

THE IMPACT OF ENGLISH AS A LINGUA FRANCA ON EMOTIONS

The role of individuals' native language vs. second language¹

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Abstract – This chapter aims to contribute to the current understanding of how languages impact the emotions elicited by textual messages. Grounding on the *episodic trace theory* – a theoretical framework originally developed in the field of cognitive psychology – we examine the role of ELF (English as a Lingua Franca) in affecting the emotional reactions of individuals having different linguistic backgrounds. Across two studies, we investigate the role of ELF in international communication by focusing on the dichotomy of native (L1) vs. second language (L2). Study 1, conducted online through the use of self-reported measures, shows that the use of ELF arouses more positive emotions among individuals having English as a native language (L1), rather than as a second language (L2). Study 2 employs an *Automated Facial Coding* (AFC) software, namely FaceReader™, able to track human basic emotions, and confirms how textual messages in L1 produces a greater emotional reaction than L2. The chapter concludes with a discussion of the theoretical and practical implications of the findings, followed by some directions for future research.

Keywords: ELF; emotions; neuromarketing; intercultural communication.

1. Introduction

English is actually recognized as the new lingua franca. The pervasive use of English as a world language represents one of the most evident aspects of globalization. Regardless of native language, consumers are continuously exposed to marketing messages in English through TV, advertisements and the Internet. Although it allows the conveyance of the same information to an international audience, consumers' emotional reaction may differ with regard to a number of factors. Indeed, prior academic research has emphasized the need to improve the current knowledge of how languages influence consumer response to marketing messages (Johar *et al.* 2006). To this end, past research

¹ Although this paper is the result of collaboration between the authors, Cristian Rizzo is responsible for the sections 1 and 2, Virginia Barbarossa for section 3, and Antonio Mileti for section 4.

has stressed the perceived emotionality of marketing messages delivered in different languages (Puntoni *et al.* 2009). This chapter focuses on consumers' native language (L1) and second language (L2), and examines the emotional reactions conveyed by such stimuli.

Marketing messages are increasingly delivered in a language that is different from consumers' native tongue. Among the others, this represents the case of tourists' accommodation whose marketing initiatives are targeted to an international audience with the aim to convey positive feelings and emotions. However, consumers exposed to these messages may differ significantly from each other with reference to a number of factors, such as ethnicity and cultural contexts. As a consequence, the study of how such stimuli affect the perceived emotionality of consumers speaking different languages could allow the tailoring of marketing plans suitable for each group of consumers.

The present research contributes to clarifying the impact of language type on consumers' positive emotion (i.e., happiness) in two ways. First, as previous studies (Puntoni *et al.* 2009) that examined the perceived emotionality of marketing messages in consumers' native language (L1) versus second language (L2), study 1 builds on *Episodic Trace Theory* (Raaijmakers, Shiffrin 1992) to examine possible differences across tourists. This theory postulates that the retrieval of words encountered in consumers' memory lead to experience a greater emotionality. The application of this framework in the field of linguistics has already allowed explanations of how textual information (e.g., marketing slogans) expressed in consumers' native language (L1) are perceived as more emotional than messages in the second language (L2) (Puntoni *et al.* 2009). Consistent with this finding, this study aims to show how more positive emotions are experienced when individuals speaking English as a native language (L1) read a written text in ELF (English as a Lingua Franca). By examining the case of Italian old manor farms, we provided evidence that tourists having English as a native language are happier when reading a textual description of these farms in ELF.

Second, study 2 provides more insightful explanations of this mechanism by adopting a neuromarketing approach to study consumers' emotional reactions. This research applied an automated facial coding (AFC) software, namely FaceReader™ (Noldus 2014), that is a neurophysiologic tool able to track human basic emotions. By creating a 3D Active Appearance Model (AAM) (Cootes, Taylor 2004), the software captures a person's face and compute a score for each analysed emotion on a scale from 0 to 1 (see Van Kuilenburg *et al.* 2005). Typically, FaceReader™ recognizes seven categories of basic emotions: neutral, happiness, sad, angry, scared, surprised, and disgusted (Ekman, Cordano 2011; Ekman *et al.* 1969). In an experiment setting, facial data were collected through a remote webcam. In the last years,

research that examined consumers' emotion via FaceReader™ have dramatically increased due to the possibility of dealing with the issues of self-awareness (Pryor *et al.* 1977) and social-desirability (Arnold, Feldman 1981). As a consequence, its application has proliferated in a variety of research contexts, such as social psychology (Chentsova-Dutton, Tsai 2010), marketing (Danner *et al.* 2014; De Wijk *et al.* 2014; Garcia-Burgos, Zamora 2013; Lewinski *et al.* 2014), and technology (Goldberg 2014). In line with Lewinski *et al.* (2014), we focused on happiness as it represents the final aim – in terms of perceived emotion – of marketing communication (Belanche *et al.* 2013). For instance, many brands (i.e., Coca Cola) choose happiness as emotion to arouse through advertising strategies (Grisaffe, Nguyen 2011). Overall, the study of tourists' emotional reactions with the support of this neuromarketing tool provided meaningful explanations of the results obtained in study 1.

2. Theoretical background

2.1. ELF (*English as a Lingua Franca*)

The acronym ELF (English as a Lingua Franca) concerns the use of English in intercultural and international communication among people with different linguistic and cultural backgrounds (Kachru 1992). ELF was initially used in the British post-colonial areas (or Anglophone countries) due to commercial aims (Kachru 2005). As a consequence, the use of English proliferated beyond the boundaries of native-speakers' countries subsequently leading to the formation of variations of English used in other territories. Therefore, ELF is characterized by a hybrid nature due to the impossibility to separate cultural knowledge from linguistic ones (MacKenzie 2014; Seidlhofer 2011). Based on this reasoning, Ostler (2010) defined the "lingua franca" as a convenience language that originates from the interaction between the language and cultural factors of non-native speakers. This language is grew up spontaneously, and its features allowed it to be used both in local and global contexts (Jenkins, 2000, 2007). Many researchers highlighted its practical utility and, as a consequence, its social spread (Jenkins 2000, 2007; Seidlhofer 2001).

Many studies (Lowenberg 1993, 2000) have tried to differentiate Anglophone norms, which are used by highly educated people, and English of non-native speakers. ELF is the language used among non-native speakers, especially in social and professional setting, and it has many differences with Standard English. Blommaert (2015) noted that the use of a specific language, such as English, is characterized by many aspects (i.e. varieties, registers, styles) that need to be analyses in their effective contexts of use.

Elder and Davies (2006) and McNamara (2011) pointed out how ELF has changed over the last decade because of its use by people speaking different languages. Indeed, ELF is an important means of communication among non-native speakers, both in formal and informal social contexts, as it does not only allow the exchange of information, but also cordial relationships among people (Leung, Street 2014). The main feature of ELF is, therefore, its nature grounded on multilingualism, so its assessment must go beyond socially-constructed languages and educational systems (Jenkins 2015).

ELF is significantly influenced by non-native speakers and their culture. Such a flexibility determined a growing numbers of non-native speakers using ELF as a common and useful means of communication (Seidlhofer 2001, Jenkins 2007).

To date, globalization processes are pushing linguistic evolution in the direction of English as ‘Lingua Franca’, since most interactions in English are among non-native speakers (Jenkins 2012; McNamara 2014). Therefore, the study of the consequences of the diffusion of ELF in the marketing communication acquires a remarkable importance.

Two different streams of research analysed the effect of ELF on emotions and individuals’ behaviour (Costa, Sebastián-Gallés 2014; Pavlenko 2012). The first builds on the link between lexicon-semantic representation and emotion regulation (Benelli *et al.* 2012; Berkman, Lieberman 2009; Burklund *et al.* 2014; Kalisch 2009; Kohn *et al.* 2014; Kross *et al.* 2014; Messina *et al.* 2015; Morawetz *et al.* 2016). According to this approach, lingua franca shows a limited emotional content because of the low frequency of emotional words (Opitz, Degner 2012). The second approach focused on the mechanism of mother-tongue inhibition that occurs when speaking in non-native languages (Gao *et al.* 2015; Jończyk *et al.* 2016; Pavlenko 2012). Nonetheless, research about ELF emotional effects is ambivalent. Some authors showed that reading a text in the mother tongue determine greater levels of *arousal* than ELF (for example, Caldwell-Harris *et al.* 2011). Conversely, other research has highlighted that the use of foreign languages does not influence the motor activation of facial muscles and diminishes the perception of negative information in reading (Dudschtig *et al.* 2014; Foroni 2015; Pulvermüller 2005; Pulvermüller, Fadiga 2010; Winkielman *et al.* 2008).

Therefore, if on the one hand previous studies (for example, Caldwell-Harris 2015) evaluated the emotional aspect of word processing in a second language, on the other hand, there are other authors (for example, Hayakawa *et al.* 2016) focusing on the cognitive side of word processing.

Emotion regulation, that is the effect of second language on the cognitive and affective processing, could be either conscious or unconscious



(Gyurak *et al.* 2011; Koole 2009); in both cases, it is related to verbal and semantic processing and mediated by speakers' inner thinking (Messina *et al.* 2015; Morawetz *et al.* 2016). Specifically, emotion regulation is more effective when reading a text in the second language because of cognitive control processes that reduce the perception of affective stimuli (Griner, Smith 2006; Gyurak *et al.* 2011).

2.2. The Episodic Trace Theory

The *Episodic Trace Theory* represents a theoretical framework that could allow an examination of perceived emotional differences across people characterized by different cultural and linguistic contexts. It is a theoretical framework originally developed in the field of cognitive psychology (Raaijmakers, Shiffrin 1992). This framework is based on the assumption that experiences leave an episodic trace in memory and remain integral to later perception. When exposed to new stimuli, individuals activate an echo – an array of activated traces in memory – that contain information stored in memory that is absent in the stimulus. This cognitive mechanism lead individuals to associate new stimuli to past emotional experiences. The explanatory power of this framework has been proved in the field of social psychology by showing, for example, how auditory details (e.g., intonation and vocal pitch) are unconsciously stored in memory (Palmeri *et al.* 1993).

The predictive ability of this model has been recently demonstrated in the field of linguistics. The mechanism of episodic memory resulted helpful to explain how memories originally experienced in consumers' native language tend to be easily activated when triggered by words expressed in individuals' native language (Marian, Kaushanskaya 2004; Marian, Neisser 2000). Puntoni *et al.* (2009) extended such result to the marketing field by showing that marketing slogans tend to be perceived as more emotional when reported in consumers' native language than second language. Therefore, it seems plausible that the episodic trace mechanism could be applied to study differences between individuals having English as a native or second language. Formally, it is possible to say that:

H1: The use of ELF arouses more happiness for individuals having English as a native (vs. second language).

3. Methodology and results

3.1. Study 1

Study 1 aims at examining the linkage between language type and emotions. Moving from past studies showing how stimuli reported in consumers' native language (*versus* a second language) are more likely to arouses a greater emotionality (Puntoni *et al.* 2009), this study tried to extend such a framework to examine how the use of ELF impacts the perceived emotionality of tourists having English as a native (L1) or second language (L2).

3.1.1. Method

This study was carried out on a sample of 237 participants (91 females, 146 males; $M_{Age} = 30$ yrs; $SD_{Age} = 9$). The respondents were randomly recruited from an online paid pool of international respondents. Only respondents who reported being fluent in English were included in the study.

In the first part of the survey, participants were asked to imagine they were going to visit Southern Italy, and then they read a booklet featuring the description of four ancient manor farms. Then, respondents were asked to report how they felt after reading this text on a 5-point scale (1 = "Not at all happy"; 5 = "Very happy"). In order to identify their linguistic background, we asked respondents to report their nationality, as well as their native and second language. Finally, respondents reported their socio-demographic data (e.g., gender, age).

3.1.2. Results

We identified language type according to consumers' native language versus second language. In particular, 116 individuals reported speaking English as a native language, 113 individuals reported speaking English as a second language, while 9 tourists did not report English neither as a native nor as a second language. Therefore, these remaining tourists were dropped from the analyses. In order to examine the impact of language on emotions, we performed an ANOVA in which language type was coded as -1 for consumers speaking English as a native language, and 1 for consumers speaking English as a second language. The results confirmed that reading a text in a consumer's native language (L1) has a greater effect on positive emotions (i.e., happiness) than reading in a second language (L2) ($M_{L1} = 4$, $SD_{L1} = 0.70$, $M_{L2} = 3.45$, $SD_{L2} = 0.77$, $F(1, 227) = 16.01$; $p < 0.01$).

Overall, Study 1 provides our first empirical evidence of how the use of ELF in international communication is unable to convey similar positive

emotional reactions among consumers with different linguistic backgrounds. First, the obtained results confirmed that the use of ELF is more likely to arouses positive emotional reactions for consumers speaking English as a native language.

Despite this evidence, there are some aspects that require further investigation. In particular, the assessment of positive emotions with a single item related to happiness does not provide a meaningful measurement of positive emotions. Therefore, by comparing ELF with other languages (e.g., Italian), the next study aims to provide a better assessment of the role of language type on positive emotional reactions.

3.2. Study 2

Study 2 was carried out in-field with the final aim of analysing positive emotions (i.e., happiness conveyed by texts for tourists having English as a native or second language). The study was conducted at a tourist information-point located in a medium-sized Italian city.

In order to examine the differential impact of communication type on perceived happiness among individuals with different linguistic backgrounds, we used Italian (i.e., a Romance-based language) and ELF.

This study employed a novel method for measuring consumers' emotions: FaceReaderTM, an *Automated Facial Coding* (AFC) software able to track basic human emotions. By creating a 3D Active Appearance Model (AAM) (Cootes, Taylor 2004), the software captures a person's face and computes a score for each analysed emotion on a scale from 0 to 1 (Van Kuilenburg *et al.* 2005). Typically, FaceReaderTM recognizes seven categories of basic emotions: neutral, happiness, sadness, anger, fear, surprise, and disgust (Ekman, Cordaro 2011; Ekman *et al.* 1969). This study focused on happiness, which is the final aim – in terms of conveyed emotions – of much of the marketing communication. The use of this methodology allowed us to measure emotions in a more reliable way, even while working with small samples of consumers.

3.2.1. Method

Ninety-nine participants (56% female; $M_{Age} = 40$ yrs, $SD_{Age} = 15.98$) were randomly recruited at a tourist information-point of an Italian tourist city. Participants were included if they reported that they had both a fluent English and Italian.

Participants were invited to watch a two-minute video presenting four manor farms located in the same province. Specifically, the video showed the descriptions of the four manor farms, each one presented in two different ways: i) through a text description in Italian; and ii) through a text description

in English. Participants saw all the descriptions in sequence and in a randomized presentation order so as to mitigate all possible order effects.

While exposed to the different descriptions, participants' happiness was registered through the FaceReader™ software, which measured and analysed individuals' facial expressions (through a webcam) in order to provide data summarizing the strength of the displayed emotion.

As the experiment involved a comparison between tourists having English as a native ($N = 26$) vs. second language ($N = 63$). Participants who did not fall into these groups were not considered for the subsequent analyses. At the end of the survey, respondents reported some socio-demographic information (e.g. gender, age).

3.2.2. Results

To compute usable measures for perceived happiness, we averaged the item scores related to the four Italian text descriptions, and the four English text descriptions. Next, we conducted a one-way repeated measures ANOVA to compare these two scores for individuals' perceived happiness.

Results showed a significant effect for language type, Wilks' Lambda = .90, $F(2, 85) = 3.50$, $p < .05$, multivariate partial eta squared = .09. Subsequent pairwise comparisons showed that, when considering texts in Italian, no statistical differences emerged in the mean perceived happiness of tourists having English as native ($M = 0.079$, $SD = 0.08$) vs. second language ($M = 0.053$, $SD = 0.07$). Conversely, when considering texts in ELF, mean perceived happiness was higher for tourists having English as a native ($M = .104$, $SD = .08$) than a second language ($M = .048$, $SD_{Eng} = 0.05$).

Overall, the findings of this study reveal that tourists having English as native language displayed greater levels of happiness when confronted with ELF, thereby confirming our research hypothesis.

4. General discussion

The use of English proliferated through various territories, pushing it further in the direction of a "Lingua Franca" (Ostler 2010). Therefore, the linguistic analysis represents a growing area in consumer research, and many studies have adopted a psycholinguistic approach in order to examine the emotional processes determined by language (Luna, Peracchio 2001; Puntoni *et al.* 2009; Tavassoli, Lee 2003).

The present study aimed at contributing to this stream of research by analysing the differential impact of written texts stimuli used in the marketing communication. More specifically, its main objectives were to examine the emotional responses generated by stimuli represented by English texts on

consumers' native language (L1) and on consumers' second language (L2), and to investigate the emotional reactions delivered by such stimuli. In particular, it has been analysed the communication strategies implemented by old manor farms that are typical types of Italian accommodations.

In contrast with past research that mainly focused on the differences between L1 and L2, this article examined the impact of ELF on individuals having English as native or second language. From a theoretical perspective, this research contributes to the knowledge of how the use of English as Lingua Franca can represent real stimuli to the individual's perception, facilitating or obstructing the negative positive/emotional reactions. The results confirm that ELF has a limited emotional content and that reading a text in one's mother tongue produces greater emotionality. More specifically, the outcomes of this research indicated that the use of English texts in international communication generates a greater emotional reaction among individuals having English as a native language rather than second language.

From a managerial perspective, in line with Puntoni *et al.* (2009) that examined the perceived emotionality of marketing messages in consumers' native language (L1) versus second language (L2), this study built on the Episodic Trace Theory (Raaijmakers, Shiffrin 1992) to examine emotional differences between consumers. The results confirmed our prediction that more positive emotions are experienced when reading a written text in a familiar language. In this perspective, not only in the tourism market, it would be appropriate to calibrate the use of promotional texts in English or in the tourists' mother tongue, relating them to their linguistic origins. This would facilitate an increase in positive emotional responses to the message, rising their purchase intention.

This study has some limitations that might offer opportunities for future research. First, we built our studies by focusing on the dichotomy of native (L1) vs. second language (L2). Although this may represent one of the most renowned theoretical frameworks, it is also possible to analyze differences between consumers having a different linguistic background by considering other aspects, that is, for instance, the language group (i.e., Romance versus Germanic). Second, from a methodological point of view, our empirical studies did not analyze possible interactions with consumers' socio-demographics. Indeed, one might argue that certain effects on emotions may vary according to age or sex. Even though we did not specify an interaction of these factors in our analysis, it is worth noting that consumers' socio-demographics were added as control variables.

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