, Arabic, and Bengali. The school and posters are sponsored by the local borough government of Hammersmith and Fulham. The nature and origins of these signs suggest a diverse ethnolinguistic community, which is supported by 2011 census data. However, little evidence of multilingualism was found away from this school sign in Hammersmith. Further research shows that the Borough of Hammersmith and Fulham is

home to many business headquarters. It is possible that immigrants moving to this area are doing so for work and are already proficient English speakers without the need for multilingual signage to function in the community.



*Figure 9 Multilingual signage in Hammersmith*

*Hammersmith top-down, bottom-up results*



Graph title: Hammersmith top-down, bottom-up multilingual signage

Y-axis: Number of signs

X-axis: Origin of multilingual signs

Legend: ■Top-Down   ■Bottom-Up

Top-Down: 4
Bottom-Up: 7
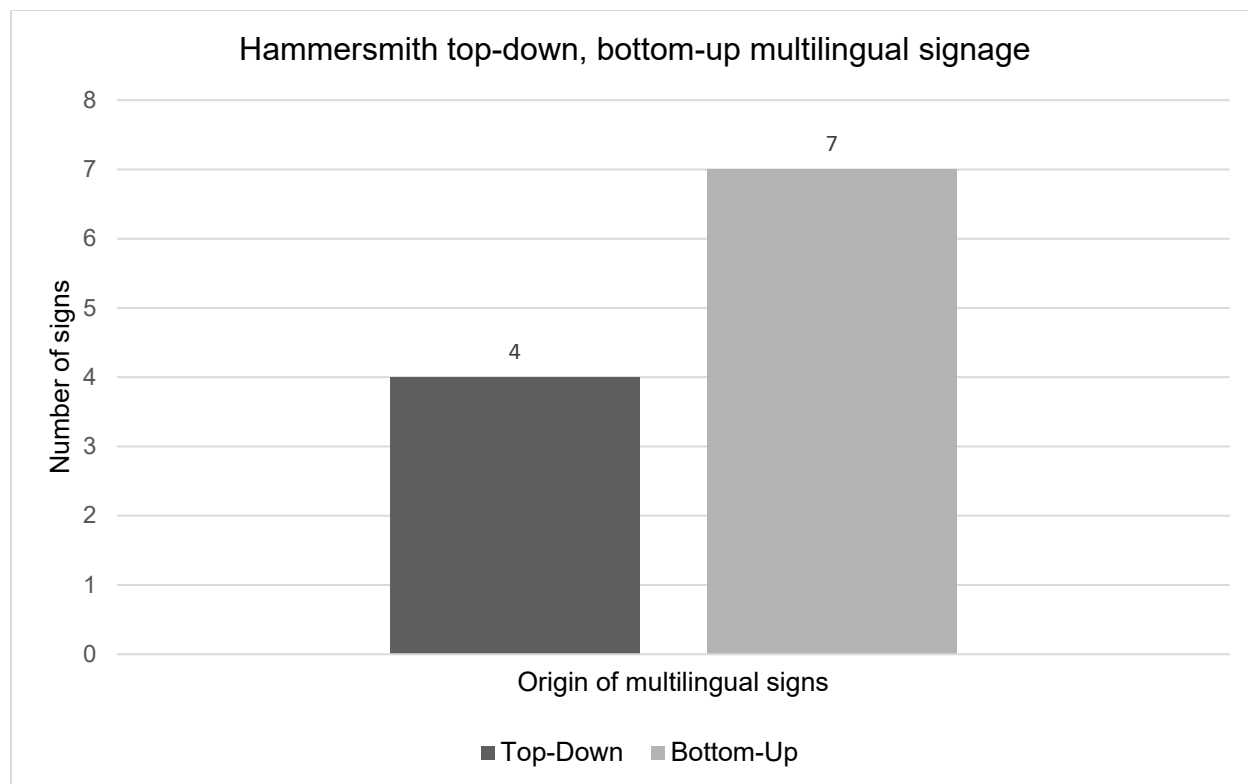
*Graph 4 Hammersmith's multilingual top-down, bottom-up signage*

A top-down, bottom-up analysis of the Hammersmith data shows 5% of the top-down data were multilingual. Slightly lower is the multilingualism of the bottom-up data at 4.3%. However, the overall multilingual nature of the Hammersmith data was significantly low. Therefore, this does not constitute a pattern. The multilingual signage coded top-down in Hammersmith all came from one city block with signs for a local school translated and posted by the local borough government. The data making up the multilingual top-down were the same sign translated into multiple languages and is the only instance of a local government's effort to

post multilingual signage. Therefore, it cannot be concluded that this is a pattern in the Hammersmith data, but it is significant due to the nature of the signage. The remainder of the multilingual data were coded bottom-up; however, higher counts of bottom-up data resulted in a lower percentage of multilingual signage than the top-down data. It should be noted that no data marked multilingual was issued by the U.K. government.

*Hackney results*

The following tables, figures, and graphs detail and illustrate the results of the surveyed data collected in the Hackney borough of London. Table 4.5 is a breakdown of the identified languages from signage collected in Hackney, the number of multilingual signs, and the total number of signs collected from the borough.

*Table 4.5*

| Hackney language counts | |
| --- | --- |
| Language | Number of signs |
| Croatian | 1 |
| Chinese | 1 |
| Latin | 1 |
| Albanian | 1 |
| Brazilian Portuguese | 1 |
| Vietnamese | 1 |
| Bengali | 2 |
| Turkish | 2 |
| Arabic | 3 |
| Thai | 4 |
| German | 4 |
| Hindi | 4 |
| Japanese | 4 |

| | |
|---|---|
| Italian | 9 |
| French | 12 |
| Spanish | 13 (5 colonial) |
| Multilingual Signs | 63 |
| Total Signs | 459 |

Table 4.6 breaks down the numbers and percentages of the multilingual signage from Hackney. The counts of multilingual signage are sorted by colonial multilingual signs, EU multilingual signs, and other multilingual signs. The percentages given are what portion of the multilingual data were coded as colonial, EU, or other. Graph 5 is a visual representation of the same data given in Table 4.6.

*Table 4.6*

| Hackney data breakdown | | |
|---|---|---|
| | Number of signs | Percentage of data |
| Colonial Multilingual Signs | 17 | 27% |
| EU Multilingual Signs | 34 | 54% |
| Other Multilingual Signs | 12 | 19% |
| Hackney's overall multilingual signage | 63 | 13.7% |
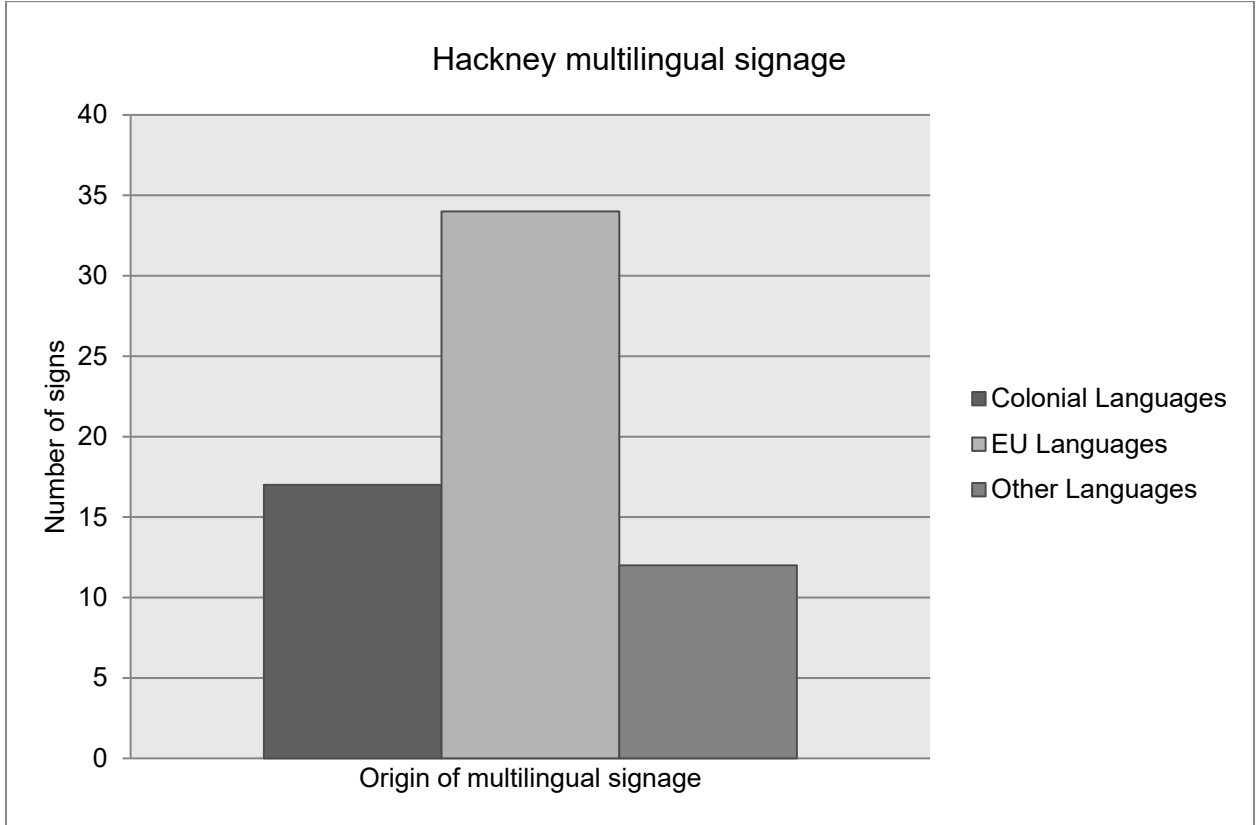
*Graph 5 Multilingual signage in Hackney*

Hackney, though located in London's East End (which is historically diverse), is undergoing a gentrification process and has experienced a rise in property value within the last 15 years. The area appears to be popular with young adults as the price of living is not as high as more western areas of the city. However, this area used to be known for its poor housing, attracting large numbers of ethnolinguistic groups. It appears now that



*Figure 10 Multilingual signage in Hackney.*

immigration to the area is coming mostly from EU groups with double the presence of EU languages over colonial languages. Though gentrification has been noted in the area, it is surprising how quickly the LL of the borough has returned to monolingual English signs. This is based on the assumption that prior diverse inhabitants were posting multilingual signage, though no data exists for this kind of comparison. It should be noted that no piece of signage issued from the U.K. government was multilingual. Figure 10 is a typical example of the multilingual signage identified in Hackney.

*Hackney top-down, bottom-up results*
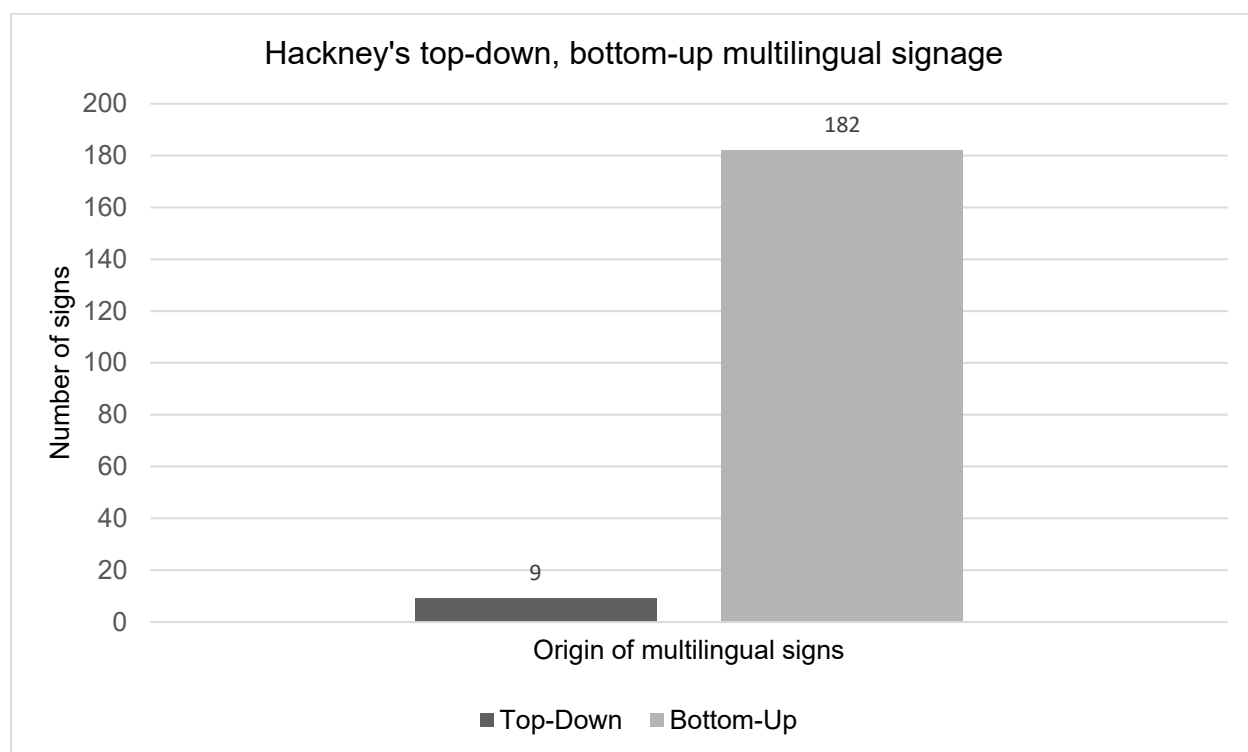


*Graph 6 Hackney's top-down, bottom-up data*

A total of 22% of the data collected in Hackney is top-down data (the majority is bottom-up data), posted by private, non-government affiliated entities. A top-down, bottom-up analysis

of the multilingual signage shows 9% of the top-down data were multilingual, and 33.3% of the bottom-up data were multilingual. The top-down multilingual signage was produced by the local borough government, not the U.K. government. However, most of the multilingual top-down data were transliterations, not translations. As noted previously, transliterations were coded as multilingual in this study. The transliterations in Hackney included Bengali, and Arabic words on advertising signage.

*Southwark results*

   The following tables, figures, and graphs detail and illustrate the results of the surveyed data collected in the Southwark borough of London. Table 4.7 is a breakdown of the identified languages from signage collected in Southwark, the number of multilingual signs, and the total number of signs collected from the borough.

*Table 4.7*

| Southwark language counts | |
|---|---|
| Language | Number of Signs |
| Russian | 1 |
| Greek | 1 |
| Lithuanian | 1 |
| Swahili | 1 |
| Korean | 1 |
| Malay | 1 |
| Yoruba | 1 |
| Latin | 1 |
| Portuguese | 2 |
| Turkish | 2 |
| Polish | 2 |
| Urdu | 3 |
| Bengali | 4 |

| Japanese | 4 |
|---|---|
| Pashtu | 5 |
| German | 5 |
| Italian | 5 |
| Thai | 5 |
| Vietnamese | 5 |
| Hindi | 6 |
| French | 10 |
| Caribbean Creoles | 14 |
| Spanish | 16 (7 colonial) |
| African Creoles | 24 |
| Chinese | 19 |
| Arabic | 146 |
| Total Multilingual | 332 (336) |
| Total signs | 452 |

Table 4.8 breaks down the numbers and percentages of the multilingual signage from Southwark. The counts of multilingual signage are sorted by colonial multilingual signs, EU multilingual signs, and other multilingual signs. The percentages given are what portion of the multilingual data were coded as colonial, EU, or other. Graph 7 is a visual representation of the same data given in Table 4.8.

*Table 4.8*

| Southwark data breakdown | | |
|---|---|---|
| | Number of signs | Percentage of data |
| Colonial Multilingual Signs | 281 | 83.6% |
| EU Multilingual Signs | 38 | 11.3% |
| Other Multilingual Signs | 17 | 5.1% |
| Southwark's overall multilingual signage | 336 | 73.5% |
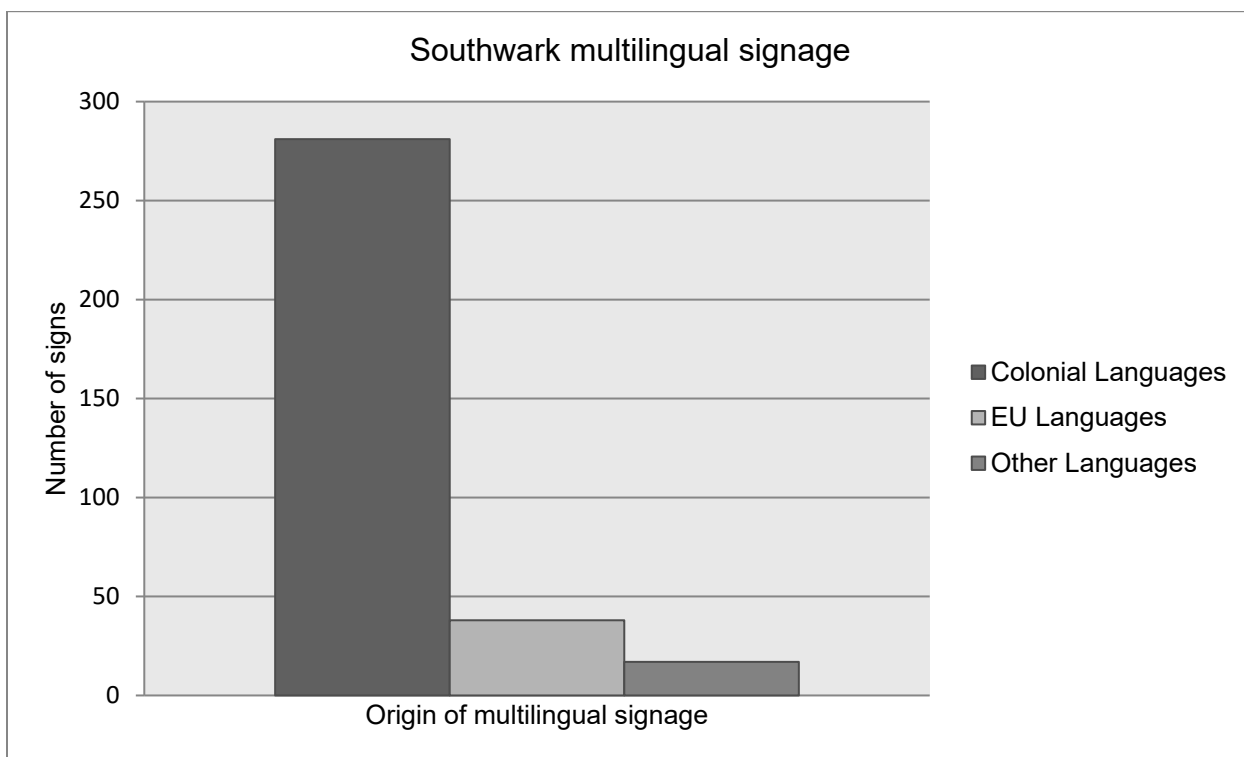


*Graph 7 Southwark's multilingual signage.*

A total of 73.5% of Southwark's signage was multilingual. Southwark is a mix of low-income, government housing projects, and upper-middle class income housing. This borough is



*Figure 11 Multilingual signage in Southwark.*

perhaps the most interesting LL in this study in terms of language contact. The drastic mix is likely due to the presence of high and low-income housing in the borough. Former British colonial languages were overwhelmingly the most dominant category of language in Southwark with 80% of the multilingual signage coming from former colonies. EU languages were the lowest, slightly behind other languages

(mostly East Asian, non-colonial languages). African, Middle Eastern, and Caribbean creoles



*Figure 12 Multilingual signage in Southwark.*

were more prevalent in Southwark than any other borough. Figures 11 and 12 are examples of the multilingual signage from Southwark.

*Southwark top-down, bottom-up results*



**Southwark top-down, bottom-up multilingual signage**
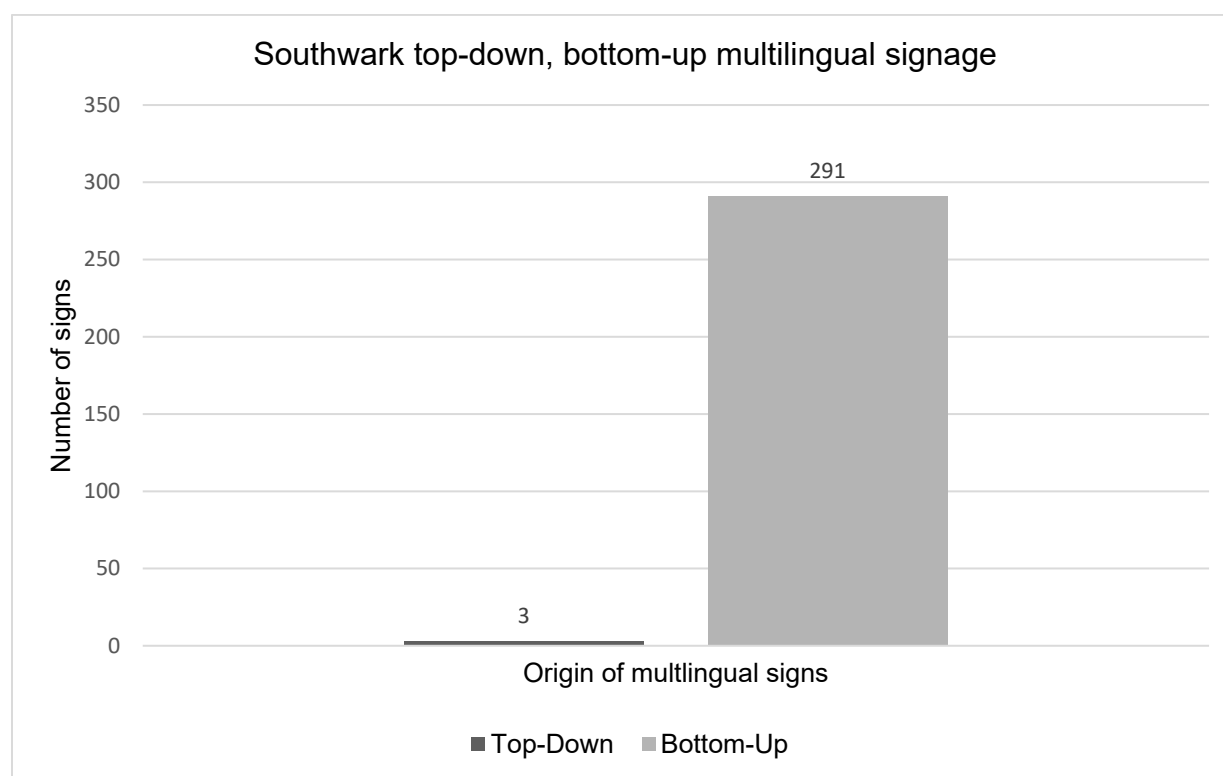
*Graph 8 Southwark's top-down, bottom-up signage*

Graph 8 is a visual representation of Southwark's top-down and bottom-up data counts. Only 7% of the data were coded as top-down, the remaining 93% of the data collected in Southwark was bottom-up. None of the top-down signage was multilingual. However, with such little data to analyze of the top-down coding, this may not be a reliable analysis of the top-down data in this borough. Of the bottom-up signage, 67% was multilingual. The bottom-up data were

sufficient to suggest that multilingualism is experiencing a vitality amongst the residents in the

borough of Southwark, though it is not accommodated by the local or U.K. governments, based

on the limited data collected in this study.

*Tower Hamlets results*

The following tables, figures, and graphs detail and illustrate the results of the surveyed data collected in the Tower Hamlets borough of London. Table 4.9 is a breakdown of the identified languages from signage collected in Tower Hamlets, the number of multilingual signs, and the total number of signs collected from the borough.

*Table 4.9*

| Tower Hamlets language counts | |
| --- | --- |
| Language | Number of Signs |
| Japanese | 1 |
| Somali | 1 |
| Greek | 1 |
| Lithuanian | 1 |
| Latin | 1 |
| Portuguese | 1 |
| French | 1 |
| Malay | 1 |
| Jamaican Patois | 1 |
| Tamil | 1 |
| German | 2 |
| Polish | 2 |
| Thai | 2 |

| | |
|---|---|
| African | 3 |
| Spanish | 3 (1 colonial) |
| Persian | 4 |
| Turkish | 5 |
| Italian | 5 |
| Urdu | 7 |
| Hindi | 12 |
| Chinese | 15 |
| Arabic | 52 |
| Bengali | 82 |
| Multilingual Signs | 234 (261) |
| Total Signs | 441 |

Table 4.10 breaks down the numbers and percentages of the multilingual signage from Tower Hamlets. The counts of multilingual signage are sorted by colonial multilingual signs, EU multilingual signs, and other multilingual signs. The percentages given are what portion of the multilingual data were coded as colonial, EU, or other languages. Graph 9 is a visual representation of the same data given in Table 4.10.

*Table 4.10*

| Tower Hamlets data breakdown | | |
|---|---|---|
| | Number of signs | Percentage of borough data |
| Colonial multilingual signs | 205 | 78.5% |
| EU multilingual signs | 42 | 16.1% |
| Other multilingual signs | 14 | 5.4% |
| Tower Hamlet's overall multilingual signage | 261 | 53.1% |
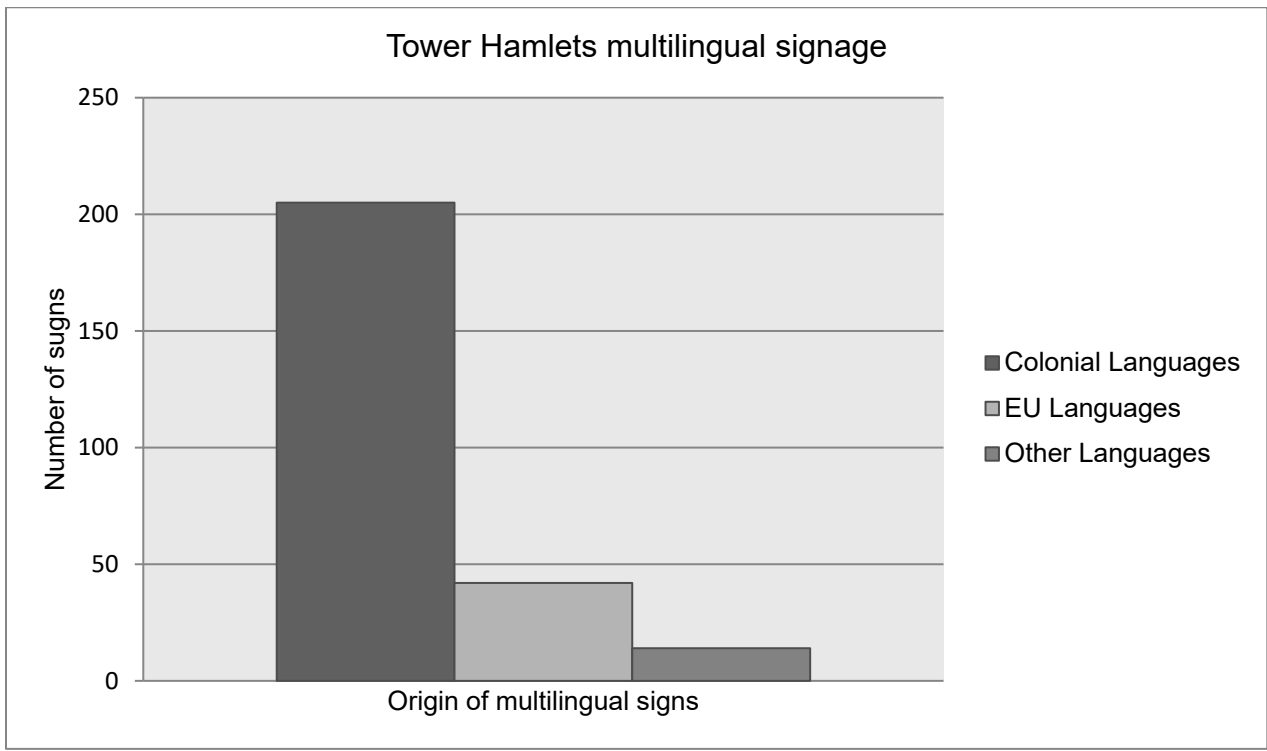


*Graph 9 Tower Hamlet's multilingual signage.*

Tower Hamlets had the second highest occurrence of multilingualism of the five London boroughs. This was expected as Tower Hamlets has the lowest overall income of the five boroughs and lowest property values. The borough has historically been home to London's largest immigrant



*Figure 13 Multilingual signage in Tower Hamlets*

populations due to its proximity to the docklands and low cost of living as compared to other parts of the city. 88.2% of the multilingual signage documented in Tower Hamlets were colonial languages. The most prominent languages documented in the borough were Bengali and Arabic, which had significantly higher numbers than any other languages. Combined, these make up 35% of the overall multilingual signage. Figures 13 and 14 are examples of the multilingual signage from Tower Hamlets.



*Figure 14 Multilingual signage in Tower Hamlets*

*Tower Hamlets top-down, bottom-up results*



**Tower Hamlets top-down vs bottom-up**
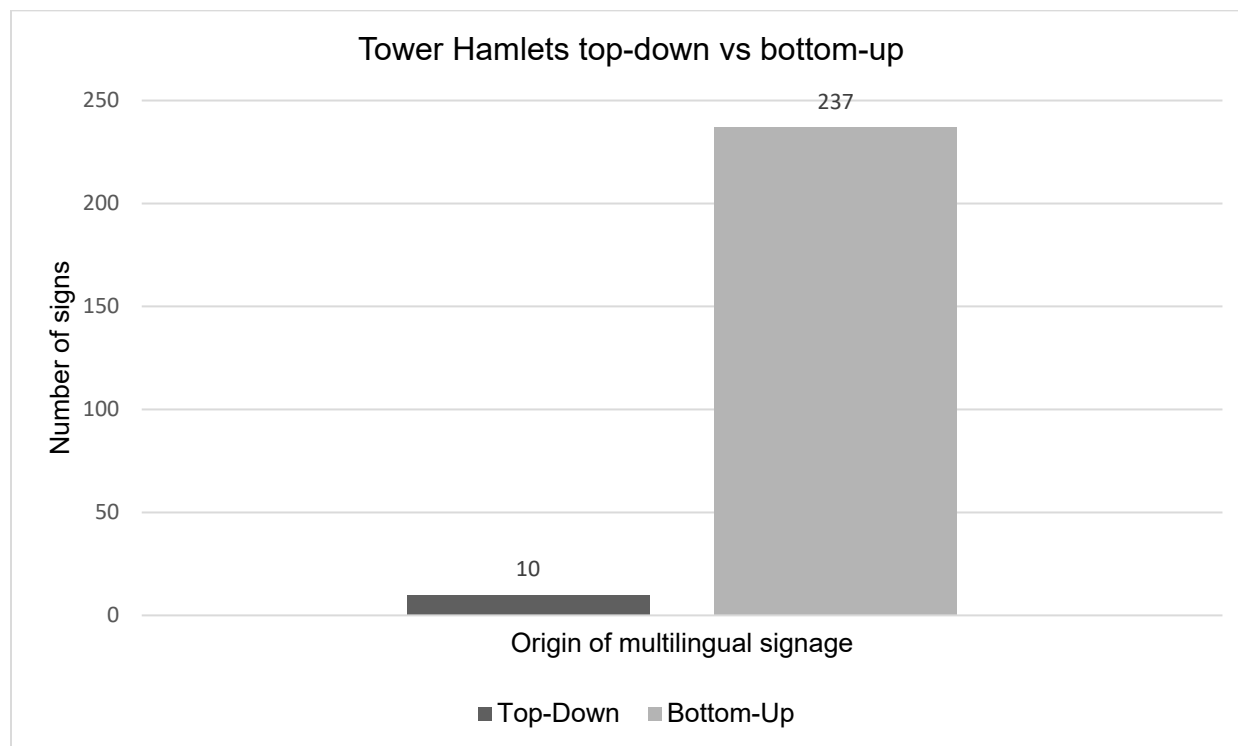
*Graph 10 Tower Hamlet's top-down, bottom-up multilingual data*

A total of 12.4% of Tower Hamlets' signage was top-down data. Of the top-down data, 25% was multilingual. This percentage of multilingual top-down signage is the highest of the five boroughs. It appears that most of these multilingual top-down signs are posted by the local borough government, not the U.K. government. Multilingual top-down signs included additional posting of street names



*Figure 15 Bottom-up, multilingual signage in Tower Hamlets.*

in languages other than English and local area festivals celebrating and featuring Bengali dance and music. In keeping with the trends of most of the boroughs, the bottom-up data were significantly more multilingual in nature than the top-down, with 59.3% of the bottom-up data being multilingual. Figure 15 is an example of the multilingual, bottom-up signage collected in Tower Hamlets.

*London overall results*

Table 4.11 presents the data from the five boroughs combined as an overview of London's LL. Counts, as well as the percentage of the data, are given for monolingual and multilingual signage as well as the origins of the counts. Graph 11, below, is a visual representation of the data by borough.

*Table 4.11*

| London data breakdown | | |
|---|---|---|
| | Counts | Percentage of data |
| Number of signs | 2,062 | |
| Total monolingual English | 1,300 | 64.5% |
| Total multilingual signage | 732 | 35.5% |
| Total colonial multilingual signage | 527 | 25.6% |
| Total EU multilingual signage | 161 | 7.8% |
| Other multilingual signage | 44 | 2.1% |
| Total number of languages present | 36 | |
| Number of languages from former British colonies | 14 | |
| Number of languages from the EU | 18 | |
| Number of languages from other | 6 | |
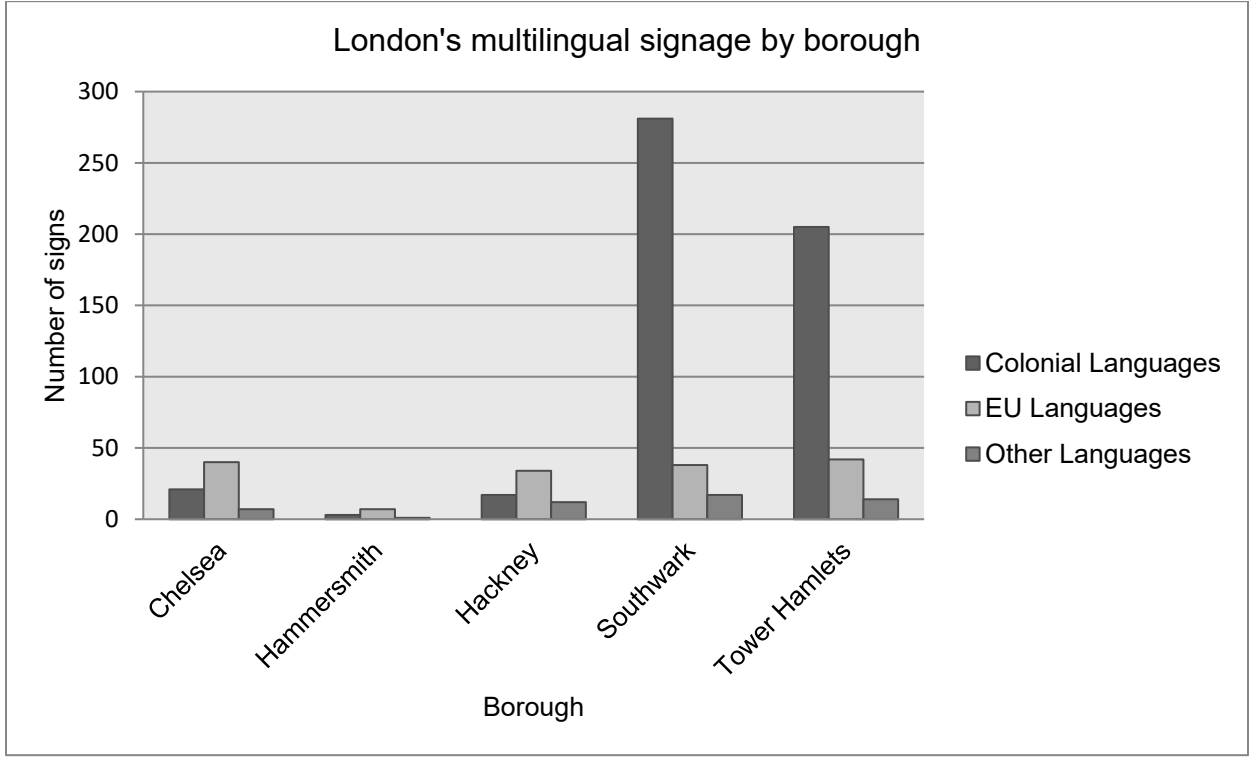
*Graph 11 London's overall multilingual signage.*
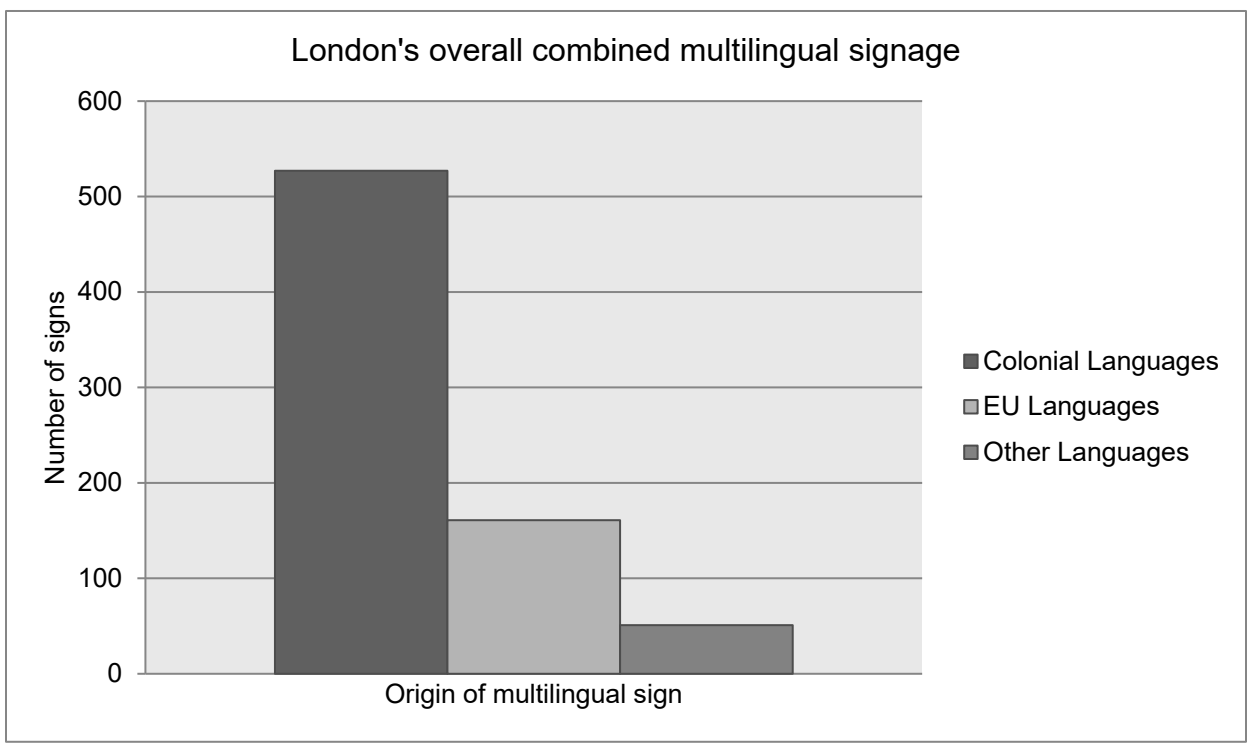


*Graph 12 London's overall multilingual signage origins.*

### Language origins of London's LL

- ■ Monolingual English
- ■ Colonial languages
- ■ EU languages
- ■ Other languages

69%
22%
7%
2%
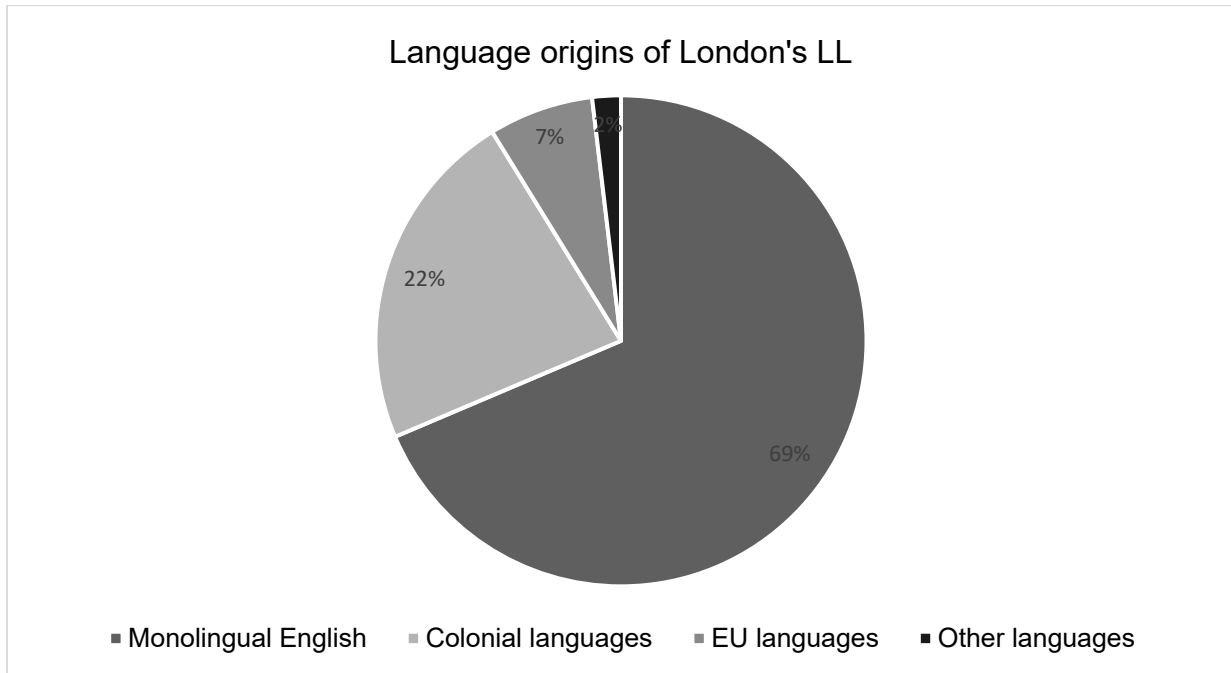
*Graph 13 Breakdown of language origins with monolingual English*

### Language origins of London's multilingual signage

72%
22%
6%
2%

- ■ Signs in Colonial Lanuages
- ■ Signs in EU Languages
- ■ Signs in Other Languages
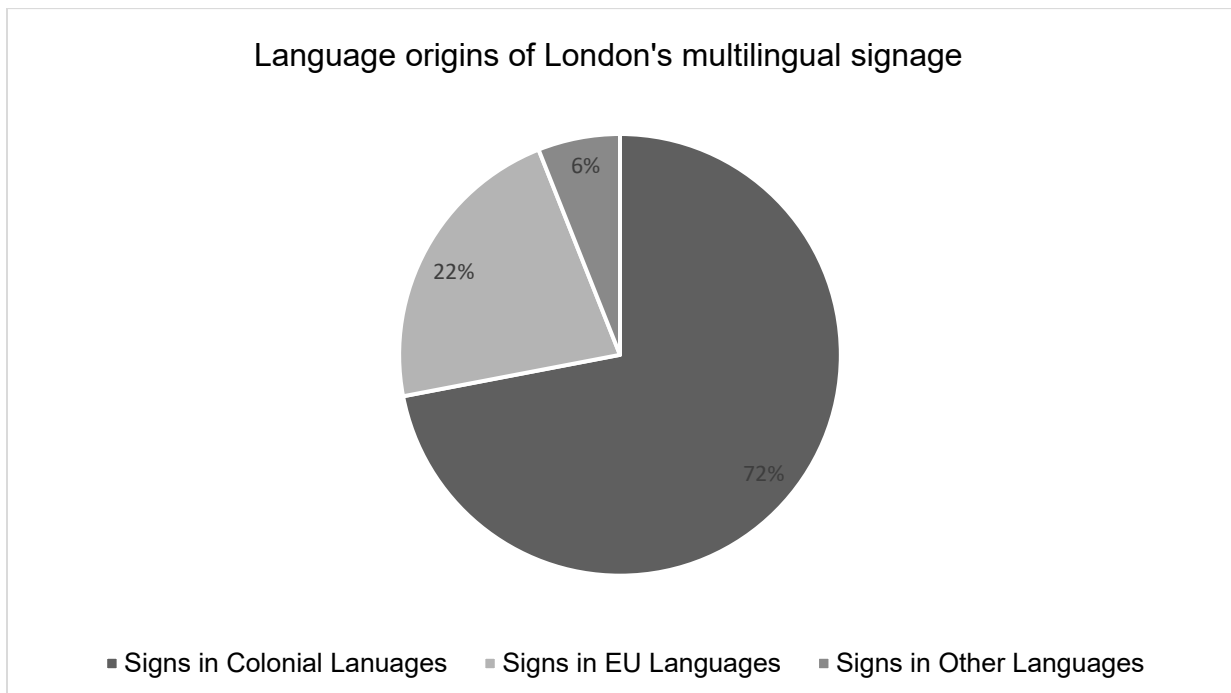
*Graph 14 Language origins of London's multilingual signage without monolingual English.*

A total of 732 (35.5%) of the signs documented in London's LL were coded multilingual across the various boroughs. 71% of those multilingual occurrences were coded as colonial language, occurring across the five boroughs. A total of 22% of the multilingual signs were EU languages, and 7% of the multilingual signs were outside the EU and not colonial languages.

When summarizing the order of dominance of the languages collected in London, we see that colonial languages dominate the overall LL of London accounting for 71% of the multilingual signage collected. Compared with the immigration groups known from the 2011 Census, this finding is surprising considering that Poles are believed to make up the largest group of residents born outside of the United Kingdom, living in London. Even in boroughs where large groups of Poles are known to reside, no more than two instances of Polish signage occurred per borough, and no instances of Polish were counted in Hackney. In the four other boroughs (Chelsea, Southwark, Tower Hamlets, and Hammersmith) each had two signs with Polish on them.

A total of 36 languages were identified in the multilingual signage, a greater number when dialects were included. The exhaustive list of identified languages in London's multilingual signage includes the following: Albanian, Arabic, Bengali, Bulgarian, Chinese, Croatian, Dutch, English dialects (American, Irish, Australian, African, Caribbean, Jamaican Patois, Scottish), French, German, Greek, Hindi, Hungarian, Italian, Japanese, Korean, Latin, Latvian, Lithuanian, Malay, Pashto, Persian, Polish, Portuguese (Brazil and Portugal), Romanian, Russian, Somali, Spanish (Spain and South American), Swahili, Swedish, Tamil, Thai, Turkish, Urdu, Vietnamese, and Yoruba.

*London top-down bottom-up results*



Graph showing "London's overall top-down, bottom-up multilingual signage" with Number of signs on the y-axis (0 to 500) and Origin of signs on the x-axis. Top-Down = 20, Bottom-Up = 432.
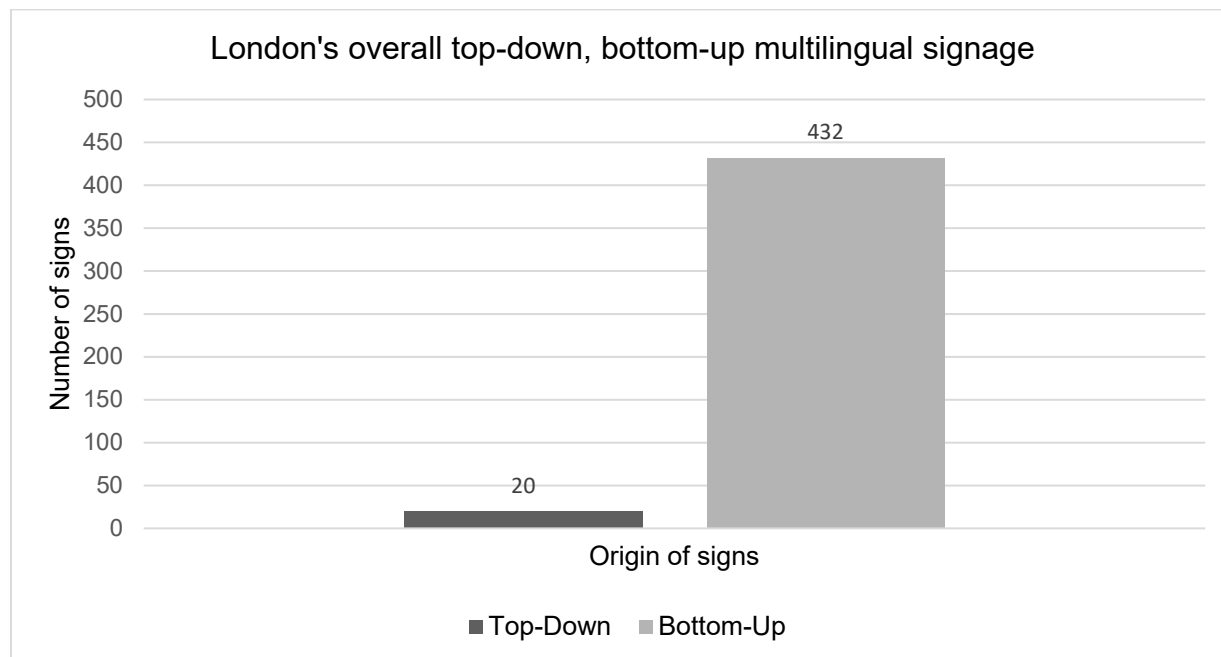
*Graph 15 London's top-down, bottom-up multilingual signage*

London's signage (combined from the five boroughs) in this study was 22.4% top-down data and 77.6% bottom-up data. This is worth noting to understand the nature of London's overall signage. Of that data, 5.9% of the top-down data were multilingual. A total of 36.6% of the bottom-up data were multilingual. Four of the five boroughs had significantly higher rates of multilingualism in the bottom-up data, while the borough of Hammersmith and Fulham's overall low numbers of multilingualism behaved differently. However, with such low counts of multilingualism in this borough it is difficult to make significant claims based on this data. Though not significantly high, 5.9% of the top-down data being multilingual was surprising as it was expected that all of the top-down data would be in English. However, there were a few

instances of linguistic accommodation from top-down sources, though not enough to conclusively say that the British government and other top-down sources are making an attempt to cater to the linguistic diversity in London.

CHAPTER FIVE: Conclusions

*Summary of findings*

The goal of this study was to investigate the multilingual situation in London's linguistic landscape. As a former colonizing, world power the aim of this study was to specifically address the role of colonial as well as European Union languages in the current LL. The data shows that London's LL is 35.5% multilingual of the 2,062 signs analyzed. Across the data, minority languages had a presence in every borough but were not evenly distributed throughout the city. This is in keeping with other LL research study findings in Tokyo and Jerusalem of uneven language distribution. With relatively low counts of colonial languages in three of the five boroughs, colonial languages still account for 72% of the multilingual signage across London's LL due to their high presence in two boroughs.

Colonial languages were found spread across the city, but the highest concentrations dominated London's East End. Southwark had the most linguistically diverse data. Following colonial languages in the data's counts are languages of the EU, making up 22% of the total multilingual signage. The two groups (colonial languages and EU languages) make up the majority of the total multilingual signage, totaling 94% of the multilingual signage between the two. The remaining data were mostly Asian languages that are not part of Great Britain's former colonies and a few instances of Eastern European languages that are not part of the European Union.

The data were expected to somewhat reflect the 2011 U.K. Census records that reports the top five countries of residents born outside the U.K. to be India, Poland, Pakistan, Ireland, and Germany. The Irish would be nearly impossible to distinguish unless this group of

immigrants were using Gaelic to communicate. Considering current rates of Gaelic proficiency, Gaelic was not expected in the data, and this assumption was supported by the data.

The data collected in this study contrasts with the report of the 2011 Census findings as Arabic is the most prominent language in London's LL, followed by Bengali, Spanish, Chinese, and French. This study shows a far more detailed picture of language use and language salience in London than census records show. The approach utilized in this study to observe and document language salience in modern London show a multi-dimensional, heavily monolingual English, and complex reality that must be navigated by foreign language speakers. Though self-reporting in in the census shows language ability, this study sheds light on actual the language practices of London's residents. The absence of Polish and prevalence of Arabic from the data in contrast to census record reporting are examples of how studying the LL reveals social stratification, L1 maintenance, language power and prestige, and linguistic congregation shape the linguistic ecology of a place. We can assume based on these findings that Arabic, Bengali, French, Spanish, and Chinese are experiencing linguistic vitality amongst London's residents.

One explanation for the prominence of Arabic in London is, at least in part, due to a religious factor. The 2011 Census reported 2.7 million people in the U.K. identified their religious affiliation as Muslim (4.8% of the population), and it is the second largest religion in the U.K. Arabic is a central part of Islam and is spoken by many of the (colonial and non-colonial) immigrants to the U.K. Arabic also appears to act as a lingua franca amongst Muslims and other groups of Arabic-speaking immigrants. Evidence for this, beyond the counts of Arabic signage in London, are signs in and around boroughs with a lot of Muslims, advertising free, local Arabic language classes. Arabic speakers could also be holding on to their language closer than members of the European Union simply as non-Westerners in a Western country.

Culturally, also, English is more commonly taught in the European Union, so preexisting proficiency in English could play a role, as well. A discourse analysis of the signs in London could illuminate further why Arabic is particularly salient in London's LL.

Bengali was found to be the second most prominently displayed language in the city. This suggests not only high numbers of Bengali immigrants but also high usage of Bengali as an L1. There appears to be a permanent enough community in London of Bengali speakers that the language holds some presence of power, particularly in the East End where a number of street and directional signs have been posted in Bengali.

Spanish was also unexpected in the top languages, given that the top countries of origin for immigration into the U.K. are not Spanish speaking. Spanish was identified with immigrants originating in Spain, Belize, Mexico, and the Caribbean in this study, so a worldwide prevalence of Spanish (another colonizing power) played a role. Belize is a former British colony and Spain is a member of the EU, so two sources of Spanish with access to immigration into the U.K. are most likely what accounts for these numbers. Chinese and French were also not expected in the top languages based on the immigration rankings, but as a former colony (Hong Kong) and EU nation (France), this is most likely where these languages are originating.

Of the top five languages present in this study all were either former colonies or EU nations. This supports the hypothesis that the former colonies are in a sense coming home and colonizing their former capital. It also supports the notion of EU citizens exercising their right to movement within EU borders and rights to EU language use. This finding is significant in regard to London in understanding post-colonial linguistic impacts and the pre-Brexit linguistic and human movement situation.

The top-down, bottom-up analysis of the multilingual data generally kept with previous research discussed earlier. Across London, non-English languages are more likely to occur in bottom-up signage, which was expected. It was rare for languages other than English to occur in the signage of large chain stores. Most of the multilingual signage occurred in locally-owned shop signage. One instance of a large chain utilizing non-English signage was an HRCB Bank on Southwark's main street, where the signage was in English and Arabic. This did not occur in any other HRCB Bank signage or any other major chain. Great effort in Hammersmith had been taken to translate a local school's signage into five languages, suggesting that some chains and local governments are part of the multilingualism in the city and not just bottom-up, private entities. This could be the beginning of a trend in linguistic accommodation, but future research will be required to fully investigate. We can conclude based on the data that, similar to Lawrence's (2012) findings, Labov's social stratification model is moderately supported by these findings.

*Research question one*

To what extent is London a multilingual city? Based on the data, we can conclude that London as a whole is multilingual with 35.5% of the signage posted in the city being multilingual. Despite an uneven distribution of languages and multilingualism across the LL, the overall data suggests there is a significant rate of multilingualism that is accepted in London's accepted linguistic policies though official policies seem to lack in linguistic accomodation. When the data were broken down by borough, we see a more revealing picture of the distributions of multilingualism and the origins of the languages in the LL. For example, areas with more council housing and lower average rent cost have higher rates of multilingualism in

the public signage. We can assume that socioeconomic status plays into this and that lower average income in a borough correlates with higher rates of multilingualism, which is supported by this analysis. Based on the rates of multilingualism and the top-down, bottom-up analysis done on the data, the results suggest that English is still a key factor to status in London. Hult proposed that, in expensive neighborhoods, alternate languages do not hold the power they experience in less affluent neighborhoods. The findings of this study would suggest that in more affluent boroughs, EU languages hold more prestige than colonial languages, and the opposite (colonial languages are more prestigious) would be true in less affluent boroughs.

In boroughs where immigration is more recent, perhaps immigrant L1 languages have more prestige in addition to serving functionality of communication between L1 speakers. There is also the possibility that there is less pressure to speak English in areas where large groups of immigrants have traditionally settled and that using one's L1 is a socially accepted norm. These areas may also not esteem English as a prestigious language and that covert prestige plays a part in language choices.

This speculation is a possible manifestation of Martin's (2010) conclusions regarding migrant children growing up in the U.K. He claims that in some cases children of immigrant parents when reaching young adulthood have lost their home country identity (as many have never returned to their country of origin), but have not gained a British identity. L1 preservation for these young adults is a negotiation of that lost and non-gained identity. The maintenance of L1, particularly in second generation speakers, as suggested by Cheshire et al. (2011) suggests that immigrants today are more globally connected than ever, but this global connection can result in local disconnection linguistically. The findings of this study could also be explained by Rasinger (2013) who suggested that concentrated numbers (specifically of Bangladeshis) in

London's East End shields them from hostility in a post-9/11 world and that language maintenance is part of that shielding or community-building. Perhaps the languages found to be most prevalent in London's LL (Arabic, Bengali, French, Spanish, and Chinese) are manifestations of this post-9/11 community building in attempts to shield immigrant communities from scornful outsiders. Martin also stated that "Bengaliness" (manifest through language) is important to the second generation born in the U.K., though the actual homeland country may not be important to such identification. The language use found in this study could also reflect a change in identity development in immigrants discussed by Martin and also Singleton in the study of Polish immigrants to Ireland and France. Perhaps the goal of immigrants is no longer assimilation into London's Anglo culture, but is integration into the city while maintaining culture through L1 use. While this appears to be the accepted norm in the East End, other boroughs may be shifting towards acceptance of integration over assimilation based on the presence of immigrant languages in every borough.

Regarding domains of multilingualism in London, the data show that there are certain domains surveyed in the study where multilingualism can be expected or where it can be expected to be absent. English is omnipresent throughout London, even in highly diverse boroughs. English is overwhelmingly present in top-down data (94.1% of the top-down signage was monolingual English). However, in racially diverse boroughs, particularly in boroughs with a significant amount of council housing, colonial multilingualism, as well as some EU languages, are expected to be heavily present in the bottom-up signage. The bottom-up signage of boroughs with less council housing and less racial diversity, though, can also be expected to have a multilingual presence; however, it is more likely to be languages originating in the EU than the former colonies.

Generally, across the data, an inverse correlation between property cost and colonial languages exists. As average property values rise, colonial language counts drop. The opposite is true of EU languages in London—as property values rose and colonial languages dropped, EU languages rose.

*Research question two*

How representative are the languages of the former British colonies in London's linguistic landscape? The languages of the former British colonies represent 72% of the multilingual signage in London's LL, and 25.6% of the overall data. Colonial languages are the most prominently displayed group of languages in London, by a significant margin. Colonial languages were found in every borough, but were not evenly distributed across the boroughs surveyed. It was expected that colonial languages would be the most prominently displayed languages. This expectation is due to impressionistic conclusions following location sampling in London's East End, and the few but prominent displays of colonial languages on London's high-end shopping streets, (specifically Oxford Street) in the West End, observed in location selection research. The amount of colonial languages was expected to be higher than other groups of languages as it has been theorized that the former colonies are in a sense "coming home" to their former colonizer in search of better opportunities (e.g., employment, education, safety) which is supported by the data.

It was not expected that the colonial languages would be as unevenly distributed as the data showed. Tower Hamlets was expected to have the highest counts of multilingual signage as it is located in the East End. However, Southwark exceeded Tower Hamlets in counts of colonial languages but not in concentration of multilingual signage. Hackney showed surprisingly low

counts of colonial languages given its proximity in the East End. It was expected to produce higher counts of multilingual signage, specifically colonial languages, but the data did not support this expectation most likely due to the recent gentrification of the area. But Hammersmith also had surprisingly low counts of multilingual signage, including colonial languages. Hammersmith and Fulham's local government's use of translation for public signage indicates a multilingual situation in the area, which can be viewed in the Hammersmith section of the results chapter.

*Research question three*

How representative are the languages of the EU in London's linguistic landscape? Based on the analysis of this study, EU languages represent 22% of London's multilingual signage and 7.8% of the total data. EU languages were counted in every borough surveyed. A positive correlation exists between the socioeconomic status of a borough and the number of EU language multilingual signage—as one rose, so did the other. Though not as high as colonial language counts in the data, EU languages were more consistent in their distribution across the boroughs than colonial languages. The presence of EU languages was far less divided than colonial languages, and more consistent in its distribution.

The consistency of EU languages may be a reflection of Singleton's (2013) observation that EU migration is more about exercising the EU policy of mobility over migration for permanent settlement and assimilation. It is expected that future research will find (following completion of the U.K.'s exit from the EU), lower numbers of EU multilingual signage as immigration laws in the U.K. are slated to change. Immigration into the U.K. from EU countries is expected to be more difficult, and therefore is likely to change London's LL from the current

situation. It was also unexpected that EU languages would dominate the multilingual signage in the boroughs with higher socioeconomic status. We can potentially conclude, based on these findings, that migration from the EU places those ethnolinguistic groups in higher socioeconomic standing than many colonial immigrants. Another unexpected finding in the EU language data were the low counts of Polish across all of the boroughs. Polish is reportedly the second most widely spoken language in Greater London, following English, according to the 2011 Census. This could be explained by Hult's (2009) theory that the presence or absence of a language in the LL reflects that language's social power or importance in a community. If such claims are correct, then these findings, would suggest that Polish is not a powerful language in the social stratification or does not experience a high social standing in the communities surveyed. The absence of Polish in the LL could also be an indicator that Polish immigrants are not holding onto their L1 enough to produce written signage, or that, as members of the EU with free movement between Poland and the UK, there is not a sense of putting down roots in London. Perhaps, the goal of this immigrant group is not to assimilate or integrate into London's landscape, but simply to exist for as long as necessary before moving again. Further exploration of Polish speakers both in London and across the EU is recommended.

*Top-down, bottom-up analysis findings*

London's signage was composed of 22.4% (462) top-down and 77.6% (1600) bottom-up signs. More than three quarters of the signage in London is coming from non-government-associated bottom-up, private entities ranging from individuals posting fliers to shop-owners posting advertisements. Of that data, 5.9% of the top-down data were multilingual while 36.6%

of the bottom-up data were multilingual. Four of the five boroughs had significantly higher rates of multilingualism in the bottom-up data, while the borough of Hammersmith and Fulham's overall low numbers of multilingualism behaved differently. However, with such low counts of multilingualism in this borough, it is difficult to make significant claims based on this data.

No significant evidence suggests linguistic accommodation in top-down signage throughout London, even in the most linguistically diverse boroughs. Public announcements to the borough from local and parliamentary governments were solely produced in English. No language or ethnolinguistic group has truly penetrated London's top-down linguistic policies, (neither official nor unofficial linguistic policies) as discussed previously. Data that was bottom-up (locally-owned shop signage, homemade fliers, etc.), located in diverse boroughs was most likely to be multilingual and colonial. This suggests an accommodation that is not met by top-down linguistic practices. These locally-owned shops seem to fill the need for the multi-linguistic needs of the boroughs, often providing many services such as overseas money transfer, international phone plans, selling international products, and provision of services (haircuts, shaves, hookah, immigration advice, and translations). Many restaurants in these areas also cater to local clientele by providing the menu in English and (most often) with an Arabic translation below. Many of the signs that were monolingual, non-English catered to recent immigrants, advertising things like rooms for let, travel services, money transfers, and English lessons.

The findings of this study suggest a lack of language accommodation in top-down signage and most top-down signage that does cater to non-English speakers seems to target tourists not immigrants. This is particularly surprising in boroughs with high concentrations of foreign language speakers. An application of this study would be an evaluation of the language policies in place by local borough governments—specifically in boroughs like Tower Hamlets

and Southwark where linguistic accommodation is salient in the bottom-up signage. A lack of language accommodation in these boroughs where there is a clear need, is worth further investigation and possibly policy changes, as well.

Overall, the findings of this study support previous findings of LL studies with multilingualism occurring more frequently in bottom-up than top-down signage. There was no significant evidence of top-down language accommodation in the LL. However, with the spread of multilingualism and high occurrences of colonial languages this is something that should possibly change in the future based on a few key pieces of translated signs collected. Not every sign documented holds the same weight, and some signs give more insight into this situation than others. For example, the translated signs for Hammersmith's nursery school and the HRCB Bank sign in Southwark discussed previously. Both instances indicate a need for language policy accommodation of immigrant languages that does not appear, for the most part, to be taking place in London beyond assisting tourists in navigating the tourism attractions of the global city.

*Limitations*

This analysis is a study of inner London. It does not address the greater London area. The selection of location heavily influenced the methodology of this study but to a degree, as some research suggests, there is a degree of unavoidable arbitrariness to location selection. Though there are 12 boroughs in inner London and this study sought to be fairly representative of them all through borough selection only five areas of the city were analyzed and the data collected can only be treated as being indicative of the linguistic composition of those parts of London, but not as an exhaustive linguistic environment of the city. Some of the boroughs produced more data than others despite efforts to select similar streets in the different boroughs. An in-depth

discourse analysis of each piece of signage was not conducted, though a number of weightier signs are discussed. For example, the status of each language found was not analyzed, and only general conclusions were drawn based on language counts. Some challenges presented themselves in the analysis such as how to code high-end shops using French—is this a situation of prestige or is it a reflection of the language use to the area? For example, the borough of Chelsea has a reputation for high-end retail but also has a large population of French speakers. Further research can shed light on the nature of language usage on signage in London, but this study is baseline of the presence and origin of the languages present in the LL.

This study is limited to an analysis of written language; audible language was not included as some LL studies have called for. Some data were difficult to sort and code due to transliteration, or not knowing the location of origins of a language (e.g. Spanish is a former colonial language in one place, or an EU language, and was therefore listed as "other"). This data was therefore only indicative of the general LL atmosphere in London and not a detailed analysis of the linguistic ecology.

*Future research*

Future research should focus on London as an evolving LL, tracking the rise and reduction of colonial and EU languages. By studying London's overall multilingual ecology in order to further understand how languages move, cluster, and interact studies should expand on the current research by investigating the LL of the greater London area. A comparison study after the U.K. makes its exit from the EU complete, will allow tracking for how the exit from the EU impacts linguistic ecology, amongst other changes that are expected when the policy takes full effect and further understanding of the relationship between language contact and immigration.

Carrying the research forward in broader terms should entail research similar to this study in other colonizing powers, by investigating the presence of former colonial languages in their capital cities. Similar LL studies of Lisbon, Paris, Brussels, Rome, Amsterdam, and Madrid would provide data comparable to this study and allow more room for commentary on patterns in capital cities of former colonizing powers. Expanding this exploration would also allow researchers to understand patterns of immigration and the linguistic relationships that exist in a modern, post-colonial world. It is worth investigating if other colonizing powers are experiencing the same flood of colonial immigration that the U.K. has experienced in the last 60 years by exploring beyond census records and understanding the social stratification of languages coming back to former colonizing powers.

Different methodologies could be employed to further investigate London's and other cities' LLs. By employing a more mixed quantitative-qualitative study, a deeper grasp of London's and other cities' multilingual situations could be achieved. Mixing a study of the written language with the spoken language of the public space could possibly add another dimension to this kind of study, which has been proposed by some sociolinguistic research. This could also include a critical discourse analysis of the signs collected in this study, or with new data, in order to more fully understand the social dynamics at play in London's LL.

A beneficial application of this study's findings would be future interdisciplinary studies using the methodology and results this study outlines. For example, interdisciplinary studies using this LL framework could be completed in marketing and advertising, language policy and planning, and education. This study drew on a number of studies from these disciplines and future research merging the disciplines would yield depth to future research.

*Implications*

LL studies have the potential to detect linguistic, and therefore human, movement long before other statistical analyses can. Understanding the multilingual situation in London also helps us understand the social stratification and the relative importance (and unimportance) of minority languages in relation to English. Understanding which ethnolinguistic groups are maintaining their L1 assists in cultural understanding as well as expectations in London's multilingual environment.

The findings of this study indicate that colonial language speakers are the most prominent linguistic groups of immigrants using foreign languages London, the capital of the former Empire. Therefore, we can expect to find similar results in the capital cities of other previous colonizing powers like France, Belgium, the Netherlands, Italy, Spain, and Portugal. While some LL studies have been carried out in these countries, no sociolinguistic studies have specifically looked at the capital cities' LL in relation to their colonial languages. The understanding of post-colonial impacts is ongoing, and the study of the LL in London sheds further light on this area of multilingual investigation.

In addition to investigating the colonial language situation in London, this study explored the EU language situation. The data analyzed in this study were collected in the final year of the U.K.'s membership in the European Union. From the data, it is evident that there is a significant presence of EU language speakers living in London. This study gives a baseline for future linguistic research in the city and provides data for future research to compare, thereby tracking London's LL and the changes it undergoes through both major policy changes like Brexit and

less drastic changes to immigration laws. Linguistically, we can expect a drop in EU languages in London's LL, but other linguistic impacts are unknown at this point.

*Conclusions*

This study has established that although English holds the most prominent role in London and is necessary for immigrants seeking a fully integrated life in the U.K., there is a great deal of multilingual vitality that exists in inner London. This study found that colonial languages, though not evenly distributed across the city, do dominate the multilingualism of the city, followed by the languages of the European Union. Colonial languages tend to be more concentrated in lower socioeconomic boroughs, but are not confined to them. EU languages were found to be spread quite evenly across London's LL and in greater concentration in high socio-economic boroughs.

Top-down, bottom-up research that states multilingualism is more likely to be present in bottom-up signage was definitely supported by this study. A total of 36 languages were identified amongst the signage in the LL, and the largest groups of foreign-born residents are not the most prominently represented in London's LL.

However, because so little research has been done in London in this kind of linguistic situation, there are still many aspects which remain unexplored. This study provides an overview of the multilingual situation in London with analyses of five boroughs, the overall linguistic landscape, top-down, bottom-up analysis, and the frequency of colonial and EU languages in London's current landscape. Future research should seek to expand the geographical area in order to allow examination of more features and to continue this research of colonial languages within colonizing capitals.

APPENDIX

Britain held Akrotiri and Dhekelia, Anguilla, Antigua and Barbuda, Australia, the Bahamas, Barbados, Belize, Bermuda, British Antarctic Territory, British Indian Ocean Territory, British Virgin Islands, Canada, Cayman Islands, Falkland Islands, Gibraltar, Grenada, Jamaica, Montserrat, New Zealand, Papua New Guinea, Pitcairn Islands, Saint Helena, Ascension, and Tristan da Cunha, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Solomon Islands, South Georgia and the South Sandwich Islands, Turks and Caicos Islands, Tuvalu, and the United Kingdom, all of which are still British Commonwealths or British Overseas Territories, in addition to Afghanistan, Bahrain, Botswana, Brunei, Cyprus, Dominica, Dominion of Newfoundland, Egypt, Fiji, The Gambia, Ghana, Guyana, Hong Kong, India, Ireland, Israel, Iraq, Jordan, Kenya, Kiribati, Kuwait, Lesotho, Malawi, Malaysia, Maldives, Malta, Mauritius, Myanmar, Nauru, Nigeria, Pakistan, Qatar, Seychelles, Sierra Leone, South Africa, Sri Lanka, Sudan, Swaziland, Tanzania, Tonga, Trinidad and Tobago, Uganda, The United Arab Emirates, The United States, Vanuatu, Yemen, Zambia, and Zimbabwe.

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