



“I felt like English excluded particular groups” Tracing Finnish Instagram influencers’ language choices and multilingual practices

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In order to succeed, social media influencers need to use language in a way that appeals to their audiences and potential business partners. While previous research has investigated influencers’ linguistic practices in terms of self-branding and constructing authenticity, the role of the influencers’ language choice has not been rigorously studied. This chapter utilizes methods of discourse-centered online ethnography to examine language choice and multilingual practices among Finnish beauty influencers. Social media data collected from Instagram illustrate an overall trend of prioritizing Finnish as a content language, while English is used in specific contexts, short-form videos in particular. The commercial and ideological motivations behind such choices are investigated through questionnaire responses from thirteen influencers.

Keywords: computer-mediated communication, Instagram, language ideology, multilingualism, social media influencers

1. Introduction

This chapter investigates social media influencers' multilingual practices and language choices. More specifically, I examine how Instagram's beauty influencers' multilingual practices evolve over time, adapt to different contexts, and are shaped by their attitudes towards language(s). As previous research has shown, language is an important tool for influencers, as it enables them to construct authenticity and to establish their personal brands (Kováčová 2021; Meer & Staubach 2020). However, the attitudes and motivations behind an influencer choosing particular language(s) for their content creation practices have not yet been rigorously studied. In this chapter, I seek to address this gap in research through a detailed, qualitative study focusing on a group of Finnish beauty and fashion influencers and their language use. The chapter builds on a previous pilot study on multilingualism and multimodality in influencer communication (Limatius 2023).¹

The data for the study consist of questionnaire responses from thirteen Finnish influencers and multimodal social media data collected from the Instagram accounts of six influencers. The study can be described as a *dis-course-centered online ethnography* (Androutsopoulos 2008; Georgalou 2021), as it combines ethnographic observation of social media material and direct contact with influencers. Through this approach, I answer the following research questions: 1) What are Finnish beauty influencers' attitudes towards and motivations for using English and Finnish on social media? 2) How are such motivations and attitudes reflected in influencers' language use on Instagram? 3) How do the influencers' multilingual practices and language choices evolve over time?

The results indicate a shift towards prioritizing predominantly Finnish language social media content among the Finnish online beauty community. English use and multilingual practices, however, are emphasized in specific contexts – most prominently in the recently launched Instagram Reels. These developments reflect the saturation of the online beauty space, and a broader social media trend that prioritizes engagement (i.e., how actively one's followers engage with social media posts) over the number of followers (Greiwe 2018). Such developments can be traced through the Instagram data, while the

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questionnaire responses illustrate the motivations behind influencers' language choices.

The chapter is structured as follows. In the literature review, I discuss previous research on multilingualism, language choice and social media. Next, I discuss the concept of the social media influencer and their role in the online beauty space. After these theoretical sections, I present the data and methods of the study, followed by a discussion of the results. The chapter ends with conclusions and recommendations for future research.

2. Literature review

2.1. Multilingualism, language choice and social media

In this chapter, I utilize the related theoretical concepts of *multilingualism* and *language choice* in the context of social media. I follow Blommaert's (2010: 102) definition of multilingualism as "a complex of *specific* semiotic resources, some of which belong to a conversationally defined 'language', while others belong to another 'language'" (emphasis original). These resources include ways of using language in different communicative situations, as well as "the ideas that people have about such ways of using, their languages ideologies" (Blommaert, *ibid.*). In my analysis of influencer communication, I characterize the ways influencers draw from different languages and linguistic repertoires in their communication as their *multilingual practices* (Pahta, Skaffari, & Wright 2017). In investigating these multilingual practices, my interest is not in studying the influencers' language proficiency – rather, I consider multilingual practices as one "tool" that influencers use to achieve their communicative goals on social media.

By language choice, I refer to the ways in which users choose to utilize different linguistic resources when communicating with others on social media (Lee 2016: 23). According to Lee (2016: 34–35), when choosing which language(s) to use in their computer-mediated interactions, users consider a "number of ecological factors". Such factors include, for example, the users' cultural backgrounds, experiences, attitudes, and perceptions towards different linguistic resources, as well as the intended recipient of the communication, the content of the communication, and the technological affordances of the platform where the communication takes place (Lee, *ibid.*). Choosing particular linguistic resources for online interactions can also be motivated by

purposes of creativity and play (e.g., Dubravac & Skopljak 2020), or identity construction (e.g., Blackwood 2019; Lee & Chau 2018; Pérez-Sabater & Maguelouk Moffo 2019). For example, bilingual speakers may use English in contexts where a “global” identity is emphasized and their local language when they want to highlight an in-group identity (Lee 2016; Pérez-Sabater & Maguelouk Moffo 2019: 35).

While there are numerous studies on multilingual practices and language choice on specific social media platforms such as Facebook (e.g., Androutsopoulos 2014; Pérez-Sabater & Maguelouk Moffo 2019) and Instagram (e.g., Blackwood 2019; Lee & Chau 2018; Mohr 2022), the ways in which professional content creators utilize these practices in their work have not yet received much scholarly interest. In the present chapter, my focus is specifically on the language use of such professionals – namely, influencers who operate in the online beauty space.

2.2. Influencers and language use

In this chapter, I define an influencer as a social media user who posts content regularly and publicly, with the goals of monetizing this content (e.g., through sponsorships), and gaining a large following (see e.g., Abidin 2016; 2018; Hudders & De Jans 2022). The most successful influencers can become celebrities (e.g., Abidin 2018; Jerslev 2016), but many of them are “everyday, ordinary Internet users” (Abidin 2016: 3) interested in creating social media content around a specific topic that is related to their personal expertise (e.g., fashion, parenting, music or technology). Depending on the broader category within which the influencer situates themselves, their content may contain a variety of communicational genres, from product reviews to comedy skits, or even political commentary. However, regardless of genre, maintaining relationships with followers is at the core of influencer work, and this entails projecting a curated image of authenticity, relatability and credibility (e.g., Kováčová 2021; Meer & Staubach 2020; Pöyry *et al.*, 2019; Reinikainen *et al.* 2020). Influencers appeal to their following by blurring the lines between professional and public – for example, they may share parts of their personal lives with their audience, thus creating a sense of intimacy (Meer & Staubach 2020: 251). Indeed, the relationship between a follower and an influencer is often characterized as a *para-social relationship*: an individual’s one-sided, emotional

attachment to a media personality (Isotalus 2023: 36). To their follower base, an influencer appears as a peer, even a friend, and as a result, followers are more receptive to influencer marketing than traditional advertising (Reinikainen *et al.* 2020).

Beauty and fashion brands utilize social media marketing particularly actively. Instagram especially is considered an important marketing platform due to its ease of access and its attractiveness to “shopping enthusiasts from all socioeconomic backgrounds” (Kim, Hong, & Lee 2021: 179). Since the market for makeup and other beauty products has become extremely saturated, brands are increasingly looking towards influencers to market their products to their followers. According to Statista (Dencheva 2023), in the year 2022, beauty was the third most popular category of Instagram influencers worldwide, lifestyle being number one. Endorsements by popular influencers are valuable to brands, as followers pay close attention to and trust influencers' recommendations (Reinikainen *et al.* 2020: 280). The potential that social media influencers have for creating *Electronic Word-of-Mouth (eWOM)* is enticing to brands, as influencer endorsement can have positive effects on a brand's image and create “buzz” around them (Zhou *et al.* 2021). At the same time, brand deals are equally important to influencers, as they benefit from them both monetarily and in terms of exposure (Reinikainen *et al.* 2020: 281).

While many social media applications, including Instagram, emphasize visuality, verbal communication – spoken or written – is one of influencers' most important tools in maintaining relationships with followers and brands. Thus, the language that influencers use on social media matters. Language can be used to construct the influencer's image as authentic and credible – for example, Kováčová (2021) found that fashion and lifestyle bloggers used informal language to help create a balance between “publicness and privateness” in their Instagram posts. Similarly, according to Meer and Staubach (2020: 254), influencers can use linguistic resources to mark their belonging in a social group – for example, an influencer whose target audience are teenagers can “[testify] her status as a peer” by drawing on linguistic practices typically used by teenagers.

While the role of language use for influencers has already received some scholarly attention, studies that focus specifically on how and why influencers choose to draw from particular languages in their social media content are needed. In a globalized world, an influencer can have followers and brand

partners from a variety of countries and language backgrounds. Thus, they also need to decide whether they want to actively “influence” within a smaller, more local community, or on a broader, international level.

In this chapter, I focus on the language use of Finnish influencers who create beauty- and fashion-focused content on Instagram and other social media platforms. Finland is a fairly small country with a population of ca. 5.56 million (Clausnitzer 2023). Out of this population, the majority of ca. 4.9 million people speak Finnish as their first language (Institute for the Languages in Finland). However, English is used extensively across various communicative contexts in Finland, including social media contexts (e.g., Coats 2019; Kytölä 2023), and it can be considered part of the (socio)linguistic landscape of Finland (Leppänen & Pahta 2012; Mortensen 2023). As influencer practices “[converge] with a framework of social and cultural phenomena” (Hurley 2019: 3), investigating the language choices of Finnish social media influencers can also provide insights into current language ideologies in Finland.

3. Data and methodology

3.1. Overview of data and analytical approach

Discourse-centered online ethnography (Androutsopoulos 2008) combines the systematic, ethnographic observation of online texts with direct contact with the producers of these texts. In this chapter, I combine a study of influencers' multilingual practices on Instagram with a questionnaire that focuses on the influencers' own reflections on their language use. As Androutsopoulos (2008) points out, when investigating language use in digital media, focusing purely on the texts produced is not always enough, as the users' motivations for using specific linguistic practices in their online interactions also need to be considered. In the case of multilingual practices and language choice, contact with the producers of social media texts is necessary to learn about ecological factors like social and cultural backgrounds, attitudes, and experiences (Lee 2016: 34–35). Direct contact with participants can offer new perspectives to the phenomena observed in ethnographic data or reveal completely new phenomena that do not emerge from the textual and (audio)visual data (Georgalou 2021).

Altogether, the data consist of questionnaire responses from thirteen Finnish influencers and multimodal social media data that was collected from six influencers' Instagram accounts. Based on the number of followers

(between roughly 1,750–3,800), the six influencers whose Instagram accounts were studied can be described as *nano influencers*² (Wiley 2021). These six influencers had been participants in a previous study, as well (Limatius 2023), and I identified more influencers through the lists showing who they are following on Instagram. The questionnaire link was sent to thirty influencers and this group also included the six influencers whose Instagram accounts were observed.³ Thirteen influencers responded.

The questionnaire was created with the online survey and reporting tool Webropol and it featured one multiple-choice question and four open-ended questions. The language of the questionnaire was Finnish. In the multiple-choice question, the influencers were asked to specify which languages they used on social media. In the open-ended questions, they were asked whether they considered creating content in Finnish and English important, and to explain why, or why not. They were also asked to reflect on any potential changes to their language choices on social media and differences between particular social media platforms.

All six influencers whose Instagram posts were included stated they would prefer to appear under their own names as opposed to pseudonyms. Instagram data was manually collected on two occasions – during a six-month period in 2020, and a three-month period in 2023 – and it contains altogether 526 posts. The data are summarized in Table 1 below.

Table 1: The data.

Data type	Time of collection	Items analysed
Questionnaire responses	2021-2022	13 respondents, five questions
Instagram data	2020 and 2023	Six influencers, 526 posts

For ethical transparency, it should be mentioned that since I am personally active in the online community of Finnish beauty and fashion creators, I was familiar with some of the participants prior to starting the research. This

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- 2 Number of followers in March 2024. *Nano influencer* refers to influencers with less than 10,000 followers. However, the number of the influencers' Instagram followers does not necessarily reflect their total social media following, as some of them had more followers on other platforms (e.g., YouTube, TikTok).
 - 3 As the questionnaire was anonymous, the two datasets were analyzed separately.

issue was mitigated in the research design in two ways. First, I made sure to also include influencers I was unfamiliar with and follow the same coding procedure for all participants. Second, to avoid any bias in the reporting of the questionnaire responses, they were collected anonymously.

3.2. Analysis of questionnaire responses

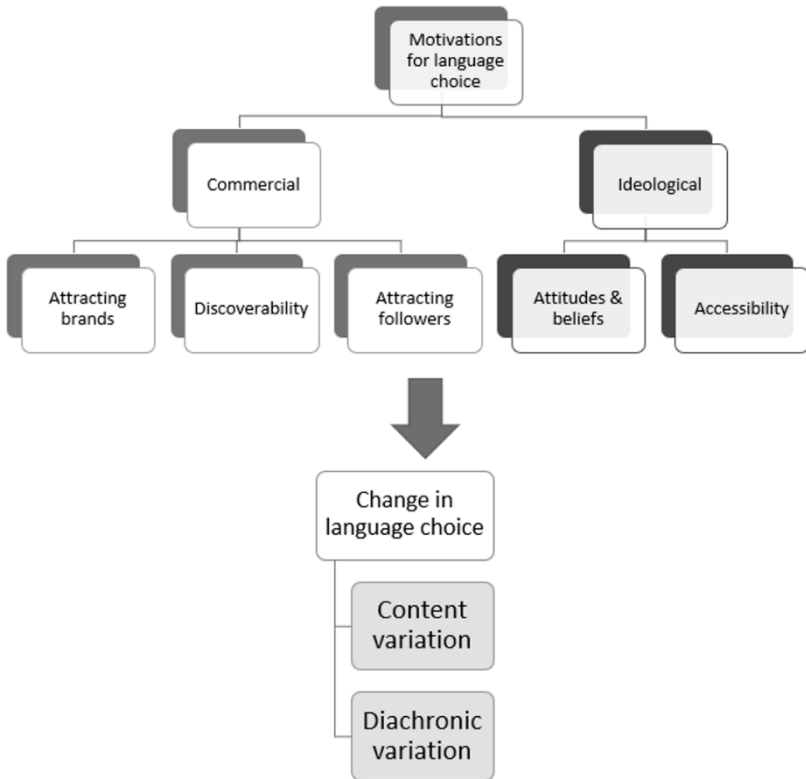


Figure 1: Motivations for language choice in the questionnaire data.

Thematic analysis was used as the analytical method for both datasets (Braun & Clarke 2006). I began the analysis of questionnaire responses by reading each response multiple times and identifying the topics discussed by the influencers. In the next step of coding, I started highlighting specific parts

of the response texts that dealt with similar issues, establishing patterns and connections between different respondents. Next, I arranged these patterns into more cohesive themes. These themes can be divided into two broader groups: 1) topics pertaining to the influencers' motivations for using language in specific ways, and 2) topics pertaining to change and/or variation in their language use. Motivation-related themes include the sub-themes of commercial and ideological motivations, and changes in language use include the sub-themes of variation according to social media content and diachronic variation. Figure 1 illustrates the themes established in the analysis of questionnaire responses and the relationships between them.

3.3. Analysis of Instagram data

Initial Instagram data were collected as a part of another research project in 2020. However, as both the questionnaire responses and the previous pilot study (Limatius 2023) had shown diachronic change in the influencers' language choices, I decided to supplement the original dataset with additional data from the first three months of 2023. As a result, a dataset of 526 Instagram posts was formed.

Due to the multimodal nature of the data, I first needed to identify the different types of meaning-making resources that were present. In addition to the written captions of the Instagram posts, I analyzed text that was superimposed on images or video, the influencers' responses to comments from followers, as well as the spoken narration or audio tracks featured in Reels videos. When editing a Reel, an Instagram user can either record their own audio or use the existing audio tracks provided by Instagram. These include both copyrighted material (e.g., pop songs) and tracks recorded by other Instagram users who have chosen to make their audio publicly available. In addition, the user can add captions or other media to their video (see the example in Figure 2).

Again, I began the analysis by carefully reading each post, as well as watching and transcribing the Reels. Next, I documented all instances of code-switching in captions, images, or video (e.g., in audio tracks or superimposed text). Based on this initial analysis, I wrote a short summary of the findings for each influencer and each year. I made separate notes for posts published in 2020 and 2023 to facilitate comparing and contrasting the findings.

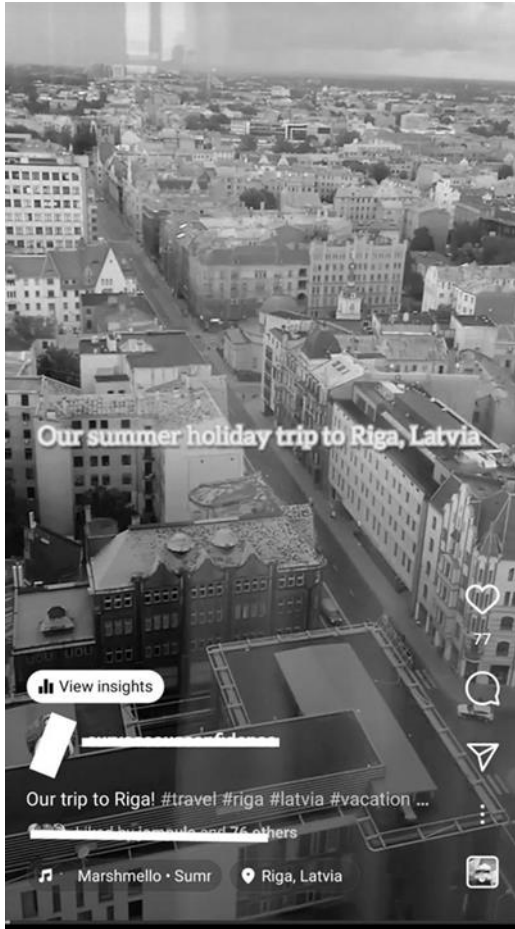


Figure 2: A still image from an Instagram Reel from the author's personal Instagram account.

In the next stage of the analysis, I again used thematic analysis (Braun & Clarke 2006) to identify similarities, differences, and patterns in the influencers' communication and their use of multilingual practices. As a result, four themes or categories of multilingual practices were established: 1) stylistic multilingual practices, 2) instructional multilingual practices, 3) multilingual practices pertaining to beauty terminology, and 4) community- or

audience-specific multilingual practices. Table 2 illustrates the presence of these practices in the Instagram posts of each influencer.

Table 2: Multilingual practices in the IG data.

Influencer	Number of posts	Multilingual practices	Differences between 2020 and 2023
Annie @anniemuukka (3,819 followers)	31	Stylistic, instructional, beauty terminology, community-specific	A move towards prioritizing Finnish.
Cece @cece_bombshell (2,754 followers)	130	Community-specific	No apparent differences.
Elliroosa @elliroosa (3,299 followers)	43	Stylistic, beauty terminology, community-specific	English use in Reels, a move towards prioritizing Finnish in post captions.
Enni @ennireme5 (1,748 followers)	140	Stylistic, instructional, community-specific	A move towards prioritizing Finnish.
Hanna @hannamariaw (2,866 followers)	133	Stylistic, instructional, beauty terminology, community-specific	A move towards prioritizing Finnish.
Maria @mariaglow1 (2,413 followers)	49	Stylistic, beauty terminology, community-specific	English use in Reels, otherwise no apparent differences.

4. Discussion of results

In this section, I will present the results of the two analyses. The answers to the questionnaire have been translated from Finnish.

4.1. Questionnaire results

4.1.1 Motivations for language choice

Out of the thirteen influencers who responded to the questionnaire, seven reported they used “mainly Finnish” when creating social media content. Four influencers said they used “only Finnish”, and two “only English”. None of the respondents reported languages other than English or Finnish.

Most respondents considered using Finnish highly significant in terms of their commercial success and growth as social media influencers. It was important for them to respond to the needs of their followers, and most of these followers were Finns. Similarly, the influencers reported that they mostly worked with Finnish brands and businesses, and using Finnish was considered necessary to secure sponsorships. Language was viewed as an important marketing tool, as one of the respondents explained:

- 1 I consider [using Finnish] important because the majority of my followers are Finnish. My commercial partners as well. The language choice is determined by the effectiveness of marketing – in other words, making sure that the message goes through.

The influencer quoted in (1) has clear, commercial motivations for choosing to make content in Finnish. For her, language choice is thus a straightforward, strategic decision. The respondents also explained that they used Finnish on social media because of the saturation of the market. Some influencers considered English beauty content to have more competition, as it is ubiquitous on social media. Finnish use, however, was seen to increase discoverability by the “right” users and brands:

- 2 Yes, I consider [using Finnish] important, although I would prefer to create content in English, as it would feel more natural to me. There is less content available in Finnish in my chosen genre, so it serves a more targeted audience. This is also my full-time job, so if I create content in Finnish, I’m more likely to get Finnish brand partners.

Interestingly, the influencer in (2) stated that even though she would personally prefer to use English, she has chosen not to, as using Finnish is more commercially rewarding. Previous research has also reported that many non-

native English speakers, particularly young people, prefer to express themselves in English in certain contexts, including social media (e.g., Dubravac & Skopljak 2020; Mortensen 2023: 118). Thus, the experience described by the respondent in (2) is not exclusive to influencers – however, the need to strategize language choice for financial gain is what is interesting here. Responses like this illustrate that the commercial motivations and the influencers' personal preferences do not always meet.

However, several respondents did state that using Finnish was easier for them personally, as they were able to express themselves in more creative ways in their mother tongue. One influencer even mentioned that she felt it was important to use Finnish to preserve the Finnish language in a time where anglicisms are becoming more and more common on social media. This response echoes the so-called “domain loss” discourse that has been present in language ideological discussions in the Nordic countries since the 1980s (Mortensen 2023: 106). According to Mortensen (*ibid.*), domain loss refers to “an imagined scenario where English comes to be used in specific societal domains [...] *at the expense of* local languages” (emphasis original). The presence of this perspective in the data demonstrates that using Finnish could also be framed as ideologically motivated.

Despite the overall preference for Finnish, some influencers also considered using English important. As with Finnish, if the majority of an influencer's followers were international, English use was prioritized to reach those followers. Some respondents also stated that even though their audience was mostly Finnish, they had friends who did not understand Finnish. Interestingly, most respondents seem to equate a “Finnish” audience with a Finnish-speaking audience – the fact that there are people living in Finland who do not speak Finnish was not explicitly mentioned in the responses, although one influencer described some of her followers as “English-speaking or international”.⁴ Overall, however, English use appeared to be motivated more by personal preferences or ideological reasons than commercial success:

- 3 Personally, [creating content in Finnish] does not seem relatable, because in my experience, Finnish social media is not very accepting

4 The position of Swedish as the second official language of Finland was not mentioned by any of the respondents.

of diversity. However, my goal is to move abroad at some point, and then I might consider increasing Finnish content.

While the influencer in (3) also acknowledged that using Finnish on social media could be useful – she responded “Yes and no” to whether she considered Finnish use important – she personally experienced the Finnish-speaking social media space as limiting. For her, the use of the Finnish language was connected to negative experiences of social media use – however, she also felt like her views might change if she moved abroad. While she did not state why that is, one possible reason could be that using Finnish might help her retain a connection to her home country.

Finally, both Finnish and English use were discussed in the context of accessibility. The influencers wanted their content to be easily understood by their target audience – whether that audience was Finnish or international. Some influencers referenced the role of English as a lingua franca, as English was described as “understood by most people around the world”, and “an inclusive language choice”. However, others made similar arguments for Finnish, as the influencer in (4):

- 4 I considered [using English] at first, but I felt like English excluded particular groups. After all, my goal is to grow in Finland among Finns, which is why Finnish became established in my content.

In (4), the influencer discusses accessibility in a different context than the respondents who highlighted the role of English as a lingua franca – she focuses on inclusivity “among Finns” in particular. While the respondent does not specify which groups would be excluded by English use, her response acknowledges that all Finns do not have the same level of competence in English. At the same time, however, she constructs a narrow view of “Finns”, only including Finnish-speakers. Thus, the influencers also expressed different ideological perspectives in their discussions on language, accessibility, and inclusivity.

4.1.2 Change in language choice

While the questionnaire contained questions specifically about potential changes in the languages the influencers used on social media, the theme of

change over time was also evident in other responses throughout the data. Out of the thirteen influencers who responded to the questionnaire, eight reported that they had changed the language(s) they used on social media. Typically, this shift had been towards prioritizing Finnish over English, although one influencer reported that she had changed a Finnish Instagram account to a bilingual one:

- 5 However, on Instagram I have two accounts. On my modelling account, I only create content in English, but on my home renovation account I use both Finnish and English. I made this choice as initially, most of the followers were my Finnish acquaintances. Slowly, I started promoting this other account on my modelling account, and made it bilingual when I got new, international followers.

The response in (5) illustrates that much like language choice in general, change in language choice could be motivated by wanting to respond to one's followers' needs. It also highlights how influencers need to negotiate their language practices in regard to the *context collapse* typical of social media (Androutsopoulos 2014). Context collapse refers to the phenomenon where an audience of a communication consists of people from various social backgrounds and relationships, who may have different communicative expectations (Androutsopoulos 2014; boyd 2011). In the case of the respondent in (5), changes in audience motivated a change in language to facilitate understanding. Thus, depending on how their follower base evolves, influencers strategically adjust their language use. The followers may even be consulted directly – one influencer mentioned that she let her followers vote on which language(s) they preferred and changed her content to Finnish-only as a result. Brand partnerships were also mentioned as a motivation for changing the language of social media content. Four influencers stated that they had switched from English to Finnish because they wanted to secure sponsorships from Finnish brands.

Indeed, most influencers named commercial motivations – increasing follower count, increasing engagement, and maintaining brand relations – as reasons for changing the content language. Ideological reasons or language proficiency did not seem to play much of a role in switching languages.

However, the influencer in (6) discussed the role of content topic, as well as the technological affordances of specific social media platforms:

- 6 When posting about more local topics, I use Finnish, but for more global themes, I often use English. Partly the move towards Finnish has been because it's just easier – using one's mother tongue is more straightforward, although I also use English fluently. On the other hand, these days [Instagram] offers a translation function, which makes it easy for users to translate the content to English if they want to. This has enabled international followers and friends to keep following my account despite the language barrier.

To the respondent in (6), changes in language choice have been made possible through the ease of automatic translation. Social media platforms change rapidly and integrate new features regularly. Some features, like the translation tool mentioned in (6), can help influencers navigate problems caused by context collapse (Androutsopoulos 2014: 64). Influencers may also have different audiences on different platforms. Because of this, I also asked them if the choice of platform affected their language choice.

Six influencers reported differences in their language choice across social media platforms (blogs, Instagram, Snapchat, TikTok, and YouTube). Consistent with other responses, the influencers stated their target audience and potential collaborators on specific platforms as their motivation for choosing the content language. However, the specific affordances of different platforms were also mentioned. One influencer reported that she used English hashtags on TikTok and Instagram for discoverability, and another mentioned that while her original content was in Finnish, she liked to use other people's English audio tracks on TikTok. Like in Instagram Reels, TikTok users can make their audio tracks publicly available, meaning other people can use them to create their own content. Using a "trending" audio track can increase a user's chance of getting views; thus, English tracks can make Finnish influencers' content more widely distributed. Interestingly, however, the influencer in (7) also argued that the shift towards video-based content like Reels had made her use more Finnish:

- 7 Before, I mostly shared pictures on Instagram, so the language didn't matter as much when the content was focused on images. Now that video material has become more central on Instagram, it is more important to communicate in the language that your followers best understand.

While content type and the technological affordances of social media platforms factor into influencers' language choice, different influencers experience these aspects in different ways and form their communicative strategies accordingly. Next, I will demonstrate how such differences are reflected in the influencers' multilingual practices through the analysis of Instagram data.

4.2 Instagram results

4.2.1 Types of multilingual practices in Instagram posts

The influencers utilized multilingual practices on their Instagram accounts in various ways, which could be categorized under four, broader themes: 1) stylistic use, 2) instructional use, 3) use pertaining to beauty terminology, and 4) community- or audience-specific use. Out of these, the community- and audience-specific multilingual practices were the most common, as all influencers used them. Stylistic multilingual practices were utilized by five influencers, and multilingual beauty terminology by four influencers. Instructional multilingual practices were present in the content of three influencers.

By community- and audience-specific multilingual practices, I refer to multilingual practices that appear to be determined by the recipient of the message. For example, even though Cece's Instagram captions were written in English, she responded to comments from Finnish followers in Finnish. She also used Finnish hashtags in some of her posts:

- 8 Last weekend was truly amazing. I've missed being on stage so much! This team is 💎 Photo: @username #kinkycarnivalburlesque #kaamoskabaree #burlesque #dreamteam #burlylife #burleskiasuomessa (Cece, October 2020)

Even though the main message in (8) is in English, it is directed at specific Finnish-speaking audiences using the two hashtags (emphasized by the

author) #kaamoskabaree (“polar night burlesque”; a name of a burlesque festival held in Northern Finland) and #burleskiasuomessa (“burlesque in Finland”). Although Cece consistently uses English in her Instagram content, and appears to have a large international following, she also wants her posts to be discoverable by the Finnish burlesque community through the relevant hashtags. Thus, the use of multilingual hashtags is motivated by community-specific communication. It also functions as an identity-constructing practice (e.g., Lee & Chau 2018; Mohr 2022) – by adding the Finnish hashtags, Cece highlights her identity as a Finnish burlesque artist.

While the use of hashtags is a common way of directing a message to specific communities on social media (e.g., Zappavigna 2018), the influencers also included community-specific multilingual practices within actual text captions:

- 9 When I was younger, I never thought I would do some modelling in the future, even if just as a hobby. But here I am, in my 30's, plus sized and posing for a very talented Rovaniemi based young photographer [photographer name], and feeling great about myself. [...] Would you like to see the whole dress soon? I can't wait to show you guys all the beautiful photos [photographer] took! 😊 Thank you [name] for amazing photography! Check out more of her photos on Instagram. ♡ ₪ *Jos tarvitsette todella taitavaa ammattilaisvalokuvaajaa erityisesti Pohjois-Suomessa, ottakaa [name] yhteyttä!* 😊 [name] tekee sekä ulko- että studiokuvauksia. ₪ Hair pin: @kappahl Earrings: @hm MUAH: me @ennislooks (Enni, July 2020)

The excerpt from Enni's caption in (9) is, overall, typical of her Instagram content at the time. In 2020, Enni posted mostly in English, but in this caption, she has included some Finnish. The translation of the Finnish interjection (italicized by the author) reads: “If you need an extremely talented professional photographer, particularly in Northern Finland, contact [name]! 😊 [name] does both outside and studio photography.” The part of the text written in Finnish is thus not a direct translation of the preceding English text, but it gives more information about the photographer for a specific Finnish audience who may be interested in hiring this photographer. Notably, after this Finnish interjection, Enni switches back to English to provide details of her

makeup and accessories. The post is multimodally structured so that the Finnish excerpt is separated from the surrounding text by two Finnish flag emoji that are placed before and after.

While the switch into Finnish in Enni's post in (9) is carefully planned and has the specific function of informing a particular audience, there were also multilingual practices that appeared more spontaneous and less specific to particular communicative purposes in the data. These were considered stylistic multilingual practices in my categorization, and they included, for example, using another language in common expressions or for emphasis, as in (10) and (11):

- 10 *My Twiggy moment!* Tässä yhdistyi monta mitä oon halunnut testata, mutta ei oo _alkuunkaan_ mun tyyliä. (Author's translation, AT from now on: "My Twiggy moment! In this look, I combined many things I've been wanting to test, but that aren't my style _at all_.") (Elliroosa, May 2020).
- 11 SELKÄONGELMA-GALORE (AT: "BACK PROBLEMS GALORE"). (Hanna, July 2020).

In (10), Elliroosa begins her caption of a makeup selfie with an English exclamation ("My Twiggy movement!"), and then goes on to specify some details about her makeup in Finnish. Here, the English phrase introduces the topic (a Twiggy-inspired makeup look) but does not direct the message to a particular community, nor provide any specific instructions for non-Finnish speaking followers. Thus, the use of English appears more of a stylistic choice, perhaps motivated by the topic (Twiggy being a British model). In (11), Hanna similarly introduces the topic of the post with the multilingual noun phrase "back problems galore". She then goes on to discuss a health issue first in Finnish, followed by an English translation of the main points. While providing an English summary of a Finnish text can be considered an instructional or a community-specific multilingual practice, the addition of the English "galore" in the otherwise Finnish title appears more of a stylistic choice, as the reader needs to be proficient in both English and Finnish to understand the multilingual expression.

Interestingly, Hanna was also the only influencer whose communication featured interjections in languages other than Finnish or English; namely,

Spanish (“Sí! / Yes!”) and Swedish (“Samma här! / Same here!”).⁵ Such interjections can also be considered stylistic, as they are common expressions, and did not function as translations of Finnish or English content. They could also be considered as instances of multilingual language play; these multilingual practices are creative and their motivations more social than pragmatic (Dubravac & Skopljak 2020: 64). Another way of conceptualizing such integration of words from different languages is the concept of *translanguaging* (e.g., García & Wei 2014; Pennycook 2017). Instead of viewing these practices as belonging to separate, labeled languages, they can be understood as dynamic, semiotic resources that are part of an influencer’s linguistic repertoire, and can be applied to different (local or global) contexts of social media communication (García & Wei 2014: 18, 22–23).

The influencers also used multilingual practices in a way that was closely tied to their chosen genre of content creation by incorporating English beauty-specific vocabulary or terminology in otherwise Finnish posts. This sometimes resulted in hybrid, “Finglish” formations:

- 12 *Shiftaa* eri värisenä eri valaistuksissa. (AT: “[It] shifts into different colours in different lighting.”) (Annie, January 2023).

In (12), Annie integrates the English verb “shift” into a Finnish product description. Such multilingual practices may be related to the prevalence of English in the online beauty space. It is worth noting that the influencers themselves may not consider these genre-specific uses as “English” – rather, they may be seen as “new” formations that are part of the shared linguistic repertoire of the international beauty community (García & Wei 2014: 21; Eckert & McConnell-Ginet 1992). In some cases, the use of English beauty terminology may also be motivated by the fact that Finnish translations are cumbersome or simply do not exist (see Limatius 2023).

Finally, I also observed instructional multilingual practices in the influencers’ Instagram posts. Similarly to community-specific multilingual practices, instructional practices could be observed in captions that featured both Finnish and English. They were present in summaries or direct translations of the “main point” of the post:

5 Maria also used a Swedish hashtag (#midsommar) once.

- 13 Uusi video YouTubella, linkki kanavalle profilissa! Kerrohan myös et minkä meikkiasian kanssa sinä kamppaillet, niin voin laittaa sen listan jatkoksi. [...] *I uploaded a new video on my Finnish YouTube channel. This one is about eyebrows.* (AT “New video on YouTube, link to my channel in profile! Also, let me know which makeup issue you struggle with, so I’ll add it to the list [...] I uploaded a new video on my Finnish YouTube channel. This one is about eyebrows.”) (Annie, May 2020).

In (13), Annie promotes a new video on her YouTube channel. In the Finnish version of the caption, she tells her followers where to find the video, and asks them to submit their video requests. The English translation is more compact. Its main function appears to be explaining the point of the post, so that followers who do not speak Finnish are not left wondering. While the caption also has community-specific functions – Finnish speakers are instructed to act in specific ways while English speakers are not – the purpose of the post is explained in both languages, unlike in examples (8) and (9), where Finnish was only used to provide additional information, without any summary or explanation of the surrounding English content. Some influencers in the data – Enni and Hanna in particular – often wrote long captions in one language, followed by a shorter translation that explained the content of the post in the other language. Interestingly, changes in such multilingual practices could be observed over time. In the next section, I will discuss the ways in which the influencers’ multilingual practices appeared to have evolved between 2020 and 2023.

4.2.2 Changes between 2020 and 2023

Out of the six influencers studied, four featured English less prominently on their Instagram accounts in 2023 compared to 2020. Interestingly, Elliroosa and Maria, who otherwise favored Finnish consistently, began using English in one specific context: the newly launched Instagram Reels. Cece was the only influencer whose language choice stayed the same – she posted consistently in English in both 2020 and 2023.

Annie and Enni had posted predominantly in English in 2020, but in 2023, both had shifted to posting mostly in Finnish. In Annie’s case, some stylistic code-switching remained, as well as occasional English hashtags, but she no

longer provided instructional translations of the post content in English. Enni had used English extensively in 2020, only opting for Finnish in posts that were collaborations with Finnish brands and photographers or featured specifically Finnish products and topics. By 2023, Enni no longer prioritized English in the same way, although she did post two captions that were entirely in English during the observation period. For the most part, however, English was only present in occasional hashtags and in Reels videos that had an English audio track. Interestingly, Hanna's posting style already changed during 2020 – she went from posting predominantly in English to prioritizing Finnish as the year progressed (see also Limatius 2023). In 2023, Hanna posted mostly in Finnish, but with some stylistic English use and English hashtags, as well as English audio tracks in Reels.

Indeed, the launch of Reels appeared relevant in terms of multilingual practices, as influencers who otherwise prioritized Finnish started including some English elements through the introduction of Reels. In Maria's case, all her posts during the 2023 observation period were Reels. While she had included some English hashtags in her photo posts in 2020, all her captions had been in Finnish. In 2023, she used English audio tracks in some of her Reels, thus introducing new forms of multilingual content:

- 14 **Reel audio:** I got this little container to organize my craft stuff and I'm feeling so organized. Yay! **Captions superimposed on the video:** I got this little container to organize my cosmetics and I'm feeling so organized. **Post caption:** *Kosmetiikkakaaoksen järjestely on loppuelämän työmaa.* 🗂️ It is what it is. 😊 #kaaos #kosmetikka #kauneustubettaja #järjestely (AT: "Organizing the cosmetics chaos is enough work for the rest of one's life. 🗂️ It is what it is. 😊 #chaos #cosmetics #beautyoutuber #organizing"). (Maria, February 2023).

The example in (14) illustrates the multiple layers of meaning-making in a multilingual Reel post. Maria has used an English audio track where another person is talking about organizing their "craft stuff". She applies the audio to a new context, which is constructed multimodally. On the humorous video clip, Maria is shown throwing a small container towards a large, messy collection of cosmetics on a desk, and in the English captions superimposed over the video, the words "craft stuff" from the original audio have been replaced by

“cosmetics”. In the written caption of the Reel post, she has included a Finnish statement about the troubles of keeping organized, followed by stylistic code-switching with the English expression “it is what it is”, and Finnish hashtags. While the video by itself is understandable to any Instagram user who speaks English, the Finnish caption and hashtags connect it to more local communities and identities.

Similar to Maria, Elliroosa’s content mostly focused on Reels in 2023. While she had utilized English in hashtags and some comments in 2020, these practices were rare in 2023, only appearing in one post and one comment respectively. However, the advent of Reels had again brought with it some new multilingual practices. Similarly to Maria, Elliroosa utilized English audio tracks in her Reels. In addition, her Finnish speech that appeared as audio for some of the Reels also consistently featured English beauty terminology (e.g., “contour”, “bronzer”, “setting spray”, “glowy”). While these terms have existing Finnish equivalents, as discussed in Section 4.2.1, this type of multilingual practice likely results from English terms becoming part of the shared linguistic repertoire of the beauty community, not from influencers’ personal language attitudes.

5. Conclusion

As the analyses presented in this chapter illustrate, the multilingual practices of social media influencers are diverse and dynamic. Social media itself is never stagnant, but constantly evolving. Influencers, perpetually balancing on the line between personal and professional, need to be willing to adapt to new trends and algorithmic changes, and to develop their content, including linguistic practices, accordingly.

In the case of the present study, both the questionnaire and Instagram data indicate a shift towards prioritizing the use of the Finnish language over English among Finnish beauty influencers. An interesting exception to this trend were the Reels videos, where the use of English audio tracks introduced new ways of constructing multilingual, multimodal content. Such audio tracks can be viewed as a shared linguistic resource among Instagram users from various social and cultural backgrounds, taken from their original context, modified, and recontextualized to create new meanings in more specific, local communities (e.g., Leppänen *et al.* 2013). In terms of language use produced

by the influencers themselves, however, English appeared to have taken a less central role by 2023. In their questionnaire responses, the influencers framed this change as a strategic move to improve brand relationships and audience reception in the local, Finnish context. However, the technological affordances of social media platforms, such as advances in automatic translation (e.g., Kytölä 2023: 185–6) also have their role to play, as illustrated the respondent in (6). In the future, the significance of such affordances in the context of influencer communication should be studied in more detail. As the accuracy of social media algorithms improves, influencers' content may reach more targeted audiences, and they can adjust their language practices accordingly.

Throughout the analyses of the two datasets, the ways influencers carefully think about their linguistic practices and use them professionally are highlighted. This is particularly interesting as the legitimacy of influencer work is often questioned in mainstream media discussions (e.g., Droz-dit-Busset 2022). The results of the present study illustrate influencers' strategic approach to communication – choosing the right language or combining elements from different languages in specific ways can thus be viewed as professional resources.

Even though commercial motivations were emphasized in the influencers' questionnaire responses, the effects of language ideologies were also present. Both English and Finnish use were discussed in terms of accessibility, and the influencers also talked about their personal language preferences. In the Instagram data, the presence of creative language play and the construction of identities through shared beauty community vocabulary demonstrate that multilingual practices are an important communicative resource for influencers. At the same time, the move towards prioritizing Finnish that was explicitly articulated in the questionnaire data and reflected in the Instagram data may also be connected to shifting language-ideological stances (e.g., Leppänen & Pahta 2012; Mortensen 2023). For example, based on the questionnaire responses, many influencers seemed to equate “Finnishness” with the Finnish language. However, more in-depth interviews with influencers are needed to study the role of language ideologies in influencer communication in more detail. Another theme that warrants further investigation is the central role of the audience. As influencers appear likely to change their linguistic practices based on audience reception, future studies could examine the language attitudes among these audiences. For example, do the audience

members have ideological motivations for voting in favor of an influencer changing their bilingual social media content to monolingual?

This chapter has added a new perspective to research on influencer communication, which has previously mainly focused on the construction of authenticity and relatability. Through a discourse-centered online ethnography approach (Androutsopoulos 2008), the study has zoomed in on language choice and multilingual practices from two perspectives, combining questionnaire data with ethnographic observation of Instagram communication. However, the chapter is limited by its focus on a small group of influencers who operate within a specific genre: the Finnish online beauty community. In the future, quantitative studies focusing on larger datasets are needed to explore broader trends and changes in influencers' multilingual practices. In addition, comparing the linguistic practices of beauty influencers with another category of content creators may be relevant. Notably, all the participants of the present study were women in their 20s or 30s, and previous research has demonstrated some gender-based differences in language choice on social media (e.g., Coats 2019). As such, investigating language choice and multilingual practices within a genre that includes more male and/or non-binary influencers is another potential topic for a future study. However, despite its limitations, the present study sheds light on the language-related factors influencers need to consider when crafting their social media presence. In addition, it highlights the benefits of discourse-centered online ethnography as a methodological approach to investigating social media work.

Bibliography

Primary sources

- Cece Bombshell. (@cece_bombshell). Instagram. https://www.instagram.com/cece_bombshell/
- Hanna (@hannamariaw). Instagram. <https://www.instagram.com/hannamariaw/>
- Heikka, Elliroosa (@elliroosa). Instagram. <https://www.instagram.com/elliroosa/>
- Maria Glow (@mariaglow). Instagram. <https://www.instagram.com/mariaglow1/>
- Muukka, Annie (@anniemuukka). Instagram. <https://www.instagram.com/anniemuukka/>
- Remes, Enni (@ennireme5). Instagram. <https://www.instagram.com/ennireme5/>

Secondary sources

- Abidin, Crystal 2016. 'Aren't these just young, rich, women doing vain things online?': Influencer selfies as subversive frivolity. *Social Media + Society* 2 (2). <https://doi.org/10.1177/2056305116641342>
- Abidin, Crystal 2018. *Internet Celebrity: Understanding Fame Online*. Bingley: Emerald Publishing Limited.
- Androutopoulos, Jannis 2008. Potentials and limitations of discourse-centred online ethnography. *Language@Internet* 5, article 8. <https://www.languageatinternet.org/articles/2008/1610>
- Androutopoulos, Jannis 2014. Linguaging when contexts collapse: Audience design in social networking. *Discourse, Context & Media* 4–5: 62–73. <https://doi.org/10.1016/j.dcm.2014.08.006>
- Blackwood, Robert 2019. Language, images, and Paris Orly Airport on Instagram: Multilingual approaches to identity and self-representation on social media. *International Journal of Multilingualism* 16 (1): 7–24. <https://doi.org/10.1080/14790718.2018.1500257>
- Blommaert, Jan 2010. *The Sociolinguistics of Globalization*. Cambridge: Cambridge University Press.
- boyd, danah 2011. Social network sites as networked publics: Affordances, dynamics, and implications. *A Networked Self: Identity, Community and Culture on Social Network Sites*, ed. by Zizi Papacharissi. 39–58. New York and London: Routledge.
- Braun, Virginia & Victoria Clarke 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology* 3 (2): 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Clausnitzer, J. 2023, 17 November. Total population of Finland from 2017 to 2022, by age group. *Statista*. <https://www.statista.com/statistics/521152/population-of-finland-by-age/>
- Coats, Steven 2019. Language choice and gender in a Nordic social media corpus. *Nordic Journal of Linguistics* 42 (1): 31–55. <https://doi.org/10.1017/S0332586519000039>
- Dencheva, Valentina 2023, 28 June. Distribution of Instagram influencers worldwide in 2022, by category. *Statista*. <https://www.statista.com/statistics/1123051/instagram-influencers-share-world-category/>
- Droz-dit-Busset, Olivia 2022. "So-called influencers": Stancetaking and (de)legitimation in mediatized discourse about social media influencers. *Discourse, Context & Media* 49: 100629. <https://doi.org/10.1016/j.dcm.2022.100629>
- Dubravac, Vildana & Nadja Skopljak 2020. Foreign and multilingual language play on social media as an identity marker. *Journal of Multicultural Discourses* 15 (1): 61–79. <https://doi.org/10.1080/17447143.2019.1701678>
- Eckert, Penelope & Sally McConnell-Ginet 1992. Think practically and look locally: Language and gender as community-based practice. *Annual Review of Anthropology* 21: 461–90.
- García, Ofelia & Li Wei 2014. *Translanguaging: Language, Bilingualism and Education*. Basingstoke and New York: Palgrave Macmillan. <https://doi.org/10.1057/9781137385765>
- Gergalou, Mariza 2021. New Greek migrant (dis)identifications in social media: Evidence from a discourse-centred online ethnographic study. *Humanities and Social Sciences Communication* 8 (155). <https://doi.org/10.1057/s41599-021-00831-9>

- Greive, Craig 2018, 27 July. The influencer's new clothes: Fake followers, engagement and accountability in influencer marketing. *Forbes*. <https://www.forbes.com/sites/forbesagencycouncil/2018/07/27/the-influencers-new-clothes-fake-followers-engagement-and-accountability-in-influencer-marketing/>
- Hudders, Liselot & Steffi De Jans 2022. Gender effects in influencer marketing: an experimental study on the efficacy of endorsements by same- vs. other-gender social media influencers on Instagram. *International Journal of Advertising* 41 (1): 128–149. <https://doi.org/10.1080/02650487.2021.1997455>
- Hurley, Zoe 2019. Imagined affordances of Instagram and fantastical authenticity of female Gulf-Arab social media influencers. *Social Media + Society* 5 (1):1–16.
- Institute for the Languages in Finland. On language – Languages in Finland. https://www.kotus.fi/en/on_language/languages_of_finland. Accessed 28 Nov 2023.
- Isotalu, Pekka 2023. Aristoteleesta somepersoonaan: Sosiaalisen median vaikuttajat vanhojen vaikuttamisen teorioiden näkökulmasta. *ProComma Academic: Vaikuttava viesintä*, ed. by Hanna Reininkainen & Salla-Maaria Laaksonen. 29–45. Helsinki: ProCom – Viestinnän ammattilaiset.
- Jerslev, Anne 2016. In the time of the microcelebrity: Celebrification and the YouTuber Zoella. *International Journal of Communication* 10 (19): 5233–5251.
- Kim, Bokyung, Seoyeon Hong, & Hyunmin Lee 2021. Brand communities on Instagram: Exploring Fortune 500 companies' Instagram communication practices. *International Journal of Strategic Communication* 15 (3): 177–192. <https://doi.org/10.1080/1553118X.2020.1867556>
- Kováčová, Dominika 2021. Becoming #Instafamous: The analysis of (in)formality in self-presentation on Instagram. *Internet Pragmatics* 5 (1): 12–37. <https://doi.org/10.1075/ip.00069.kov>
- Kytölä, Samu 2023. Metapragmatics of “bad” English in Finnish social media. *English in the Nordic Countries: Connections, Tensions, and Everyday Realities*, ed. by Elizabeth Peterson & Kristy Beers Fägersten. 185–203. London: Routledge.
- Lee, Carmen 2016. *Multilingualism online*. London: Routledge. <https://doi.org/10.4324/9781315707211>
- Lee, Carmen & Dennis Chau 2018. Language as pride, love, and hate: Archiving emotions through multilingual Instagram hashtags. *Discourse, Context & Media* 22: 21–29. <https://doi.org/10.1016/j.dcm.2017.06.002>
- Leppänen, Sirpa & Päivi Pahta 2012. Finnish culture and language endangered – Language ideological debates on English in the Finnish press from 1995 to 2007. *Dangerous Multilingualism: Northern Perspectives on Order, Purity and Normality*, ed. by Jan Blommaert, Sirpa Leppänen, Päivi Pahta, & Tiina Räisänen. 142–175. Basingstoke and New York: Palgrave Macmillan.
- Leppänen, Sirpa *et al.* 2013. Entextualization and resemiotization as resources for (dis)identification in social media. *Tilburg Papers in Culture Studies* 57. <https://research.tilburguniversity.edu/en/publications/entextualization-and-resemiotization-as-resources-for-disidentifi>
- Limatius, Hanna 2023. Examining the multimodal and multilingual practices of Finnish social media influencers. *Multilingualism from Manuscript to 3D: Intersections of Modalities from Medieval to Modern Times*, ed. by Matylda Włodarczyk, Jukka Tyrkkö, & Elżbieta Adamczyk. New York: Routledge. <https://doi.org/10.4324/9781003166634-11>

- Meer, Dorothee & Katharina Staubach 2020. Social media influencers' advertising targeted at teenagers: The multimodal constitution of credibility. *Visualizing Digital Discourse: Interactional, Institutional and Ideological Perspectives*, ed. by Crispin Thurlow, Christa Dürscheid, & Federica Diémoz. 245–270. Boston and Berlin: De Gruyter Mouton. <https://doi.org/10.1515/9781501510113-013>
- Mohr, Susanne 2022. Investigating English in multilingual contexts online: Identity construction in geotagged Instagram data. *Frontiers in Communication* 6: 1–14. <https://doi.org/10.3389/fcomm.2021.778050>
- Mortensen, Janus 2023. Beyond threat or opportunity: English and language ideological tensions in the Nordic countries. *English in the Nordic Countries: Connections, Tensions, and Everyday Realities*, ed. by Elizabeth Peterson & Kristy Beers Fägersten. 104–124. London: Routledge.
- Pahta, Päivi, Janne Skaffari, & Laura Wright, eds. 2017. *Multilingual Practices in Language History: English and Beyond*. Boston: De Gruyter.
- Pennycook, Alastair 2017. Translanguaging and semiotic assemblages. *International Journal of Multilingualism* 14 (3): 269–282. <https://doi.org/10.1080/14790718.2017.1315810>
- Pérez-Sabater, Carmen & Ginette Maguelouk Moffo 2019. Managing identity in football communities on Facebook: Language preference and language mixing strategies. *Lingua* 225: 32–49. <https://doi.org/10.1016/j.lingua.2019.04.003>
- Pöyry, Essi *et al.* 2019. A call for authenticity: audience responses to social media influencer endorsements in strategic communication. *International Journal of Strategic Communication* 13 (4): 336–351. <https://doi.org/10.1080/1553118X.2019.1609965>
- Reinikainen, Hanna *et al.* 2020. 'You really are a great big sister' – parasocial relationships, credibility, and the moderating role of audience comments in influencer marketing. *Journal of Marketing Management* 36 (3–4): 279–298. <https://doi.org/10.1080/0267257X.2019.1708781>
- Wiley, Danielle 2021, 8 March. What you need to know about working with nano influencers. *Forbes*. <https://www.forbes.com/sites/forbesagencycouncil/2021/03/08/what-you-need-to-know-about-working-with-nano-influencers/>
- Zappavigna, Michele 2018. *Searchable Talk: Hashtags and Social Media Metadiscourse*. London: Bloomsbury Academic.
- Zhou, Shuang *et al.* 2021. Social media influencers' narrative strategies to create eWOM: A theoretical contribution. *International Journal of Information Management* 59. <https://doi.org/10.1016/j.ijinfomgt.2020.102293>