Καλημέρα, kalimera or kalhmera?

*A mixed methods study of Greek native speakers’ attitudes to using the Greek and Roman scripts in emails and SMS*

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Abstract

Although language attitudes are frequently investigated, how these attitudes change over time is studied less frequently, despite providing an interesting window into the link between attitudes and ideologies. Conducted some twenty years since the first studies on this topic, the current study provides an updated perspective into language attitudes toward the use of Roman-alphabeted Greek (henceforth, Greeklish) in emails and SMS messages exchanged between Greek native speakers. Adapting the matched guise methodology commonly used in language attitude research to visual stimuli, we collected data from 60 participants of different ages and genders. Overall, their attitudes toward Greeklish were markedly negative, confirming negative attitudes already expressed twenty years prior but also extending them. We propose that technological and demographic but also ideological factors underlie the negative attitudes toward Greeklish expressed by Greek native speakers today.

Keywords

Roman-alphabeted Greek – Greeklish – Digitally-Mediated Communication
1 Introduction

Borrowing a script developed to write down the sounds of one language to represent those of another is a recurring phenomenon across human history. A well-known case is Korean, which was originally written using Classical Chinese characters (Coulmas 1989: 115), while, closer to the topic at hand, the Greek script has been used to write down a form of Turkish spoken by the Karamanlides, a Greek-Orthodox, Turkish-speaking people native to Eastern Anatolia (Aytac 2014: 1). More recently, transliteration, that is, the one-to-one mapping of the graphemes of one writing system onto those of another (Wellisch 1975: x), has been evidenced within the context of Digitally-Mediated Communication (henceforth DMC; Herring 2008: xxxvi), as speakers of languages not using the standard Roman character set supported by early internet technologies have needed to develop new and creative ways of writing to communicate online. This phenomenon has been studied for Hong Kong Cantonese (Lee 2007), Egyptian Arabic (Warschauer, El Said, & Zohry 2007; Palfreyman & Khalil 2007; Björnsson 2010), Russian (Mironovschi 2007), and Urdu (Shakeel, Karim, & Khan 2019). As regards Greek, Roman-alphabeted Greek, commonly known as Greeklish, emerged in the early days of the Internet to meet this need, while, as technological capabilities evolved, it became a frequent, additional means of transliteration available to Greek native speakers in Greece and abroad to communicate online and in SMS messages (Androutsopoulos 2000: 80; Tseliga 2003). Although in recent years the use of Greeklish has become less prevalent (Androutsopoulos 2009: 247; Lees, Politis, & Koutsogiannis 2017: 67), this unregulated spelling can still be detected in DMC platforms today.

This article explores the attitudes of Greek native speakers toward the use of Greeklish in DMC today. Considering that, compared with earlier decades, users of Greek now have the choice to type their messages in the original Greek script or in Greeklish, the indexicalities of these two alternative ways of writing Greek in the context of DMC, as well as native speakers’ attitudes toward them, seem worth investigating. To do this, we adapted the Matched Guise Technique developed within language attitude studies (Lambert et al. 1960) to visual stimuli and used it to elicit attitudes toward Greeklish in two platforms (email and SMS). In addition, we used a purpose-built questionnaire to elicit evaluations of Greeklish by Greek native speakers directly. By combining indirect and direct elicitation in this way, we were able to document a change in attitudes to Greeklish over time, from an originally positive or neutral stance reported in earlier studies, to an unambiguously negative one today, with little difference between the two platforms in this regard. The results of this mixed methods study thus
speak to the context-dependence of language attitudes and the fact that they are dynamically formed in response to particular language ecologies (in this case, the newly-introduced possibility to use the Greek script, as well as the expansion of DMC beyond its traditional base of internet users in the late 1990’s, following the success of new media such as SMS).

Section 2 sets the background for our study by reviewing existing literature on Greeklish and previous studies on attitudes toward it. Section 3 outlines our methodology, while section 4 presents the quantitative results of the matched guise test and the qualitative results of the questionnaire. These are compared with the findings of previous studies in section 5, while section 6 summarizes our conclusions, and discusses limitations of the current study and suggestions for further research.

2 Previous research on Greeklish

2.1 The emergence of Roman-alphabeted Greek (Greeklish)

The Roman script formed the basis of the American Standard Code for Information Interchange (ASCII code), which was established in the 1960s (Danet and Herring 2007: 9). The first computer systems operated on the aforementioned character set, which supported, apart from the basic Roman characters, some punctuation marks and a few digits and symbols (Tseliga 2007: 118). While favouring languages with a Roman alphabet-based writing system, the ASCII code caused problems for speakers of non-Roman-alphabeted languages (Koutsogiannis & Mitsikopoulou 2007: 144). Consequently, Greek-speaking computer users residing in Greece and abroad during the 1980s had no choice but to employ the Roman script in order to write Greek (Androutsopoulos 2009: 224). The Unicode Worldwide Character Standard, which was developed later, supported a wide range of scripts and languages, including Greek (Tseliga 2007: 118; John 2013). However, the switch from typing in Roman characters to typing in Greek did not happen overnight: since some hardware and software constraints continued to persist, not everyone had access to the aforementioned character-encoding system, and users continued to use the Roman alphabet throughout the 1990’s (Androutsopoulos 2009: 224). Although mainly a feature of email and online chat communication, Greeklish was also featured in the formal electronic communication of government departments and universities into the late 1990’s (Koutsogiannis & Mitsikopoulou 2007:144), who used it in newsletters and formal university announcements (Androutsopoulos 2009: 225). It was also initially used in SMS texts by Greek mobile phone users, since the Greek script was not yet supported, while the Roman script was the most widespread.
script was pre-installed in most mobile phone devices (Laghos, Masoura, & Skordi 2012: 2). Familiarity with English, both on- and offline, also made Greeklish popular with younger generations (Koutsogiannis 2012: 886), with whom this type of spelling has been mainly associated (Koutsogiannis & Mitsikopoulou 2007: 144; Xydopoulos, Tzortzatou & Archakis 2019: 420).

2.2 Transliteration patterns

A dominant feature of Greeklish is its heightened variability, that is, the fact that many Greek graphemes representing both vowels and consonants, as well as combinations of these, such as digraphs and diphthongs, can be rendered in more than one way (Androutsopoulos 1998: 51–52). This heterogeneity can be attributed to the absence of a commonly accepted transliteration pattern, leading individuals to make idiosyncratic choices when composing their messages (Androutsopoulos 2000: 75). By 1998, different transliteration patterns had emerged for use within certain fields, such as linguistics and library science (Androutsopoulos 1998: 58).

Androutsopoulos (1998: 52) identifies two main transliteration patterns, a phonetically-based one and an orthographically-based one. The first one is based on correspondences between Greek phonemes and Roman characters (Androutsopoulos 2009: 232), only some of which coincide with official transliteration systems, such as the ELOT-standard, or academic ones, such as the standard of classical philology and/or linguistics (Androutsopoulos 1998: 52). Given that this pattern is based on sound resemblance (Chalamandaris et al. 2006: 1226), it considerably simplifies Greek historical orthography, especially as concerns the representation of vowels. For instance, the six different grapheme (combinations) ⟨ι⟩, ⟨η⟩, ⟨υ⟩, ⟨ει⟩, ⟨οι⟩, ⟨υι⟩, which stand for the sound /i/ in Modern Greek, are all represented in this transliteration pattern by the Roman symbol ⟨i⟩ (Androutsopoulos 1998: 53, 2009: 232).

On the contrary, the orthographic transliteration pattern retains Greek orthographic conventions and is based on correspondences between Greek and Roman graphemes (Androutsopoulos 1998: 53). This pattern is further divided into two sub-patterns, the visual one and the keyboard-based one. In the visual sub-pattern, Greek graphemes are rendered using Roman characters which are visually similar in shape, including numbers. For instance, the grapheme ⟨ω⟩, which corresponds to the phoneme /o/, is replaced by the Roman character ⟨w⟩. If a visually similar character is unavailable, Greek graphemes are represented by similar-looking numerals. For instance, the grapheme ⟨θ⟩, which stands for the sound [θ], is transliterated using the number ‘8’ (Androutsopoulos 2009: 232). In the keyboard-based sub-pattern, users transliterate according to the location of the characters on the keyboard, result-
ing in typing on a Roman-based keyboard the same way one would type on a Greek one (Tseliga 2003: 71). For instance, the Greek grapheme ⟨υ⟩, which corresponds to the phoneme /i/, is replaced by the Roman character ⟨y⟩. Although individuals may opt for any of the aforementioned transliteration patterns or sub-patterns (Chalamandaris et al. 2006: 1226), it is also quite common to mix them within a single message (Androutsopoulos 1998: 55).\footnote{While mixing of different Romanized transliteration patterns occurs in Greek DMC, another possibility, namely the mixing of native and Roman scripts, which is common in Chinese, Japanese, and Korean writing, is not found in Greek (at least, inasmuch as it would be visible, given the partial overlap between Greek and Roman scripts). When such mixing occurs, this is done to fulfil specific communicative needs (e.g., to write a word, often a name, that cannot be adequately represented in the other script) and as such, it occurs across, not within, word boundaries taking the form of what we might call a 'visual code-switch.' We thank an anonymous reviewer for raising this possibility and prompting us to add this clarification.}

This aligns with the characterization of Greeklish as a culture-bound phenomenon which eschews standardization, fostering creative uses of spelling instead (Tseliga 2007: 137). Both linguistic and extralinguistic factors play a role in users’ choices of (a) transliteration pattern(s) (Androutsopoulos 1998: 55). The grammatical function of the word or morpheme as well as the phonological environment, which seem to favour the phonetic transliteration pattern, belong to the former category, while gender, educational background, occupation as well as the relationship between sender and receiver belong to the latter (Androutsopoulos 1998: 55–58).

2.3 Greeklish usage

Since the Roman and Greek scripts are used to graphematically represent the same language, Greek, in two different ways (Tseliga 2007: 117), Greeklish can be considered a case of digraphia, defined by Coulmas (2003: 231) as “the use of two different scripts, writing systems or orthographies for the same language”. Androutsopoulos (2009: 227) proposes the term “computer-mediated digraphia” to specify that Greeklish occurs in the context of computer-mediated communication only.

The earliest studies regarding the use of Greeklish in DMC appeared in the late 1990’s. Androutsopoulos (1998) was the first to document its use in email correspondence, while in a subsequent study (Androutsopoulos 2000), he found that Greeklish continued to be the norm among email users residing in Greece and abroad. Similarly, in Tseliga (2002), most Greek native speakers reported writing emails predominantly or even exclusively in Greeklish, a finding confirmed in Tseliga (2003). This trend was not particularly long-lived.
Investigating the choice of script by Greek adolescent/young mobile phone users, Spilioti (2007) found that almost all of the messages were typed in Greek, especially among users who texted frequently and were not particularly familiar with other platforms, while the limited number of participants who used Greeklish were better acquainted with technology and did not text very frequently. In a different study, Moustaka et al. (2010) found a split between secondary school students, many of whom employed Greeklish in their emails and SMS messages, and their Greek literature teachers, most of whom reported that they did not. Most recently, Xydopoulos et al. (2019) found that primary school students in Greece use Greeklish in emails, on mobile phones and on social media, while their parents and teachers use it to a very limited extent. Apart from email correspondence and SMS messages, Greeklish has also been evidenced in a variety of platforms, such as chat rooms (Moustaka et al. 2010; Koutsogiannis 2015), forums (Moustaka et al. 2010), on Facebook (Lees et al. 2017), in e-chat IRC exchanges (Goutsos 2005), and on YouTube (Laghos et al. 2012). Koutsogiannis (2015) found that students used Greeklish in chat rooms and on Facebook more than they did in SMS messages.

Transnational and diasporic communities seem to especially favour similar informal transliterations (Androutsopoulos 2006: 429). Early instances of Greeklish use include email exchanges between Greeks residing in the U.K. (Georgakopoulou 1997), and online chat between adolescents/young adults and second/third generation immigrant children and students in Germany (Androutsopoulos & Hinnenkamp 2001). Greeklish is also used by Greek Cypriots residing in Cyprus and abroad to represent Cypriot Greek, which is phonologically distinct from Standard Modern Greek, in online chat (Themistocleous 2009, 2010, 2013) and on Facebook (Sophocleous & Themistocleous 2014).

2.4 Attitudes to Greeklish

In addition to studies documenting the use of Greeklish on various new media, a few studies have investigated the attitudes of Greek native speakers toward Greeklish in the context of DMC. Using an electronically distributed questionnaire, Androutsopoulos (2000) concluded that participants found writing emails in Greeklish easier and faster, a view echoed by the participants in Tseliga’s (2002) e-mail questionnaire survey. In a follow-up study using an interview methodology, Tseliga (2003) found that email users of the orthographic transliteration pattern regarded Greeklish as a playful, challenging, and attractive linguistic novelty, and respondents overall found this type of spelling easier, faster, and more convenient, a view echoed by participants in Spilioti (2007) and Koutsogiannis (2015). The view that Greeklish allows composing messages rapidly was also expressed by secondary school students.
in the questionnaire survey of Moustaka et al. (2010), and in the questionnaire and interview surveys of Lees et al. (2017). In the most recent study, by Xydopoulos et al. (2019), primary school students also expressed a positive attitude toward Greeklish, finding it useful for writing on computers and mobile phones, especially since no spelling mistakes can be made, a view shared by participants in the studies by Moustaka et al. (2010), Koutsogiannis (2015), and Lees et al. (2017). Using a social treatment approach, which tracked attitudes to Greeklish in texts published in various Greek newspapers, Koutsogiannis and Mitsikopoulou (2007) found that, for some authors, one of the positive features of Greeklish is that it fosters creativity and serves as an in-group-identity marker.

These generally positive attitudes toward Greeklish are not unanimous. In Tseliga’s (2003) study, Greeklish, especially the phonetic transliteration pattern, was thought to be used to cover up email users’ spelling mistakes, which may not be unrelated to some participants’ negative attitudes toward Greeklish in that study. Phonetic Greeklish in particular was regarded as aesthetically distasteful and annoying—even “monstrous” (Androutsopoulos 2009)—and as an unconventional way of writing that obstructs and impairs the quality of communication among Greeks (Tseliga 2002), echoing similar statements by participants in Androutsopoulos (2000). Interestingly, Androutsopoulos found that it was mainly the older respondents who considered Greeklish to be “ugly”, whereas younger participants did not necessarily agree. Furthermore, many participants considered Greeklish to be a “necessary evil”, whereas a few, mostly older, participants viewed it as a “problem” and a “threat” to the Greek language. This view was paralleled by a significant trend among authors in Koutsogiannis and Mitsikopoulou’s (2007) societal treatment study, who opposed globalization and modern technologies, and for whom Greeklish “attacks” and poses a threat not only to the Greek language but also to the Greek nation itself. Similar views were expressed in other studies (Moustaka et al. 2010, Koutsogiannis 2015; Lees et al. 2017; Xydopoulos et al. 2019), especially by teachers and students’ parents.

Further to criticisms of Greeklish as “ugly” and a “threat” to the Greek language, another reason why some participants expressed negative attitudes toward Greeklish was readability. In Androutsopoulos’s (2000) study, reading Greeklish was considered harder and more tiring than writing it, with older participants facing greater difficulties in this respect. Similar views were expressed by participants in Tseliga (2002, 2003) and Lees et al. (2017). Participants made a difference between phonetic and orthographic transliteration patterns in this regard, considering orthographically transliterated Greeklish easier to read and to remember.
Finally, studies found that some participants remained neutral vis-à-vis the use of Greeklish, regarding it as a useful tool that suits them and assists them in their email communication (Tseliga 2002, 2003). Similarly, in Androutsopoulos (2000), the vast majority of email users agreed that Greeklish is “just an instrument” for email communication, a statement with which women agreed more than men. Similar statements were made by participants in Moustaka et al. (2010) and Lees et al.’s (2017) questionnaire-based studies, as well as in Koutsogiannis and Mitsikopoulou’s (2007) societal treatment study.

In sum, Roman-alphabeted Greek, or Greeklish, emerged early on in email communication among native speakers of Greek due to the technological limitations affecting the use of non-Roman scripts in the early days of the internet. In terms of transliteration, two main patterns can be identified: the phonetic one, based on phonetic resemblance, and the orthographic one, based on visual resemblance, with two sub-patterns, the visual and the keyboard-based one. Since the introduction of Unicode in the early 1990’s, which allows users to compose messages in their native scripts, Greeklish has continued to be used alongside the Greek script to type messages in Greek. Greeklish continues to be popular among the young and those living in diasporic communities, while teachers and parents report using it less. Users are also split to some extent along generational lines when it comes to attitudes toward Greeklish, with younger users finding it easier to use overall, and older users finding it not only harder to use but also uglier and a threat to the Greek language.

3 Methodology

3.1 Research design

In the studies summarized above, participants’ attitudes toward Greeklish were elicited directly, by means of interviews or questionnaires which explicitly ask participants their views about the topic under investigation. This may have resulted in the reproduction of normative attitudes, since direct elicitation of language attitudes is well-known to suffer from the social desirability and acquiescence biases common to much of social science research (Garrett 2010: 44–45). To obtain a comprehensive picture of attitudes to Greeklish, we opted to elicit Greek native speakers’ attitudes via a combination of direct (questionnaire) and indirect (matched guise) measures. To this end, we adapted the Matched Guise Technique—originally developed by Lambert et al. (1960) to
examine the effects of speech variation on stereotyping members of different ethnolinguistic groups (Lambert 1967: 93)—to study attitudes to scriptal variation (Spitzmüller 2012). One of the main benefits of this technique is that it allows a great degree of transparency to listeners’ “private emotional and conceptual reactions” (Lambert et al. 1965: 90). Participants are not asked to evaluate a particular way of using language directly, as in a questionnaire study, but rather the personality of a person using it. In this way, their evaluative reactions to it are probed with minimal interference by their metalinguistic awareness of what it is they are judging. To investigate attitudes toward different ways of writing a language (digraphia; see section 2.3), rather than listening to the same extract spoken in different language varieties or accents, participants in our study saw the same text in different spellings and were asked to evaluate the author of the text on various dimensions.

3.2 Materials

3.2.1 Stimuli

The present study investigated the use of Greeklish in emails and SMS. By investigating its use in two different platforms, we aimed to reach generalizable conclusions regarding attitudes to Greeklish that are not restricted to one or the other platform. Original email and SMS messages were retrieved from exchanges between the first author and her friends, and three emails and three SMS messages, each written by a different person, were selected to serve as stimuli. In the emails, the sender provided the recipient with some information about a city that the former had visited in the past. In the SMS texts, the sender suggested making plans together with the recipient.

Since all of the texts had originally been written in the Greek script, they were rendered in Roman characters using the two transliteration patterns introduced in Section 2.2, creating three manipulations or “guises”: Greek, Greeklish-Ph(onetic) and Greeklish-O(rthographic). The emails and SMS messages were minimally adapted to be comparable in text length and the number of selected Romanized characters occurring across their three guises, while in all other respects (punctuation, abbreviations used) they were unchanged from the originals. The number of words in each message was kept constant between 35 and 40 words. Additionally, graphemes and grapheme combinations which are rendered differently in the two transliteration patterns were controlled so as to occur with equal frequency across the three emails and across the three SMS messages. Specifically, the frequency of eight graphemes was kept constant across the three emails and across the three SMS. For the emails, these were the three vowel graphemes ⟨ε, ο, υ⟩, three vowel digraphs ⟨ει, οι, αι⟩ and two consonant graphemes ⟨χ, β⟩, while for the SMS, they were the three vowel graphemes ⟨ε, ο, υ⟩, three vowel digraphs ⟨ει, οι, αι⟩ and two consonant graphemes ⟨χ, β⟩.
| Greek graphemes | Greeklish-Ph (source) | Greeklish-O (source) | Occurrences per email | Occurrences per SMS |
|----------------|-----------------------|----------------------|-----------------------|---------------------|
| η              | i (Androutsopoulos 2009) | h (Androutsopoulos 1998) | 6                     | 4                   |
| υ              | i (Androutsopoulos 2009) | y (Androutsopoulos 1998) | 3                     | 2                   |
| ω              | o (Androutsopoulos 2009) | w (Tseliga 2003) | 4                     | 4                   |
| αι             | e (Androutsopoulos 1998) | ai (Androutsopoulos 1998) | 3                     | 3                   |
| ει             | i (Androutsopoulos 2009) | ei (Androutsopoulos 2009) | 6                     | 4                   |
| οι             | i (Androutsopoulos 2009) | oi (Androutsopoulos 2009) | 1                     | -                   |
| ου             | u (Androutsopoulos 2009) | oy (Androutsopoulos 2009) | –                     | 2                   |
| β               | v (Androutsopoulos 2009) | b (Androutsopoulos 2009) | 1                     | 1                   |
| μπ             | b (Androutsopoulos 1998) | mp (Androutsopoulos 1998) | –                     | 1                   |
| χ               | h (Tseliga 2003) | x (Androutsopoulos 2009) | 3                     | -                   |

⟨ν, ω, υ⟩, three vowel digraphs ⟨οι, ει, ου⟩, the consonant grapheme ⟨β⟩, and the consonant digraph ⟨μπ⟩. The critical graphemes used in the stimuli along with the number of times they occurred in each email and SMS message are shown in Table 1.

To enhance the ecological validity of the results, in the online survey used to collect the data, the email messages were presented as a screenshot of an email user’s computer screen and the SMS messages as a screenshot of a mobile phone, respectively. An example of an email message in the three guises followed by an English translation is shown in figures 1a–d below, followed by an example of an SMS message in figures 2a–d (for the full list of stimuli, see Appendix A).
Λέει σου! Το Δουβλίνο είναι μικρό εποικίας έχες μέρες να το απολαύσεις ας’ άκρη σ’ άκρη όσο είσαι εκεί. Εγώ πήγα στους κοντινούς προορισμούς γιατί δεν μπορούσα οικονομικά δυστυχώς να στηρίξω άλλα ταξίδια, αν και θα το ήθελα!

Καληνύχτα!

**FIGURE 1A** Email example: Greek guise

Anna,

geia sou! To Doulvino ine mikro epomenos ehis meres na to apolalasis ap’ akri s’ akri oso ise eki. Ego piga stus kontinos proorismus giati den borusa ikonomika distihs na stirikso alla taksidia, an ke tha to ithela!

Kalinihta!

**FIGURE 1B** Email example: Greeklish-Ph guise

Anna,

geia sou! To Douvlinio einai mikro epomenws exeis meres na to apolayeis ap’ akrh s’ akrh oso eisai ekei. Ego phga stous kontinos proorismous giati den mpourousa okonomika dystyxxws na sthriksw alla taksidia, an kai tha to lthela!

Kalhnyxta!

**FIGURE 1C** Email example: Greeklish-O guise

Anna,

hi! Dubling is so small that you’ve got plenty of days to enjoy it while you’re there. Unfortunately, I only visited the places nearby because I couldn’t afford any more trips, even though I would love to!

Goodnight!

**FIGURE 1D** Email example: English translation (not seen by the participants)
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Figure 2a
SMS example: Greek guise

Figure 2b
SMS example: Greeklish-Ph guise

Figure 2c
SMS example: Greeklish-O guise

Figure 2d
SMS example: English translation (not seen by the participants)
3.2.2 Rating task design

After reading the three email and three SMS messages in only one of their guises each, participants were asked to indicate on a Likert scale the degree to which the authors of the messages possessed a number of traits. To determine which traits were more appropriate to use in this matched guise task, a pilot study with eight participants of different genders and ages was conducted. It consisted of three surveys, in which the three emails appeared first, followed by the three SMS messages. Each survey contained three different emails in a different spelling each, and three different SMS messages, also in a different spelling each. No email or SMS message appeared more than once in the same survey. The structure of the pilot thus reflected that of the main matched guise task (see Section 3.4 below) except for the last part: after reading each email/SMS message, in the pilot study respondents did not evaluate the author of the message but were rather asked to choose among 11 adjectives those that best described the author. These adjectives were drawn from a pool of adjectives used in previous studies on English. In follow-up discussion, participants were asked whether they had found any of the adjectives hard to understand or inappropriate, as well as what characteristics they themselves would attribute to someone who writes in Greeklish. The findings of this pilot study were combined with those of previous studies to yield the final set of adjectives used in the rating task, making sure that the selected adjectives reflected the three dimensions of superiority, attractiveness and dynamism identified by Zahn and Hopper (1985) as the most common organizing dimensions used in matched guise studies overall. In total, eight adjectives were selected, five representing a negative trait and three representing a positive one (Table 2).

3.3 Participants

Adult native speakers of Greek were recruited using the snowball sampling technique (Biernacki & Waldorf 1981). In total, 60 participants completed the online survey. Tables 3–5 show their gender, age and educational background, as reported by them at the end of the survey (Appendix B).

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3 Since a direct translation of the English term did not always capture the same content as the Greek term, a selection of the best translational equivalents of the English terms in Greek was made.
## Table 2  
Greek adjectives used in the matched guise task

| Dimension   | Greek term used | English equivalent |
|-------------|-----------------|--------------------|
| Superiority | καλλιεργημένος/ἡ | cultivated         |
|             | ὑπερόπτης        | arrogant           |
| Attractiveness | συμπαθητικός/ἡ | likeable          |
|             | ἀπότομος/ἡ       | curt               |
| Dynamism    | βιαστικός/ἡ     | hasty              |
|             | εξωστρεφής        | outgoing           |
|             | συντηρητικός/ἡ   | conservative       |
|             | τεμπέλης/α       | lazy               |

## Table 3  
Participants by gender

| Gender | Participants |
|--------|--------------|
| Men    | 12           |
| Women  | 48           |
| Total  | 60           |

## Table 4  
Participants by age

| Age   | Participants |
|-------|--------------|
| 18–25 | 20           |
| 26–35 | 24           |
| 36–50 | 8            |
| >50   | 8            |
| Total | 60           |
### Table 5  Participants by educational level

| Educational level       | Participants |
|-------------------------|--------------|
| Secondary education     | 4            |
| Undergraduate studies   | 38           |
| Postgraduate studies    | 18           |
| Total                   | 60           |

### 3.4 Procedure

#### 3.4.1 Matched guise rating task

As explained, the stimuli consisted of three emails and three SMS messages presented in three guises each (Greek, Greeklish-Ph and Greeklish-O) for a total of 18 guises. To limit fatigue, a block design was used, in which these 18 guises were distributed over six blocks consisting of three emails and three SMS messages each. Each participant saw only one block. In three of the blocks the email messages appeared first, and in the other three, the SMS messages appeared first. Within each block, the three emails appeared with a different spelling and their order was randomized; for instance, if the first email was written in Greeklish-Ph, the second one was written in Greek and the third in Greeklish-O; and so on for the three SMS messages. Since the content was kept constant across the three emails (travel) and across the three SMS messages (making plans), any differences in participants’ ratings could be attributed to the different spelling used rather than to the content of the message, which was kept similar for each platform. The six blocks were designed using Qualtrics (https://www.qualtrics.com/) and embedded within a single survey that was distributed electronically. In this way, each email and SMS guise was seen by 20 participants, while no participant saw an email or SMS in more than one of its guises.

After clicking on the survey link, participants saw a consent form. Having agreed to participate, they could move on to the next page and begin the matched guise task. First, a message appeared in one of the three guises and participants were asked to write down their first impressions about the author of the message. On the following page, while the message remained on the screen, the rating scales for the eight adjectives appeared underneath it, allowing respondents to complete the rating task while still seeing the message. Here, participants were asked to evaluate the author of the message on the eight adjectives shown in Table 2, by choosing one of the options ranging from 1: not at all (καθόλου) to 6: very much (πάρα πολύ) (Fig. 3).
Having completed the matched guise rating task, participants were asked to speculate about the gender, age, and educational level of the message’s author, as well as to indicate whether they had any difficulty reading the message themselves. Lastly, they were asked whether they found anything strange in the message they had just read.

3.4.2 Questionnaire
The second part of the survey consisted of a questionnaire with both open and closed questions. Unlike the matched guise task just described, which elicited participant attitudes indirectly, this second part aimed to elicit information about participants’ demographic background, their email and SMS usage, their preferences regarding script use in these media, and their attitudes toward Greeklish directly (Appendix B). At the end of this questionnaire, participants were asked again whether they found anything strange in the messages they had read in the first part. The whole survey took about 25 minutes to complete.
4 Results

4.1 Matched guise task results

4.1.1 Author trait evaluations

As mentioned in Section 3.4.1, participants were asked to rate the email and SMS authors on a range of adjectives reflecting three dimensions: superiority (represented by the adjectives “cultivated” and “arrogant”), attractiveness (represented by the adjectives “likeable” and “curt”), and dynamism (represented by the adjectives “hasty”, “outgoing”, “conservative” and "lazy"). Table 6 shows the mean values for participant evaluations of the authors in the three guises. Overall, there were no statistically significant differences between participants based on gender, age, and educational level in these judgements (see Appendix C).

|          | Greek | Greeklish-O | Greeklish-Ph |
|----------|-------|-------------|--------------|
|          | Email | SMS         | Email        | SMS          | Email | SMS          |
| cultivated | 4.7   | 3.7         | 3.7          | 3.2          | 2.8   | 2.5          |
|           | (4.3–5.1) | (3.5–3.9) | (2.9–4.4)   | (3.0–3.5)   | (2.1–3.5) | (2.3–2.9) |
| arrogant  | 1.8   | 1.7         | 1.6          | 1.5          | 1.8   | 1.9          |
|           | (1.4–2.3) | (1.6–1.9)  | (1.4–1.9)   | (1.1–1.9)   | (1.5–2.2) | (1.6–2.2) |
| likeable  | 4.2   | 4.2         | 4.0          | 4.0          | 3.5   | 3.7          |
|           | (4.1–4.5) | (4.0–4.8)  | (3.2–4.4)   | (3.6–4.3)   | (3.1–4.2) | (2.9–4.6) |
| curt      | 2.0   | 2.2         | 1.9          | 2.2          | 2.3   | 2.6          |
|           | (1.7–2.4) | (1.7–2.6)  | (1.6–2.4)   | (2.0–2.5)   | (2.2–2.6) | (2.1–3.2) |
| hasty     | 2.5   | 3.3         | 2.7          | 3.7          | 3.5   | 3.8          |
|           | (1.8–3.2) | (2.0–4.0)  | (2.1–3.7)   | (3.3–4.1)   | (3.0–4.1) | (3.4–4.2) |
| outgoing  | 3.7   | 3.9         | 3.9          | 4.1          | 3.7   | 4.0          |
|           | (3.4–4.2) | (3.9–4.9)  | (3.6–4.2)   | (3.8–4.4)   | (3.1–4.3) | (3.6–4.8) |
| conservative | 2.4  | 1.9 (1.8–   | 2.0          | 2.0          | 2.0   | 2.0          |
|           | (1.9–2.7) | 2.2)       | (1.9–2.2)   | (1.9–2.1)   | (1.9–2.2) | (2.0–2.1) |
| lazy      | 1.6   | 2.2         | 2.2          | 2.6          | 2.8   | 3.1          |
|           | (1.5–1.9) | (1.6–2.7)  | (2.0–2.4)   | (2.0–3.0)   | (2.3–3.3) | (2.5–3.7) |
TABLE 7  Assumed author’s gender, age and educational level for authors using the Greek, orthographic Greeklish, and phonetic Greeklish transliteration patterns in emails and SMS (percent responses)

| Authors hypothesized to be ... | Greek | Greeklish-O | Greeklish-Ph |
|-------------------------------|-------|------------|--------------|
|                               | Email | SMS        | Email | SMS | Email | SMS |
| Women                         | 63.3  | 75         | 56.7  | 65  | 40    | 51.7 |
| Men                           | 37.7  | 25         | 43.3  | 35  | 60    | 48.3 |
| Aged 18–25                    | 13.3  | 18.6       | 36.7  | 30  | 51.7  | 38.3 |
| Aged 26–35                    | 60    | 39         | 50    | 38.3| 35    | 26.7 |
| Aged 36–50                    | 26.7  | 20.3       | 11.7  | 21.7| 8.3   | 21.7 |
| Aged >50                      | –     | 22         | 1.7   | 10  | 5     | 13.3 |
| Poorly educated               | 8.3   | 4.33       | 66.7  | 73.3| 65    | 50   |
| Highly educated               | 91.7  | 56.7       | 33.3  | 26.7| 35    | 50   |

As Table 6 shows, the biggest divergences in these judgements concern evaluations for “cultivated”: those using the Greek script were evaluated as more cultivated compared with users of Greeklish in both platforms. In this regard, a gradual decline in judgements is noted: while authors using the Greek script were regarded as the most cultivated and those using phonetic Greeklish as the least cultivated, those using orthographic Greeklish lay somewhere in between. We return to this finding below. Other divergences concern the likeability and hastiness of those using phonetic Greeklish, who were judged less likeable and more hasty irrespective of platform, and the laziness of SMS authors. This last finding may have to do with the more informal style of the SMS messages, which were originally exchanged between close friends and made use of abbreviations (e.g., “κ” for και = ‘and’).

4.1.2  Assumed authors’ gender, age and educational level

Having evaluated the authors on the eight adjectives above, participants were asked to speculate about their gender, age, and level of education. Table 7 shows the percentage breakdown of responses for each of these categories.

As Table 7 shows, the most striking discrepancy here concerns judgements regarding the educational level of the authors. The authors of messages typed in Greek were assumed almost unanimously to be highly educated, while judgements for those using Greeklish went the opposite way. In other words, using Greeklish negatively impacted assumptions about the author’s level of
education. This trend was more pronounced for authors of emails compared with SMS, suggesting that the latter were judged more tolerantly. This could be a result of the informality of the medium combined with the perceived informality of the content of these messages (see also Section 4.1.1). Other noticeable trends concern the estimated gender and age of the authors of messages in phonetic Greeklish, who were generally assumed to be younger men, irrespective of platform. This gender and age bias may well reflect stereotypes of young men as more technically minded and less observant of standard language norms.

### 4.1.3 Readability of the messages

In the last part of the matched guise task, participants were asked to rate the readability of the messages, ranging from “very easy” to “very difficult". Table 8 shows the percent participant responses for the email and SMS messages in the three guises broken down by participant age.

| Participant age | Reading difficulty | Greek | Greeklish-O | Greeklish-Ph |
|-----------------|---------------------|-------|-------------|--------------|
|                 | Email | SMS | Email | SMS | Email | SMS |
| 18–25           | Very easy | 75 | 55 | 25 | 25 | 10 | 10 |
|                 | Easy | 25 | 40 | 40 | 65 | 40 | 55 |
|                 | Rather difficult | – | 5 | 35 | 10 | 30 | 25 |
|                 | Very difficult | – | – | – | – | 20 | 10 |
| 26–35           | Very easy | 87.5 | 66.7 | 33.3 | 37.5 | 16.7 | 30.4 |
|                 | Easy | 4.2 | 20.8 | 41.7 | 45.8 | 37.5 | 39.1 |
|                 | Rather difficult | 8.3 | 12.5 | 25 | 12.5 | 45.8 | 21.7 |
|                 | Very difficult | – | – | – | 4.2 | – | 8.7 |
| 36–50           | Very easy | 62.5 | 37.5 | 37.5 | 12.5 | – | – |
|                 | Easy | 25 | 37.5 | 25 | 25 | 37.5 | 62.5 |
|                 | Rather difficult | – | 25 | 25 | 50 | 50 | 12.5 |
|                 | Very difficult | 12.5 | – | 12.5 | 12.5 | 12.5 | 25 |
| >50             | Very easy | 62.5 | 62.5 | 12.5 | 12.5 | 12.5 | 37.5 |
|                 | Easy | 25 | 12.5 | 37.5 | 37.5 | 37.5 | – |
|                 | Rather difficult | 12.5 | 25 | 37.5 | 37.5 | 50 | 62.5 |
|                 | Very difficult | – | – | 12.5 | 12.5 | – | – |
As Table 8 shows, messages typed in Greek were, unsurprisingly, found to be “very easy” to read by the majority of respondents in all age groups. However, readability drops for messages typed in Greeklish. Messages typed in Greeklish were found to be increasingly difficult to read as we shift from orthographic to phonetic Greeklish, and this difficulty increases with participant age. Messages in phonetic Greeklish, in particular, were found to be “difficult” to read half the time or more by the oldest participants (>50), irrespective of platform.

Summing up, the quantitative analysis of participant responses to the matched guise part of the survey reveals that participant attitudes toward messages typed in Greeklish are overall rather negative. This negativity manifests itself primarily in relation to judgements regarding the author as (less) “cultivated” and their assumed (poor) level of education, as well as the perceived (low) readability of the messages. These judgements are more extreme in the case of phonetic Greeklish, whereas differences between the email and SMS platforms appear to be attributable, primarily, to the informality of SMS as a medium. The next section provides some insight into possible explanations for these findings.

4.2 Participants’ qualitative comments

Participants’ qualitative comments were elicited in two instances, once before the matched guise part of the survey and a second time immediately after it. All 60 participants left optional comments immediately after seeing a message, of whom 52 additionally left comments after having assessed the authors. Overall, many respondents indicated that they found using Greeklish in emails weird. Specifically, initial comments to emails typed in Greeklish-Ph most frequently focused on the author’s poor level of Greek and of Greek spelling. This type of transliteration pattern was characterized as “simplified” and “misspelled” and was attributed to the influence of English. Respondents found it “irritating”, “annoying”, “tiring”, and a distraction, and considered the author to be bored or trying to seem “in” for some childish reason. Most of these comments were made by women. Only one respondent, who reported using both Greek and Greeklish in her own emails/SMS, attributed the author’s choice to write in Greeklish-Ph to “some other reason” and not to lack of knowledge of Greek spelling rules. A noteworthy comment by a young man was that the email author using Greeklish-Ph must have been born in the 1980’s or 90’s, because, according to him, writing in Greeklish-Ph is uncommon among younger people, especially in emails. Similar comments were made about the authors of the Greeklish-Ph SMS messages. This time, respondents found the use of Greeklish “unacceptable”, “confusing,” “weird”, and resulting in “difficult communication".
Emails using the orthographic Greeklish transliteration pattern were similarly found to be weird and “annoying”. However, this time younger participants commented that, despite using Greeklish, the authors were aware of Greek spelling rules. Some respondents attributed the use of this type of transliteration pattern to the fact that the author had lived abroad and to the impact of English. Similarly, for the Greeklish-O SMS messages, participants noted that, although the authors knew Greek spelling, they opted for the “convenience” of Greeklish. However, they still found Greeklish-O unusual and “tiring” in SMS messages, with one older participant commenting that “the young individual” who used Greeklish “abused” the Greek language.

After their views on Greeklish had been directly elicited by means of a questionnaire (see section 4.3 below), participants had the opportunity to review all the emails and SMS messages one last time and to indicate whether they found anything weird about them as a whole (Appendix B, Question 20). These post-facto comments were thus informed by participants’ metalinguistic awareness of the topic of the investigation. Twenty participants left such optional comments. The most frequently expressed view in this third round of qualitative comments was that they found the use of Greeklish unusual and repulsive. Some participants added that, in general, messages written in Greeklish were “non-comprehensible”, “tiring”, “irritating”, and “hard to read”, and one participant stated that she could not think of a reason to use it, especially for Greeks. Another participant, who reported using both Greek and Greeklish herself, noted that it would make a worse impression on her if she saw messages written in misspelled Greek. This implicitly echoes participants’ earlier view that Greeklish can be used to “hide” one’s ineptitude with Greek spelling.

4.3 Directly elicited attitudes toward Greeklish

In the second part of the study, participants’ attitudes toward Greeklish were elicited directly by means of a questionnaire (Appendix B). In addition to providing us with background information about the participants (Questions 1–7), this allowed us to ask some questions about their own email/SMS usage (Questions 8–19). Overall, respondents reported either not using email/SMS or only employing the Greek script when they do so. Only four participants reported using both Greek and Greeklish in their emails/SMS. In response to the question why they use either the Greek or the Roman script or both in their own emails (Question 13) and SMS messages (Question 19), participants using the Greek script most frequently responded that they find Greeklish hard to read, write, and comprehend. Participants considered Greeklish less formal compared with Greek or just plainly wrong. Typing in Roman characters was also considered time-consuming and less efficient for communication purposes.
One respondent opposed Greeklish by referring to the richness of the Greek language and suggested that “we” should use Greek on a daily basis. He further added that using Greeklish denotes laziness and, for older generations, an unwillingness to change an already established way of writing. Another participant thought Greeks should write in Greek, since the Roman script impoverishes and corrupts the Greek language. An interesting comment was that, unless Greeklish is used by one who does not know Greek, it is not useful at all. Coupled with comments that “we”/“Greeks” should write in Greek, and that use of Greeklish signals an unwillingness to change an already established habit, these comments suggest an ‘othering’ of authors who write in Greeklish as somehow ‘deviant’ compared to today’s Greek DMC norms.

5 Discussion

Overall, the results of our mixed methods study suggest a shift in adult Greek native speakers’ use of, and attitudes to, Greeklish. From being the normal mode of composing one’s messages twenty or even just ten years ago (Androutsopoulos, 2000; Tseliga, 2002, 2003; Moustaka et al. 2010), Greeklish is no longer used widely by speakers today to compose their emails and SMS messages. Rather, they show a marked preference for the Greek script in both platforms. These findings are in line with those of recent studies by Spilioti (2007), Koutsogiannis (2015), and Xydopoulou et al. (2019).

In addition to a shift in usage, Greek native speakers’ attitudes to Greeklish have shifted. Participants now find writing, reading, and comprehending a message typed in Greeklish hard and tiring. A similar view was expressed by participants in Androutsopoulos (2000). However, in that study younger participants reported difficulty mainly writing, not reading, Greeklish (older participants found both of them difficult), whereas in the current study younger participants find reading Greeklish difficult too, especially for phonetic Greeklish (Table 8). This is in line with Lees et al.’s (2017) study of secondary school students, who found Greeklish hard to read, suggesting that reading Greeklish has become harder for everyone. This is not surprising, given psycholinguistic findings that extensive experience with a recently developed artificial writing system can lead to its non-effortful processing (Dimitropoulou, Duñabeitia, & Carreiras 2011: 735). If seeing Greeklish has now become relatively rare as a result of the shift in usage noted above, this may well justify a decline in its readability as well.

The general tendency to consider typing in Greek easier in this study is also in contrast with earlier findings (Androutsopoulos 2000; Tseliga 2002, 2003;
Spilioti 2007; Moustaka et al. 2010; Koutsogiannis 2015; Lees et al. 2017). Participants in those earlier studies generally found typing in Greeklish faster and time-saving, while participants in our study did not attribute use of Greeklish to hastiness to any significant extent in their matched guise ratings and one respondent even commented that typing in Greeklish is time consuming.

On the other hand, our participants found Greeklish less formal than Greek and lacking in prestige. There is no change in attitudes in this regard from the earlier studies, which found Greeklish to be informal and appropriate for communicating with friends, while Greek is preferred in formal contexts (Tseliga 2003). Another aspect of participants’ attitudes that has not changed is their concern, voiced already in earlier studies, that using Greeklish impoverished and corrupts the Greek language (cf. Androutsopoulos 2000; Koutsogiannis & Mitsikopoulou 2007; Moustaka et al. 2010; Lees et al. 2017). Related to this is the view that, by using Greeklish, Greeks forget how to write correctly in their native script, expressed in the current and in previous studies alike (Tseliga 2003; Moustaka et al. 2010; Koutsogiannis 2015; Lees et al. 2017; Xydopoulos et al. 2019).

Notably, when it comes to knowledge of the Greek language and Greek spelling, attitudes toward the phonetic and orthographic transliteration patterns diverge. In our results, only the phonetic transliteration pattern is closely associated with inadequate knowledge of Greek and described as “simplified” and “misspelled”. Phonetic Greeklish elicited similar comments in Androutsopoulos (2000, 2009) and Tseliga (2003). Conversely, orthographic Greeklish was associated with good knowledge of Greek spelling rules, echoing again similar statements in Tseliga (2003). This suggests that a possible reason for penalizing authors using phonetic Greeklish in our study on several levels (readability, level of education) is the fact that this transliteration pattern breaks with (historical) Greek orthography. Conversely, the fact that the orthographic transliteration pattern maintains this orthography could explain its overall more positive evaluation by Greek DMC users.

An interesting finding of the more recent studies (ours and that of Xydopoulos et al., 2019) is that the authors of the Greeklish messages—especially those using phonetic Greeklish—are regarded as younger than 35, repeated in qualitative comments that the messages were written by young people. This age gradation, with older participants generally refraining from using Greeklish and being rather averse to its use by others, may not be simply a matter of familiarity and exposure. Although young people can generally be assumed to be spending more hours on social media and therefore to be potentially exposed to more diverse ways of typing Greek compared with their parents, this finding may also be attributable to ideological reasons. Specifically, it is possible
that normative attitudes favoring the standard language and standard spelling are generally prevalent among older speakers, while they are relaxed among adolescents. As such, adolescents’ more positive attitudes toward Greeklish today vis-à-vis those of their parents (Xydopoulos et al., 2019) could well be due to very different reasons compared with the positive attitudes to Greeklish reported a couple of decades ago, which can be attributed to the technological limitations of the time (Section 2.1). This question remains to be explored in future research.

6 Conclusion

Greeklish (the use of the Roman script to write Greek) emerged in the early days of the internet in response to the need to communicate online in Greek before the use of the Greek (and other non-Roman) script(s) was made technically possible with the introduction of Unicode in the early 1990’s. Since then, a number of studies have tracked Greek native speakers’ use of, and attitudes to, Greeklish. The aim of this study was to elicit the attitudes of adult Greek native speakers toward Greeklish today and relate them both to their demographic background and reported usage. To this end, a modified matched guise test was administered through an online survey to 60 participants, in which, instead of listening to speech samples, participants saw emails and SMS messages written in three different modes of transliteration: Greek, orthographic Greeklish and phonetic Greeklish. This was the first time, compared with previous studies which elicited participant attitudes to Greeklish directly, that the attitudes of native speakers were tracked indirectly, that is, in an unselfconscious way.

This innovative application of the matched guise technique, combined with direct elicitation by means of a questionnaire, revealed a sharp downturn in Greek native speakers’ reported usage of Greeklish, but also a change in their attitudes toward it. Previously positive attitudes relating to ease of typing, readability, and speed have now been replaced by their opposites, while previously reported negative attitudes regarding the detrimental effect of Greeklish on native speakers’ spelling abilities and its diminished status compared with the Greek script continue to persist. These evaluations hold across our sample of participants irrespective of age and gender, as well as across the two platforms investigated (emails and SMS). Importantly, those using Greeklish today are viewed as less cultivated than those using the Greek script, although participants also differentiated between the phonetic and orthographic transliteration patterns in this regard, associating lack of education more with the former and less with the latter.
Further to a combination of direct and indirect measures, we explicitly designed our study as a mixed-methods study combining quantitative and qualitative responses by participants, in order to triangulate our results and gain a deeper understanding of the quantitative trends in our data. Their qualitative comments showed that our participants find the use of Greeklish unjustifiable and a remnant of the past, or a sign of laziness and of poor knowledge of Greek spelling rules associated with the young and with those who have not (yet) mastered the language, such as non-native speakers. In this way, using the Greek script becomes a marker of belonging for Greek native speakers in DMC, with those not using it being perceived as somehow ‘other’ (in terms of generation, ethnic background, or overall language ability).

Our study is of course not devoid of limitations. Although they were recruited online and resided in different cities, our sample of 60 participants was relatively small and biased toward women under 35 and cannot be taken to represent the attitudes of all Greek native speakers. Moreover, adolescents, who are reported to be generally favorable toward Greeklish (Xydopoulos et al. 2019), were not included in our sample. Future studies could benefit from including larger and more diverse samples of participants. Overall, however, the combination of indirect and direct elicitation in our study strongly suggests that the popularity of Greeklish among Greek native speakers in the context of DMC is declining. Despite some of these stances having been expressed before, in the current study Greeklish is judged less favorably than Greek on practically all dimensions. The reasons for this probably lie with a combination of factors, from technological innovation (improved support for the Greek script across DMC platforms) and demographic factors (the expansion of Greek DMC users beyond an original core of specialized users) to ideological factors, which are live indicators of financial and political shifts over the past twenty years. The precise identification of these factors remains a topic for future research.

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Appendix A: Matched guise task stimuli

Figure A.1A  Email 1: Greek guise

Anna,
γειά σου! Το Δουβλίνο είναι μικρό επομένως έχεις μέρες να το απολαύσεις απ’ ύπνο σ’ ύπνο όσο είσαι εκεί. Εγώ πήγα στους κοντινούς προορισμούς γιατί δεν μπορούσα να κοιμηθώ ακοντιστικά δεν έβαζα ταξίδια, αν και θα το ήθελα!

Καληνύχτα!

Figure A.1B  Email 1: Greeklish-Ph guise

Anna,
gia su! To Duvblino ine mikro epomenos ehis meres na to apolafis ap’ akri s’ akri oso eeki. Ego piga stous kontinos proorismos giati den borusa ikonomika distihos na stirkso alla taksidia, an ke tha to iehela!

Kalinihta!

Figure A.1C  Email 1: Greeklish-O guise

Anna,
geia sou! To Doubline einai mikro epomenws eixeis meres na to apolaseis ap’ akh s’ akh oso eisai ekei. Egw phga stous kontinous proorismous giati den mporousa oikonomika dystrwxs na sthriskw alla taksidia, an kai tha to ithela!

Kalhryxta!

Figure A.1D  Email 1: English translation (not seen by the participants)

Anna,
h! Dublin is so small that you’ve got plenty of days to enjoy it while you’re there. Unfortunately, I only visited the places nearby because I couldn’t afford any more trips, even though I would love to!

Goodnight!
Γειά σου Μαρία,

Μένω σε μια περιοχή εκτός της πόλης. Δυσκολεύτηκα να βρω σπίτι. Ηρθα με τρένο. Είναι 2 ώρες, τα λεωφορεία 4, αλλά πιο οικονομικά. Έχες πολύ καιρό; Να έχεις στο νού σου ότι είναι μια κρύα πόλη!

Φιλικά,

FIGURE A.2A Email 2: Greek guise

Geia sou Maria,

Menw se mia periochi ekto poris. Dyskoleytika na brw spiti. Hrtha me treno. Einai 2 wres, ta lewforeia 4, alla pio oikonomika. Exeis poly kairo! Na exeis sto nou sou oti einai mia krya poli!

Filika,

FIGURE A.2B Email 2: Greeklish-Ph guise

Hello Maria,

I live outside of town. It was hard for me to find a house. I came by train. It takes 2 hours by train and 4 hours by bus but it’s cheaper. You’ve got plenty of time! Keep in mind that it’s a cold city!

Best,

FIGURE A.2D Email 2: English translation (not seen by the participants)
A MIXED METHODS STUDY OF ATTITUDES TO GREEKLISH

255

FIGURE A.3A  Email 3: Greek guise

Kalispera!

I poli ine omorf. Den iparhi terastia pikilia se diaskedasi i psihagogia. Bori na ine kapos akribo na fas se ena estiatorio, alla to kostos den ine toso antiprosopetiko gia Gallia... Esi pote fevges apo dw?

Heretismus,

FIGURE A.3B  Email 3: Greeklish-Ph guise

Kalispera!

H polh einai omorfh. Den yparxei terastia poikilia se diaskedash h psyxagogia. Mporei na einai kapws akribo na fas se ena estiatorio, alla to kostos den einai toso antiprosopwytiko gia Gallia... Esy pote feygeis apo dw?

Xairetismous,

FIGURE A.3C  Email 3: Greeklish-O guise

Good evening!

The city is pretty. There is not much to do when it comes to having fun. It might be a bit expensive to eat at a restaurant but the cost is not very representative of France... When are you leaving?

Regards,

FIGURE A.3D  Email 3: English translation (not seen by the participants)
Σάβ, 24 Αου, 10:49 μμ

**Αλλαξα! Πήρα τηλ. κ το Στέλιο βαριέται για έξω του είπα να πάρει τ αφέσημα του κ να έρθει εδώ να δούμε ταινία. Έλα κ εσύ αν μπορέσεις
Η και ο Κώστας αν γύρισες δε ξέρω**

Κυρ, 1 Σεπ, 8:37 μμ

**FIGURE A.4A**
SMS message 1: Greek guise

Σάβ, 24 Αου, 10:49 μμ

**Allaksa! Phra thl k to Stelio barietai gia eksw tou eipa na parei ta afepsima tou k na erthei edw na doume tainia. Ela k esy an mporeis
H kai o Kostas an gyrise de kserw**

Κυρ, 1 Σεπ, 8:37 μμ

**FIGURE A.4B**
SMS message 1: Greeklish-Ph guise

Σάβ, 24 Αου, 10:49 μμ

**Allaksa! Pira til k to Stelio variete gia ekso tu ipa na pari t afepsima tu k na erthi edo n dume tenia. Ela k esi an boreis
I ke o Kostas an girise de ksero**

Κυρ, 1 Σεπ, 8:37 μμ

**FIGURE A.4C**
SMS message 1: Greeklish-O guise

Σάβ, 24 Αου, 10:49 μμ

**Just changed! I called Stelios he’s bored to go out I told him to get his drink and come over to watch a movie. Come by if you can
Or maybe Kostas too if he’s back, I don’t know.**

Κυρ, 1 Σεπ, 8:37 μμ

**FIGURE A.4D**
SMS message 1: English translation (not seen by the participants)
A MIXED METHODS STUDY OF ATTITUDES TO GREEKLISH

FIGURE A.5A
SMS message 2: Greek guise

FIGURE A.5A
SMS message 2: Greeklish-Ph guise

FIGURE A.5A
SMS message 2: Greeklish-O guise

FIGURE A.5A
SMS message 2: English translation (not seen by the participants)
Καλημέρα Σοφία!!! Εγώ είμαι χωριό πάω ταξιδρομείο άργησα άρκτα και πήγα κ πήρα ένα καφέ αν δε βαριέται κ μπορείς να πάμε να πιούμε ένα πρινώ χμό στέιλε μου

Kalimera Sofia!!! Ego ime horio pao tahidromio argisa arketa ke piga k pira ena kafe an de variese k boris na pame na pioume ena prino himo stile mou

FIGURE A.6A
SMS message 3: Greek guise

FIGURE A.6B
SMS message 3: Greeklish-Ph guise

Kalhmera Sofia!!! Egw eimai xwrio paw taxydromeio arghsa arketa kai phga k phra ena kafe an de bariesai k mpores na pame na pioume ena prwino xymo steile mou

Good morning Sophie!!! I’m in town I’m heading to the post office I was late and went to grab a coffee if you’re not bored and you’re free let’s go and have a juice text me

FIGURE A.6C
SMS message 3: Greeklish-O guise

FIGURE A.6D
SMS message 3: English translation (not seen by the participants)
Appendix B: Demographic and attitudes questionnaire

1. I am:  
   male  female

2. Age:  
   18–25  26–35  36–50  >50

3. Level of education:  
   High school  Undergraduate studies  Postgraduate studies  University

4. Occupation:

5. Have you lived abroad?  
   Yes  No

6. For how many years?

7. In which country(countries)?

8. Do you use email as a means of communication?  
   Yes  No

9. How many years have you been using it?

10. How often do you communicate through email?  
    Every day  2–3 times per week  Rarely

11. You usually send emails to (you may choose more than one option):  
    Family  Friends  Colleagues  Teachers  Other

12. When you write an email you mostly use:  
    Greek characters  Roman characters  Both

13. If there is a certain reason for using Greek, Roman or both characters please specify it:

14. Do you use text-messaging (SMS) as a means of communication?  
    Yes  No

15. How many years have you been using it?

16. How often do you communicate through SMS messages?  
    Every day  2–3 times per week  Rarely

17. You usually send SMS messages to (you may choose more than one option):  
    Family  Friends  Colleagues  Teachers  Other

18. When you write an SMS message you mostly use:  
    Greek characters  Roman characters  Both

19. If there is a certain reason for using Greek, Roman or both characters please specify it:

20. Did you find something weird or repulsive in the messages above? Click here to have a look at the messages again.
Appendix C: Statistical analysis

To determine whether the unequal demographic distribution of our pool of participants (tables 3–5) affected their responses, we used the Kruskall Wallis test, which is a non-parametric test that can be used to compare two or more independent samples of equal or different sample sizes. In total, three tests were performed on each set of responses, and the alpha level of significance was set to 0.016 to reflect that (Bonferroni correction for multiple tests). At this alpha level, participant responses for the 8 adjectives across groups were not significantly different. Only in one case, judgements for “cultivated” for emails in Greeklish-Ph, were participant group judgements significantly different ($H = 11.441 \ p = 0.010$), and this concerned the age of participants (Table C.2). However, as this difference concerns only emails and not SMS, and only one of the three transliteration patterns investigated, no solid conclusions regarding attitudes to Greeklish can be drawn from it. Further research is warranted to study the importance of age in these judgements.

Table C.1: Difference between the medians of the participants by gender; i) men and ii) women

| Greek | Greeklish-O | Greeklish-Ph |
|-------|-------------|--------------|
|       | Email | SMS | Email | SMS | Email | SMS |
| cultivated | $H = 0.025$ | $H = 0.003$ | $H = 0.001$ | $H = 0.506$ | $H = 0.137$ | $H = 0.014$ |
|         | $p = 0.875$ | $p = 0.956$ | $p = 0.978$ | $p = 0.477$ | $p = 0.712$ | $p = 0.904$ |
| arrogant  | $H = 0.268$ | $H = 0.480$ | $H = 0.137$ | $H = 0.038$ | $H = 0.025$ | $H = 0.082$ |
|          | $p = 0.605$ | $p = 0.488$ | $p = 0.712$ | $p = 0.846$ | $p = 0.875$ | $p = 0.775$ |
| hasty    | $H = 0.004$ | $H = 0.004$ | $H = 3.412$ | $H = 0.372$ | $H = 0.099$ | $H = 1.870$ |
|          | $p = 0.948$ | $p = 0.948$ | $p = 0.065$ | $p = 0.542$ | $p = 0.753$ | $p = 0.171$ |
| outgoing | $H = 0.771$ | $H = 0.012$ | $H = 0.372$ | $H = 1.033$ | $H = 0.372$ | $H = 0.099$ |
|         | $p = 0.380$ | $p = 0.912$ | $p = 0.542$ | $p = 0.399$ | $p = 0.542$ | $p = 0.753$ |
| conservative | $H = 0.017$ | $H = 1.189$ | $H = 0.588$ | $H = 0.087$ | $H = 0.602$ | $H = 0.031$ |
|          | $p = 0.897$ | $p = 0.276$ | $p = 0.443$ | $p = 0.767$ | $p = 0.438$ | $p = 0.861$ |
| lazy     | $H = 0.837$ | $H = 0.025$ | $H = 0.049$ | $H = 1.071$ | $H = 0.165$ | $H = 0.231$ |
|          | $p = 0.360$ | $p = 0.875$ | $p = 0.824$ | $p = 0.301$ | $p = 0.684$ | $p = 0.631$ |
| likeable | $H = 0.189$ | $H = 1.356$ | $H = 0.000$ | $H = 0.038$ | $H = 0.012$ | $H = 0.418$ |
|          | $p = 0.664$ | $p = 0.244$ | $p = 0.985$ | $p = 0.846$ | $p = 0.912$ | $p = 0.518$ |
| curt     | $H = 0.617$ | $H = 0.005$ | $H = 0.213$ | $H = 0.165$ | $H = 0.082$ | $H = 0.173$ |
|          | $p = 0.432$ | $p = 0.941$ | $p = 0.644$ | $p = 0.684$ | $p = 0.775$ | $p = 0.678$ |
### Table C.2
Difference between the medians of the participants by age; i) 18–25, ii) 26–35, iii) 36–50 and iv) >50

|                | Email | SMS | Email | SMS | Email | SMS |
|----------------|-------|-----|-------|-----|-------|-----|
| cultivated     | H = 9,861 | p = 0,020 | H = 1,004 | p = 0,800 | H = 11,441 | p = 0,010 |
| arrogant       | H = 0,345 | p = 0,951 | H = 0,652 | p = 0,884 | H = 0,629 | p = 0,890 |
| hasty          | H = 3,647 | p = 0,302 | H = 0,905 | p = 0,824 | H = 2,050 | p = 0,562 |
| outgoing       | H = 1,489 | p = 0,685 | H = 6,785 | p = 0,079 | H = 3,035 | p = 0,386 |
| conservative   | H = 0,572 | p = 0,993 | H = 2,891 | p = 0,409 | H = 0,551 | p = 0,907 |
| lazy           | H = 1,844 | p = 0,605 | H = 0,334 | p = 0,953 | H = 3,078 | p = 0,380 |
| likeable       | H = 0,753 | p = 0,861 | H = 3,161 | p = 0,368 | H = 3,456 | p = 0,327 |
| curt           | H = 0,598 | p = 0,897 | H = 1,235 | p = 0,745 | H = 0,117 | p = 0,990 |
### Table C.3
Difference between the medians of the participants by their level of education; i) Secondary education, ii) Undergraduate and iii) Postgraduate studies

|          | Greeklish-O | Greeklish-Ph |
|----------|-------------|--------------|
|          | Email SMS   | Email SMS    | Email SMS |
|            |             |              |            |
| cultivated | H=0.648     | H=5.305      | H=0.652   |
|           | p=0.723     | p=0.070      | p=0.722   |
| arrogant   | H=1.621     | H=0.246      | H=0.077   |
|           | p=0.445     | p=0.884      | p=0.962   |
| hasty     | H=0.336     | H=2.498      | H=0.361   |
|           | p=0.845     | p=0.287      | p=0.835   |
| outgoing  | H=1.723     | H=0.364      | H=4.001   |
|           | p=0.423     | p=0.834      | p=0.135   |
| conservative | H=1.116   | H=1.098      | H=0.568   |
|           | p=0.572     | p=0.577      | p=0.753   |
| lazy      | H=0.033     | H=2.532      | H=1.093   |
|           | p=0.984     | p=0.282      | p=0.579   |
| likeable  | H=1.505     | H=1.178      | H=1.621   |
|           | p=0.471     | p=0.555      | p=0.445   |
| curt      | H=1.443     | H=0.834      | H=0.594   |
|           | p=0.486     | p=0.659      | p=0.743   |