

Can a Signboard Be Exclusionary? A Study of Linguistic Landscape in the Commercial Center of Poznań

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Abstract

A signboard is an element of the linguistic landscape of a given place. The linguistic landscape is a space open to everyone, but it may be experienced differently by people from various generations. To examine the extent and quality of comfort or discomfort resulting from linguistic exclusion in public spaces, in the article the linguistic landscape of the center of Poznań is analyzed in terms of the absence and presence of the native language of residents and visitors to this place. The research material comes from the most frequented places in this city and includes signs of private establishments ("bottom-up tokens"), which contribute to the linguistic landscape of Poznań. The study of linguistic exclusion takes into account the diverse linguistic competencies of five living generations of Poles. It aims to identify potential causes of the feeling of exclusion in open urban spaces for specific groups of Poles.

Keywords: linguistic exclusion, linguistic discomfort, linguistic landscape, bottom-up tokens, signboard

1. Introduction

The exclusionary nature of language has been studied before, for example in the context of the workplace (Hitlan et al., 2006). But can the linguistic land-scape of the public space in a sample country exclude people who speak the language of the given country? This study aims to investigate the extent and quality of comfort and discomfort resulting from linguistic exclusion in public spaces. The adopted thesis is that different generations may feel differently in

a space open to everyone. This may be influenced by the language present on the signboards of private organizations. In the first two parts of this work, the concepts of *signboard*, *linguistic landscape*, *multilingualism*, and *comfort* are explained and the reason for selecting the analyzed group of people and the area is provided. The research method used is the analysis of the linguistic landscape in the tourist center of Poznań in terms of the presence and absence of the native language of the inhabitants and the majority of people visiting this place.

2. Signboards in the linguistic landscape

A signboard, which the *Cambridge Dictionary* defines as "a sign with information on it or showing the name of a business, school, hospital, etc." (Cambridge University Press, n.d.), dates back to Ancient Egypt, where owners every so often put out "inscriptions denoting the trade, with the emblem which indicated it" (Larwood & Hotten, 1875, p. 1). In the ruins of Herculaneum and Pompeii, two ancient cities of the Roman Empire, artifacts resembling today's signboards were found. Aside from the text, graphics connected to the trade or goods sold inside were present (Larwood & Hotten, 1875, pp. 2–4). Nowadays, signboards are omnipresent in cities across the world, which forms a field of study for researchers of different disciplines, most prominently—linguists, who analyze them as a part of the linguistic landscape.

The term *linguistic landscape* was used for the first time in 1896, although as a field of study linguistic landscape is considered relatively novel due to many researchers naming Rodrigue Landry and Richard Y. Bourhis (1997) as the creators of the term (Gorter & Cenoz, 2023, pp. 3-5). The Cambridge Dictionary's definitions of both words linguistic, "connected with language or the study of language" (Cambridge University Press, n.d.), and landscape, "a large area of land, especially in relation to its appearance" (Cambridge University Press, n.d.), already paint an idea of what *linguistic landscape* actually is. Gorter and Cenoz (2023, pp. 21–23) provide multiple definitions of the term, which together create the description of the study which analyzes the language of the words present in the public space and the motives and decisions behind their selection. Research regarding this has been made in multiple cities and areas, for example in Tokyo (Backhaus, 2006), Kyiv (Pavlenko, 2010), Kuala Lumpur (Manan et al., 2015), the Baltic region (Kreslins, 2003), Chinatown in Washington, DC (Lou, 2012), and post-Soviet states (Pavlenko, 2009). Moreover, the concept of linguistic landscape can also be applied to the virtual world (Ivkovic & Lotherington, 2009). Dejan Ivkovic and Heather Lotherington, while trying to characterize a virtual linguistic landscape based on sites such as YouTube, Wikipedia, or the role-playing game Second Life, take notice of the presence of multilingualism.

Multilingualism is a term that appears in many works regarding linguistic land-scape. The reasons for the existence of more than one language in the public space are considered to be *inter alia* globalization (and what comes with it—English being the worldwide *lingua franca*), migration (İnal et al., 2021, p. 1), the attractiveness of the language to different audiences, and presence of minority languages in the area (Gorter, 2006, pp. 4–5). Multilingualism applies not only to the whole landscape but also to individual signs.

As Thom Huebner (2006, p. 34) states, signs can be either mono- or multilingual, and in some cases of those that are multilingual, one of the languages might be dominant. This was noticed by Dominika Krysztofowicz and Zofia Krupienicz (2017, pp. 66–67), who designated *polyphonic signs*, on which precisely the same information is presented in two or more languages, and *mixed signs*, on which the text in one language is not equivalent to the text in the other language or languages. It is also important to distinguish between top-down and bottom-up signs. Official signs that are government- or city-owned are considered as top-down signs and private or commercial signs as bottom-up signs. The two groups may differ when it comes to the language or languages used on them (Gorter, 2006, p. 3). In the linguistic landscape, signs and signboards are considered *linguistic tokens* (Huebner, 2006, p. 32).

Currently, signboards are a subject of study of visual pollution in cities (Portella, 2014) and their readability, whether it comes to people who are reading them (Williams, 2020) or Artificial Intelligence (Panhwar et al., 2019; Zhang et al., 2019). Roland Williams (2020) names several visual factors that may negatively influence the comprehensibility of signs, including their size and location, the type and size of font, level of luminance, poor contrast, distracting visual elements, and placement among similar signs. Yet if multilingualism, which is present on signboards, is taken into consideration, one more obstacle emerges. This obstacle may drastically affect the comfort of people who are present in a given public space.

3. Who, where, and why?

To examine the theoretical level of discomfort caused by the multilingual aspect of signboards, a group of people and an area were chosen. The term *comfort* has been a subject of study in papers related to nursing (Kolcaba & Kolcaba, 1991; Morse et al., 1994; Tutton & Seers, 2003), yet the definitions introduced there can correspond to the meaning of the word in the general sense. Katherine Kolcaba and Raymond Kolcaba (1991) describe as many as six meanings of the term. According to those, comfort can be identified as *inter alia* a state of ease and peaceful contentment, relief, and pleasure. However, as Peter Vink (2005, p. 14) states, "Comfort is a subjective experience. For Passenger 1 on a long distance flight, back discomfort is of great importance. Passenger 2 wants a reduction in noise and Passenger 3 needs more space". Thus, although

the group of people chosen in this project is Polish tourists, it is important to notice the fact that not all of them are the same.

To test what impact multilingualism can have on them, it was decided to divide the group according to the generations they belong to. The generational division is often used in marketing research (Williams & Page, 2011), which in a way applies to this paper. It is also essential to take into consideration that the generations may differ from country to country. At the moment, the six generations that live in Poland are the War Generation (born before 1945). Baby Boomers (born between 1946 and 1964), Generation X (born between 1965 and 1979), Generation Y, which are later called Millennials (born between 1980 and 1995), Generation Z (born between 1996 and 2009), and Generation Alpha (born after 2010) (Kryvachuk, 2021, p. 294; Sadowski, 2018). The three foreign languages most known in Poland are English. German, and Russian (Languages in Poland, n.d.). As a consequence of the political situation during and after the Second World War, the two dominating languages among people who belong to the War Generation and Baby Boomers are Russian and German. Russian was also the main foreign language taught in elementary schools in the Polish People's Republic (1952-1989); hence, it is one of the two main languages known by Generation X, the second being English, which was learned in their later stages of life. Currently, because of globalization, English is widely spoken by Millennials and the members of Generation Z. According to data on the choice of foreign language during Matura (high school leaving examinations) in the past 20 years, German was the second most popular (English being the first) among Generation Z and Millennials (Egzamin Maturalny – Raporty, n.d.). Generation Alpha has been omitted in this analysis as some of its members are too young to start learning languages different from Polish.

The place that was chosen to analyze is Poznań. Poznań is a city in west-central Poland, the fifth most populated and, based on TripAdvisor's Travellers' Choice 2022 list, the fifth most visited city in Poland (*10 najchętniej odwiedzanych przez turystów miast w Polsce*, 2022). Why examine the theoretical level of discomfort of Polish tourists in a Polish city? According to the official data provided by the city on tourism in Poznań, 81.68% of all tourists were Polish and only 18.32% were foreigners, which makes the described analysis highly appropriate.

Three areas were selected to be examined based on opinions from Facebook tourist groups and personal experience. All of them are part of the city center. The Old Market Square is a historical center of Poznań, the so-called "must-see" for all tourists. Półwiejska Street is the city's main shopping promenade, rich in stores, places to eat, and service establishments. Święty Marcin Street is another shopping promenade near popular sightseeing buildings, such as The Imperial Castle or the main building of Adam Mickiewicz University, but it is also where the St. Martin's Day parade takes place every year. This holiday has a very long and important tradition in the history of Poznań (Hadaś, 2021). In

the linguistic landscape of those areas, over four hundred tokens were found, which will be analyzed to determine whether they can be exclusionary to particular generations of Polish tourists.

4. Language analysis of signboards

The data used in this research was collected between 13th November and 23rd November 2023 by the author of this paper. It is essential to stress this as the city is ever-changing and the signboards and the visual aspects of the establishments connected with them can be altered. Sometimes even within a month, some businesses may close and new ones may open. As an example, a unique café located in an old tram may be used. In 2022 it was called Caffe Bimba (modified Italian word caffè and bimba which in the Poznań dialect means "tram"). At the moment of the analysis, it was called *Habeshawi* ("a person from Habesha" in Romanized Amharic). The already mentioned Poznań dialect in this analysis had to be considered as a foreign language. Even though it is a dialect of the Polish language, the words might be unrecognizable and completely incomprehensible for some Polish tourists. For clearer results, some of the tokens were grouped as Group X, because they are made of initials, foreign names, or made-up words, for example, Hebe (from Health & Beauty), ING (from Internationale Nederlanden Groep), and C.H. Beck, Lastly, digital signboards have been excluded from the analysis, because of their constantly changing textual and visual aspects.

51 bottom-up tokens were found on the Old Market Square, 178 on Półwiejska Street, and 197 on Święty Marcin Street. Altogether, there were 25 signboards of different types of establishments: 112 signs of food services, 104 of retail facilities, 22 of places of entertainment (arcade, club, etc.), 20 of law firms, 15 of medical services, 15 of combined retail and service facilities, 13 of education centers, 13 of banks, 11 of real estate agencies, 5 of currency exchange offices, 5 of pharmacies, 3 of pawnshops, and 88 of other services (e.g., beauty salons, computer repair stores, or tattoo studios). The names of these categories will be used later in this article. The number of languages present on all signboards is 27, including Polish (287 times), English (173), French (18), Latin (15), Italian (14), Spanish (11), Poznań dialect (6), German (4), Russian (4), Japanese (4, 3 of which were Romanized), Czech (3), Georgian (3, 2 of which were Romanized), Romanized Greek (3), Turkish (3), Ukrainian (3, 1 of which was Romanized), Hawaiian (2), Romanized Sanskrit (2), languages appearing only once include: Croatian, Norwegian, Romanian, Scottish Gaelic, Romanized versions of Amharic, Arabic, Chinese, Persian, Thai, Urdu, and once a word composed of both Romanized Greek and Latin mediaskop. Words from Group X appeared 63 times. The predominant foreign languages are Germanic (178 times), Romance (59 times), and Slavic (17 times). Languages present on the signs were identified by dictionary research and speaking with representatives of establishments.

Usually, the language used is in some way connected to the establishment: Japanese (both in katakana and in Romanized form) is used on a signboard above a restaurant with Japanese cuisine (e.g., $\nabla \mathcal{F} \ni \mathcal{F} \times \mathcal{F}$, Madara Ramen) and Czech above a Czech restaurant (e.g., Dřevny Kocůr; Tanková Hospoda). The connection can be based on stereotypes, as in the case of the French language used for establishments affiliated with the French culture such as cafés (e.g., café atelier) and perfume shops (e.g., Eyfel; Eau de Parfum) or the use of Sanskrit in a Yoga center's sign DAKINI. Yet some of them seem not to be connected in any way, e.g., Romanian in a pretzel bakery's sign Covrig; Prosto z pieca! or Norwegian in a medical center's sign Helse Clinic. Food services have the greatest number of different languages: 23 different languages present on signboards. Second are other services (9 languages) and retail facilities (9 languages). The number of languages on food services' signboards is closely related to the number of different types of world cuisine available in the chosen areas of the city.

Among all 425 tokens, monophonic signs predominate. There were 226 monophonic signs (53% of all) found in the three areas (e.g., *Raj dla kociarzy, flying tiger copenhagen*) or 267 (63%), if the cases of "one language and a word from Group X" are counted (e.g., *Zegarmistrz Madwar, HAH Cocktail Bar*). The second most common were mixed signs with two or more languages—136 (32%) signs (e.g., *4 eyes; Salon Optyczny, United; United Agencja Pracy; Areнство Працевлаштування United; Areнство занятости United*). The number of polyphonic signs, conveying exactly the same information in two languages, was much smaller—only 4 (1%) signs (e.g., *Kantor Wymiany Walut; Currency Exchange, Twój lekarz w Poznaniu; Твой врач в Познани*). The remaining 18 (4%) signs were entirely composed of words from Group X (e.g., *H&M, Lilou*).

In order to determine how many signs negatively impact the comfort of Polish tourists and therefore exclude them, it is important first to distinguish the number of signs that are entirely in Polish and signs that have the Polish language on them. There were 145 (34% of all signs) completely Polish signs (e.g., *Skład Gier, Sklepik Magiczny*), 19 (4%) signs with Polish and a word or words of group X (e.g., *GMZ Dystrybucja Budowlana, hebe zdrowie i piękno*), and 123 (29%) signs on which Polish is present (e.g., *Wargamer; Gry bitewne i strategiczne, Biuro Badań Marketingowych Mediaskop*). Thus, there were 120 (28%) signs in a language or languages other than Polish, and again 18 (4%) signs fully comprised words from Group X. Consequently, at this point of analysis, there were 138 (32% of all signs) signs which can be considered as exclusionary to Polish tourists.

Having said that, the visual aspect of the establishments cannot be dismissed. Although the language on a signboard may be incomprehensible for a Polish tourist, they may understand visual attributes such as store display, graphics on doors and windows of the business, and graphic symbols in the logo or the logomark. For example, a picture of silverware in the logo of a Czech restaurant

Pyšná Chalupa; Tankovna Hospoda, a picture of a coffee bean in the logo of café *PAVIN CAFFE*, or a picture of a dumpling in the logo of Russian food establishment *Брайтон родные продукты*. Even windows that are transparent enough, so not tinted or decorated in a way a person cannot see through, can facilitate figuring out what the establishment is. Besides those, additional texts can contribute to inclusivity (e.g., a list of provided services written in Polish and a menu outside of the restaurant). Taking all this into consideration, out of 139 possibly exclusionary signs, only 54 (13% of all signs) are left. Thus, 371 (87% of all signs) establishments theoretically would not impact negatively the level of comfort of Polish tourists. Yet if foreign words that became loanwords in the Polish language, such as *bar*, *billard*, *hotel*, *pizzeria*, *karaoke*, and *fitness* are ruled out as exclusionary, the number changes from 54 to 46 (11% of all signs).

Languages present on the 46 exclusionary signs are as follows: English (present 33 times), French (5), Spanish (3), Latin (2), Croatian (1), Italian (1), Poznań dialect (1), Romanized Sanskrit (1), and words from Group X (14). When it comes to the multilingualism of the signboards, 27 signs are monophonic, 8 are a combination of a language and a word from Group X, 6 are mixed, and 5 are composed solely out of words from Group X (e.g., *Jean Louis David*, *TEDi*).

Looking at the foreign languages known to each generation of Poles again, members of the War Generation and Baby Boomers mostly speak Russian and German, Generation X—Russian and English, and Millennials and Generation Z—English and German. Because Russian and German are not present in the current 46 exclusionary signs, all of them (11% of all signs) exclude Polish people who belong to the War Generation and Baby Boomers. English, known to members of Generation X, Millennials, and Generation Z, appears on 33 of the 46 previously mentioned signs. Therefore, only 13 (3% of all signs) can be considered exclusionary to the three youngest analyzed generations of Poles.

5. Conclusions and discussion

The thesis that different generations may feel differently in the public space is confirmed, as older generations are significantly more excluded than younger ones. Due to the language, the most excluded are the generations that do not speak English, which is the second, after Polish, most frequently used language on analyzed signboards. Possibly, signs that are in a language unknown to older generations but are surrounded by visual amenities do not exclude them. The language used on a sign is not always stereotypically associated with the industry of the establishment. In the studied areas there was no font styling according to the writing system of a given language (e.g., Greek or Arabic). Most importantly, the linguistic landscape of Poznań is highly multilingual.

It is important to note that the analysis is theoretical, thus, it is not complete and an interdisciplinary study is necessary, e.g., interpersonal or field study. Tourists of particular generations should be asked about their feelings towards signs that, in theory, exclude them. Moreover, it will be useful to examine which establishments are most often visited by tourists from these five generations and whether the signboard influences people not to go inside.

However, collecting linguistic landscape data is a technique that enables the study of both market trends and the preferences of residents and tourists, especially in the field of commercial signs. It can be used as well for diachronic research. Consequently, the data obtained in my research and parallel research, if collected properly and systematically, may provide useful information not only for synchronic and diachronic linguistic research but also for sociological, cultural, historical, and interdisciplinary studies, which have an objective of demonstrating social and cultural linguistic behavior in a certain time or along a passage of time.

Simultaneously, this study can be used for marketing purposes, as it may happen that the signboard will exclude potentially the most affluent tourists, who are among the two older generations. These two generations include also inhabitants of Poznań, and together form the group of the richest customers. They also create a larger group of brick-and-mortar users than younger generations who prefer to use the Internet. This opinion is confirmed by some available data (Iskiev, 2022; Kluza, 2019) but parallelly older generations are not used to multilingual and multicultural circumstances. Therefore, foreign languages, especially those that use non-Latin graphic systems, can be a factor that makes these people avoid those commercial establishments. Unfortunately, deeper and more detailed research is not available for Poznań and Poland at the moment. In this light, I assume my study may be the point of departure for further and more reliable studies on the discourse of exclusion of various generations.

References

Ahmed-Kristensen, S., & Stavrakos, S.-K. (2012). Definition of Comfort in Design and Key Aspects—A Literature Review. In P. A. Hansen, J. Ramussen, K. A. Jørgensen & C. Tollestrup (Eds.), NordDesign 2012—Proceedings of the 9th NordDesign Conference. Aalborg. https://www.designsociety.org/publication/35498/DS+71%3-A+Proceedings+of+NordDesign+2012%2C+the+9th+NordDesign+conference%2 C+Aarlborg+University%2C+Denmark.+22-24.08.2012

Backhaus, P. (2006). Multilingualism in Tokyo: A Look into the Linguistic Landscape. *International Journal of Multilingualism*, 3(1), 52–66. https://doi.org/10.1080/14-790710608668385

- 10 najchętniej odwiedzanych przez turystów miast w Polsce. (2022, February 21). Dziennik Gazeta Prawna. Retrieved December 14, 2023, from https://serwisy.gazeta-prawna.pl/turystyka/galeria/8362169,10-najchetniej-odwiedzanych-top-10-przez-turystow-miast-w-polsce.html
- Egzamin maturalny Raporty. (n.d.). OKE Łódź Okręgowa Komisja Egzaminacyjna w Łodzi. Retrieved December 14, 2023, from https://www.oke.lodz.pl/info.php?i=33
- Gorter, D. (2006). Introduction: The Study of the Linguistic Landscape as a New Approach to Multilingualism. In D. Gorter (Ed.), *Linguistic Landscape: A New Approach to Multilingualism* (pp. 1–6). Multilingual matters.
- Gorter, D., & Cenoz, J. (2023). *A Panorama of Linguistic Landscape Studies*. Multilingual Matters. https://doi.org/10.21832/GORTER7144
- Hadaś, E. (2021). *Celebrating Saint Martin's Day in Poznań*. Blog Key to Poland. Retrieved December 13, 2023, from https://keytopoland.com/post/celebrating-saint-martin-s-day-in-poznan
- Hitlan, R. T., Kelly, K. M., Schepman, S., Schneider, K. T., & Zárate, M. A. (2006). Language Exclusion and the Consequences of Perceived Ostracism in the Workplace. *Group Dynamics: Theory, Research, and Practice*, 10(1), 56–70. https://doi.org/10.1037/1089-2699.10.1.56
- Huebner, T. (2006). Bangkok's Linguistic Landscapes: Environmental Print, Codemixing and Language Change. In D. Gorter (Ed.), *Linguistic Landscape: A New Approach to Multilingualism* (pp. 31–51). Multilingual matters.
- İnal, D., Bayyurt, Y., Özturhan, M., & Bektaş, S. (2021). Multilingualism in the Linguistic Landscape of Istanbul. World Englishes, 40(2), 280–289. https://doi.org/10.1111/weng.12514
- Iskiev, M. (2022, July 22). *How Each Generation Shops in 2023 [New Data from Our State of Consumer Trends Report].* Hubspot. Retrieved February 2, 2024, from https://blog.hubspot.com/marketing/how-each-generation-shops-differently
- Ivkovic, D., & Lotherington, H. (2009). Multilingualism in Cyberspace: Conceptualising the Virtual Linguistic Landscape. *International Journal of Multilingualism*, 6(1), 17–36. https://doi.org/10.1080/14790710802582436
- Kluza, S. (2019, September 2). *Każde pokolenie ma własny czas i... preferencje zakupowe. Jak kupują pokolenia X, Y, Z?* Magazyn E-Commerce Portal. Retrieved February 2, 2024, from https://www.magazyn-ecommerce.pl/artykul/kazde-pokolenie-ma-wlasny-czas-i-preferencje-zakupowe-jak-kupuja-pokolenia-x-y-z
- Kolcaba, K. Y., & Kolcaba, R. J. (1991). An Analysis of the Concept of Comfort. *Journal of Advanced Nursing*, 16(11), 1301–1310. https://doi.org/10.1111/j.1365-2648.19-91.tb01558.x
- Kreslins, J. (2003). Linguistic Landscapes in the Baltic. *Scandinavian Journal of History*, 28(3–4), 165–174. https://doi.org/10.1080/03468750310003659

- Krysztofowicz, D., & Krupienicz, Z. (2017). Krajobraz językowy ul. Ratajczaka oraz ul. Garbary w Poznaniu. In *Kreatywność językowa w przestrzeni publicznej* (pp. 63–76). Wydawnictwo Uniwersytetu Łódzkiego.
- Kryvachuk, L. (2021). *Pokolenie iGeneration (Z) i Alfa: Analiza w kontekście sytuacji politycznej i zmian społecznych na Ukrainie*. Instytut Wydawniczy Książka i Prasa.
- Landry, R., & Bourhis, R. Y. (1997). Linguistic Landscape and Ethnolinguistic Vitality: An Empirical Study. *Journal of Language and Social Psychology*, 16(1), 23–49. https://doi.org/10.1177/0261927X970161002
- Languages in Poland. (n.d.). Languageknowledge.Eu. Retrieved December 14, 2023, from https://languageknowledge.eu/countries/poland
- Landscape. (n.d.). In Cambridge Dictionary. Cambridge University Press. Retrieved December 13, 2023, from https://dictionary.cambridge.org/dictionary/english/landscape
- Larwood, J., & Hotten, J. C. (1875). *The History of Signboards, from the Earliest Times to the Present Day (Eighth Edition)*. Chatto and Windus.
- Linguistic. (n.d.). In Cambridge Dictionary. Cambridge University Press. Retrieved December 13, 2023, from https://dictionary.cambridge.org/dictionary/english/linguistic
- Lou, J. J. (2012). Chinatown in Washington, DC: The Bilingual Landscape. *World Englishes*, 31(1), 34–47. https://doi.org/10.1111/j.1467-971X.2011.01740.x
- Manan, S. A., David, M. K., Dumanig, F. P., & Naqeebullah, K. (2015). Politics, Economics and Identity: Mapping the Linguistic Landscape of Kuala Lumpur, Malaysia. *International Journal of Multilingualism*, 12(1), 31–50. https://doi.org/10.1080/14790718.2014.905581
- Morse, J. M., Bottorff, J. L., & Hutchinson, S. (1994). The Phenomenology of Comfort. *Journal of Advanced Nursing*, 20(1), 189–195. https://doi.org/10.1046/j.1365-2648.1994.20010189.x
- Panhwar, M. A., Memon, K. A., Abro, A., Zhongliang, D., Khuhro, S. A., & Memon, S. (2019). Signboard Detection and Text Recognition Using Artificial Neural Networks. In W. Li and G.Zuo (Eds.), *2019 IEEE 9th International Conference on Electronics Information and Emergency Communication (ICEIEC)* (pp. 16–19). https://doi.org/10.1109/ICEIEC.2019.8784625
- Pavlenko, A. (2009). Language Conflict in Post-Soviet Linguistic Landscapes. *Journal of Slavic Linguistics*, 17(1), 247–274. https://doi.org/10.1353/jsl.0.0025
- Pavlenko, A. (2010). Linguistic Landscape of Kyiv, Ukraine: A Diachronic Study. In E. Shohamy, E. Ben-Rafael, & M. Barni (Eds.), *Linguistic Landscape in the City* (pp. 133–150). Multilingual Matters. https://doi.org/10.21832/9781847692993-010
- Portella, A. (2014). *Visual Pollution: Advertising, Signage and Environmental Quality.* Ashgate.

- Sadowski, R. (2018, March 21). *Raport Newspoint: Pokolenia w Polsce i potrzeba monitorowania ich rosnącej aktywności.* Newspoint. Retrieved December 13, 2023, from https://www.newspoint.pl/blog/raport-newspoint-pokolenia-w-polsce-i-potrzeba-monitorowania-ich-rosnacej-aktywności
- Signboard. (n.d.). In Cambridge Dictionary. Cambridge University Press. Retrieved December 13, 2023, from https://dictionary.cambridge.org/dictionary/english/signboard
- Tutton, E., & Seers, K. (2003). An Exploration of the Concept of Comfort. *Journal of Clinical Nursing*, 12(5), 689–696. https://doi.org/10.1046/j.1365-2702.2003.007-75.x
- Vink, P. (2005). Comfort and Design: Principles and Good Practice. CRC Press.
- Williams, K., & Page, R. (2011). Marketing to the Generations. *Journal of Behavioral Studies in Business*, 3, 37–52.
- Williams, R. (2020, November 24). What Makes Signage Difficult to Read? Lektron Branding Solutions. Retrieved December 13, 2023, from https://lektroninc.com/blog/what-makes-signage-difficult-to-read/
- Zhang, R., Yang, M., Bai, X., Shi, B., Karatzas, D., Lu, S., Jawahar, C. V., Zhou, Y., Jiang, Q., Song, Q., Li, N., Zhou, K., Wang, L., Wang, D., & Liao, M. (2019). ICDAR 2019 Robust Reading Challenge on Reading Chinese Text on Signboard. 2019 International Conference on Document Analysis and Recognition (ICDAR), 1577–1581. https://doi.org/10.1109/ICDAR.2019.00253

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