INTERCULTURAL COMMUNICATION PATTERNS AND LANGUAGE USE IN COMPUTER MEDIATED-COMMUNICATION[1]

Abstract: This paper aims at analyzing the degree to which intercultural communication patterns are embedded in computer-mediated communication. Drawing on Hall's and Hofstede's intercultural communication dimensions, this study evaluates empirically high-versus-low context cultural orientations as reflected in the electronic medium, namely the blog, in three different cultures. Cultural variation is also analyzed in linguistic features and communication style in a synchronous mode of communication, by investigating data from several popular blogs from Japan, Germany and Italy.

Keywords: intercultural communication, (computer-mediated communication) CMC, blogs, cultural patterns.

Introduction

With the advent and worldwide spread of the Internet, new communication channels have emerged, allowing people from different cultures, situated in various parts of the world, to communicate regardless of time and space barriers. The internet offers another context and channel for individuals to meet and build relationships, similar to face-to-face interactions. Moreover, it has smoothed the emergence of the global village with its global villagers, all so keen on sharing and accessing information. Electronic communication technology has brought about a new dimension to the study of intercultural communication, which was previously limited to face-to-face interactions. Intercultural communication theories are now shaped and applied to the new form of communication, known as computer-mediated communication.

Intercultural communication and CMC

Communication is an essential tool and underpins all areas of human interaction. Human communication is a complex process and has been defined in various ways, but generally it refers to the act of conveying meaningful information, and takes place between a sender and a receiver. People communicate with each other in a variety of ways according to the message they want to convey and the context in which communication takes place. Consequently, there are a number of forms and types of communication such as e-mail, face-to-face, telephone, meetings, etc. Intercultural communication refers to communication taking place between people with different cultural and national backgrounds, with distinct communication patterns, styles and preferences, and who do not share the same mother tongue. As Neuliep points out, intercultural communication is a multifaceted process, a combination of the cultural, multicultural, environmental, perceptual and socio-relational contexts between people who are encoding and decoding verbal and nonverbal messages. (see Neuliep, 2003) The study of intercultural communication is a complex venture which involves a number of disciplines: anthropology, psychology, business studies, communication science, linguistics, sociology, geography, and history.

Each individual is characterized by specific patterns of thinking, feeling, and behaving acquired throughout his life, starting within the family and continuing at school,

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[1] Adriana Teodorescu, "Dimitrie Cantemir" Christian University, Romania, ada_teodorescu@yahoo.com.

at the workplace, and eventually in the social environment in which the individual lives. All these patterns of thinking, feeling, and acting define every individual's culture, that ''particular mental software'', as Hofstede has called it. Culture is "the collective programming of the mind that distinguishes the members of one group or category of people from others." (Hofstede et al., 2010: 6))

As Samovar & Porter assert, cultures differ from one another, and consequently the communication practices and behaviours of people from different cultural backgrounds will vary considerably. Thus, "cultural perceptions and symbol systems are distinct enough" to impede the communication process between people in an intercultural context. (Samovar & Porter, 1997, 70) Cultural differences manifest themselves in various ways, and vary according to each group's values and practices. Thus, a variety of communication problems may arise in intercultural encounters from the differences between values and practices among cultures. Therefore, people interacting with other cultures have to learn about those cultures, about their values, beliefs, symbols, and rituals. As an outsider, the learner may never come to share those values and beliefs, but he/she may get a good understanding of them. When individuals from different cultural backgrounds meet and exchange information, they carry with them the values, thoughts, emotions and behaviours cultivated by their cultures. Hence, in order to achieve effective communication within an intercultural environment, the interactants have to understand and apply the values, symbols, and rituals of the other culture. Awareness and understanding of cultural differences is vital in an intercultural communication environment because, as Gibson contends, cultural differences may impede the communication process: "Communication can be very difficult if there is a big difference between the two cultures; if there is too much 'cultural noise', it can break down completely." (Gibson, 2002: 9)

Intercultural communication has reached new levels with the wide spread of the Internet and information technologies. The worldwide diffusion of the Internet has led to the emergence of new means of human interactions, thus paving the way for intercultural communication in an electronic environment. The Internet transcends physical and social boundaries of other forms of communication, and facilitates people's interaction at global level. The process of interpersonal communication via computers or other hi-tech devices, involving people situated in different environments is generally known as computer-mediated communication (CMC). Herring defines computer-mediated communication as 'communication that takes place between human beings via the instrumentality of computers' (Herring, 1996, 1), and characterizes it as 'an important new communication modality that is increasingly permeating everyday life in industrialized societies' (Herring, 1996: 2).

While computer-mediated communication has initially referred to interpersonal interactions that occur via computer-mediated formats, such as instant messages, emails, chat rooms, etc., lately the term has also been applied to other forms of text-based interaction, or Internet-based social networking. Even though previous research has argued that CMC promotes isolation and remoteness, computer-mediated communication tools such as emails, blogs, social networking, etc., have proved to develop and sustain interpersonal communication, by increasing information exchange, developing relationships and intercultural communication, and promoting knowledge spread at global level. People not only socialize online, but they also incorporate CMC tools in their practices, as an instrument of information search in both their professional and private life. This new form of communication in an electronic environment becomes more challenging within the wide range of cultural values. Moreover, the use of CMC between individuals

from different cultural backgrounds may either facilitate or hinder communication, depending on their cultural awareness and intercultural skills.

Given the complexity of the intercultural communication process within the electronic environment, as new channels and contexts emerged with the use of the new communication technologies, empirical research has to be conducted to understand the implications and effects of culture on computer-mediated communication.

Cultural variation and language use within CMC

Previous research on culture and CMC has investigated to what extent the frameworks for cultural analysis developed by Hall and Hostede are effective for intercultural communication in CMC environments. Findings suggest that Hall and Hofstede's models still work well for certain types of online research. The most productive research is maybe that related to the graphic elements of websites of multinational corporations, which analyzes how far the findings for the websites in each country correlate with Hofstede's index values. Elizabeth Würtz focuses on the websites of McDonald's restaurants and argues that the websites analyzed do show features that are consistent with Hall's distinction between high context and low context cultures. (see Würtz, 2005)

The vast research on intercultural communication offers a large array of models of cross-cultural analysis. Our aim is to try to adapt some of them to online communication, and see to what degree this undertaking is possible. For this purpose, we have collected and analyzed data from several popular blogs from Germany, Italy, and Japan. Our purpose is to analyze language use and variations among blogs from different cultures and see how language is used in different cultures, and how and if the words people use in their daily exchanges reflect their cultural patterns and attitudes. Recent research (Pennebaker, Chung, Hart et al.) has proved that the words people use are powerful markers and reflect their personalities, social connections, and thinking styles: "With the development of increasingly versatile computer programs and the availability of natural language text on the internet, we are now standing at the gates of a new age of understanding the links between language and personality." (Chung and Pennebaker, 2007: 343)

The data in our sample were analyzed using the Linguistic Inquiry Word Count, a text analysis software program, designed by James W. Pennebaker, Roger J. Booth, and Martha E. Francis. LIWC searches for and counts both content and style words, and calculates the degree to which people use different categories of words, such as positive or negative emotions, self-references, causal words, and 70 other language dimensions. We have used the LIWC software to determine the rates of self-references, social words, positive emotions, negative emotions, overall cognitive words, articles and big words use across several popular blogs in Italy, Germany and Japan. We have relied our investigation on the assumption that, as research has already proved, word use can mirror social, cognitive, and behavioral processes.

Edward Hall proposed a popular cultural framework, according to which all cultures can be situated in relation to one another through the styles in which they communicate. In line with Hall's model, there are two types of cultures characterized by two distinct communication styles - high context vs. low context cultures. In high context cultures (such as Japanese and Chinese), the meaning is implicit, indirect, and has to be inferred from the context in which the communication is taking place. Moreover, non-verbal communication plays an essential part, and contextual clues are of utmost importance. In contrast, in low context cultures (such as Germans, Swiss, Scandinavians), the context is less important, and the meaning is direct and explicit. Low context cultures

are usually dynamic cultures, with significant changes over time, while high context cultures are more than often static cultures, with little changes over time.

According to Hall's model, a direct and open communication style (low-context) is common in individualistic cultures, whereas an indirect and implicit communication style (high-context) is expected in collectivistic cultures. Drawing on these two cultural dimensions, we looked at how high and low context cultures use words in online communication, especially in blogs. A high rate of self-reference words usually indicates focus on the self, and is characteristic of individualistic cultures. On the use of the first person singular pronoun, Chung &Pennebaker contend that: "Whereas first person singular pronouns suggest attention on the self, most other pronouns implicitly or explicitly suggest that the person is attending to other individuals." (Chung & Pennebaker, 2007: 351) Our findings show that German blogs use the highest rate of self-references (2.87) as compared to Japanese and Italian blogs. This finding is consistent with Hofstede's individualism index value, which ranks Germany with an index of 67, whereas Japan is indexed 46. Therefore, individualistic cultures (Germany) are overall high in self-references compared to collectivistic cultures (Japan). However, when compared to the measures for both formal and personal texts provided by LIWC, our entire corpus for the three countries proves to be very low in self-references. It was contrary to our expectations, as usual blogs are considered to have a more personal content, similar to dairies, and a higher rate of self-reference words was expected. Dissimilarity was also found in the Italian corpus, which shows the lowest rate of self-reference words, although Italy is ranked with the highest individualism index value (76) of the three countries we analyzed. We would have expected Italian blogs to present the highest rate of self-references, as Italy is an individualistic culture according to Hofstede's individualism index values. This unpredicted finding may be explained by Kanagawa et al.'s view, according to which collectivistic values are achieved through focus on the self. (Kanagawa et al., 2001) Thus, we could account for the higher rate of self-references in Japanese blogs when compared to Italian blogs. The frequency of the first person plural pronouns in our data led to another counter stereotypical finding: individualistic cultures used first person plural pronouns at a higher rate than collectivist culture. A similar finding was reported by Chung & Pennebaker, when comparing the frequency of the first person singular and plural pronouns in American vs. Japanese texts (individualistic vs. collectivistic cultures). American texts accounted for a higher rate of first person plural pronouns compared to translations of Japanese texts. (Chung & Pennebaker, 2005)

Self-reference words are function words, and they "serve as the cement that holds the content words together." (Chung & Pennebaker, 2007: 347) Moreover, the ways in which we use function words reflect our linguistic style, and have a powerful impact on the listener or reader. (see Chung & Pennebaker, 2007: 347) The use and frequency of pronouns, which in our samples is very low compared to LIWC measures, may suggest that the texts we analyzed are closer to formal texts, and lack a shared knowledge between the writer and reader. This hypothesis is supported by Chung & Pennebaker's statement, according to which "[…] function words are linked to social skills. A closer analysis of function words points to their social functions more clearly. Pronouns, for example, are words that demand a shared understanding of their referent between the speaker and listener." (Chung & Pennebaker, 2007: 349)

Our findings show a higher rate of overall cognitive words for high context culture (Japan) as compared to low context cultures (Germany and Italy). High context culture also reveals a low use of social words, articles, and big words compared to low context cultures.

No strong differences are evident between the usage of positive and negative emotion words for all the three cultures. Our samples also reveal a high rate of articles, which exceeds both personal and formal text values provided by LIWC. Considering the overall values, we notice that the values of key linguistic features analyzed in our samples are closer to measures supplied by LIWC for formal texts (see Figure 1).

Key linguistic features - LIWC (values per 1,500 words)

	Germany	Italy	Japan	Personal texts	Formal texts
Self-references	2.87	1.37	2.19	11.4	4.2
Social words	6.14	6.61	4.76	9.5	8.0
Positive emotions	2.13	1.85	1.94	2.7	2.6
Negative emotions	1.47	1.19	1.44	2.6	1.6
Overall cognitive words	4.94	4.70	5.76	7.8	5.4
Articles	9.34	10.42	8.82	5.0	7.2
Big words	21.68	24.94	18.59	13.1	19.6

Figure 1

Time has a different meaning not just to individuals but also to whole groups or cultures. Different individuals and different cultures are more or less past-, present-, or future- oriented. The ways one perceives time vary widely across cultures. Some cultures put more emphasis on the past, whereas others focus on the present, and others are prone to a future-orientation, depending on their cultural backgrounds. As Kluckhohn & Strodtbeck contend, one's time orientation is generally the result of his/her culture, as intricate socialization processes may lead to a past or future orientation. Thus traditional societies favor a past time orientation, while modern Western societies are prone to a future time orientation. According to Hofstede's LTO (long-term orientation) Index Values for 93 countries, Japan is the highest-scoring country (index 88) of the three countries we analyzed, Germany comes second (index 83), and Italy is the lowest-scouring country of the three (index 61). Verb tenses used in our data show a higher frequency of past verbs for the Japanese corpus, and the lowest rate for the Italian blogs (see Figure 2). Therefore, language use in terms of tense choice is consistent the above statements that Japan is a traditionalist culture, with strong ties in the past, while Italy and Germany are more future-oriented.
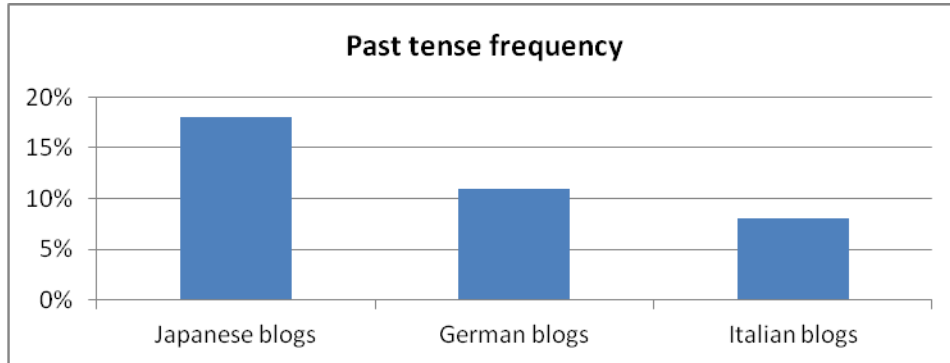
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Figure 2

Conclusions

Due to the widespread of the Internet, people are now interacting globally. While time and space are no longer barriers to intercultural communication, new obstacles have emerged due to the lack of cultural awareness and understanding. Each individual's values, symbols, and practices vary widely and more importantly, they are culturally shaped. As Klopf & Park point out, the ways in which people communicate, their language patterns, style, and nonverbal behaviors are all culturally determined. (Klopf & Park, 1982) These differences in communication styles across cultures subsequently lead to differences in language use and word choice, depending on the various cultural dimensions of each society. The words people use reflect their thinking and values, while revealing a great amount of information about their social interactions and behavior patterns.

Our attempt aimed at investigating language use patterns according to cultural frameworks proposed by Hall and Hofstede. Data were analyzed using LIWC application, and revealed different language patterns and communication style across the selected cultures. High context culture showed a high rate of cognitive words, and a low usage of social words. On the contrary, low context cultures favored a higher rate of social words, articles, and big words (> 6 letters). Past-oriented cultures, like Japan, showed a higher rate of past tense verbs compared to future-oriented cultures. Although, some of the findings were consistent with cross-cultural frameworks established in intercultural communication, a few inconsistencies appeared, which require further research and analysis, along with new frameworks adapted for online communication.

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