Culture and paralinguistic features ~!^^:-): East meets West in a virtual exchange between South Korea and England

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Abstract

This paper investigates whether cultural differences are apparent in the paralinguistic features used by culturally diverse interactants online. Paralinguistic features are used pervasively in digital discourse (Herring & Androutsopoulos, 2015), therefore they play a pivotal role in online communication skills. Paralinguistic features such as the innovative use of punctuation and typographical features as well as emoticons and emojis are used to add nuance, emotional tone, and to manage discourse in online communication. However, the effectiveness of these paralinguistic features is dependent upon a shared understanding of their functions. This study seeks to explore any potential cultural manifestations in the use of paralinguistic features during a semester-long virtual exchange between 21 South Korean students and 25 students studying at a university in England. The dataset of 20,379 words generated during the virtual exchange was examined for cultural manifestations in paralinguistic features. As this study examines potential cultural manifestations online, it adheres to a culturally relativist perspective, therefore an inductive approach to the analysis of the data was taken. The analysis of the data revealed culturally specific paralinguistic features with the emergence of a feature that, to the best of my knowledge, has not been recorded in previous virtual exchange research.

Keywords: virtual exchange; paralinguistic features; culture; online communication.

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1.   Introduction

Since the launch of the first browser in 1993, there have been shifts in how the internet is perceived and used. The internet in the early to mid-1990's was characterised by static, single-authored webpages (Herring, Stein, & Virtanen, 2013). The late 1990's saw a shift to slightly more interactive content, exemplified by the introduction of blogs (Herring, Scheidt, Wright, & Bonus, 2005). In the early 2000's, the expression Web 2.0 was used to mark the paradigm shift from an information-oriented environment to a participatory, multimodal social environment (O'Reilly, 2007). The advent of Web 2.0 sparked what has been referred to as the 'social web', with a shift towards relationally oriented applications (Zappavigna, 2012, p. 2). This focus on relationships is represented by the popularity of Social Networking Sites (SNSs) online. Facebook was one of the first profile-based SNSs, and since its launch to the general public in 2006, it has achieved staggering success. A statistical report published on December 31, 2018 showed that Facebook had 2.32 billion active monthly users (Facebook, 2018). This astounding statistic highlights the important role that the internet plays in social aspects of life. People use the internet to seek out others, to connect, to communicate, and to maintain relationships (Graham, 2016; Rainie, 2018). Therefore, it is of critical importance to explore how individuals can communicate effectively online and thus manage relationships successfully.

The management of online relationships and use of paralinguistic features as part of communicative strategies is an important area of investigation as there are ever-increasing opportunities for intercultural encounters online (ITU Publications, 2018). According to a 2018 statistical report published by the International Telecommunication Union (ITU), rates of internet usage increased dramatically around the world from 2005 to 2018. The report indicates that in 2018 there were 3.9 billion people using the internet, in comparison with the one billion reported in 2005. Viewed in relation to the percentage of the population, that is an increase from 15.8% of the global population in 2005 to 51.2% in 2018. People are spending more and more time online, with online interactions being an integral part of everyday life for many people (ITU Publications, 2018; Pew, 2018). It is therefore vital to investigate digital discourse as statistical trends suggest that online communication will become an ever-increasing part of everyday life.

A growing number of practitioners have been harnessing the global connectivity the internet provides to connect culturally and geographically diverse individuals to engage in virtual exchanges. These exchanges offer a number of unique benefits. Firstly, they provide linguistic opportunities outside of the classroom context for language learners, allowing them to practise communicating in a range of settings. Secondly, they provide opportunities for collaborative cultural exchanges, raising awareness of cultural diversity. The cultural components of language are frequently neglected or superficially referenced in textbooks (Dervin, 2010), so these exchanges provide students with

the opportunity to increase their cultural awareness. As many linguists will agree, intercultural competence is a key component of communication skills (Byram, Gribkova, & Starkey, 2002; Dervin, 2010). These exchanges place the student in a central role, as the participants co-construct knowledge, learning about culture with and from each other. Thirdly, they provide practice of the communication strategies that can be used when interacting with diverse partners online. The ability to communicate and collaborate with diverse interlocutors in an online setting is an essential 21st century skill that is needed to successfully participate in this rapidly globalising world.

Lewis and O'Dowd (2016) conducted a systematic review of peer-reviewed, university level virtual exchange research that focused on foreign language learning. They discovered an increase in published studies since 2010, but noted the research was overwhelmingly based in a Western context. Publications that include participants from other countries, particularly Asia, were "disappointingly small" (Lewis & O'Dowd, 2016, p. 25). Scholars have called for research that incorporates greater linguistic and cultural diversity in order to reflect the myriad experiences of internet users (Herring et al., 2013; Lewis & O'Dowd, 2016; Locher, Bolander, & Hohn, 2015). Individuals from different cultural and linguistic backgrounds have ever-increasing opportunities to interact online, so research should reflect this reality. In addition, more understanding is needed to determine how culturally diverse interactants manage intercultural encounters online. Implicit in the concept of an intercultural exchange is the idea that cultural variation exists, that culture is not universal. The desire to expose students to a range of cultural perspectives and provide opportunities for them to communicate with diverse interlocutors underpins any intercultural exchange. Consequently, research that explores how culture may manifest in an online environment is needed to expand existing knowledge of what it means to be digitally literate in a rapidly globalising, online world.

Virtual exchanges frequently focus on raising students' intercultural competence through cultural activities and reflective tasks but tend to focus on offline culture. However, as Lewis and O'Dowd (2016) astutely point out, "online environments have cultures of their own" (p. 56), yet there is a tendency within research to neglect this online culture. As more and more communication is happening online, it is vital for educators (particularly foreign language teachers) to prepare their students for the online intercultural encounters that they are increasingly likely to experience. As Iorio (2016) points out, people bring their own socio-cultural tools to various online communities and these, along with the cultural norms of the online group, influence communicative choices. The creative use of paralinguistic cues such as emojis and typographical features are considered the hallmarks of digital discourse (Herring & Androutsopoulos, 2015) yet there is scant research exploring the potential cultural specificity of these features. It is hoped that this study can begin to remedy this existing gap in knowledge. This study seeks to investigate any potential cultural manifestations in the use of paralinguistic features, as cultural variance is assumed. This is an

important area of investigation because an awareness of online cultural diversity and an ability to adapt communication strategies for different online contexts are key components of digital literacy.

2. Paralinguistic features

The technologically mediated nature of online communication means that a number of non-verbal cues that are important for message interpretation in a face-to-face setting are missing from the online context. Mehrabian (1971) found that over 90% of face-to-face message interpretation is derived from paralinguistic features such as tone of voice, intonation, and facial expressions. Despite the methodological flaws in Mehrabian's (1971) research (only female participants were used and it was based on judgements of individual words), the notion that non-verbal features play a pivotal role in face-to-face communication has gained empirical support (Argyle, 1988; Jeong & Potts, 2016).

This does not mean that online communication should be perceived from a deficit perspective. On the contrary, online communication is rich, dynamic, and ever-evolving (Iorio, 2016). Research has revealed that online paralinguistic features are used to add nuance to communication, such as emotional tone (Evans, 2017), to signal levels of formality (Hinrichs, 2016), add clarity (Kaye, Wall, & Malone, 2016) and signal creativity (Nishimura, 2016), manage self-presentation (Nishimura, 2016), and convey semantic information (Evans, 2017).

Paralinguistic features are used prolifically in online communication, making them a key component of digital literacy. Features such as emoticons and emojis, exclamation marks, repeated question marks, and unusual orthography and typography are frequently cited in research (Darvin, 2016; Evans, 2017; Vandergriff, 2013). Successful online communication involves understanding the use of these features, both to decipher the intention of messages and to craft messages that will achieve a desired outcome.

If individuals use culturally specific references when communicating online it can decrease the effectiveness of their communication, as they are not adapting to the global context of the internet. Research has shown that there are cultural differences in the depiction of emoticons (Kaye et al., 2016; Park, Barash, Fink, & Cha, 2013). Emoticons are a typographical display of emotion, such as :-), whereas an emoji is a pictograph, for example ☺ (Evans, 2017). Emoticons preceded emojis and they represent the first stage in the expression of emotions through graphics (Evans, 2017). Individuals harnessed the resources that were available to them, using their keyboards to convey emotional states. Because they were based on what was available on a keyboard, these depictions were rudimentary and so the range of emotional expression was limited. These rudimentary depictions

were often thought to display emotion in a universally recognised way (Walther & D'Addario, 2001). However, this assumption is misguided as there are differences in how emoticons are displayed (Park et al., 2013). People from Northeast Asia tend to adopt vertical style emoticons that are oriented towards the expression of the eyes, such as ^^, whereas people in the West (America, Europe) favour horizontal emoticons that are oriented towards the sideward display of the mouth, for example **:-)** (Garrison, Remley, Thomas, & Wierszewski, 2011; Park et al., 2013; Ryoo, 2004).

In addition, as individuals used their keyboards to create emoticons, it could be anticipated that different languages would have different keyboard options, resulting in emoticon variance. The Korean language, Hangul, is represented in symbols that are stacked to make syllables. The Korean symbol ㅠ (yu) is used to create a Korean emoticon, ㅠㅠ, representing a crying face (Ryoo, 2004). This culturally specific emoticon may be difficult for non-Koreans to decipher, potentially leading to misunderstandings. Emoticons are intended to disambiguate sentences by supplying socio-emotional cues (Evans, 2017), but that clarity depends upon a shared cultural understanding of their meaning.

Research conducted by Park et al. (2013) into emoticon usage on Twitter found that among the participants they sampled, South Koreans were the most active users of vertical style emoticons. They examined 10 million users of Twitter in 15 countries, with both Eastern and Western countries included in the sample. A total of 1.1 billion tweets were analysed for trends in emoticon use. They found that South Koreans used vertical style emoticons 74% of the time. However, they noted that the vertical emoticons were used when South Koreans posted in Hangul with a shift occurring when they posted in English. When posting in English, the participants favoured horizontal style emoticons over vertical. This suggests that the style of emoticons used is based on the linguistic context, with South Koreans adapting to conventionalised emoticon norms when communicating in English. This exemplifies the fundamental importance of having awareness of the potential cultural specificity of cues in order to be able to adapt and use paralinguistic features appropriately.

3.   Digital literacy

Digital literacy is an essential skill for navigating through a rapidly globalising, online world (Iorio, 2016; ITU Publications, 2018; Kluzer & Pujol Priego, 2018). The European Commission funded *The Digital Competences Framework* (henceforth DigComp 2.0) which highlights five pillars of digital literacy: data and information, communication and collaboration, content creation, safety, and problem-solving (Vuorikari, Punie, Carretero, & Van den Brand, 2016). The importance of promoting digital literacy skills is also reflected in South Korean educational policy, with a stated focus towards "training creative minds through converging education and ICT" (MOE/KERIS, 2014,

p. 12). The ITU Publications (2018) found that digital skills are linked to higher economic and social wellbeing at the level of individuals, with a dynamic and competitive economy highlighted at the national level. Thus, digital literacy is a necessary skill to be able to participate fully and successfully in society.

A key pillar of digital literacy is online communication and collaboration skills (Vuorikari et al., 2016). The DigComp 2.0 framework enumerates some key competencies nested within this component of digital literacy. The framework highlights the need for students to be taught to interact appropriately online, following behavioural norms and conventions. Further, students need to be aware of cultural diversity online and be able to adapt communication strategies based on the context and interlocutor. This suggests that online communication is variable, and that cultural differences should be anticipated. However, at present there is little understanding of how these cultural differences manifest in online communication, as the pragmatic study of online communication is an emerging field (Herring et al., 2013). An aim of this study is to help remedy this lack of knowledge concerning culture and online communication by exploring potential manifestations in paralinguistic features.

This study was propelled by a professional desire to prepare my students for the types of English encounters that they are likely to experience. With increased opportunities for intercultural encounters online, students need to be taught to communicate appropriately with diverse interactants and to have awareness of online cultural diversity. With this background in mind, this study is focused on providing insight into the potential for cultural manifestations in online communication by exploring the following research question.

- • What cross-cultural differences, if any, were apparent in the use of paralinguistic features?

4.   Methodology

The research presented in this paper adopts a mixed methods approach to the analysis of the data, as this study generated data that was quantifiable but also relied upon qualitative methods to paint a more fine-grained picture. Scholars interested in online communication have championed a mixed methods approach that combines qualitative analysis with quantitative techniques, such as descriptive statistics, to enable greater insight into the behaviours being studied (Darics, 2013; Hinrichs, 2016; Iorio, 2016). As this research project was focused on knowledge discovery and was founded on the ontological assumption that variability exists, the data analysis was not approached with *a priori* assumptions. An inductive approach to the analysis of the data was used.

Descriptive statistics played a critical role in this study by facilitating the identification and analysis of patterns pertaining to paralinguistic features. The statistics revealed the prevalence of paralinguistic features, the types of features used, and information regarding who used the features. The identification of patterns made it possible to observe points of interest, which were selected for closer examination using qualitative sequential discourse analysis. Darics (2013) proposes that this emic analytic approach can provide an interpretive framework for how paralinguistic features are used in a specific context. The focus is on contextually situating the features to determine their connection to the communicative act. This approach can facilitate an understanding of the functions of culturally specific paralinguistic features by analysing their use in communication.

4.1.   Participants

The semester-long virtual exchange course was conducted between two universities, with a cohort of 21 South Korean students who were studying at a large, private university in South Korea (henceforth YU) partnered with 25 students who were attending a large university in England (henceforth CU).

4.2.   Procedure

The online intercultural exchange spanned two months, from the start of October to the end of November 2015. It comprised three educational tasks that were created to foster a sense of collaboration, cultural awareness, and reflection. These three tasks were undertaken as a form of blended learning, with in-class scaffolding, discussion, and support facilitating the online component. The students were placed into small, mixed groups of four to five students from both universities. There were 11 groups in total and each group had a designated, password-protected forum space hosted by the university in England. The students were also given the option to communicate in an alternative platform of their choice. As much as possible I wanted to collect naturalistic data and try to minimise the influence of the researcher (myself) on the data. Incorporating flexibility into the design helped produce richer data, as students were not limited to a prescribed, monitored method of communication. This enabled potential access to a wider range of sources, selected according to students' personal preferences, through which to investigate the complex phenomenon of online communication. Seven of the 11 groups opted to communicate in text format via four instant messaging platforms (Skype, Facebook Messenger, WhatsApp, and Kakao Talk).

The data from the forums was screen captured, and the students voluntarily submitted documentation of their communication in the alternative platforms. The 11 groups generated a total word count of 20,379.

4.3.   Analysis procedures

The goal of this study is to determine if there were any culturally specific features used during a virtual exchange between culturally diverse participants. The first step was to inductively analyse the 20,379 words to identify the paralinguistic features used during the exchange. This study focused on emoticons/emojis and the non-standard use of punctuation. These features were selected for focus as they are non-linguistic and thus have greater generalisability than linguistic deviations that tend to be language-specific and idiosyncratic. The next step was to examine the identified paralinguistic features for any potential cultural specificity. As paralinguistic features are used pervasively online it was important to set parameters that would distinguish between conventional features (those used by students irrespective of their socio-cultural background) and those that manifest cultural specificity (used by members of only one group). In order for a feature to be considered culturally specific and not idiosyncratic it would also need to be used by multiple members from the same socio-cultural group. In addition, the selection parameters needed to control for the potential confounding effect of convergence, as members could simply mirror each other's paralinguistic features. This copying of paralinguistic features would reflect a group norm rather than a broader cultural specificity. Three selection criteria were used to identify whether a paralinguistic feature was culturally specific:

- first, was the feature used by only one cohort of students (the students in either England or South Korea);
- second, was the feature used by multiple individuals within that cohort who were not in the same group (eliminating the issue of mirroring); and
- third, was the feature used on multiple occasions (not an isolated mistake)?

The analysis of the data revealed culturally specific paralinguistic features, with the emergence of a feature that, to the best of my knowledge, has not been recorded in previous virtual exchange research. The features that were identified as culturally specific were then analysed qualitatively to gain a clearer understanding of their usage.

5.   Results

5.1.   General findings

Of the total word count of 20,379, paralinguistic features accounted for 855 items. The inductive coding revealed cultural manifestations in the paralinguistic features recorded in this dataset.

Table 1 shows the breakdown of the coded paralinguistic features. Firstly, the data revealed cultural differences in the depiction of emoticons, with 15 examples of culturally specific depictions. As can be seen from Table 1, the analysis also revealed a paralinguistic feature, the tilde ~, that to the best of my knowledge had not been reported in previous virtual exchange research. Findings pertaining to these paralinguistic features will be introduced and explored in greater detail in the following subsections.

The results and discussion will only focus on those features that met the criteria for selection, namely those that display cultural specificity.

Table 1. Coded paralinguistic features in YU-CU grouped interactions

Paralinguistic feature	Frequency	
Exclamation marks!	358	
Emoticons	217	
	Horizontal 202	Vertical 15
Emojis	144	
Tilde ~	57	
Multiple full stops ………	55	
Multiple question marks ????	24	

5.2. Culturally specific paralinguistic feature: tildes

Tildes were the fourth most frequently used feature and used solely by the South Korean students. This paralinguistic feature was used 57 times in the YU-CU grouped data, accounting for 6.7% of the 855 paralinguistic features coded. The use of tildes was widespread among the South Korean students, with 13 of the 21 students using them, and they were found in eight of the 11 YU-CU grouped interactions. Tildes were used by both male and female students; on 24 occasions they were used by male students and 33 by females.
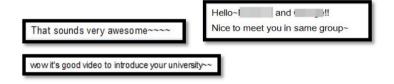
Upon closer examination of the data, it became apparent that tildes fulfilled a number of functions. As can be seen in Table 2, tildes were used in a variety of ways by the Korean students as part of their online communication strategies. They were used to create a positive emotional tone, to heighten the emotional valence of a message, to diffuse awkward situations, to restore harmony, and to mitigate potential discord.

Table 2. **The functions of tildes recorded in the data**

Tilde function	Frequency	Examples from the data
To create or to increase the positive tone of the message	39	Hi ~~~~ You guys are so cute when you introduced your self ~^^ Hi british guys~~
Mitigation device	11	Hello~ I'm sorry to come late.. My team video is num 1 so please watch more and give your opnions~~
To reassure partner/ restore harmony	7	Oh! Sure that case i will wait for you ~ ~ If you are busy~ you can go sure(하하)

In some cases, the tilde was paired with other paralinguistic features or combined with a message that could help indicate the intended function (Figure 1). In these examples, the exact intention of the tilde may not be understood but it is clear from the linguistic context that these messages are positive. Therefore, a person who receives these messages may infer that tildes also convey a positive tone.

Figure 1. **Examples of tildes from the dataset**

However, tildes were also used in nuanced ways that would decrease the efficacy of their communication, as their partners would have difficulty deciphering the intention from the linguistic context. Figure 2 is an example from the data that displays the nuanced use of tildes during synchronous communication. This extract is analysed using qualitative sequential discourse analysis to infer the function from the context and to explore the reactions of the partner (CU).

Figure 2. **Nuanced use of tildes in communication**

This extract was taken from Group 1's synchronous communication using the Kakao Talk instant messaging platform. The two students had engaged in frequent communication for a few days and up until this point the communication had been relationally oriented, with the two students discussing hobbies and bonding over a shared love of football. The Korean student (YU) initiates the first message of the day. It is a request to video chat; they pair the request with an exclamation mark, presumably to signal their excitement at the prospect. The first tilde is connected to this request as the student provided additional information illustrating the ease of fulfilment, so the tilde is part of a strategy to minimise any potential imposition associated with the request.

The CU student responds immediately with a nuanced response that softens the rejection. They initially respond with a compliant statement paired with a smiling emoticon, "yeah sure :)", which creates a positive emotional tone. They then use a hedged rejection, through the postponement of commitment. They validate their partner's suggestion, "that sounds very good though :)", and act to restore any potential disharmony through reassurance and the inclusion of an emoticon to signal a positive emotional tone. In response, the YU student also acts to maintain harmony, stating that they do not mind and adding emphasis to this statement through the use of an exclamation mark. They further minimise any potential imposition by saying "feel free and have a good day~". In this sentence, the tilde functions to signal a positive tone and to diffuse any potential awkwardness. The CU student responds by again reassuring their partner about the validity of the request through a vague future commitment, "I will let you know when :-)", and includes another smiling emoticon. They then mirror their partner's sentiment, wishing them a good day, which is a convergence strategy that can be used to create solidarity (Giles, Coupland, & Coupland, 1991). At this juncture, it appears that any potential awkwardness has been managed through the careful use of communicative acts and paralinguistic features. Even though the CU student would likely be unaware of the nuanced use of the tilde they could infer that the relationship is harmonious based on the linguistic message.

Unfortunately, this harmony is disrupted when the YU student posts another message a few minutes later. The YU student's next response appears to be a potential misunderstanding of their partner's vague future commitment. They responded with what their CU partner interprets as another request, with a deadline for response (tomorrow). The YU student's message is linguistically ambiguous, which heightens the confusion. Because the cohort of YU students were communicating in English (their second language) there were instances where language proficiency hindered the students' communicative competence. The ambiguous sentence is also paired with a tilde, which would not help their partner decipher the intention behind the message as they would not share the same cultural understanding of the feature. The request appears to be an assertive second attempt to gain a committed response. The CU student responds to this second request with a further rejection through postponement of commitment, "I will let you know later :-)", again including a smiling

emoticon to diminish the potential negativity associated with another rejection. The YU student responds to this second hedged rejection with an acceptance that is paired with a tilde, in an attempt to maintain harmony.

In this extract, the YU student relied heavily on the use of tildes to defuse tension and to create a positive tone. However, the CU student would not be familiar with this convention and it is unclear what they would have made of it. Both students used paralinguistic features to manage their interactions, but the Korean student used a culturally specific feature which was not contextually appropriate. Unfortunately, this interaction marked the end of their submitted communication for this platform group. In this situation, the repeated requests (as interpreted by the CU partner) to change the method of communication appears to have negatively impacted upon their relationship, as evidenced by the end of their communication in this chat group.

5.3.   Culturally specific paralinguistic feature: emoticons

In addition to the use of tildes, there were cultural manifestations in the depiction of emoticons. As previously noted in research, vertical style emoticons are used in Northeast Asia (Park et al., 2013). My findings support this cultural manifestation in the display of emoticons, as the 15 instances of vertical style emoticons were used exclusively by the South Korean students. Figure 3 displays the types and frequency of emoticons appearing in the YU-CU grouped interactions.

Figure 3.   Emoticons coded in the YU-CU data

Emoticon Type	Positive horizontal emoticon		Positive vertical emoticon		Negative horizontal emoticon			Negative vertical emoticon		
Example	:)	:')	^^	>_<	:(	:-(	:'(	ㅠㅠ	T.T	T-T
Description	Expresses happiness and positive emotions.		Expresses happiness and positive emotions. Only used by the Korean students.		Expresses sadness/ regret/upset.			Expresses sadness/ regret/upset. Only used by the Korean students.		
Frequency	195		9		7			6		

Overall, however, the Korean students chose to use horizontal style emoticons instead of the vertical style typically favoured in South Korea (Park et al., 2013). The vertical style emoticons were used by eight of the 21 Korean students, but they were used infrequently, with even these students favouring the horizontal style instead. An example from the data (Figure 4) offers an insight into this adaptation.

Figure 4.   A Korean student providing a cultural translation of an emoticon

In this example, a Korean student uses a negative vertical emoticon, explicitly explains the meaning and offers a 'cultural' translation, providing the horizontal equivalent. This student was aware of the cultural specificity of the emoticon and adapted accordingly. This adaptation is a form of digital literacy, as the YU student accommodated their partner's cultural understanding, and attuned to their partner's communication needs.

This same Korean student used another culturally specific paralinguistic feature (tilde ~) on nine occasions during their interactions with their partner. This is the same YU student who relied heavily on the use of tildes in the earlier example (Figure 2). They did not offer a cultural translation for the tilde, which suggests that they were unaware of its cultural specificity. This student displayed an awareness of the cultural specificity in their use of emoticons but not in their use of tildes. This same pattern was found in the data for all of the Korean students who used culturally specific paralinguistic features. They noticed and adapted their use of emoticons but did not attune to their partners' lack of use of tildes.

These findings have illuminated the prolific use of paralinguistic features in online discourse and have revealed a level of cultural specificity in their use. The inductive coding of the data revealed an unexpected paralinguistic feature that had not been documented in the literature reviewed prior to this study (the tilde ~). The next section will discuss these findings and present some conclusions.

6.   Discussion

Analysis of the data revealed cultural differences in the paralinguistic features recorded in this study. Interestingly, the cultural differences only pertained to the cohort of South Korean students. There

were 15 cases of vertical style emoticons used, and 57 instances of tildes being used by the South Korean students. The fact that culturally specific features were only found in the South Korean cohort is perhaps not surprising when you consider the following points. The South Korean students will likely have had greater levels of exposure to English on the internet than the European students to Hangul (Korean). Thus, the European students' potential lack of prior exposure to vertical style emoticons and tildes would mean that these features were not part of their communicative repertoire. In turn, the results show that the South Korean students used these paralinguistic features when they communicated in English, which indicates a potential lack of awareness of the cultural specificity of these cues. This provides a superficial explanation for the differences in paralinguistic features found in this data but does not provide a deeper understanding of the influence that offline culture can have on digital discourse. This discussion will drill deeper into this topic in an attempt to shed some light on the connection between offline socio-cultural contexts and online manifestations of culture.

Previous research that examined cross-cultural differences in the manifestation of paralinguistic features reported variance in the depiction of emoticons (Park et al., 2013; Ryoo, 2004). Researchers have suggested that this variance is born from cultural differences in the interpretation of emotions (Park et al., 2013; Ryoo, 2004; Yuki, Maddux, & Masuda, 2007). It is postulated that people in Northeast Asia focus on the eyes to interpret emotions, while people in the West rely primarily on emotions being interpreted via the mouth (Park et al., 2013; Ryoo, 2004; Yuki et al., 2007). A closer examination of the data revealed that ten of the 15 vertical style emoticons depicted just the eyes (^^), and five included eyes and nose/mouth (T-T). In contrast, all of the horizontal style emoticons included a mouth. More research of this topic is needed to gain a clearer understanding of the connection between the offline interpretation of emotions and the online representation in emoticons.

In this study, the Korean students overwhelmingly chose to adapt to the horizontal style emoticons favoured by their partners. The South Korean students adapted their use of this paralinguistic feature when interacting with interlocutors who had a different cultural frame of reference. Awareness of online cultural diversity and adapting communication strategies to an interlocutor are key components of digital literacy in the DigComp 2.0 framework (Vuorikari et al., 2016). A possible explanation for this shift may be that the global context of the internet provided the South Korean students with enough exposure to the horizontal style emoticons used when communicating in English, leading to their ability to adapt. However, the students did not display this same level of adaptation in the use of tildes. The Korean students used tildes repeatedly without concern about whether they would convey the intended meaning, which suggests they were unaware of the cultural specificity of this feature. The students failed to notice that their partners were not using tildes, so continued to use this culturally specific feature during their interactions.

This observation has implications for pedagogical practice, as it suggests that students have a potential blind spot. Language learners often focus on observable patterns and learn by focusing on details, but they may not attune to the *absence* of a particular behaviour. This attention bias can result in useful information being overlooked. It is important for educators to be aware of this potential blind spot, as students need to develop strategies that will help them identify culturally specific aspects of communication, and this involves noticing behaviours both present and missing. Activities that draw students' attention to cultural manifestations in their own communication, including their use of paralinguistic features, can facilitate the development of this important facet of digital literacy.

After tildes emerged as a paralinguistic feature, I endeavoured to discover as much information as possible about their use. A tilde acts as a diacritical marker to illustrate pronunciation in some languages, such as Spanish. The Korean language, Hangul, does not use tildes to show stress or accent. As a paralinguistic feature used solely by the South Korean students, it represents a feature that is specific to online communication. Unfortunately, it proved difficult to find academic references to this feature, so I will provide an account based on resources available, including blog posts, Korean language tutorials, and reports. Tildes are now commonly used in South Korea as a paralinguistic feature in online, informal written communication, particularly in short message service communications and on social media (90Day Korean, n.d.). Tildes are most commonly used at the end of a sentence as an intonation marker to illustrate an elongating of the word to make it appear friendlier and more positive (90Day Korean, n.d.). The fluctuation and elongation of the intonation of a spoken word represented by tildes online, evokes a specific cultural association in South Korea. This elongation is associated with a nasalisation in speech that is characteristic of a childlike pattern (Eom & Hong, 2015). This speech pattern is a form of *aegyo* (Hangul:애교). *Aegyo* means to act and speak in a childlike, cute, winsome manner (Puzar & Hong, 2018).

Aegyo is a cultural phenomenon that has been propagated by popular culture and media (Strong, 2012) and is now ubiquitous in Korean society, particularly popular among younger generations (Puzar & Hong, 2018). It is considered a tool for fostering rapport, and is also used to diffuse negative situations (Puzar & Hong, 2018). It is used commonly in South Korea, particularly by females, so largely represents a gendered construct (Eom & Hong, 2015; Puzar & Hong, 2018). *Aegyo* is a strategy that is employed to navigate interactions, maintain harmonious bonds and minimise potential discord (Puzar & Hong, 2018). *Aegyo* is used as a tool to reject offers gently, dissipate negativity, and request favours, so potential disharmony is managed through the enactment of cuteness and diminutiveness, replacing more overt politeness strategies (Puzar & Hong, 2018).

A tentative conclusion drawn from this data is that tildes are the written representation of this socio-cultural prosodic feature and may be used to transfer some aspects of *aegyo* to an online setting. Exaggerated intonation and changes in pitch are the hallmarks of *aegyo*, so a tilde is used to represent this intonation online (90Day Korean, n.d.; Jeon & Cukor-Avila, 2015). It acts as a marker for sweetness and also to diffuse any possible negativity. This usage aligns with the way tildes were used in this study. Table 2 shows that tildes were primarily used to create a positive, friendly tone and to manage potential discord through the mitigation of threats and the restoration of harmony. Therefore, this versatile feature appears to play an important role in the management of rapport for South Koreans in an online setting. However, as the use of tildes was a culturally specific online phenomenon, the intended function would likely be lost on the audience, the CU student.

Interestingly, tildes were used by both male and female students in this study, suggesting that this paralinguistic feature deviates from the largely gendered construct of face-to-face *aegyo* (Puzar & Hong, 2018). These tentative conclusions should be treated with caution as this relatively new cultural phenomenon requires more research to understand the complexities of this social behaviour.

7.   Conclusion

As stated in the literature review, an awareness of online cultural diversity and an ability to use communication strategies appropriately are key components of digital literacy (Vuorikari et al., 2016). The findings from this study reveal that there are cultural manifestations in the use of paralinguistic features. The inductive coding of the data showed that members of the South Korean cohort used two culturally specific paralinguistic features in their online communication with their overseas counterparts: vertical style emoticons and tildes. The analysis revealed a feature, the tilde, that to the best of my knowledge has not been identified in previous virtual exchange research. Due to the fact that the emergence of tildes as a paralinguistic feature was unexpected, the tentative conclusions posited in the discussion chapter should be treated with caution. Nonetheless, this paralinguistic feature is interesting as it represents a specific and relatively recent socio-cultural phenomenon in South Korea, known as *aegyo*. *Aegyo* is used in a face-to-face setting as an alternative strategy to manage relationships and to navigate the complexities of South Korean society (Eom & Hong, 2015; Puzar & Hong, 2018). The transference of this cultural phenomenon to manage relational harmony online via the use of tildes is fascinating and represents a contribution to knowledge of how cultural diversity can manifest online.

In addition, the results indicate that students may be unaware of the cultural specificity of their paralinguistic choices, which hinders their ability to appropriately adapt their communication

strategy to the context. This has implications for pedagogical practice as it suggests students may benefit from awareness-raising activities that draw their attention to manifestations of culture online. Practitioners should consider integrating reflective tasks that specifically look at culture and online communication into the syllabus of their virtual exchange courses in order to help facilitate the development of this digital literacy skill.

7.1.   Study limitations

It is important that the conclusions drawn from this single body of evidence pertaining to the use of tildes are treated with caution until confirmed by additional research. This was an unexpected finding, so unfortunately it was not possible to conduct interviews with the participants to gain insight into their perspectives. As a result, the tentative conclusions made about this paralinguistic feature are formulated without insight from the participants. Interviews with the participants would have been beneficial to provide a more detailed account of this unexpected and under-researched paralinguistic feature.

7.2.   Further research

Further studies could explore whether there are manifestations of culture apparent in other online behaviours, apart from paralinguistic features. Are there other specific features of different cultures that are transferred from a face-to-face to an online setting through their own, hitherto unidentified paralinguistic features? More research that examines manifestations of cultural diversity online is needed to have a clearer understanding of this facet of online communication. In addition, an ethnographic exploration of tildes that combines online analysis with face-to-face interviews would deepen the understanding about this feature that has been initiated by this study.

References

90Day Korean. (n.d.). *Korean emoticons: the ultimate guide* [Online Korean Course and Blog]. https://www.90daykorean. com/korean-emoticons/

Argyle, M. (1988). *Bodily communication* (2nd ed.). Methuen.

Byram, M., Gribkova, B., & Starkey, H. (2002). *Developing the intercultural dimension in language teaching. A practical introduction for teachers.* Council of Europe. https://discovery.ucl.ac.uk/id/eprint/1562524/1/Starkey_ InterculturalDimensionByram.pdf

Darics, E. (2013). Non-verbal signalling in digital discourse: the case of letter repetition. *Discourse, Context & Media*, *2*(3), 141-148.

Darvin, R. (2016). Language and identity in the digital age. In S. Preece (Ed.), *The Routledge handbook of language and identity* (pp. 523-540). Routledge.

Dervin, F. (2010). Assessing intercultural competence in language learning and teaching: a critical review of current efforts. In F. Dervin & E. Suomela-Salmi (Eds), *New approaches to assessment in higher education* (pp. 157-173). Peter Lang.

Eom, S., & Hong, Y. (2015). *Politics of Aegyo: discursive and affective patterns of embodied cuteness in South Korea.* Yonsei University website. https://uic.yonsei.ac.kr/main/academic.asp?mid=m03_05_05

Evans, V. (2017). *The emoji code: how smiley faces, love hearts and thumbs up are changing the way we communicate.* Michael O Mara Books.

Facebook. (2018, December 31). *Stats*. Facebook Newsroom website. https://newsroom.fb.com/company-info/

Garrison, A., Remley, D., Thomas, P., & Wierszewski, E. (2011). Conventional faces: emoticons in instant messaging discourse. *Computers and Composition*, *28*(2), 112-125.

Giles, H., Coupland, J., & Coupland, N. (1991). (Eds). *Contexts of accommodation: developments in applied sociolinguistics*. Cambridge University Press.

Graham, S. L. (2016). Relationality, friendship, and identity in digital communication. In A. Georgakopoulou & T. Spilioti (Eds), *The Routledge handbook of language and digital communication* (pp. 305-320). Routledge.

Herring, S., & Androutsopoulos, J. (2015). Computer-mediated discourse 2.0. In D. Tannen, H. E. Hamilton & D. Schiffrin (Eds), *The handbook of discourse analysis* (2nd ed., pp. 127-151). John Wiley & Sons.

Herring, S., Scheidt, L., Wright, E., & Bonus, S. (2005). Weblogs as a bridging genre. *Information, Technology & People*, *18*(2), 142-171.

Herring, S., Stein, D., & Virtanen, T. (2013). *Pragmatics of computer-mediated communication*. De Gruyter Mouton.

Hinrichs, L. (2016). Approaches to language variation. In A. Georgakopoulou & T. Spilioti (Eds), *The Routledge handbook of language and digital communication* (pp. 19-35). Routledge.

Iorio, J. (2016). Vernacular literacy. In A. Georgakopoulou & T. Spilioti (Eds), *The Routledge handbook of language and digital communication* (pp. 167-179). Routledge.

ITU Publications. (2018). *Measuring the information society report* (vol 1, pp. 1-204) [Statistical Report]. International Telecommunication Union website. https://www.itu.int/en/ITU-D/Statistics/Documents/publications/misr2018/MISR-2018-Vol-1-E.pdf

Jeon, L., & Cukor-Avila, P. (2015). 'One country, one language'?: mapping perceptions of dialects in South Korea. *Dialectologia: Revista Electrònica*, *14*, 17-46.

Jeong, S., & Potts, C. (2016). Intonational sentence-type conventions for perlocutionary effects: an experimental investigation. In M. Maroney, C-R. Little, J. Collard & D. Burgdorf (Eds), *Proceedings of SALT 26* (pp. 1-22). Linguistics Society of America.

Kaye, L., Wall, H., & Malone, S. (2016). "Turn that frown upside-down": a contextual account of emoticon usage on different virtual platforms. *Computers in Human Behavior*, *60*, 463-467.

Kluzer, S., & Pujol Priego, L. (2018). DigComp into action—get inspired, make it happen. In S. Carretero, Y. Punie, R. Vuorikari, M. Cabrera, & O'Keefe, W. (Eds), *JRC Science for Policy Report*. https://ec.europa.eu/jrc/en/digcomp/digital-competence-framework

Lewis, T., & O'Dowd, R. (2016). Online intercultural exchange and foreign language learning: a systematic review. In R. O'Dowd & T. Lewis (Eds), *Online intercultural exchange: policy, pedagogy, practice* (pp. 21-66). Routledge.

Locher, M., Bolander, B., & Hohn, N. (2015). Introducing relational work in Facebook and discussion boards. *Pragmatics*, *25*(1), 1-21.

Mehrabian, A. (1971). *Silent messages*. Oxford.

MOE/KERIS. (2014). *2014 white paper on ICT in education Korea* [White Paper]. Korean Ministry of Education (MOE) and Korea Education and Research Information Service (KERIS).

Nishimura, Y. (2016). Style, creativity and play. In A. Georgakopoulou & T. Spilioti (Eds), *The Routledge handbook of language and digital communication* (pp. 103-117). Routledge.

O'Reilly, T. (2007). What is web 2.0: design patterns and business models for the next generation of software. *International Journal of Digital Economics*, *65*, 17-37.

Park, J., Barash, V., Fink, C., & Cha, M. (2013). Emoticon style: interpreting differences in emoticons across cultures. *Proceedings of the Seventh International AAAI Conference on Weblogs and Social Media, USA* (pp. 466-475).

Pew. (2018). *Internet/broadband fact sheet* [Fact sheet]. PEW Research Center website. http://www.pewinternet.org/fact-sheet/internet-broadband/

Puzar, A., & Hong, Y. (2018). Korean cuties: understanding performed winsomeness (Aegyo) in South Korea. *The Asia Pacific Journal of Anthropology*, *19*(4), 333-349.

Rainie, L. (2018). *Americans' complicated feelings about social media in an era of privacy concerns* [Analysis and news]. PEW Research Center website. https://www.pewresearch.org/fact-tank/2018/03/27/americans-complicated-feelings-about-social-media-in-an-era-of-privacy-concerns/

Ryoo, M.-L. (2004). Discourse and culture in computer-mediated communication. *The Society of British and American Linguistics and Literature*, *20*(2), 187-203.

Strong, S. (2012). *Too cute for words: an investigation of prosody's role in the construction of Aegyo as a speech style*. https://openscholarship.wustl.edu/vol8_iss2/139/

Vandergriff. (2013). Emotive communication online: a contextual analysis of computer-mediated communication (CMC) cues. *Journal of Pragmatics*, *51*, 1-12.

Vuorikari, R., Punie, Y., Carretero, S., & Van den Brand, L. (2016). *DigComp 2.0: the digital competence framework for citizens. Update phase 1: the conceptual reference model* (No. EUR 27948 EN). Publication Office of the European Union.

Walther, J. B., & D'Addario, K. P. (2001). The impacts of emoticons on messages interpretation in computer-mediated communication. *Social Science Computer Review*, *19*(3), 324-347.

Yuki et al., 2007

Yuki, M., Maddux, W. W., & Masuda, T. (2007). Are the windows to the soul the same in the East and West? Cultural differences in using the eyes and mouth as cues to recognize emotions in Japan and the United States. *Journal of Experimental Social Psychology, 43*(2), 303-311.

Zappavigna, M. (2012). *Discourse of Twitter and social media: how we use language to create affiliation on the web*. Continuum.

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