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MySpace or OurSpace: a Cross-Cultural Empirical Analysis of MySpace Comments

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MYSPACE OR OURSPACE: A CROSS-CULTURAL EMPIRICAL ANALYSIS OF MYSPACE COMMENTS

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DEDICATION

To my loving and beloved parents for their continous support in the past 26 years and for always having faith in me.

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ABSTRACT

The goal of the current study was to compare users from two distinct cultures to examine the extent to which they communicate differently through MySpace comments and to see how such differences might relate to their cultural background and biological sex. For this purpose, Hofstede's theories of individualism/collectivism and masculinity/femininity and Ting-Toomey's face negotiation theory were used as frameworks.

Content analysis was performed on 150 Hungarian and 150 American randomly selected MySpace comments. One-way ANOVAs and crosstabulations showed some significant differences and similarities between Hungarian and American MySpace comments. Real-life cultural differences and sex-linked differences were found to be reflected in the comments. Thus, this study found mixed evidence for the existence of a global "MySpace culture" that includes both global linguistic features and reflects upon elements from users' own traditional culture.

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CHAPTER I

INTRODUCTION

The Internet has been identified as the fastest diffusing technology to date, even within less developed and smaller countries around the world (Dholakia, Dholakia, & Kshetri, 2003). The question weather the use of this innovation in different countries is influenced by cultural norms, or whether this technology influences cultural norms, has been answered in many different ways. Thus four prevailing assumptions have been identified in relation to the role of culture and the Internet (Hanna & De Nooy, 2004). The first proposition is that the Internet is a borderless world that removes cultural difference and can be described as one. This view was most prominent in the mid 1990s, which Wellman (2004) refers to as the "first age of Internet studies" (p. 124). During this period, the Internet was seen as "a technological marvel, thought to be bringing a new Enlightenment to transform the world" (Wellmann, 2004, p. 124) and researchers extolled the Internet as egalitarian and globe-spanning.

The second proposition, however, is in complete contrast of the first one, since it describes the Internet as a "superhighway to cultural difference," (Hanna & De Nooy, 2004, p. 258) which provides immediate access to other cultures by putting people in

direct contact with others. Hanna and De Nooy regarded to these two assumptions as overly naive and culturally not aware.

The third assumption is based on the postulation that communication over the Internet is consistent with other forms of cultural differences and that behavior in CMC conforms to other tendencies in cultural behavior. Studying online discussion forums of four different news sites in France and the United Kingdom, Hanna and De Nooy found some evidence for this assumption suggesting that cultural difference is manifested in communicative practices online.

The final proposition suggests that CMC is influenced by but also influences cultural and genre-related expectations. According to this view, CMC is both influenced by culture but also has an impact on communication behavior and might favor certain communication practices. In their study, Hanna and De Nooy did not find evidence that online discussion would have departed from cultural norms in order to display traits that would be favored by CMC.

1.1. Purpose

Recent research that has begun to consider users' cultural differences in relation to the World Wide Web found empirical evidence for Hanna and De Nooy's third proposition that the Internet is not a culturally neutral space and that real-world cultural differences can be related to the virtual world (e.g., Pfeil, Zaphiris & Ang, 2006; Singh & Baack, 2004; Singh, Zhao, & Hu, 2003; Tsikriktis, 2002). For instance, Pfeil et al. (2006) acknowledge that the Internet is a global medium and emphasize the idea that users and creators have different backgrounds, live in different environments, and belong to different cultures. Thus, they recommend that future studies focus on online

communication or web communities to see how these might be affected by cultural differences.

The current study takes a cross-cultural perspective and examines how cultural differences might be exhibited in a certain type of computer-mediated communication: the comments posted on MySpace. This online social networking site became the most visited web site in 2007 for U.S. web users (Prescott, 2007). According to Arrington (2006), in mid 2006 MySpace had about 75 million users and approximately 240,000 new users per day. Considering this estimation, and statistics available on MySpace (www.myspace.com), the social networking site currently has over 200 million users from more than 200 countries of the world.

1.2. Rationale

Previous studies of social networking sites, like MySpace or Facebook, have focused on users in the United States (e.g., Ellison, Steinfeld, & Lampe, 2007; Shelton & Skalski, 2007). However, the notion that people from all over the world can register on this site raises the question of how users might differ in utilizing this networking tool. Thus, the current study compares users from two distinct cultures, to examine the extent to which MySpacers utilize this networking tool differently and how this difference might relate to their cultural background.

In *Culture's Consequences*, Geert Hofstede defines culture as "the collective programming of the mind that distinguishes the members of one group or category of people from another" (Hofstede, 2001, p. 9). Although Hofstede notes that the word culture can pertain to any human collectivity or category, it is usually applied to societies or nations. Even if a society contains different cultural groups, as in the case of the

United States, "these usually share certain cultural traits with one another that make their members recognizable" (p. 10). In research and literature, the term culture has been variously used to denote the possible development of worldwide cultural commonalities on the Internet: Internet culture (e.g., Agre, 1997; Kiesler, 1997), virtual culture (Jones, 1997), or MySpace culture (Collard, 2006; Zinman & Donath, 2007). Yet, based on findings from previous studies (e.g., Pfeil, Zaphiris & Ang, 2006; Singh & Baack, 2004; Singh, Zhao, & Hu, 2003; Tsikriktis, 2002), using such terms to refer to users worldwide, might not entirely be appropriate.

Hofstede (2001) also specifies that the core of culture is formed by values. Values reflect the tendencies to prefer certain states of affairs to others and are shared by major groups in society. However, values are invisible until they manifest into behavior. In the current study, individual members of two different cultures will be compared based on values that manifest in their written computer-mediated communication in MySpace comments. For the purpose of the study, MySpace comments are defined as publicly posted messages on MySpace profiles that appear on a user's profile under the comments section of the page, and are posted by an individual from the user's network of friends. These comments are typically written messages; however it is possible to post a comment in video or picture format. MySpace users have the option to delete comments and to require all comments to be approved before posting. Only those individuals who previously have been added to the user's network of friends are able to post comments. This form of communication is considered an asynchronous type of computer-mediated communication (CMC).

As Hofstede (2001) suggests, most studies involving the comparison of cultures use data collected from individuals within cultures. To identify the value dimensions of national cultures, Hofstede (1980) collected survey data from individuals working for the International Business Machines (IBM) Corporation in more than 50 countries. Thus, patterns of cultural values were established based on individual-level measures. Hofstede originally identified four distinct value dimensions in which national cultures differed and later (Hofstede, 2001) added a fifth one. These dimensions are power distance, uncertainty avoidance, individualism versus collectivism, masculinity versus femininity, and long-term versus short-term orientation.

Due to the focus of interest and in some cases the extent of information that can be obtained from the messages under investigation, the present study will consider only two out of the five value dimensions: individualism versus collectivism and masculinity versus femininity. Analyzing MySpace comments does have the potential to reveal information from message characteristics regarding the "I" versus "we" orientation (an example of individualism versus collectivism) or about the division of emotional roles between men and women (an example of masculinity versus femininity). On the other hand, it is assumed that the analysis of MySpace comments might not reveal in-depth information regarding power dimension (perception of human inequality) and uncertainty avoidance (the tolerance level of ambiguity). Power dimension would be nearly impossible to investigate due to the lack of information regarding the type and depth of relationship between the person who posts the comment and the one who receives it. Similarly, uncertainty avoidance would be difficult to investigate because comments might not reveal whether or not the topic in question relates to an uncertain or unknown

situation. Additionally, even if the uncertainty of a situation could be delineated, the extent to which individuals feel threatened by this uncertainty would be hard to know.

Hofstede (2001) indicates that language is not a neutral construct and that it is the most clearly recognizable part of culture, which has lent itself most readily to systematic study. To a certain extent, the study of MySpace comments involves the study of linguistic content considering cross-cultural differences.

Walther, Gay, and Hancock (2005) note that the history of Internet communication has yielded very little theoretical novelty so far. Therefore, in order to examine cross-cultural differences of MySpace comments, the current study employs Hofstede's theory of value dimensions (1980) and Stella Ting-Toomey's (1988; 2005; Ting-Toomey & Kurogi, 1998) face negotiation-theory, which are originally cross-cultural and interpersonal communication theories that will be applied in a new setting.

CHAPTER II

LITERATURE REVIEW

2.1. Hofstede's theory of cultural values: The individualism and collectivism value dimension

Individualism, as defined by Hofstede (1980), "pertains to societies in which the ties between individuals are loose: everyone is expected to look after him/herself and her/his immediate family" (p. 51). Conversely, collectivism stands for a society "in which people from birth onwards are integrated into strong, cohesive in-groups, which throughout people's lifetime continue to protect them in exchange for unquestioning loyalty" (p. 51). This notion of loose and strong ties has several implications for values and behavior and is reflected in almost any kind of system or organization in society, such as organizations, family, educational system, or at work situations. In addition, Hofstede (2001) explains how this value dimension relates to individuals' personality traits and behaviors, language use and group identity, consuming practices, matters of health and disability, political systems, religion and historical factors. Those ideas that provided the bases of the formation of those variables that were included in this study are summarized in Table I.

It is noteworthy to mention Hofstede's explanation regarding the level of analysis considering individualism and collectivism. When studying cultures, some data can be

collected at the cultural level of the society, such as population density or per capita national product. However, most studies that compare cultures use data collected from individuals, mostly in the form of questionnaires, focusing on individual values.

Table I. Summary of individualism and collectivism value connotations (Hofstede, 2001)

Collectivism	Individualism
Group decisions are better	Individual decisions are better
Interpersonal relations important for students' happiness	Interpersonal hedonism important for students' happiness
"We" consciousness	"I" consciousness
Collectivity orientation	Self-orientation
Identity is based in the social system	Identity is based in the individual
Emphasis on belonging: membership ideal	Emphasis on individual initiative and achievement: leadership ideal
Survival	Hedonism
Strong family ties, frequent contacts	Weak family ties, rare contacts
"Individualistic" not important as a personality characteristic	"Individualistic" important as personality characteristic
Low public self-consciousness	High public self-consciousness
Other-directed behavior	Extravert and acting behavior
Emotional expression of sadness encouraged, happiness discouraged	Emotional expression of happiness encouraged, sadness discouraged
Languages in which the word I is not pronounced	Languages in which the word I is indispensable for understanding
Belief in collective decisions	Belief in individual decisions
Other-dependent lifestyles	Self-supporting lifestyles

Schwartz (1994) specifies that value dimensions in societies have been inferred from individual values averaged across members of societies. Triandis (1994) points out that cultural and individual level individualism and collectivism are interrelated, even though this relation might not result in a simple one-to-one correspondence. Since an individual can show both collectivistic and individualistic traits at the same time, at the individual level these concepts are treated as separate dimensions. However, on the societal level, a culture is predominantly either one or the other; therefore, at this level, individualism and collectivism are treated as opposite poles of one dimension.

To avoid the confusion between individual and societal level individualism and collectivism, Triandis, Leung, Villareal, and Clark (1985) proposed the use of different terms to describe individual level dimensions. Thus, idiocentrism, or self-orientation at the individual level, is parallel to individualism at the cultural level, whereas allocentrism, or social context-orientation, corresponds to collectivism. While Hofstede (2001) regards these terminologies as a useful way to establish clarity between levels, he also notes that even Triandis himself has not used these terms consistently. The current study will use the terms individualism and collectivism since it attempts to measure cultural level differences.

Furthermore, cultural level individualism and collectivism is measured on a scale between zero and 100 (Hofstede, 2001), where values closer to zero represent low individualism (or collectivism) and countries that score closer to 100 are highly individualistic. Most countries lie somewhere in between these extremes. Not even the United States has a perfect score of 100, even though it is a highly individualistic country, which has been used in several empirical studies as a representation of

individualism to generalize results (Okabe, 1983; Pfeil, Zaphiris, & Ang, 2006; Rice, D'ambra, & More, 1998; Ting-Toomey, 1991; Ting-Toomey et al., 1991; Ye, 2006, etc.). Consequently, not all connotations of individualism and collectivism apply in all countries, and similarly individuals can also deviate from societal norms. Therefore, the summary of individualistic and collectivistic cultural traits should be interpreted with caution, keeping this notion in mind.

As indicated earlier, individualism and collectivism involve the independence from versus dependence on others. According to Hofstede (2001), in collectivist societies, people will be more dependent on members of their organizations or family members, and the collective interests prevail over the individuals' interest. On the contrary, in individualistic societies people are more independent from others, their interests prevail over the collective interests, and they tend to believe more in individual decisions.

Hofstede (2001) notes that in collectivist societies, the family is the smallest unit, whereas in individualist societies, the individual is the smallest unit. Thus, in individualist cultures children are raised to think of themselves as "I," while on the contrary, in collectivist societies children are taught to think of themselves as part of a group. This "I" versus "we" orientation has several implications in real-life practices. For instance, in individualist societies, expressing opinions or telling the truth about one's feelings is regarded as sincere and honest and people learn how to take feedback constructively. In collectivistic cultures, maintenance of harmony with others is crucial, therefore confrontation is considered rude and undesirable.

This difference between the two cultures results in several differences in real-life practices and behaviors (Hofstede, 2001). While individualists tend to exhibit extraverted and direct behavior, collectivists often demonstrate other-directed behavior. Based on Matsumoto's (1989) meta-analysis of recognition of facial emotions, Hofstede also concludes that members of collectivistic cultures are encouraged to express sadness and discouraged to express happiness, whereas the exact opposite tendency is shown in individualist cultures. In Matsumoto's study, observers in 15 countries were asked to identify facial expressions. This study showed that observers correctly perceiving happiness were correlated positively with individualism, whereas perceiving sadness were correlated negatively with individualism.

Furthermore, family ties tend to be stronger and the frequency of contacts higher in collectivist countries than in individualists. In work situations in collectivist societies, personal relationships prevail over the task and company, while in individualistic societies the task and the company rise above any personal relationships.

2.2. Individualism and collectivism in relational situations: Considering face negotiation theory

Hofstede's theory of individualism and collectivism attempts to cover most aspects of how people in various countries differ considering their existence within a wide array of social settings, such as work, religion, politics, family, or friendships. Conversely, Stella Ting-Toomey's face negotiation theory (1988; 2005; Ting-Toomey & Kurogi, 1998) only considers individualism and collectivism in relational situations, which is also the primary focus of the current study. Face negotiation theory attempts to

describe how people behave in relational situations based on their membership in individualistic and collectivistic countries.

The core concept of this theory is "face," defined as "the projected image of one's self in a relational situation" (Ting-Toomey, 1988, p. 215). In her elaboration of face negotiation theory, Ting-Toomey discusses the ways by which cultural values and norms influence and shape how members in a cultural system manage facework, which she describes as a ubiquitous concept that exists in all cultures. Ting-Toomey (1988) defines facework as "a set of communicative behaviors that people use to regulate their social dignity and to support or challenge the other's social dignity" (p. 188).

Face negotiation theory primarily considers the individualism and collectivism value dimensions and the resulting facework behaviors in order to describe conflict management strategies and conflict styles in different cultures. Although the current study does not attempt to deal with conflict behaviors, face negotiation theory does offer some valuable applications in relation to facework and face maintenance strategies. Therefore, only those propositions and ideas of face negotiation theory that are relevant to the goal of the present study (i.e., to compare users from individualistic and collectivistic cultures to examine the extent to which they communicate differently through MySpace comments) will be considered and reviewed in the following sections.

In relation to the model of facework, Ting-Toomey talks about two important principles. First is the face-concern principle, which states that in face negotiation sessions, individuals negotiate over self-face, other-face or mutual face. These concepts relate to the individual's orientation of attention toward the self, others, or both. In the first publication of face negotiation theory, Ting-Toomey (1988) proposes that

individuals in individualistic cultures are more concerned about the self-face, whereas individuals in collectivistic cultures are rather concerned about the other- and mutual-face. This concern is then reflected in their orientation to others.

The second principle is the face-need principle, which refers to individuals' concerns for autonomy or inclusion. A distinction should be made between negative and positive face. Negative face, which is typically associated with individualistic cultures, refers to the "claim to territories, personal reserves, rights to nondistraction" (Ting-Toomey, 1988, p. 216). Positive face, which is a rather collectivistic cultural trait, is the idea to be appreciated and approved by others. Hence, negative facework involves concern for freedom and autonomy, and includes speech acts such as apologies for imposition, prerequest rituals, compliance-resistance acts, and command acts. Positive facework on the other hand implies concern for inclusion and approval, and includes acts of self-disclosure, compliment and promise.

Ting-Toomey describes facework maintenance in a two-dimensional conceptual model, where the two dimensions are the face-concern principle and the face-need principle. In this model, values on the X-axis represent face concerns, where negative values correspond to self-face concerns, while positive values stand for other-face concern. Values on the Y-axis indicate face needs, where positive values signify positive face needs (need for inclusion) and negative values imply negative face need (need for autonomy). Based on this two-dimensional grid, Ting-Toomey differentiates among four different face types: self-positive and self-negative face, and other-positive and other-negative face.

Self positive-face maintenance means the use of communication strategies to defend and protect one's need for inclusion, whereas self negative-face involves the use of strategies that give oneself freedom and space, to protect self from others infringement on one's autonomy. On the other hand, other positive-face assumes the use of those communication strategies that defend and support the other person's need for inclusion, whereas other negative-face involves the use of strategies to signal respect for the other person's need for freedom and space. Ting-Toomey (1988) proposes that members of individualistic cultures have a greater negative-face need and use more self-negative or self-positive face strategies, whereas in collectivistic cultures people have greater positive-face needs and use other positive- or other negative-face strategies.

Ting-Toomey and Kurogi released an updated version of this theory in 1998. One primary addition of this updated version of the theory is the inclusion of strategies that are used in face saving and face threatening situations. Two face-saving strategies, namely preventive facework- and restorative facework, are going to be included in the present research. The concept of face-saving relates to the notion that when one's face is threatened one needs to save either the self-, mutual- or other face. This face-saving can occur either through preventive facework strategies in order "to control the occurrence of future events" or restorative facework strategies "to repair damaged or lost face" (Ting-Toomey & Kurogi, 1998, p. 191). It is proposed that members of individualistic cultures tend to use more restorative, or self-face defending strategies, whereas members of collectivistic cultures tend to use more preventive or self-effacing strategies proactively to ward off potential face threats.

Furthermore, Ting-Toomey and Kurogi propose that in face threatening situations, people in individualist countries tend to use situational accounts to save face more than members of collectivist cultures. These situational accounts refer to stories that attribute the causes of a problem or conflict to external causes (e.g., a car problem). Collectivists, on the other hand, tend to refer to dispositional accounts more than individualists in these types of situations. Dispositional accounts are stories that "attribute the problematic event to one's failed effort, incompetence, or negative personality traits," (p. 192) in other words, to internal sources.

The latest update of Ting-Toomey's (2005) face-negotiation theory does not differ substantially from the previous versions. Instead, it focuses largely on a more coherent organization of the theory, compresses the previous propositions to a fewer number and considers a few more conceptual additions to the theory. A new supplement is the inclusion of face content domains that relate to individuals' face wants or needs in communication situations. Ting-Toomey describes six face content domains.

The first face content domain is autonomy face, which is a concern of one's independence, self-sufficiency, privacy or control issues to be acknowledged. Second, inclusion face is one's concern for being recognized as a worthy companion, a likeable, agreeable, pleasant, friendly, and cooperative social being. Third, status face is the concern for others to admire one's tangible or intangible assets or resources, such as appearance, social attractiveness, reputation, position, power or material worth. Fourth, reliability face relates to the concern of being recognized as trustworthy, dependable, reliable, loyal and consistent. Fifth, competence face describes one's need for others to realize qualities of social intelligence, expertise, leadership, networking or problem-

solving skills. And finally, moral face is the concern with one's need for others to respect one's sense of dignity, honor, integrity and moral uprightness.

According to the theory, face domains can overlap in communication situations. However, Ting-Toomey speculates that individualists might emphasize an autonomy-face content domain, whereas collectivists emphasize the inclusion-face domain. She does not speculate on any other face content domains (e.g., status, reliability, competence or moral face content domain) in relation to cultural value dimensions, therefore these domains are excluded from the current study.

2.3. Literature review of studies involving individualism and collectivism

Cross-cultural studies involving the individualism and collectivism value dimensions have focused on how these dimensions are reflected in several communication behaviors. One of these behaviors relates to face concerns, which involves the individual's orientation of attention toward the self, others, or both. As previously discussed, certain propositions of face-negotiation theory suggest that members of individualistic countries show higher degrees of self-face concern, whereas members of collectivistic countries exhibit other- or mutual-face concern. However, repeated studies of this hypothesis (Oetzel & Ting-Toomey, 2003; Oetzel, Ting-Toomey, Masumoto, Yokochi, Pan, Takai, & Wilcox, 2001) have lead to unexpected results. They found that Chinese individuals (collectivists) exhibited greater self-face concerns than Americans (individualists).

The rationale that researchers give to explain this phenomenon is that people in Chinese and Japanese cultures emphasize maintaining self-face in order to benefit the group. However, Oetzel and Ting-Toomey (2003) point out the need for future research

to determine whether this finding was an artifact of that particular study given the tendency of prior research to find that members of individualistic cultures have higher self-face concerns than members of collectivistic cultures. Thus, one of the goals of the current research is to focus on self-, other- and mutual face concerns exhibited in MySpace comments to test whether this high self-face concern might exist in other less individualistic cultures than the U.S. (aside from China), or is it a phenomenon only in that particular culture.

Previously, most studies involving individualistic and collectivistic cultures have considered countries from the two opposite ends of the individualism scale, such as Japan, China or Korea (on the lower end) in comparison to the United States (on the higher end). Very few studies have considered countries on other ranges of this continuum, which is in a sense a rather limited approach since most countries lie somewhere within the continuum and not at the two ends. One attempt by Siira, Rogan and Hall (2004) considered the differences between Finns and Americans. Although Finland has been associated with a score of 63 and the U.S. with 91 on the Hofstede's individualism index (1980), this research was able to associate less individualistic traits in Finnish communication than in American communication and found that Finns were more concerned with other-face than self-face compared to Americans.

Furthermore, while most studies have considered the United States as a representation of an individualistic culture, Ting-Toomey, Yee-Jung, Shapiro, Garcia Wright and Oetzel (2000) applied the concept of culture to ethnic groups in the United States. They examined the influence of ethnic and cultural identity among four ethnic groups in the U.S., including European Americans, African Americans, Latin Americans

and Asian Americans. This study defined ethnic identity as the identification with individuals' ethnic membership within the United States, whereas cultural identity as the identification with the larger US culture. Ting-Toomey et al. found that African Americans have a stronger ethnic identity and weaker cultural identity than the other groups considered in the study and that the strength of cultural and ethnic identity determines the type of conflict style that individuals use in a conflict situation. Latin Americans and Asian Americans use avoiding conflict styles more than African Americans, and Asian Americans use it more than European Americans. People with strong cultural identity use more integrating, compromising and emotionally expressive conflict styles than individuals with a weak cultural identity.

Based on the study by Ting-Toomey et al. (2000), it can be assumed that if ethnic identity influences the way people treat others in conflict situations, it might also affect their orientation toward others in non-conflict situations. Although the current study primarily looks at between-culture differences of the U.S. and Hungary, demographic variables pertaining to ethnic affiliation will be recorded whenever available on an individual's MySpace profile. When interpreting results, ethnic affiliation will be also considered.

Similar to Ting-Toomey et al., Lee and Choi (2006) also found that ethnicity does lead to significant differences, even though the small sizes of several ethnic groups in their study didn't allow for meaningful comparisons. Lee and Choi studied within-country differences in the United States focusing on how web users' cultural orientation influences the degree to which they respond to online persuasive communication. Besides testing for the individualism and collectivism dimensions, Lee and Choi also considered

Triandis' (1995) horizontal and vertical typology in relation to this value dimension. Triandis suggested that individualism and collectivism can be either horizontal, in which equality is emphasized, or vertical if hierarchy is emphasized. Lee and Choi found that respondents with stronger horizontal individualistic orientation had more negative views on online advertising. This finding was attributed to the notion that these people might feel that online advertising messages are targeted to a mass audience and hence do not reflect their personal uniqueness.

Research (Dutta-Bergman & Wells, 2002) has considered additional differences of the individual-level manifestations of individualism and collectivism, referred to as idiocentrism and allocentrism, within the United States. Based on a factor analysis of answers from an annual consumer-survey mailed out to residents of 48 states of the United States (Alaska and Hawaii were excluded), Dutta-Bergman and Wells found that allocentrics exhibited greater fear of the future and lower levels of happiness than idiocentrics. This result is consistent with previous literature (Diener & Diener, 1993; Triandis, 1995), which suggested that people in collectivist countries have a lesser sense of well-being, lower levels of happiness, self-satisfaction and self-esteem. Moreover, Dutta-Bergman and Wells also examined lifestyle differences between idiocentrics and allocentrics. Some of these differences include that idiocentrics have higher degrees of financial satisfaction, higher levels of financial optimism for the future and spend more time on work than allocentrics do. In contrast, allocentrics tend to focus more on relationship-oriented actions than do idiocentrics.

While most studies of idiocentric and allocentric personality differences have been carried out within an individualistic culture (i.e., the United States), Bochner (1994)

examined the frequency of idiocentric and allocentric traits in both collectivist (Malaysia) and individualist (Australia and Great Britain) countries. By using the "Twenty Statements Test," which requires individuals to complete 20 statements beginning with "I am," Bochner found that significantly more allocentric self-descriptions and fewer idiocentric self-references were produced in collectivist countries than in individualistic cultures.

In addition to self-references, research (Chen, 1995) has also investigated self-disclosure patterns in individualistic and collectivistic cultures. Comparing Chinese and American students, Chen found that Americans showed a higher-level of self-disclosure than the Chinese on topics of opinions, interests, work, financial issues, personality and body. Likewise, Americans also showed higher degrees of self-disclosure than Chinese to target persons such as parents, strangers, acquaintances, and intimate friends.

Target persons, such as best friends versus relative strangers, have been considered in relation to facework behaviors in individualistic versus collectivistic cultures (Oetzel, Ting-Toomey, Yokochi, Matsumoto, & Takai, 2000). In particular, this research has focused on Japanese and American participants' behaviors in interpersonal conflicts, asking them to rate the facework behaviors they employ in general with friends compared to relative strangers. Even though the study did not show any significance in terms of salience of the best friend-relative stranger distinction for participants, Oetzel et al. suggest that it might be due to methodological reasons since the study did not adequately account for situational differences in the ratings of the behaviors.

However, in relation to the current study, Oetzel et al's (2000) research brings up an important issue that needs to be addressed. Users on MySpace typically have two

types of friends in their network system: friends whom they know personally and relative strangers whom they simply met through MySpace. Additionally, the strength and depth of both of these types of friendships can be very different. Nevertheless, all types of relationships are referred to as "friendships" in MySpace, and all "friends" are able to leave comments on a user's comment wall. Although it is almost impossible to identify the type of relationship of the two users simply based on the MySpace comments, it can be assumed that several factors, such as the topic or the orientation of the comment, might be influenced based on whether closer friends or "relative strangers" post them. However, due to the nature of the research method applied in the current study, this information would be impossible to be revealed.

2.4. Clarifications on individualism and collectivism

Triandis (1995) elaborated in more depth on the concepts of individualism and collectivism and noted that their definitions require several clarifications and explanations to consider. First, Triandis cautions about the fuzziness of these constructs and of the notion that both individualist and collectivist elements can be found at any given country or culture. Hence he makes the distinction between allocentrism and idiocentrism and collectivism and individualism.

Triandis also points out that even though the concepts of culture and country are used interchangeably, the equivalence between these two concepts is just approximate, since each country includes many cultures and subcultures. As "a culture is usually linked to a language, particular time period and a place," (Triandis, 1995, p. 4) it can be assumed that in case of the "linguistically isolated" (Kovrig, 1999, p. 253) country of Hungary, culture and country are more isomorphic than in case of the United States.

Therefore, Hungarian MySpace users might not only be more similar to each other int terms of their ethnicity, they might also exhibit more linguistic similarities.

In addition, Triandis warns about the individual and situational differences within individualist and collectivist countries. Besides the previously mentioned individual level allocentrism and idiocentrism, several contributing factors, such as age, social class, child rearing, travel, education and occupation can influence personal tendencies toward individualism and collectivism. Moreover, Triandis explains that the situation is a major determinant of the behavior, thus people might act differently based on the nature of the situation.

Triandis also differentiates between horizontal- and vertical types of individualism and collectivism, which vary based on the "four kinds of self." The four kinds of self are: independent, interdependent, same, and different. The "independent self" is present in case of individualistic countries, whereas the "interdependent self" is typical in collectivistic countries. The "same self" refers to the horizontal type of self that does not want to stand out, while the "different self" is the vertical type that does want to stand out from the crowd. Thus, the combination of the different self types lead to four different categories, namely: horizontal individualism, horizontal collectivism, vertical individualism and vertical collectivism. Considering these distinctions, in both collectivistic and individualistic cultures, the vertical dimension relates to the acceptance of inequality and the idea that ranking has its privileges. On the other hand, the horizontal dimension in case of both individualistic and collectivistic cultures "emphasizes that people should be similar on most attributes, especially status" (p. 44). As Triandis suggests, examples of horizontal individualist countries might include Sweden and

vertical individualist countries include the United States. China is considered to be a vertical collectivist country, whereas members of the Israeli kibbutzim are horizontally collectivistic.

Again, Triandis (1995) cautions that the horizontal and vertical constructs are situation specific and certain countries might have both traits. For example, Triandis considers the United States an individualistic country that is horizontal in social situations and vertical in situations of taxation.

2.5. Individualism index scores for the United States and Hungary

Because of the situation specific nature of horizontal and vertical types of individualism and collectivism, the current study only considers individualism and collectivism as conceptualized by Hofstede. Two countries, the United States and Hungary, have been selected to represent countries with significantly higher (U.S.) and lower (Hungary) levels of individualism, which allows for comparisons of different cultural patterns and resulting values. Hofstede (1980) identified the U.S. as a highly individualistic country and assigned the score of 91 to it on the individualism value index. Additionally, several empirical studies (e.g., Hofstede, 2001; Okabe, 1983; Pfeil, Zaphiris, & Ang, 2006; Rice, D'ambra, & More, 1998; Ting-Toomey, 1991; Ting-Toomey et al., 1991; Ye, 2006; etc.) have commonly referred to the United States as an individualistic culture. Therefore, it is relatively easier to justify the use of this country as a representation for individualism. However, using Hungary in this study as a representation of a country with lower individualistic traits and higher collectivist traits requires explanation.

So far, there has only been one empirical investigation that attempted to specifically measure values based on Hofstede's dimensions in Central European countries (Kolman, Noorderhaven, Hofstede, & Dienes, 2003). Kolman et al. estimated a score of 59 for Hungary's individualism value index. The study used Hofstede's (1980) individualism index value scale, which ranges from 0 to 100, where values closer to 0 represent collectivism (or low individualism scores) and values closer to 100 represent high individualism scores. Although the score of 59 in case of Hungary has not been interpreted or explained in any ways by Kolman et al., it is considered a mid-point score in between collectivism and individualism. This score is the closest to Israel's score of 55, which Hofstede (2001) describes as "independent collectivism" (p. 217), which is characterized by "no strict authority but relative personal dependence on the collectivity" (p. 217).

In relation to Kolman et al.'s study, it is crucial to note that the results are questionable for several reasons. This study has several disparaging backdrops and even the authors warn about the generalizability of the findings. For instance, the research method followed the strategy of matched samples, which meant that the researchers did not draw representative samples from the populations of countries involved; instead they surveyed narrow samples in each country that were alike in as many respects as possible. The subjects of this study were university students, who classified themselves as nationals of the nation in question. For each country included in the study, 100 students were surveyed. Kolman et al. clarifies that since "the respondents are not fully representative for the populations of their countries, the positions on the culture dimensions found can only be approximations of the positions of the populations" (p. 78).

The survey instrument used in this study was based on Hofstede's revision of the questions included in the original IBM questionnaire.

Hungary or countries in the Eastern European region have been relatively understudied due to several specified reasons, thus further empirical investigation in the region is of outmost importance. According to Bakacsi, Takacs, Karacsonyi and Imrek (2002), "this region is understudied due to its socialist past and was not included in Hofstede's seminal work" (1980) (p. 70). Furthermore, it is quite impossible to study the region of Eastern Europe as a whole, due to their different ethnic, linguistic, religious traditions and economic backgrounds. Finally, this region is still experiencing the "social-economic transition" (Bakacsi et al., 2002) after the collapse of the socialist system and ideology. Therefore, it is important to observe how Hungary's individualism index score matches up with individuals' real-life values and behaviors and how these behaviors might be reflected in their communication practices.

The more than four-decades-long communist rule in Eastern Europe, as Korosenyi (1992) notes, "carried out the greatest social homogenization program in human history" (p. 127). The Communist Party forced major transformations both on national and individual levels. Kovrig (1999) summarizes what exactly happened on the national level:

> democracy and justice subordinated to the single party and its pseudoscientific ideology; egalitarianism flawed by new forms of social reproduction and elite corruption; a centrally planned and collectivist economy weakened by inefficiency and dependence on a backward and initially exploitative imperial power; a state-sponsored culture warped by early Russification and lingering censorship; and regional security in a "socialist commonwealth" that nullified the state's sovereignty. (pp. 253-4)

In order to ensure macro level changes in the nation, the Communist regime also had to implement changes in the individual level. A Hungarian sociologist, Hankiss (1990), depicts what exactly happened to individuals during this process:

> On the microlevel, personal identities were destroyed by campaigns against individualism, excellence, and human personality; by a far-fetched egalitarian rhetoric; by stigmatizing people's origins, their past (pre-war) lives, their families, their traditions; by destroying or branding their social roles. For forty years, it was impossible or dangerous for people to identify themselves with social roles like "I am a member of the middle class," "I am a social democrat," "I am a Calvinist," "I am a citizen," etc. (p. 37)

Considering the notion of collectivistic society, Verdery (1996) explains that the Communist Party considered itself family or "as parent" (p. 64) of the society. Furthermore, "their emphasis on the People-as-One, combined with the insistence on the moral basis of political community, facilitated establishing the community's boundaries by expelling its enemies" (Verdery, 1996, p. 93). Hence, in order to fit in the system, one needed to be similar to everyone else in the society, otherwise was considered an estranged member of the system.

In Hungary, the year 1988 put an end to the communist era. Arato (1999) describes the year 1988 as the "year of civil society, during which a whole series of movements and civil initiatives, from ecology to youth, and from the democratic opposition to the populist semiopposition put the weakening party-state under decisive pressure" (p. 234). Thus, the end of Communism in Hungary resulted in an adoption of a new, democratic constitution and the establishment of a market economy. Triandis (1995) asserts that in the former Communist countries, the shift toward market economies has much in common with the shift from collectivism to individualism in many parts of the world. However, this assertion raises two main concerns.

The first concern regarding Triandis' (1995) notion of the shift from collectivism to individualism is that Triandis does not specify how much time is needed for this shift or for citizens of a country to fully adjust from collectivistic to individualistic values. Nineteen years have passed since the fall of the Iron Curtain and Hungary's conversion to a capitalist country. It is questionable whether 19 years is enough time to lay new social foundations and change underlying values within a society. Such changes take a much longer time than constitutional or economic reforms. In his book, "Reflections on the Revolution in Europe," Dahrendorf (2005) explains this phenomenon the following way:

> The formal process of constitutional reform takes at least six month; a general sense that things are moving up as a result of economic reform is unlikely to spread before six years have passed; the third condition of the road to freedom is to provide the social foundations which transform the constitution and the economy from fair-weather to all-weather institutions which can withstand the storms generated from within and without, and sixty years are barely enough to lay these foundations. (pp. 99-100)

In a recent historical research article in the journal of *Communist and Post-Communist Studies*, Berend (2007) reviews the transformation of Eastern European countries, especially focusing on Hungary's past 17 years. Berend describes the inheritance of the value system from the past subsequently:

> The population of Central and Eastern Europe had lived under communist rule for two generations by the time the regime collapsed. Whether they liked or hated the regime, were interested in politics and ideology or not, those people lived in a social-institutional system, and were educated in its schools. The society and the institutions were freighted with a set of political and ideological values embedded in the system. Most of the people, although they frequently criticized and even rejected the ideology and values, naturally and often unconsciously adjusted to them. (p. 275)

Moreover, Berend also agrees with Dahrendorf that changing the underlying value system in society is a long process that has not yet fully taken place:

> Social transformation, including the adoption of a new value system and social behavioral pattern, is not a process of one or two decades. It takes generations. Based on the economic and political transformation, gradual social adjustment may follow. History, however, remains part of the present for a long time. As long as Central and Eastern Europe gradually catches up and integrates into Europe, social transformation will have room to continue successfully. (pp. 279-80)

In addition to Dahrendorf's and Berend's explanations, recent empirical studies have also found evidence of existing differences between Western and Eastern European countries in terms of their individualistic and collectivistic values. For instance, as an attempt to identify reliable dimensions of cultural variation in order to help create a framework for future cross-cultural studies, Smith, Dugan and Trompenaars (1996) examined the replicability of previous empirical research that identified cultural dimensions. Smith et al. looked at 43 countries in their study, including Hungary along with several other ex-communist countries.

Results from their multidimensional scaling approach revealed that former communist nations of Eastern Europe and China clustered together on two dimensions. Dimension one was the utilitarian involvement/loyal involvement, while dimension two was the conservatism versus egalitarian component, which was based on Schwartz's value types (1992; 1994). The conservatism value type includes obedience, family, security and respect for tradition, while the egalitarian commitment takes freedom, equality and social justice into account. The former communist nations and China exhibited negative scores on the conservatism-egalitarian dimension, which meant that these countries exhibited more values of conservatism. While Smith et al. cautions that conservatism and egalitarian commitment should not be confused with individualism-

collectivism, the countries that were found to be located at the egalitarian dimension are those that were characterized as most individualist by the Hofstede measures.

Bakacsi et al. (2002) also expressed that countries in the Eastern European cluster (consisting of Albania, Georgia, Greece, Hungary, Kazakhstan, Poland, Russia, and Slovenia) have shown tendencies towards individualism in work-related values; however, they are highly group oriented and rated high on group and family collectivism as for their societal values and practices. Bakacsi et al. notes that it is not a coincidence that it was the Christian-Catholic world, Eastern Europe, Latin Europe and Latin-America where the communist doctrines were able to gather ground, due to the common characteristics of these cultures. According to Bakacsi et al., these characteristics include collective values and the hierarchical-paternalist-authority-principled leadership style. Therefore, even though Hungary is currently in a transition period, and might be leaning towards and perhaps already adopted some individualistic values, it is identified as a country with high group collectivism, which is an important aspect in case of the current study.

Taking a political science approach, Fuchs and Klingemann (2002) studied the possibility of a collective identity within the European Union in relation to the Union's eastward enlargement with the former communist countries. They found that for several reasons the eastward enlargement is likely to make it even more difficult to establish a European identity. One of the reasons for this difficulty relates to the notion of the existing gap between Western and Eastern Europe. As Fuchs and Klingemann describe, the gap "can be caused by different traditions and historical events in the distant past but also by socialization and experience in the opposing societal systems in which people in

Eastern and Western Europe lived from the end of the Second World War until the collapse of the communist states" (p. 20). In relation to the individualistic and collectivistic differences, this study found that compared to the United States, citizens of Eastern and Central European countries strongly believe that the government and not the individual is responsible for their own lives. Additionally, solidarity with the disadvantaged, which was shown rather weak in the U.S., was exhibited much stronger in Eastern and Central Europe. These notions seem to support the relevance of collectivistic values within Eastern and Central Europe, where Hungary belongs.

A second concern should be raised in relation to Triandis' (1995) notion regarding the shift from collectivism to individualism in post-communist countries. This concern relates to the emergence of nationalist movements, which according to Verdery (1996) "bury the socialist past and reshape the postsocialist future" (p. 233). Barany (1999) points out that after the fall of communism, nationalism and right-wing extremism returned to Eastern Europe or, more precisely, they rose to the surface again. Hungary has not been immune to the emergence of nationalist movements, which have already "flowed deep in the Hungarian psyche" (Kovrig 1999, p. 253). Nationalism, as Verdery (1996) describes, is organized around the ideas of "shared substance, blood and bone and exclusion," therefore, "images of 'brotherhood,' 'forefathers,' and 'mother-' or 'fatherland' – are at the very heart of nationalist imagery" (p. 233).

In addition, Verdery explains that nationalism in many ways is very similar to communism. First, nationalists also claim to represent the nation as a whole. Second, both nationalism and communism share "a fundamental essentialism (identities are fixed, unchanging) and a totalizing impulse. [...] In its most extreme forms, it too rests on a

moral community defined by sameness rather than by difference: others who are 'like us'" (p. 94). Third, even though nationalist opponents of the Communist Party were dissatisfied with the Party's allegations, some of the Party's moral claims remained attractive. These claims included the idea that social solidarity is valuable and that it rests on a shared social condition, as Verdery suggests.

Consequently, on the contrary to Triandis' (1995) suggestion, it is more likely that the shift from communism to capitalism in Hungary did not result in a significant shift from collectivism to individualism, at least not on a group level. Nationalism seems to have the power of creating group cohesiveness and uniting the people of Hungary to achieve a better future. Verdery (1996) notes that the people, "who defended 'nation' imagined it as a pure value and object of loyalty that the Communist had betrayed, hence moral superiority would lie in restoring it to its rightful place at the center of politics" (p. 107). As a result of the historical occupations of Hungary by the Turks, Habsburgs, Nazis and the Communists, Verdery also argues that Hungarians view themselves as having been constantly thwarted by others "from achieving their God-given mission to become a great civilizing power" (p. 96). All these historical events have strengthened the underlying nationalist movements and sentiment in Hungary. Furthermore, Verdery also adds that part of what makes nationality so powerful is that beyond its existence on the level of political rhetoric, interest groups, and constitutionalism it is also a basic element of people's self-conception. Finally, Verdery indicates that it is relatively easy to make people dispose nationalist demagogy because of the experience of a self as both national and victim and because both the self and one's nation have been victimized by history.

Based on the rationale above, it should be clear why Hungary is considered a representation of a country with more collectivist traits in this study, thus why it is appropriate to compare Hungarian MySpace users to Americans considering cultural differences.

2.6. Hypothesis 1

Based on the theories and literature reviews on the individualism/collectivism value dimension and face-negotiation theory, the following hypothesis is proposed:

H_1: Hungarian MySpace users will exhibit greater collectivistic traits and values in their comments than U.S. users, whereas U.S. MySpace users will exhibit greater individualistic traits and values than Hungarian users.

2.7. Summary and conceptualization of variables

The comparison of Hungarian and U.S. MySpace comments involves the assessment of traits and values that have been identified as either more or less individualistic in the review of Hofstede's and Ting-Toomey's work.

The summary and conceptualization of these variables are included in Table II, in which variables associated with individualism are marked with the "ind" label, whereas variables linked to collectivism are marked as "coll." This table also includes the levels of measurement for each variable and the specific inter-coder reliability scores that have been established before the content analysis of MySpace comments. Further explanation regarding content analysis and inter-coder reliabilities will be provided in the methods section of this paper.

In particular, the analysis of comments in relevance to the individualistic/collectivistic features involved the use of three primary types of variables.

The first type of variables (labeled “ind1,” “coll1,” “coll2,” “coll3”) can be categorized as linguistic variables in relation to the individualism and collectivism features of the comments. The second category of variables are tied to the topic of the comment considering individualistic and collectivistic values, behavior and personality traits (labeled “ind2,” “coll4,” “coll5,” “coll6,” “coll7”). The final set of variables are labeled as “speech acts” as they attempt to measure patterns of speech associated with either individualistic or collectivistic traits (labeled “ind3,” “ind4,” “ind5,” “ind6,” “ind7,” “ind8,” “ind9,” “coll8,” “coll9,” “coll10,” “coll11,” “coll12”).

Table II. Summary and conceptualization of individualism and collectivism variables, summary of intercoder-reliability scores.

Variable name and category of measure	Intended to measure	Source	Conceptual definition	Level of measurement & inter-coder reliability scores
Ind1 (linguistic)	"I" consciousness / Self orientation	Hofstede, 2001	Instances in which individuals' primary concern is the self.	**Ratio** US Lin's cc=.99 HU Lin's cc=.973
Ind2 (topic)	Emotional expression of happiness	Hofstede, 2001	Instances in which individuals express happy states of emotions, joy, pleasure, thrill, enjoyment of something or someone, cheerfulness, contentment, satisfaction or enthusiasm about a particular thing or anything that results in happiness.	**Nominal** US Cohen's K=.667 HU Cohen's K=.848
Ind3 (speech act)	Use of apology / Negative facework	Ting-Toomey, 1988	Use of a statement expressing remorse for something that typically the source of apology has done.	**Nominal** US Cohen's K=1 HU PA_0=100
Ind4 (speech act)	Use of request / Negative facework	Ting-Toomey, 1988	Reference to a future behavior that asks something to be given or done, asks somebody to do something in a polite, courteous or formal way.	**Nominal** US Cohen's K=.634 HU Cohen's K=.844
Ind5 (speech act)	Reference to resisting compliance / Negative facework	Ting-Toomey, 1988	Any reference to the resistance to act or conform with or agreeing to do something.	**Nominal** US Cohen's K=1 HU Cohen's K=.769
Ind6 (speech act)	Commanding acts / Negative facework	Ting-Toomey, 1988	Expressing an order or instruction to be done.	**Nominal** US Cohen's K=.70 HU Cohen's K=.688

Variable name and category of measure	Intended to measure	Source	Conceptual definition	Level of measurement & inter-coder reliability scores
Ind7 (speech act)	Use of excuse / Situational accounts	Ting-Toomey & Kurogi, 1998	Expressing release from an obligation or responsibility, providing a reason or explanation for a behavior in order to make it appear more acceptable or less offensive.	**Nominal** US Cohen's K=.933 HU Cohen's K=.762
Ind8 (topic)	Autonomy face content domain	Ting-Toomey, 2005	Expressing a concern of one's independence, self-sufficiency, privacy or control issues to be acknowledged.	**Nominal** US PA_0=100 HU Cohen's K=.722
Ind9 (topic)	Reference to hedonism / Value connotation	Hofstede, 2001	Expressing a devotion, especially a self-indulgent one, to pleasure and happiness as a way of life, references to pleasure-seeking behaviors and activities, expression of self-satisfaction.	**Nominal** US Cohen's K=.905 HU Cohen's K=.719
Coll1 (linguistic)	"We" consciousness / Collectivity orientation	Hofstede, 2001	Instances in which individuals' orientation and concerns exhibited both towards another person and the self.	**Ratio** US PA_0=100 HU Lin's cc=.923
Coll2 (linguistic)	"You" references / Collectivity orientation	Hofstede, 2001	Instances in which individuals' orientation and concern exhibited towards the receiver of the message.	**Ratio** US Lin's cc=.938 HU Lin's cc=.974
Coll3 (linguistic)	"He/She/They" (other) references / Collectivity orientation	Hofstede, 2001	Instances in which individuals' orientation and concern exhibited towards other people.	**Ratio** US Lin's cc=.819 HU Lin's cc=1
Coll4 (topic)	References to family / Collectivity orientation	Hofstede, 2001	Measure of instances in which the smallest unit of collectivist societies, the family, is referenced.	**Nominal** US Cohen's K=1 HU Cohen's K=1
Coll5 (topic)	References to friends / Collectivity orientation	Hofstede, 2001	Measure of instances in which group ties of friendship are referenced.	**Nominal** US Cohen's K=.643 HU Cohen's K=.722

Variable name and category of measure	Intended to measure	Source	Conceptual definition	Level of measurement & inter-coder reliability scores
Coll6 (topic)	References to social roles / Membership ideal	Hofstede, 2001	Measure of instances in which group membership is referenced.	**Nominal** US Cohen's K=.762 HU Cohen's K=1
Coll7 (topic)	Emotional expression of sadness	Hofstede, 2001	Instances in which individuals expressing sad states of emotions or anything that results in sadness.	**Nominal** US Cohen's K=1 HU Cohen's K=1
Coll8 (speech act)	Use of compliment / Positive facework	Ting-Toomey, 1988	Reference to something to express praise and approval, to show respect or honor regarding something that has been done, congratulating for someone, expressing good wishes, admires.	**Nominal** US Cohen's K=1 HU Cohen's K=1
Coll9 (speech act)	Use of promise / Positive facework	Ting-Toomey, 1988	Assuring, pledging to somebody that something will certainly happen or be done, will be provided, thus can be expected.	**Nominal** US Cohen's K=1 HU Cohen's K=1
Coll10 (topic)	Use of dispositional accounts	Ting-Toomey & Kurogi, 1998	Providing a reason or explanation for a behavior, based on internal causes for something that has happened, while taking responsibility for the action.	**Nominal** US Cohen's K=1 HU PA_0=100
Coll11 (topic)	Inclusion face content domain	Ting-Toomey, 2005	Expressing a concern of a need for others to recognize that one is a worthy companion, likable, agreeable, pleasant, friendly and cooperative social being.	**Nominal** US Cohen's K=.88 HU Cohen's K=.783
Coll12 (topic)	Reference to survival / Value connotation	Hofstede, 2001	Expressing difficulties of managing to live through something, referring to lack of endurance.	**Nominal** US PA_0=100 HU Cohen's K=.722

2.8. The masculinity and femininity cultural value dimension

Besides individualism versus collectivism, the current research considers the masculinity and femininity value dimension. Masculinity on the cultural level refers to a society "in which men are supposed to be assertive, tough, and focused on material success; women are supposed to be more modest, tender, and concerned with the quality of life" (Hofstede, 1998, p. 6). Thus, in masculine societies, there are significant differences of gender roles that the society assigns to men and women. However, in feminine cultures there is less difference between men and women since both "supposed to be modest, tender, and concerned with the quality of life" (p. 7). As highlighted by Hofstede (1998), this value dimension is perhaps the most controversial, delicate, and misunderstood one of the four dimensions.

Hofstede explains that masculinity is the only value dimension that produces consistently different scores for male and female respondents, except in very feminine countries. This value dimension is often referred to as the "social/ego" dimension, because its underlying assumption is that masculinity versus femininity is about ego enhancement versus relationship enhancement. This assumption is backed up by previous research (Hofstede, 1980), which has shown that men tend to stress ego goals more and women tend to stress social goals more. In the work environment, advancement, earnings and training were found to be more important for men than women, whereas physical conditions and cooperation were more important for women than for men.

It is crucial to note that the masculinity and femininity value dimension is statistically wholly independent from the individualism and collectivism dimensions. The individualism and collectivism dimension relate to the "I" versus "we" orientation, and

the independence from versus dependence on in-groups. On the other hand, masculinity/femininity is unrelated to group ties. Instead, this value dimension originates from the implications that biological differences of the sexes have for emotional and social roles of the genders. Early literature on gender differences uses the terms "gender" and "sex" interchangeably (e.g., Eagly, 1983; Herring, 1993; Maccoby & Jacklin, 1974). However, while biological differences are the same for all societies, the assigned roles and suitable gender behaviors are mediated by cultural norms and traditions. For that reason, Hofstede (1998; 2001) points out that it is necessary to distinguish between the terms sex and gender. While sex refers to biological functions, gender implies social functions.

Similar to the individualism and collectivism value dimension, masculinity and femininity can be measured on both societal and individual levels. To measure individual level gender characteristics, Bem (1974) developed a Sex Role Inventory, which treats masculinity and femininity as two independent dimensions, allowing for the differentiation of androgynous (masculine and feminine at the same time), undifferentiated (neither masculine nor feminine) or primarily masculine or feminine types of individuals. Hofstede (2001) notes that although an individual can be both masculine and feminine at the same time, "at the country level a culture is predominantly either one or the other" (p. 293). As Hofstede explains, the reason why masculinity/femininity is one bipolar dimension at the cultural level is due to the statistically strong correlations of "more people with masculine values" with "fewer people with feminine values," (p. 293) which becomes one single dimension.

By measuring individual level sex-related differences of MySpace comments, this study attempts to examine the extent to which MySpace comments are similar or different in Hungary and the United States. Thus, within-group individual differences will be compared to between-group cultural differences in consideration of the masculinity/femininity index scores of Hungary and the United States.

Finally, for gender-related values associated with the masculinity/femininity dimension of national cultures, Table III provides a summary of the differences that are most relevant for the purpose of the current study.

Table III. Summary of masculinity and femininity value connotations (Hofstede, 2001)

Femininity	Masculinity
Relationship orientation	Ego orientation
Quality of life and people are important	Money and things are important
Minimum emotional and social role differentiation between the genders	Maximum emotional and social role differentiation between the gender
Modesty norm	Assertiveness norm
Tender values	Tough values
Stress on who you are	Stress on what you are
Ego-effacing norm	Ego-boosting norm
Smaller gaps between the norms and values for women and men	Wider gaps between the norms and values for women and men
Positive feelings about home and family	Less satisfied with home
Women describe themselves as more competitive than men do	Men describe themselves as more competitive than women do
Men allowed to be gentle, feminine and weak	Women should be gentle and feminine; nobody should be weak
Men claim suppressing joy and sadness	Men claim showing joy and sadness
More adjectives associated specifically with either women or men	Few adjectives associated specifically with either women or men
Women describe themselves in different terms from men	Women describe themselves in the same terms as men do
Senses of responsibility, decisiveness, liveliness, and ambition are also for women Caring and gentleness are also for men	Senses of responsibility, decisiveness, liveliness, and ambition are only for men Caring and gentleness are only for women

2.9. Masculinity index scores for the United States and Hungary

Similar to the individualism index, the masculinity index is measured between zero and 100, where scores closer to zero indicate less masculinity (more femininity) and scores close to 100 stand for more masculinity. As indicated by Hofstede (1998), the masculinity index value of the United States is 62, which is a score above average but still rather in the border of masculine and feminine traits. Hungary on the other hand, is a strongly masculine country according to the only available research report by Kolman et al. (2003). This research suggests a score of 102, which is above the zero to 100 range due to the adjustments that needed to be calculated in order to have comparable scores to the original Hofstede measures. Although, as discussed before, based on the nature of Kolman et al.'s research, these scores should be interpreted carefully, there is no other empirical evidence or literature available for masculinity scores for Hungary.

The present study would like to test whether individual level gender differences reflect the currently available masculinity index scores for both countries. Since highly masculine countries assign largely different gender roles to males and females, larger individual level gender differences of MySpace comments assumed to be present in Hungary than in the United States.

2.10. Hypothesis 2

Based on the review on cultural level masculinity and femininity value dimensions the following hypothesis is proposed:

H_2: Stronger masculinity values – corresponding to both higher masculinity and femininity scores as conceptualized by Hofstede (i.e., more extreme scores on

masculinity and femininity) – will be exhibited in Hungarian MySpace comments than in U.S. comments.

2.11. Literature review of individual-level sex-linked differences in written communication

A vast number of studies that considered how individual level masculinity and femininity are reflected in written communication have been conducted in the United States. However, studies that consider other countries might reveal different results. As indicated earlier, in countries with highly masculine traits, the gap between the assigned roles to men and women are wider, which might be reflected in language use. Eckert and McConnell-Ginet (1992) suggest that "the diversity of gender differences and relations across and within communities should help us better understand the possible parameters of interaction between language and gender (and, more generally, among language, thought, and society)" (p. 486). Thus, comparing similarities and differences of individual level sex-linked language in different countries might help to establish cultural patterns.

Most studies that consider sex differences in relation to language use in written communication have analyzed written texts primarily generated by college students. Hofstede (1998) explains that gender-related values across cultures show differences between males and females across all kinds of age groups from children to adults. As he notes, "gender role programming evidently starts immediately after birth, in the differential ways in which adults treat girl and boy babies" (Hofstede, 1998, pp. 79-80). Therefore, it could be assumed that results from studies of gender differences are

generalizable to the entire population, regardless of the age of the people included in the sample.

In an attempt to identify patterns of individual level sex-linked language in written communication, some research (Levine & Geldman-Caspar, 1997; Prinsen, Volman, & Terwel, 2007; Rubin & Green, 1992; Yates, 2000; etc.) has taken a practical approach in order to provide better instructional methods for males' and females' education. For example, in their content analysis of sex differences in written English, Rubin and Green (1992) analyzed U.S. college students' essays. Although Rubin and Green concluded that writing of men and women is far more similar than different, they still found significant sex effects on writing styles. Women used three times as many exclamation points as did men, and egocentric sequences (e.g., "I think," "I guess") nearly twice as often as men. On the other hand, men used more illustrators like connective phrases as "for example" or "for instance." Lastly, complex sentence structures were found to be more prevalent in male's writing.

Levin and Geldman-Caspar (1997) also applied an educational approach, analyzing middle-school students' informal writings about science and found several differences between boys' and girls' writings. They report that girls personalized their knowledge more, perceived science as a social activity that involves fun and communication, wrote in greater detail and mostly about inventions that help human beings. Boys, on the other hand, used condensed and formal writing, which was more objective and detached in tone. Thus, Levin and Geldman-Caspar recommend educators consider the differences between boys' and girls' knowledge presentation and the potential of the topic to affect students' writings.

In addition to the educational approach, others (Herring, 1993; Postmes & Spears, 2002; Rodino, 1997; Savicki, Kelley, & Oesterreich, 1999) considered the issue of sex to examine whether written communication increases or decreases the relevance of gender-stereotypes. This issue has been identified as especially applicable in the computer-mediated environment because of the "absence of non-verbal cues, which are relied upon heavily in face-to-face communication" (Savicki et al., 1999, p. 185). Most studies, however, found that the computer-mediated environment does not lead to the equalization of gender (Postmes & Spears, 2002) or democratic discourse (Herring, 1993).

Although previous research on sex-linked language has revealed quite mixed findings, certain variables have been found significant on repeated trials. Mulac, Bradac and Gibbons (2001) analyzed the results of more than 30 empirical studies that reported sex-linked language differences, and found that 15 language features were used consistently more by one gender than the other. The male features included references to quantity, judgmental adjectives, elliptical sentences, directives, locatives and "I" references. Female language features consisted of intensive adverbs, references to emotions, dependent clauses, sentence initial adverbials, uncertainty verbs, oppositions, negations, hedges and questions. Mulac et al. reported that mean length sentence was found to be a female feature by more studies; however some studies reported it as a male feature. Additionally, personal pronouns, tag questions, fillers, progressive words and justifiers were found to be equivocal language features as they were regarded as male or female features by about the same number of studies.

Studies have also found some further consistency of sex-linked language features. Females have been shown to use more nonessential information, like dashes and

parentheses (Rubin & Green, 1992; Winn & Rubin, 2001) and markers of excitability, such as exclamation points and underlining (Colley & Todd, 2002; Rubin & Green, 1992; Winn & Rubin, 2001). While the use of emoticons or graphic accents was also associated more frequently with females than males (Baron, 2004; Witmer & Katzman,1997; Wolf, 2000), Wolf (2000) found different patterns of emoticon use in same sex and mixed sex groups. In mixed sex groups, males were shown to use more emoticons and adopted the female standard of expressing more emotion.

Argamon, Koppel, Fine, and Shimoni (2003) found significant differences between male- and female-authored documents in the use of pronouns and certain types of noun modifiers, and in the type of writing (involved versus informational) considering fiction and nonfiction documents from the British National Corpus. Argamon et al. used a mathematical algorithm to distinguish between male-authored and female-authored texts and found that both in fiction and nonfiction writings, determiners (a, the, that, these) and quantifiers (one, two, more, some) are strong male indicators, whereas pronouns (I, you, she, her, their, myself, yourself, herself) overall are strong female indicators.

However, Argamon et al. found some exceptions in the use of individual pronouns between males and females. Male authors were shown to use more plural pronouns (we, us, they, them) in fiction and more male third-pronouns (he, him) in both fiction and non-fiction, whereas female writers used more singular and second person pronouns or personal pronouns. According to Argamon et al., this tendency relates to the idea that females use pronouns that encode the relationship between the writer and the reader and they also prefer to make explicit the gender of something being mentioned, while males tend to not refer to it. Furthermore, women were identified as using more

"involved writing," which typically include the use of analytic negations, contractions in both fiction and nonfiction, and present-tense verbs in nonfiction writings. On the other hand, males used more "informal writing" features, which included more frequent use of specifiers, such as determiners, the "of" prepositional phrase, attributed adjectives the pronoun "its," and references to quantity or place. Based on the linguistic differences that Argamon et al. found between males and females, they developed the "Gender Genie" computer program, which they claimed can identify the author's sex with 80% accuracy. This program is available online at http://bookblog.net/gender/genie.php.

In an attempt to evaluate Argamon et al.'s findings and the performance of the "Gender Genie," Herring and Paolillo (2006) examined the relation of language, sex and genre in weblogs. They found that the Gender Genie was correct only 45.5% of the time in predicting the sex of blog authors; however it was more accurate in predicting blog genre (61%). Herring and Paolillo suggest that genre (e.g., diary type personal journals or filter type blogs) is a stronger predictor than author's sex of the sex-linked stylistic features identified by Argamon et al. Additionally, they found that sex is not a significant predictor at all for stylistic features such as first-person plural, second-person or third-person pronouns, quantifiers, and numbers. On the other hand, genre was found to correlate significantly with these sets of stylistic features. In particular, Herring and Paolillo analyzed diary type personal journals, written primarily by women, and filter types of blogs, written mostly by men. Diaries were found to favor female-preferential language features, while filter-type of blogs favored male-preferential features.

Similarly, previous research has also indicated that other than just the communicator's sex, other factors can also influence the way individuals talk. The most

important of these factors is the sex of the communication partner. As studies indicated, participants accommodate their language use to their communication partners and sex-preferential language use is more common in same sex dyads than in mixed sex dyads (Athenstaedt, Haas, & Schwab, 2004; Carli, 1990; Fitzpatrick, Mulac, Dindia, 1995; Mulac, Wiemann, Widenmann, & Gibson, 1988; Thomson, Murachver, Green, 2001; Wolf, 2000). The notion of considering the sex of both interactants is especially important in the case of MySpace comments, since the comments appear on the person's profile who receives the comment and not on the sender's. Therefore, the current study considers the sex of both the sender and the receiver and goes beyond the issue of simply considering the sex of the sender, the role of which is fairly well established in the literature. Instead the current study considers the sexes of both interactants.

In addition, a condition that might also enhance how males and females communicate in mixed-sex and same-sex dyads is gender identity salience. In his study of sex-linked language use in e-mail, Palomares (2004) concluded that those men and women whose gender identity was salient used typical sex-linked language. Palomares conceptualized gender identity salience as the idea that individuals categorize themselves relative to situational context, thus identity is activated situationally depending on the social environment. Thus, Palomares suspects that typical sex-based communicative differences occur when gender is a factor in individuals' cognitions, whereas similar communication emerges when sex does not matter. Since the current research is not based on self-report data, gender identity salience is impossible to determine for the senders and receivers of the comments. Thus, for the purpose of this study, the sex of the sender and receiver of the comments will be considered instead.

Besides the sex of the communicators, the topic of discussion or writing has also shown to influence sex-linked language use (Herring & Paolillo, 2006; Janssen & Murachver, 2004; Thomson, 2006). Thomson (2006) examined electronic postings on public discussions and found that men and women in discussions about gender stereotypical topics were more likely to use sex-preferential language than in discussions about non-gender stereotypical topics. Likewise, Janssen and Murachver (2004) found that writers used sex-preferential language to fit the topic they were writing about. More female-preferential devices were exhibited in writings involving socioemotional descriptions, and more male-preferential features were employed in functional writings about a political debate. The female-preferential devices included positive comments about a third person, references to emotion, third-person pronouns and the use of adjectives. Male preferential features consisted of opinions, references of quantity or place, illustratives and spelling errors. Additionally, as already mentioned above, Herring and Paolillo (2006) found that personal journals, which are typically written by women, contained more female stylistic features, whereas filter blogs, written mostly by men, included more male stylistic features.

Although topic might influence sex-preferential language use, based on Herring's (1993) findings, it can be assumed that males and females voluntarily expose themselves to gender-preferential topics. Herring found that in academic discussion groups, females were more likely to participate in discussions about sexism, while males participated more frequently in broad theoretical discussions. Furthermore, females tended to contribute most to personal discussions, while men contributed most to discussion of issues. Regardless of the academic nature of the discussion groups, Herring found

significant sex-based stylistic differences of language use. As he coded all messages according to previously identified features of women and men's language, he found that women's language features were used most often by women, while men's language features were used most often by men. Herring also noted that while the majority of women's messages (46%) combined a mix of male and female language features, very few (14%) of males messages included combined features.

While results of studies on sex-linked language use reveal mixed results and suggest that sex-preferential language depends on several factors other than just one's sex, it is clear that there is a difference between language features that are associated mostly with males and females. Unlike some previous research (Lee, 2007; Sierpe, 2005), the current study does not attempt to deal with the predictability of sex based on sex-preferential language use. Instead, its goal is to add to the current literature on sex and language use, and to examine how individual level sex differences match up to cultural level differences between the United States and Hungary considering the division of roles between men and women within these two cultures.

2.12. Hypothesis 3 and research question 1

Based on the literature review on individual level masculinity and femininity traits in written communication, the following hypothesis and research question are proposed:

H_3: Female and male initiated same-sex and mixed-sex dyads communicate differently through MySpace comments.

RQ_1: Is the way male and female initiated same-sex and mixed-sex dyads communicate through MySpace comments different in the United States and in Hungary?

The summary and conceptualization of cultural and individual level masculinity and femininity variables are included in Table IV, in which variables associated with masculinity are marked with the "mas" label, whereas variables linked to femininity are marked as "fem." This table also includes the levels of measurement for each variable and the specific inter-coder reliability scores that have been established before the content analysis of MySpace comments. Further explanation regarding content analysis and inter-coder reliabilities will be provided in the methods section of this paper.

Additionally, the masculinity/femininity variables are also grouped into five different categories based on their type: amount of talk ("length1," "length2"), topic ("topic," "mas5," "mas6," "mas7," "mas8," "mas9," "mas10," "mas11"), expressives ("fem1," "fem3," "fem10," "fem11," "mas2"), speech acts ("fem2," "fem7," "mas1," "mas4"), stylistic/linguistic variables ("fem4," "fem5," "fem6," "fem8," "fem9," "mas3") and orientation measures ("fem12," "mas12").

Table IV. Summary and conceptualization of masculinity and femininity variables, summary of intercoder-reliability scores.

Variable name and category of measure	Intended to measure	Source	Conceptual definition	Level of measurement & inter-coder reliability scores
Length1 (amount of talk)	The number of sentences in the comment	Levin & Geldman-Caspar, 1997	A group of words or a single word that expresses a complete thought, feeling or idea. It usually contains an explicit or implied subject and a predicate containing a finite verb.	**Ratio** US Lin's cc= .855 HU Lin's cc= .9
Length2 (amount of talk)	The number of words in the comment	Levin & Geldman-Caspar, 1997	A unit of language that carries meaning and consists of one or more morphemes which are linked more or less tightly together, and has a phonetical value.	**Ratio** US Lin's cc= .998 HU Lin's cc= .998
Topic (topic)	The type of the topic of the comment	Thomson, 2006	Intended to measure the subject of the comment considering gender stereotypes.	**Nominal** US Cohen's Kappa=.735 HU Cohen's Kappa=.887
Fem1 (expressives)	The number of exclamation points	Rubin & Green, 1992; Winn & Rubin, 2001	The use of the ! punctuation mark.	**Ratio** US Lin's cc=.996 HU Lin's cc=1
Fem2 (speech acts)	The use of egocentric sequences	Rubin & Green, 1992	A sequence in which a first-person pronoun is followed by a verb. These sequences attempt to reflect on one's opinion, judgment or understanding of a particular issue, thus they reflect a certain degree of uncertainty of the claim that follows.	**Nominal** US Cohen's Kappa=1 HU Cohen's Kappa=1
Fem3 (expressives)	The number of intensifiers	Mulac, Bradac, & Gibbons, 2001	A word tending to give force or emphasis to an adverb or adjective.	**Ratio** US Lin's cc=.789 HU Lin's cc=1

Variable name and category of measure	Intended to measure	Source	Conceptual definition	Level of measurement & inter-coder reliability scores
Fem4 (stylistic/ linguistic features)	The number of oppositions	Mulac, Bradac, & Gibbons, 2001	Retracting a statement and posing one with an opposite meaning.	**Ratio** US PA_o = 100 HU Lin's cc = 1
Fem5 (stylistic/ linguistic features)	The number of negations.	Mulac, Bradac, & Gibbons, 2001	A statement of what something is not.	**Ratio** US Lin's cc=.936 HU Lin's cc=.87
Fem6 (stylistic/ linguistic features)	The number of hedges	Mulac, Bradac, & Gibbons, 2001	Modifiers that indicate lack of confidence in, or diminished assuredness of, the statement.	**Ratio** US Lin's cc=1 HU Lin's cc=.634
Fem7 (speech acts)	The number of questions	Mulac, Bradac, & Gibbons, 2001	A request for information or for a reply, which usually ends with a question mark	**Ratio** US Lin's cc=.886 HU Lin's cc=1
Fem8 (stylistic/ linguistic features)	The number of dashes	Rubin & Green, 1992; Winn & Rubin, 2001	The use of the – or ~ punctuation marks.	**Ratio** US PA_o =100 HU Lin's cc=1
Fem9 (stylistic/ linguistic features)	The number of parentheses	Rubin & Green, 1992; Winn & Rubin, 2001	Parentheses can be oval or curved brackets that typically contain material that could be omitted without destroying or altering the meaning of a sentence.	**Ratio** US PA_o =100 HU Lin's cc=1
Fem10 (expressives)	The number of references to emotions.	Mulac, Bradac, & Gibbons, 2001; Lewis & Haviland-Jones, 2000	References to strong feelings about somebody or something.	**Ratio** US Lin's cc=.789 HU Lin's cc=.894
Fem11 (expressives)	The number of emoticons	Winn & Rubin, 2001	An emotional icon used to indicate the emotional state of the communicator in computer-mediated communication	**Ratio** US Lin's cc=1 HU Lin's cc=.978

Variable name and category of measure	Intended to measure	Source	Conceptual definition	Level of measurement & inter-coder reliability scores
Fem12 (orientation)	The relationship orientation of the comment / Expression of care	Hofstede, 2001	One's attempt to offer support, a thoughtful approach to serve others, a considerable or kind disposition to the other person, typically involving the exhibition of feelings, concerns and/or empathy through the expression of love, warmth, positive emotions. Looking after someone, taking responsibility or being worried about someone.	**Nominal** US Cohen's Kappa=.857 HU Cohen's Kappa=.842
Mas1 (speech acts)	The use of connective phrases	Rubin & Green, 1992	Phrases that show the relationship between ideas in an effort to help the reader/listener to interpret ideas that the writer wants the reader/listener to understand.	**Nominal** US PA_o =100 HU Cohen's Kappa=1
Mas2 (expressives)	The number of judgmental adjectives	Mulac, Bradac, & Gibbons, 2001	An adjective that indicates personal evaluation rather than merely description.	**Ratio** US Lin's cc=1 HU Lin's cc=.882
Mas3 (stylistic/ linguistic features)	The use of elliptical sentences	Mulac, Bradac, & Gibbons, 2001	A unit beginning with a capital letter and ending with a period (or other end point) in which a part of the structure of the sentence is omitted/missing.	**Nominal** US Cohen's Kappa=.865 HU Cohen's Kappa=.75
Mas4 (speech acts)	The use of directives	Mulac, Bradac, & Gibbons, 2001	Sentences of parts of sentences that are telling another person what to do.	**Nominal** US Cohen's Kappa=1 HU Cohen's Kappa=1
Mas5 (topic)	The use of references to quantity	Mulac, Bradac, & Gibbons, 2001	Any reference to an amount, number or a measurable property of something.	**Nominal** US Cohen's Kappa=1 HU Cohen's Kappa=.881
Mas6 (topic)	The use of locatives	Mulac, Bradac, & Gibbons, 2001	Any indication of the position or location of objects.	**Nominal** US Cohen's Kappa=.634 HU Cohen's Kappa=.857
Mas7 (topic)	Any references to career	Hofstede, 2001	References to any course of successive situations or overall evaluations to one's worklife or positions	**Nominal** US Cohen's Kappa=.634 HU Cohen's Kappa=.842

Variable name and category of measure	Intended to measure	Source	Conceptual definition	Level of measurement & inter-coder reliability scores
Mas8 (topic)	Any reference to success	Hofstede, 2001	Reference to a level of social status, achievement of an object/goal in any area of life.	**Nominal** US Cohen's Kappa=1 HU PA_o=100
Mas9 (topic)	Any reference to money	Hofstede, 2001	Reference to any kind of monetary unit, the lack or abundance of money, or the price of an object/possession.	**Nominal** US PA_o=100 HU PA_o=100
Mas10 (topic)	Any reference to material things / possessions	Hofstede, 2001	Reference to property, belongings, holding, something owned or any kinds of tangible and intangible possessions.	**Nominal** US Cohen's Kappa=.634 HU Cohen's Kappa=1
Mas11 (topic)	Any reference about expressing ambition	Hofstede, 2001	Reference to an ardent desire for rank, frame or power, to achieve a particular end/goal.	**Nominal** US Cohen's Kappa=.762 HU Cohen's Kappa=1
Mas12 (orientation)	The ego orientation of the comment	Hofstede, 2001	One's attempt to enhance, increase, heighten his/her own ego by using self-compliments, referring to his/her merits, values, or by articulating only great things about him/herself. The sender's goal is to enhance his/her own ego instead of his/her relationship with the receiver.	**Nominal** US Cohen's Kappa=1 HU Cohen's Kappa=.762

CHAPTER III

METHODS

This study involved the content analysis of MySpace comments posted by users in Hungary and the United States. The unit of sampling was the self-identified Hungarian or American user, whereas the unit of data collection and likewise, the unit of analysis was the comments. Content analysis is a quantitative investigation of message characteristics, which is not limited to particular variables or contexts (Neuendorf, 2002).

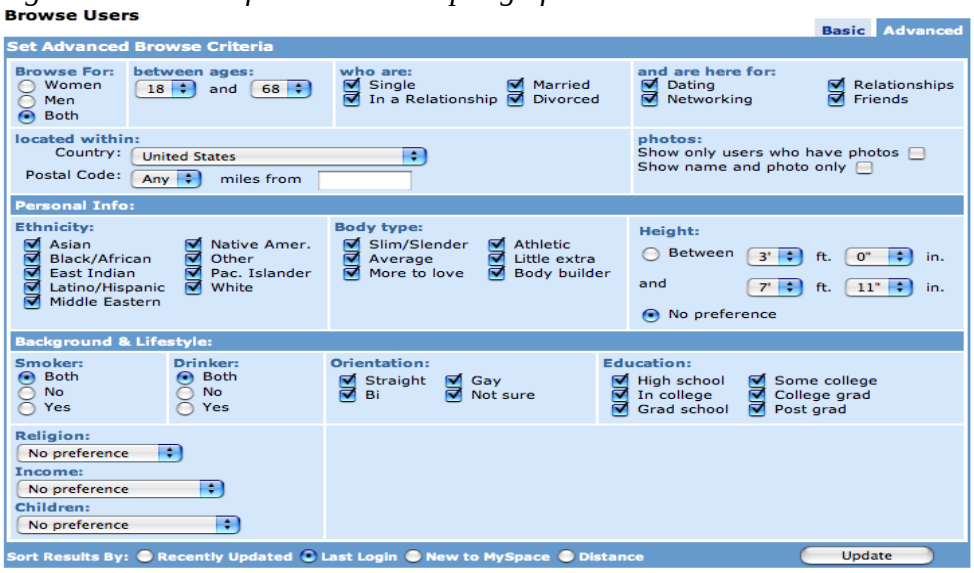
Pulling from the work of Hofstede (1980; 2001) and Ting-Toomey (1988; 2005; Ting-Toomey & Kurogi, 1998), a set of 21 collectivism and individualism, and 28 masculinity and femininty content analytic measure were derived. All measures tapped either linguistic (e.g., use of particular pronouns) or semantic (e.g., emotional expression) features of the text that one or both of the two theoretic perspectives have identified as critical to a delineation of cultural differences in communication behavior relevant to collectivism and individualism, and gender differences.

Content analysis of MySpace comments poses a double challenge, derived both from the enormous size and fluid nature of the comments. For instance, users are able to delete their comments and can receive a large amount of comments on a daily basis, which typically makes it challenging for the researcher to access the same comment

multiple times. Therefore, the process of data collection required the archiving of MySpace comments, which was based on random sampling to the extent that MySpace features allowed. Thus, for the sampling of MySpace comments the advanced browse function on this site has been taken advantage of. Selecting the widest range of browsing criteria, profiles associated with the following users were randomly selected: both males and females; in the maximum allowed age range (ages 18 to 68); in any relationship status; using MySpace for dating, networking, relationships or friends; located either within the United States or Hungary; associating themselves with any kinds of ethnic groups; body type; height, sexual orientation; education; religion; smoking and drinking habits; income and preference for children.

Additionally, MySpace allows for sorting search results by recently updated profiles, latest login, new members in MySpace or distance from a specific location. To ensure that the sampling reflected active users, results were chosen to be sorted by latest login. Figure 1 below shows the example of how the broadest range of sampling criteria has been selected.

Figure. 1: Criteria for random sampling of comments



This method of sampling drew 3000 profiles at once, which are displayed in 300 pages. To qualify for inclusion in this study, comments needed to appear on public profiles and to be posted by users with public profiles. Furthermore, five additional criteria were necessary to be met in order to consider comments in the study. First, only written comments have been considered, whereas video or picture comments have not because this study attempted to infer cultural values manifested in written language use. Second, comments left by an official band, organization, celebrity, politician, filmmaker, comedian or by any other nationally known person in the U.S. or Hungary were excluded from the study. Comments posted by celebrities could bias the findings of the study because these comments are typically PR tools, and thus involve self-promotion. Similarly, often-encountered spam messages, typically about advertised products, were also excluded.

Third, when MySpace users add new friends in their network, they often send out a "thank you for the add" or "thank you for the request" comment. These comments have not been included in the sample. Fourth, if the random sampling process led to a profile where the member had only one or two friends or no comment had been posted for the member, that profile was discarded from the sample. Fifth, if the sampling process led to a page with download or other general errors, the profile was eliminated from the sample. Thus, if the random sampling led to a comment with any of the exclusion criteria above, the second latest comment from that profile was sampled. If the sampling led to a profile with no comments posted, the next profile displayed by the browsing results was sampled instead.

A total of 300 comments that met all the above-specified criteria were sampled, one from each randomly selected profile. There were 150 comments selected from each nation. The latest comment that appeared on a user's profile and met all inclusion criteria was archived and analyzed in relation to two user profiles: that of the person who posted the comment, and that of the person who received it. Since the comments appear on the commented person's profile but not on the sender's profile, basic demographic elements of both persons' profiles were archived. The demographic elements of interest in this research included sex, age, sexual orientation, ethnicity and geographic location. Furthermore, the reason that users indicated why they were using MySpace has also been coded. Although not every profile offered data about all these variables, whenever it was possible, these elements have been recorded.

In addition, this study analyzed only comments that were posted by users within the United States and Hungary to users within the same/matching country. The rationale behind this decision is twofold. First, the goal of this research was to compare comments within two different cultures instead of looking at the interaction between the two. Second, it is assumed that there are not many interactions between Hungarian and American users on MySpace, not only due to the geographic distribution of the two countries but also because of the possible language barriers.

Comments were coded by three coders including two Hungarian bilingual coders (the researcher and an external coder) and one American coder. Back translation was used to validate the Hungarian translation of the codebook. The researcher translated the English codebook into Hungarian, and the second bilingual coder was asked to translate the Hungarian codebook back to English. The back-translated version of the codebook

and the original English language codebook were compared in order to check for possible misinterpretations by the second bilingual coder and for possible language differences that might harm the coding process. Adjustments to the Hungarian codebook were made as needed.

Following the coder training, which involved the use of a rich subset of the sample, inter-coder reliabilities were established based on the trial coding process by using the Program for Reliability Assessment with Multiple Coders (available for download from The content analysis guidebook online: http://academic.csuohio.edu/kneuendorf/content/reliable/pram.htm). The trial coding process led to several revisions to the codebook; however once satisfactory inter-coder reliability was achieved, the whole sample was coded. Specific inter-coder reliability scores for both countries, such as Lin's concordance coefficients (labeled "*Lin's cc*") for ratio level variables and Cohen's Kappa for nominal variables, are found in Table II and IV, which also provide a summary and conceptualization of variables. In case of variables, where the total lack of variance (e.g., if coders agreed 100% that something did not occur) prohibited the calculation of Cohen's Kappa or Lin's concordance scores, percent agreement scores (labeled "PA_o") are reported. The final version of the codebook is found in Appendix A.

CHAPTER IV

RESULTS

4.1. *Descriptive statistics for senders and receivers of the comments*

The total sample consisted of 300 MySpace comments, of which 150 were posted and received by Hungarian users and 150 by American users. Demographic variables were coded for both the sender and receiver of each comment, thus a total of 600 individuals. The detailed summary of these variables associated with either the senders or receivers of the comments in Hungary and the U.S. are found in Appendix B.

As mentioned above, for the sampling of the comments, the advanced browse function of MySpace was used. This function, when set to the widest search criteria considering the age of the users, allows searching for users between the ages of 18 and 68. Yet the age of the senders and receivers for the sampled comments fell outside of this range, which might be due to certain technological errors in the browsing system. People under 18 years of age were still kept in the sample.

In the overall sample, the age of the senders ranged from 16 to 100 (M = 24.14, SD = 12.033) and of the receivers from 17 to 63 (M = 22.64, SD = 5.393). Both the senders' and receivers' mean age was slightly higher in the United States (M_{sender} = 25.33,

SD_{sender} = 24.09; $M_{receiver}$ = 24.09, $SD_{receiver}$ = 6.611) than in Hungary (M_{sender} = 22.97, SD_{sender} = 12.796; $M_{receiver}$ = 21.17, $SD_{receiver}$ = 3.206). However, since MySpacers can present any information they want on their profiles, these numbers might not accurately reflect the real age of the users.

In both countries females dominated the discourse, with 63.3% of comments initiated by females, and only 36.7% initiated by males. There was no significant difference between the two countries. In particular, this ratio was 64.2% female to 35.8% male in the U.S. and 62.4% female to 37.6% male in Hungary. Additionally, the receivers of the comments (overall 56.7% female, 43% male) were also more frequently females than males in the U.S. (55% female, 45% male) and in Hungary (58.4% female, 40.9% male). Furthermore, the number of same-sex and mixed-sex dyads are summarized in Table V, which shows that the highest number of comments were same-sex type, female-to-female comments and the lowest number of comments were male-to-female mixed-sex type comments in both countries, even though the associated non-significant chi-square value shows that the observed frequency distribution for the two countries taken together does not differ substantially from chance. Thus country and sex are not significantly related.

Table V. Summary of the number and type of interactions

	United States (1)	Hungary (2)	Total
1. Male to male (MM)	27	31	N_{US+HU}=58
2. Male to female (MF)	27	23	N_{US+HU}=50
3. Female to female (FF)	55	64	N_{US+HU}=119
4. Female to male (FM)	41	29	N_{US+HU}=70
	N_{US}=150	N_{HU}=147	$N_{\sum US+HU}$=297
Pearson Chi-Square: Value=3.304 df= 3 p=.347			

Based on the information provided by the users, considering their sexual orientation, the majority of the senders in the U.S. (84.8%) and in Hungary (51.7%) were heterosexual, although 45.6% of the comment senders in Hungary did not indicate their sexual orientation. The majority of the senders of comments in Hungary (71.1%) also did not indicate their ethnicity perhaps due to the more homogenous nature of this country's ethnic make-up and therefore the more obvious nature of their background. Of the American users, 49.7% indicated White, 9.3% Hispanic, 7.3% Black, 2% Pacific Islander, 1.3% Native American and .7% Middle Eastern ethnicity. The rest, 29.8% of the American senders, did not specify their ethnicity.

The U.S. receivers of the comments had similar characteristics as the senders: 75.5% of them were White, 8.6% Black, 6% Hispanic, 2.6% Native American and 1.3% Pacific Islander. Of the Hungarian receivers, 90.6% indicated White ethnicity, and only 8.1% did not indicate anything.

The majority of the senders and receivers in the overall sample indicated using MySpace for their friends primarily. Specifically, in the U.S. 51% of the senders and 65.6% of the receivers stated using MySpace for friends. In Hungary, 26.8% of the senders and 59.7% of the receivers used MySpace for friends. Interestingly, in the United States neither senders nor receivers of the comments indicated that they would use MySpace strictly for relationship establishing purposes; however in Hungary, 2.7% of the senders and .7% of the receivers indicated to use it merely for this purpose.

Furthermore, in the current study, attempts were made to code for the type of interaction based on geographic location of the senders and receivers of the comments. Yet, of the Hungarian sample, in 42.3% of the cases, and of the American sample in 16.6% of the cases, either the sender or the receiver did not identify his or her exact geographic location. Taking this missing information into account, the highest identifiable number of Hungarian users (34.2%) were sending comments to those who were in closer geographic proximity to them, residing in the same county and same city. On the other hand, of those American interactions, in which both partners indicated their location, most comments (35.1%) were posted to people living in the same state but in different cities or to people in different states and different cities (27.8%).

4.2. Overall data analyses

Since the individualism and collectivism and masculinity and femininity variables included in the current research were gathered from theory that indicates two dimensions at the individual level, principal components confirmatory factor analysis was run on the dataset, attempting to confirm factors of individualism and collectivism and masculinity and femininity. However, factor analysis resulted in low communalities and neither the

individualism and collectivism nor the masculinity and femininity variables load clearly on two separate factors.

Similarly, reliability analyses resulted in unacceptably low Cronbach's alpha coefficients, indicating low correlations among the measured variables. Therefore, it is assumed that the previously identified individualistic and collectivistic and masculine and feminine traits are sets of independent indicators tapping a wide variety of unique aspects of individualism and collectivism and male and female communication patterns that precludes the construction of reliable scales and factors. For this reason, to test the first hypothesis of this study, between-subjects univariate ANOVA tests and cross tabulations were conducted separately on the 21 individualism and collectivism dependent variables.

To test the second and third hypotheses and to answer the research questions, which all have been related to the masculinity and femininity variables, two types of ANOVA tests have been run on the dataset. First, to test the second and third hypothesis, a 2 (country) X 2 (sex of sender) X 2 (sex of receiver) ANOVA with three specified main effects of the independent variables (1: country, 2: sex of the sender, 3: sex of the receiver) and two interaction effects (1: country by the sex of the sender and 2: the sex of the sender by the sex of the receiver) was conducted separately on all 28 masculinity and femininity dependent variables.

Second, to answer the research question, a 4 (gender of sender and receiver) X 2 (country) ANOVA was conducted separately on all 28 masculinity and femininity variables. In order to consider the sex of both the sender and receiver of the comments as one independent variable and to create meaningful effects considering both at the same time with country, a new variable labeled as "gendmix" was created. This variable is

associated with four values, where 1 indicates male-to-male, 2 male-to-female, 3 female-to-female and 4 female-to-male comments.

Running multiple ANOVA tests in this study raises the concern that the alpha level should be adjusted downward to consider chance capitalization (Sankoh, Huque & Dubey, 1997). The alpha level is the chance taken by researchers to make a type one error or incorrectly declaring a difference, when the effect or relationship occurred due to chance. Normally the alpha level is set at 0.05, however when running multiple statistical tests, the chance of significant findings increases, thus it is recommended to consider chance capitalization. One of the tests that takes chance capitalization into account is the Bonferroni test, which on the other hand is often criticized (e.g., Pergener, 1998) for increasing the chance of making a type two error or not declaring any effects or differences, while in fact there is a difference. Thus, by reducing for individual tests the chance on type one error (i.e., the chance of finding differences between American and Hungarian MySpace users), the chance on a type two error increases (i.e., the chance that differences between Hungarian and American MySpace users is not discovered), thus lowering the power. Since the current study is of rather exploratory nature, Bonferroni corrections will not be used, but it should be noted that a stricter Bonferroni examination and interpretation of the results would only consider findings significant below a 0.002 alpha level.

4.3. The individualism/collectivism value dimension, testing for H_1

Dependent variables

With the exception of four variables (ind1, coll1, coll2, coll3 and coll4) that measured the number of instances of self and other references in the comments, all other

individualism and collectivism variables were measured on the nominal level. Each nominal variable had categories between zero (0) and six (6), where zero referred to the lack of a certain individualistic or collectivistic trait and categories from one to six indicated I (1), you (2), we (3), he/she/they (4) references, combinations of these references (5), or reference to a certain individualistic/collectivistic trait in general (6). These categories were based on Hofstede's (2001) distinctions of the individualistic self-orientation ("I") versus the collectivistic other- or collectivity-orientation ("you," "he," "she," "we," "they" and combinations of these). Additionally, category 99 was used when the presence of a certain trait was unable to be determined in the coding process.

In order to conduct meaningful analyses, the nominal level variables were recoded into two different sets of new variables. First, they were recoded as dummy variables, where the previous zero (0) and 99 categories were recoded into zero (0) and categories from one (1) to six (6) were recoded as one (1). To name these new dummy variables, a letter "d" was added to each original variable name (e.g., ind2d, coll4d). The factor analysis, the scale construction attempts and the ANOVAs were all run using these dummy variables.

Second, the original nominal variables with eight categories (from zero to six and 99) were also recoded into new, three-category nominal variables. In this case, the original zero (0) and 99 categories were recoded as zero (0), categories one (1) and six (6) were recoded as one (1) and categories three (3), four (4) and five (5) were recoded as two (2). The reason for this recode was to simplify the nature of self and other references, thus to combine "I" and general references as more of an individualistic indicator within any variable and "we," "you," "he," "she," "they" references as more of a collectivistic

indicator within the variables. For the recoding of these variables, each variable was labeled with the letter "r" at the end of each variable name (e.g., ind2r, coll4r). These recoded three-category variables were utilized in running cross tabulations to gather additional information regarding the direction of each significant variable, whether it is used in an individualistic ("I" or general reference) or collectivistic manner ("we," "you," "he," "she," "they" references or any combinations of those).

Results of the ANOVA tests

A summary of the univariate ANOVA tests for all significant and non-significant variables with the associated mean scores and *F* values is found in Appendix C. The ANOVA tests showed significance or close to significant values in the cases of one-third of the variables, such as commanding an act (p=.059), "we" references (p=.052), reference to family (p=.011), reference to social roles (p=.055), use of compliments (p=.023), promises (p=.002) and references to survival (p=.001). It has to be noted that near significant values need to be interpreted with caution. From all of these variables, only commanding an act was measuring individualistic traits, and it occurred more frequently in American (M_{US}=.2000, SD_{US}=.4013) than in Hungarian (M_{HU}=.1200, SD_{HU}=.32605) comments.

All other significant or near-significant variables were measuring collectivistic traits. With the exception of family references, which appeared more often in American comments (M_{US}=.1600, SD_{US}=.3678) than in Hungarian ones (M_{HU}=.0667, SD_{HU}=.2502), all other collectivistic variables, "we" references (M_{HU}=.34, SD_{HU}=.818; M_{US}=.19, SD_{US}=.510), references to social roles (M_{HU}=.1333, SD_{HU}=.3410; M_{US}=.0667, SD_{US}=.2502), use of compliments (M_{HU}=.2267, SD_{HU}=.4200; M_{US}=.1267, SD_{US}=.3337),

promises (M_{HU}=.1867, SD_{HU}=.3909; M_{US}=.2502, SD_{US}=.0400), and references to survival (M_{HU}=.2000, SD_{HU}=.40134; M_{US}=.0667, SD_{US}=.2502) were used more frequently by Hungarian MySpace users than by Americans.

In addition to the ANOVA tests, cross tabulations of the distribution of variables were conducted on the three-category recoded dependent variables. The summary of these distributions is found in Table VI for those variables with significant associated Chi-square values. Overall, of the 21 dependent variables, seven were shown to be significant in the crosstabulations: reference to hedonism (p=.003), reference to family (p=.007), reference to friends (p<.001), use of compliments (p=.023), promises (p=.007), reference to inclusion needs (p<.001) and references to survival (p=.002). With the exception of hedonism, references to friends and inclusion needs, all the other variables were also shown significant in the ANOVA tests. These three variables however only showed significant differences in the cross tabulations.

Of the significant crosstabulated variables, only one variable, references to hedonism, attempted to measure an individualistic type of trait. Just considering the number of people, overall slightly more Americans (N=54) referred to hedonism than Hungarians (N=50). While Americans were most likely to refer to hedonism from an individualistic perspective (N=32) (e.g., by referring to their own hedonism or hedonism in general) than from a collectivistic angle (N=22), Hungarians mostly referred to hedonism from a collectivistic perspective (N=37) (e.g., by referring to other people's hedonism or collective hedonism) instead of an individualistic one (N=13).

Table VI. Summary of significant individualism/collectivism variables within the cross tabulation

Variable	Total (*N*=300)	U.S. (*n*=150)	Hungary (*n*=150)	Pearson Chi-square
Hedonism reference (ind9r)				Value=11.917
Individualistic:	45 (15%)	32 (21.3%)	13 (8.7%)	df=2
Collectivistic:	59 (19.7%)	22 (14.7%)	37 (24.7%)	*p*=.003
No reference:	196 (65.3%)	96 (64%)	100 (66.7%)	
Family reference (coll4r)				Value=9.848
Individualistic:	25 (8.3%)	20 (13.3%)	5 (3.3%)	df=2
Collectivistic:	9 (3%)	4 (2.7%)	5 (3.3%)	*p*=.007
No reference:	266 (88.7%)	126 (84%)	140 (93.3%)	
Friends reference (coll5r)				Value=20.053
Individualistic:	33 (11%)	24 (16%)	9 (6%)	df=2
Collectivistic:	17 (5.7%)	1 (.7%)	16 (10.7%)	*p*<.001
No reference:	250 (83.3%)	125 (83.3%)	125 (83.3%)	
Compliment (coll8r)				Value=5.156
Individualistic:	53 (17.7%)	19 (12.7%)	34 (22.7%)	df=1
Collectivistic:	0	0	0	*p*=.023
No reference:	247 (82.3%)	131 (87.3%)	116 (77.3%)	
Promise (coll9r)				Value=10.047
Individualistic:	37 (12.3%)	10 (6.7%)	27 (18%)	df=2
Collectivistic:	1 (.3%)	0	1 (.7%)	*p*=.007
No reference:	262 (87.3%)	140 (93.3%)	122 (81.3%)	
Inclusion needs (coll11r)				Value=15.267
Individualistic:	62 (20.7%)	43 (28.7%)	19 (12.7%)	df=2
Collectivistic:	68 (22.7%)	24 (16%)	44 (29.3%)	*p*<.001
No reference:	170 (56.7%)	83 (55.3%)	87 (58%)	
Survival (coll12r)				Value=12.251
Individualistic:	27 (9%)	8 (5.3%)	19 (12.7%)	df=2
Collectivistic:	13 (4.3%)	2 (1.3%)	11 (7.3%)	*p*=.002
No reference:	260 (86.7%)	140 (93.3%)	120 (80%)	

Similar patterns were observed for references to friends and inclusion needs. Although both Hungarians and Americans used equal number of references overall to friends in their comments (N=25), Americans typically did it from an individualistic

point of view (*N*=24), whereas Hungarians from a collectivistic approach (*N*=16). Likewise, the number of references to inclusion needs were very similar in both countries (N_{HU}=63, N_{US}=67), but Americans referred to inclusion more from an individualistic stance (*N*=43), while Hungarians from a collectivistic standpoint (*N*=44).

Three variables that measured collectivistic traits in general appeared in higher numbers on both the individualistic and collectivistic angle in Hungary than in the U.S. For example, compliments were used more often in Hungary (*N*=34) than in the U.S. (*N*=19), though MySpacers in both countries used only compliments from an individualistic approach. Promises were also higher in numbers in Hungarian MySpace comments (*N*=28) than in American (*N*=10), with nearly no one from either country taking a collectivist approach. Finally, Hungarians (*N*=30) referred to survival three times as often as Americans (*N*=10) did. Even though in both countries most people referred to survival from an individualistic viewpoint (N_{HU}=19, N_{US}=8), the number of survival references from a collectivistic approach was higher in Hungary (*N*=11) than the entire references to survival in general in the U.S (*N*=10).

One exception of the expected results was shown in the case of family references. Family references overall were higher in number in American MySpace comments (*N*=24) than in Hungarian comments (*N*=10), even though Americans most often referred to family from an individualistic angle (*N*=20), where Hungarians on the other hand referred to family equally from individualistic (*N*=5) and collectivistic (*N*=5) viewpoints.

4.4. The masculinity/femininity value dimension, testing for H_2, H_3 and RQ_1

2 (country) X 2 (sex of sender) X 2 (sex of receiver) ANOVA - H_2, H_3

As several previous studies (Athenstaedt, Haas, & Schwab, 2004; Thomson, Murachver, Green, 2001; Wolf, 2000) have suggested, sex-preferential language use is influenced by the sex of both partners in the communication process. In order to consider the sex of both the sender and receiver of the comments, the 2 X 2 X 2 ANOVA specified main and interaction effects considering the sex of the receiver. For the first independent variable (country), values of one (1) represented the U.S, values of two (2) Hungary. For the other two independent variables, the sex of the sender (sender1) and the sex of the receiver (receiver1), values of one (1) referred to male users, values of two (2) signaled female users. The overall summary of the specific mean and *F* scores associated with both significant and non-significant interaction and main effects are found in the table in Appendix D. As this table shows, for the purpose of analysis, variable "topic" was recoded into dummy variables of male-stereotypical ("maletopic") and female-stereotypical topic ("femaletopic").

Significant main effects by country – H_2

Generally, the 2 X 2 X 2 ANOVA revealed higher numbers of significant main effects by country (10 significant and one nearly significant) than interaction effects by the sex of the sender and receiver (three significant and three nearly significant). Significant variables by country were shown in case of the number of sentences (p=.021), use of egocentric sequences (p=.050), oppositions (p<.001), hedges (p=.029), dashes (p=.034), brackets (p=.026), emoticons (p<.001), female-stereotypical topic (p=.002), reference to career (p<.001) and reference to success (p=.002). Furthermore, the variable

attempting to measure the number of words showed a close to significant main effect (p=.081), thus need to be considered by keeping this notion in mind.

Hungarians exhibited more than Americans the use of egocentric sequences (M_{HU}=.19, SD_{HU}=.397 vs. M_{US}=.12, SD_{US}=.325), oppositions (M_{HU}=.35, SD_{HU}=.603 vs. M_{US}=.11, SD_{US}=.330), hedges (M_{HU}=.16, SD_{HU}=.369 vs. M_{US}=.09, SD_{US}=.304), dashes (M_{HU}=.17, SD_{HU}=.485 vs. M_{US}=.07, SD_{US}=.434), brackets (M_{HU}=.10, SD_{HU}=.302 vs. M_{US}=.02, SD_{US}=.140), emoticons (M_{HU}=1.82, SD_{HU}=1.973 vs. M_{US}=.15, SD_{US}=.428), references to career (M_{HU}=.28, SD_{HU}=.448 vs. M_{US}=.09, SD_{US}=.291) and reference to success (M_{HU}=.21, SD_{HU}=.412 vs. M_{US}=.07, SD_{US}=.261). On the other hand, American MySpacers were more likely to use female-stereotypical topic (M_{US}=.480, SD_{US}=.501 vs. M_{HU}=.302, SD_{HU}=.460), and higher number of words (M_{US}=.21.35, SD_{US}=14.977 vs. M_{HU}=18.57, SD_{HU}=17.456) than Hungarians.

Significant interaction effects by "sender1" and " receiver1" – H_3

The third hypothesis specified the interaction of the biological sex of the sender and receiver. Significant variables that showed this interaction were the use of egocentric sequences (p=.020), intensifiers (p=.038) and references to success (p=.034), whereas close to significant variables included the use of dashes (p=.067), reference to money (p=.066) and reference to material possessions (p=.097) and therefore need to be interpreted with caution.

Female language features were most often present in female same-sex interactions, and male language features in male same-sex dyads. Specifically, egocentric sequences were used primarily in same-sex dyads, and in particular when females communicated to other females ($M_{female/female}$=.23, $SD_{female/female}$=.425), and a little bit less

frequently when males communicated to other males ($M_{male/male}$=.15, $SD_{male/male}$=.363). However, male-to-female ($M_{male/female}$=.08, $SD_{male/female}$=.274) or female-to-male ($M_{female/male}$=.09, $SD_{female/male}$ =.282) mixed-sex dyads used this language feature the least frequently.

Similar tendencies were shown in case of the use of intensifiers that were found in highest numbers in female-to-female ($M_{female/female}$=.48, $SD_{female/female}$=.733) comments, and about half that frequently in male-to-male comments ($M_{male/male}$=.24, $SD_{male/male}$=.468). Both types of mixed-sex dyad comments included intensifiers about equal amount of times ($M_{male/female}$=.20, $SD_{male/female}$=.469, $M_{female/male}$=.20, $SD_{female/male}$ =.404). Males were more likely to refer to success when they communicated with people from their own sex ($M_{male/male}$=.20, $SD_{male/male}$=.406) and only about half that many times when interacting with females ($M_{male/female}$=.10, $SD_{male/female}$=.303). Females were also more likely to refer to success when they posted comments to females ($M_{female/female}$=.18, $SD_{female/female}$=.382) than to males ($M_{female/male}$=.07, $SD_{female/male}$ =.259), although overall fewer females referred to success less than did males.

Of the variables that showed almost significant interaction effects by both communication partners' biological sex, reference to money also adhered to the tendency that was shown by the significant variables. Hence, in same-sex dyads, both males ($M_{male/male}$=.03, $SD_{male/male}$=.183) and females ($M_{female/female}$=.03, $SD_{female/female}$=.157) referred to money the same amount of times in their comments. In mixed-sex dyads, there were no references to money at all ($M_{female/male}$=.00, $SD_{female/male}$ =.000, $M_{male/female}$=.00, $SD_{male/female}$=.000). Conversely, the other two almost significant variables have shown some exceptions under this trend. Dashes were most frequently present in interactions

that involved females, whether in same-sex ($M_{female/female}$=.12, $SD_{female/female}$=.393) or mixed-sex ($M_{female/male}$=.07, $SD_{female/male}$ =.310, $M_{male/female}$=.28, $SD_{male/female}$=.834) dyads and least frequently in male-to-male comments ($M_{male/male}$=.05, $SD_{male/male}$=.222). Somewhat similar, reference to material possessions was generally higher in male-initiated interactions ($M_{male/male}$=.31, $SD_{male/male}$=.464, $M_{male/female}$=.24, $SD_{male/female}$=.431) and less than half that common in female-initiated ones ($M_{female/female}$=.15, $SD_{female/female}$=.359, $M_{female/male}$=.06, $SD_{female/male}$ =.234).

Furthermore, some of the dependent variables have shown significant main effects both by the sex of the sender and the receiver; however they did not show significance in the case of the interaction of these two independent variables. In particular, expressing caring, which is a female-linked language feature, was more frequent in comments in which the sender (M_{male}= .42, SD_{male}= .496, M_{female}= .71, SD_{female}= .455) and the receiver (M_{male}= .51, SD_{male}= .502, M_{female}= .67, SD_{female}= .471) were both females, even though no interaction was shown by the independent variables. Similarly, female-stereotypical topics were used in the comment more often when both the sender (M_{male}= .136, SD_{male}= .344, M_{female}= .539, SD_{female}= .499) and the receiver (M_{male}= .289, SD_{male}= .455, M_{female}= .470, SD_{female}= .500) of the comment were female. Comparable tendencies were exhibited in the case of some male-linked language features. Thus, elliptical sentences occurred more often in those comments, whose senders (M_{male}= .65, SD_{male}= .478, M_{female}= .47, SD_{female}= .500) and receivers (M_{male}= .67, SD_{male}= .473, M_{female}= .44, SD_{female}= .497) were both males. Male-stereotypical topics were also more prevalent in the case of comments with male senders (M_{male}= .118, SD_{male}= .324, M_{female}=

.021, SD_{female}= .144) and receivers (M_{male}= .093, SD_{male}= .292, M_{female}= .029, SD_{female}= .169).

Non-hypothesized results of the 2 X 2 X 2 ANOVA

Although no hypothesis have been specified regarding main effects by the sender's sex; however, significance were revealed by eight variables, the number of sentences (p=.026), use of emoticons (p<.001), expressing caring (p<.001), female-stereotypical topic (p<.001), use of elliptical sentences (p=.012), reference to material possessions (p<.001), ego-boosting (p=.021), and male-stereotypical topic (p=.002). Close to significant values were shown by three other variables, the number of words (p=.080), use of intensifiers (p=.069) and reference to emotion (p=.062) but these variables should be interpreted carefully.

Females were more likely than males to use those communication features that were previously identified as feminine traits in written communication, such as intensifiers (M_{male}=.22, SD_{male}=.436, M_{female}=.38, SD_{female}=.662), reference to emotion (M_{male}=.17, SD_{male}=.504, M_{female}=.33, SD_{female}=.625), emoticon use (M_{male}=.57, SD_{male}=1.600, M_{female}=1.22, SD_{female}=1.633), expressing care (M_{male}=.42, SD_{male}=.496, M_{female}=.71, SD_{female}=.455) and the use of female-stereotypical topic (M_{male}=.136, SD_{male}=.344, M_{female}=.539, SD_{female}=.499). Similarly, males exhibited the use of male-associated written communication features, like elliptical sentences (M_{male}=.65, SD_{male}=.478, M_{female}=.47, SD_{female}=.500), reference to material possessions (M_{male}=.27, SD_{male}=.447, M_{female}=.12, SD_{female}=.321), ego boosting (M_{male}=.14, SD_{male}=.345, M_{female}=.06, SD_{female}=.235) and male-stereotypical topics (M_{male}=.118, SD_{male}=.324, M_{female}=.021, SD_{female}=.144) more frequently than females.

In the current study, those variables that measured communication traits that previously (Levin & Geldman-Caspar, 1997; Mulac, Bradac & Gibbons, 2001) revealed mixed results as to whether more female or male-typical features, have been shown as more frequently used by females. Thus, females overall used higher number of sentences (p=.026) (M_{female}=3.46, SD_{female}=2.010) than males (M_{male}=2.88, SD_{male}=1.20) and more words (p=.080) (M_{female}=21.64, SD_{female}=17.706, M_{male}=17.07, SD_{male}=12.967).

Similarly, no hypothesis was specified for the main effects considering the sex of the receiver, significance were shown by nine variables, the number of words (p=.015), use of exclamation points (p=.020), negations (p=.036), dashes (p=.012), expressing caring (p=.019), female-stereotypical topic (p=.031), connective phases (p=.021), use of elliptical sentences (p<.001) and expressing ambition (p=.021). Additionally, two variables, judgmental adjectives (p=.053) and male-stereotypical topic (p=.094) showed near-significant values and therefore should be referenced cautiously.

Only one of these variables, the use of elliptical sentences, was more likely to be present when the receiver of the comment was male (M_{male}=.67, SD_{male}=.473) than female (M_{female}=.44, SD_{female}=.497). All other significant variables, the number of words (M_{male}=16.25, SD_{male}=11.887, M_{female}=22.80, SD_{female}=18.491), exclamation points (M_{male}=1.00, SD_{male}=1.682, M_{female}=2.15, SD_{female}=5.845), negations (M_{male}=.30, SD_{male}=.680, M_{female}=.52, SD_{female}=.808), dashes (M_{male}=.06, SD_{male}=.272, M_{female}=.16, SD_{female}=.562), expressing caring (M_{male}=.51, SD_{male}=.502, M_{female}=.67, SD_{female}=.471), female-stereotypical topic (M_{male}=.289, SD_{male}=.455, M_{female}=.470, SD_{female}=.500), connective phrases (M_{male}=.00, SD_{male}=.000, M_{female}=.05, SD_{female}=.212), judgmental adjectives (M_{male}=.74, SD_{male}=1.012, M_{female}=1.05, SD_{female}=1.147), expressing ambition

(M_{male}=.19, SD_{male}=.397, M_{female}=.31, SD_{female}=.465) were exhibited more often when the receivers of the comments were females and not males.

One significant (p=.001, the number of emoticons) and three almost significant (p=.093: the number of exclamation points; p=.093: use of egocentric sequences; p=.066: use of oppositions) interaction effects were observed by the interaction of country and the sex of the sender. However, the near-significant values should be differentiated from the significant values. Emoticons were used most frequently in Hungarian female-initiated ($M_{HU/female}$=2.28, $SD_{HU/female}$=1.728) comments and least frequently in American male-initiated comments ($M_{US/male}$=.07, $SD_{US/male}$=.264). Furthermore, Hungarian males much more frequently used emoticons ($M_{HU/male}$=1.05, $SD_{HU/male}$=2.127) than American females ($M_{US/female}$=.20, $SD_{US/female}$=.492).

In the case of the almost significant variables, both Hungarian males and females were more frequent users of oppositions ($M_{HU/female}$=.43, $SD_{HU/female}$=.649; $M_{HU/male}$=.21, $SD_{HU/female}$=.494) and egocentric sequences ($M_{HU/male}$=.20, $SD_{HU/female}$=.401; $M_{HU/female}$=.19, $SD_{HU/female}$=.397) than American males and females for oppositions ($M_{US/male}$=.11, $SD_{US/male}$=.372; $M_{US/female}$=.10, $SD_{US/female}$=.306) and egocentric sequences ($M_{US/female}$=.16, $SD_{US/female}$=.373; $M_{US/male}$=.04, $SD_{US/male}$=.191). On the other hand, exclamation points were found more frequently in comments posted by American males ($M_{US/male}$=2.78, $SD_{US/male}$=9.526) and Hungarian females ($M_{HU/female}$=1.70, $SD_{HU/female}$=2.944), whereas American females ($M_{US/female}$=1.29, $SD_{US/female}$=2.111) and Hungarian males ($M_{HU/male}$=1.09, $SD_{HU/female}$=1.352) used this punctuation mark in more similar amounts.

4 (gender of sender and receiver) X 2 (country) ANOVA – RQ_1

Results of the 4 (gender of sender and receiver) X 2 (country) ANOVA have revealed significant interaction effects by country and "gendmix" in the case of five variables out of the overall 28 dependent variables. The significant main and interaction effects of this ANOVA test are summarized in Appendix E. However, to answer the research question of this study, the focus of attention is the interaction effects of the two independent variables. Significant differences of the number of sentences (p=0.11), the use of exclamation points (p=.051), hedges (p=.006), brackets (p=.011) and emoticons (p=.007) have been found in Hungarian and Amercian female and male initiated same-sex and mixed-sex dyads.

Hungarian same-sex and mixed-sex dyads almost always used more sentences in their comments than American dyads, except for the case of male-male interactions in which Americans had higher mean scores than Hungarians ($M_{US/male\text{-}male}$=3.11, $SD_{US/male\text{-}male}$=1.928 vs. $M_{HU/male\text{-}male}$=2.48, $SD_{HU/male\text{-}male}$=1.288).

Hungarian MySpacers used the most exclamation points in the case of female-to-female comments ($M_{HU/female\text{-}female}$=2.19, $SD_{HU/female\text{-}female}$=3.380), dissimilar to Americans, who exhibited the most exclamation points in male-to-female comments ($M_{US/male\text{-}female}$=4.56, $SD_{US/male\text{-}female}$=13.160). Both Hungarian ($M_{HU/male\text{-}male}$=1.10, $SD_{HU/male\text{-}male}$=1.300) and American males ($M_{US/male\text{-}male}$=4.56, $SD_{US/male\text{-}male}$=13.160) used exclamation points about the same amount of times when talking to males. On the contrary, American and Hungarian females used exclamation points very differently when posting comments to other females or males. Hungarian females ($M_{HU/female\text{-}female}$=2.19, $SD_{HU/female\text{-}female}$=3.380) compared to Americans ($M_{US/female\text{-}female}$=1.38,

$SD_{US/female\text{-}female}$=2.297) were using almost twice as many exclamation points when commenting females. However, when commenting males, Americans females were the ones who used almost twice as many exclamation points ($M_{US/female\text{-}male}$=1.20, $SD_{US/female\text{-}male}$=1.874) compared to Hungarian females ($M_{HU/female\text{-}male}$=.62, $SD_{HU/female\text{-}male}$=1.015). Hedges were not used very frequently in either countries, though they were used most often by Hungarian males in mixed sex dyads ($M_{HU/male\text{-}female}$=.30, $SD_{HU/male\text{-}male}$=.470) and females in same sex dyads ($M_{HU/female\text{-}female}$=.20, $SD_{HU/female\text{-}female}$=.406). In American comments, females were most likely to use them when communicating to males ($M_{US/female\text{-}male}$=.17, $SD_{US/female\text{-}male}$=.442). Brackets or parentheses were not used at all in American female-female ($M_{US/female\text{-}female}$=.00, $SD_{US/female\text{-}female}$=.000), female-male ($M_{US/female\text{-}male}$=.00, $SD_{US/female\text{-}male}$=.000) and in Hungarian female-male ($M_{HU/female\text{-}male}$=.00, $SD_{HU/female\text{-}male}$=.000) interactions. The highest number of them were exhibited in Hungarian female same sex dyads ($M_{HU/female\text{-}female}$=.17, $SD_{HU/female\text{-}female}$=.380).

All mean scores for Hungarian emoticon use were much higher than American scores in all types of dyads. Particularly large differences were found in Hungarian female-female ($M_{HU/female\text{-}female}$=2.41, $SD_{HU/female\text{-}female}$=1.725) and female-male ($M_{HU/female\text{-}male}$=2.00, $SD_{HU/female\text{-}male}$=1.732) versus U.S. female-female ($M_{US/female\text{-}female}$=.18, $SD_{US/female\text{-}female}$=.512) and female-male ($M_{US/female\text{-}male}$=.22, $SD_{US/female\text{-}male}$=.475) emoticon use. Furthermore, American females used more emoticons when interacting with males ($M_{US/female\text{-}male}$=.22, $SD_{US/female\text{-}male}$=.475) than with females ($M_{US/female\text{-}male}$=.18, $SD_{US/female\text{-}male}$=.512). On the contrary, Hungarian females used more emoticons in communication with females ($M_{HU/female\text{-}female}$ =2.41, $SD_{HU/female\text{-}female}$ =1.725) than with males ($M_{HU/female\text{-}male}$=2.00, $SD_{HU/female\text{-}male}$=1.732).

CHAPTER V

DISCUSSION

5.1. Individualism and collectivism

The first hypothesis of this study stated that Hungarian MySpace users will exhibit greater collectivistic traits and values in their comments than U.S. users, whereas U.S. MySpace users will exhibit greater individualistic traits and values than Hungarian users. It can be concluded that the findings of this study partially supported this hypothesis and that nearly all significant and near significant differences occurred in the predicted direction; however the examination of mean scores in the case of near significant findings should be interpreted carefully. Moreover, since variables that were based on Hofstede's and Ting-Toomey's theory showed significance, no apparent superiority of one particular theory was present. Moreover, based on the categorization of variables, significance was found proportionately to the number of linguistic (one out of four), topic (two out of five) and speech act type (four out of 12) variables.

The notion that MySpace is primarily a social networking site was well reflected in the findings. Not only did most Hungarian and American users indicate using Myspace in order to stay in touch with their friends, but also most variables that showed significance by the ANOVA tests were variables that attempted to measure collectivistic

traits. Both American and Hungarian MySpacers referred to or talked about rather collectivistic ideas (e.g., family and social role references, compliments, promises, survival). Even though Americans and Hungarians had very similar overall usage of talking about certain concepts, their differences lay in the patterns of their communication, the way they talked about these concepts. While Hungarians were more likely to refer to these ideas in terms of "we," the group or others, Americans mostly wrote from a first person perspective about collectivistic principles. Specifically, these patterns were observed when people were referring to friendships or friends (e.g., "I am fixing to go out on the lake and get drunk with my buddies") and when they were referring to desires to be recognized as a worthy companion (inclusion needs) (e.g., "It makes me sad to know you are sad").

Both Americans and Hungarians only referred to compliments of their own (e.g., "Hit me back 2 chat w/ ur coolest friend!!!") or gave compliments to others (e.g., "aww I looooved seeing u beautiful face"), although Hungarians were complimenting their fellow Hungarian MySpacers twice as often as Americans. Similarly, in both countries, users referred to their own promises (except in one case in Hungary) (e.g., "I will drink one for you"); however Hungarians did make almost three times as many promises as Americans.

Referring to survival, or expressing any difficulties of managing to live through something, was also more common in Hungarian comments, but mostly in relation to the commenters' own life (e.g., "I have no clue how am I going to finish all my exams this semester"). This finding though might have been influenced by the circumstance that during the time frame that Hungarian MySpace comments were sampled, the end of

semester university exams were administered throughout Hungary. Thus a frequent and recurring topic in Hungarian MySpace comments was related to the exams and not surprisingly to the hardship of living through that time period.

The findings regarding American MySpacers' individualistic approach to concepts and Hungarians' more collectivist approach, ties back to Ting-Toomey's face concern principle, which deals with the idea whether the individual is orientated towards the direction of the self, others or both. While Ting-Toomey (1988) has proposed that people in individualist cultures are more concerned with the self-face and collectivists are rather concerned about the mutual- or other-face, repeated studies of this hypothesis (Oetzel & Ting-Toomey, 2003; Oetzel, Ting-Toomey, Masumoto, Yokochi, Pan, Takai, & Wilcox, 2001) have found opposite results. They found that Chinese individuals (collectivists) exhibited greater self-face concerns than Americans (individualists). Dissimilarly, the current study found support for Ting-Toomey's face concern principle, since Americans showed more self-orientations, whereas Hungarians exhibited more other- and mutual-face concerns.

One unexpected finding of this study was that in general, Americans used more family references in their comments than Hungarians. They mostly referred to their own families (e.g., "My boys is not going to have christmas"), and did that about four times as much as Hungarians. They both referred to others' families or family roles in about equal amount (e.g., "R u gonna celebrate thanksgiving with ur cousins this year?"). Hungarians, though, talked about their own families exactly as often as they referred to others' families. One possible explanation of the unexpected finding that Americans overall used more family references might relate to another finding within this study that Americans

most frequently posted comments to people that lived farther from them, while Hungarians posted comments to people in closer geographic proximity. In their study of how people are using e-mail for personal relationships, Boneva, Kraut and Frohlich (2001) found that communication with geographically local friends via e-mail is different from communication with geographically distant friends. While local friends were found to e-mail in order to conveniently organize activities or arrange events, geographically distant friends reported using e-mail in order to keep in touch and revive lost connections. Therefore, people who post comments to others that are in larger geographic distance to them might communicate more about their families. Additionally, considering that the population of the U.S. in general is much more dispersed than the population of Hungary, and that the size of Hungary is about three quarters of the size of the state of Ohio, the more frequent family references are not that unusual.

The only individualistic variable that was found significant in the current study was measuring references to hedonism or pleasure seeking behaviors and activities that result in self-satisfaction. Even in the case of this variable, Americans referred to hedonism mostly in terms of how it relates to their own lives or hedonism in general (e.g., "new bedroom set, dvd shelves, shit is official now"), Hungarians talked about hedonism in terms of the collective or as it plays a role in others' lives (e.g., "Did you get your new car?").

As explained in the literature review, Ting-Toomey differentiates between negative face, which refers to the "claim to territories, personal reserves, rights to nondistraction" (Ting-Toomey, 1988, p. 216), and positive face, the idea to be appreciated and approved by others. Negative facework involves concern for freedom

and autonomy, and includes speech acts such as apologies, requests, compliance-resistance, and commanding acts, all which have been included as individualism variables in the current study. However, with the exception of commanding acts, neither one of the negative-facework variables were significant in terms of how Hungarians and Americans include them in their MySpace comments. Americans were significantly more likely to send command acts in their comments. Positive facework, on the other hand, implies concerns for inclusion and approval, and includes acts of compliments and promises, both of which were motives that occurred more frequently in Hungarian comments than in Americans.

Ting-Toomey and Kurogi (1998) proposed that people in individualist countries tend to use situational accounts or stories that attribute the causes of a problem or conflict to external causes (e.g., a car problem), whereas collectivists tend to refer to dispositional accounts or stories that attribute the problematic event to one's failed effort or internal sources. The present study did not lead to significant differences of the uses of situational or dispositional accounts in Hungary and the United States. Similarly, significant differences have not been found considering Ting-Toomey's face content domains. Although it has been proposed that individualists emphasize more on autonomy-face content domain, which is a concern of one's independence, and collectivists on inclusion-face content domains, which is a concern of being recognized as a worthy companion, differences for Hungary and the U.S. have not been found.

One possible reason why neither the situational and dispositional accounts, nor the face content domains showed any significance might be explained by the nature of MySpace and the comments themselves. It can be assumed that people might not choose

this form of communication to discuss conflict-related issues with their friends, thus they not going to mention situational or dispositional accounts that often. Additionally, those people with autonomy-face concerns might not post comments on their friends' profile, and those that have inclusion-face concerns might not have the need to be recognized as worthy companion by their friends, but rather by people who are not yet their friends. Based on these specualtions, it would be interesting to further study the issue of media choice or specifically public versus private media channels for the discussion of certain topics, especially with the growing number of channels that the Internet provides for interpersonal interactions.

As discussed earlier, Hungary has been in a transitional period for the past 19 years, since the fall of the Iron Curtain that ended the several decades long communist regime. Since the mean age of the Hungarian MySpace users in this study was 22.97 years (*SD*=12.796), it can be assumed that many of the users were of a generation born at the end of the communist era, mostly raised and socialized during a capitalist era. Yet, as results indicated, this generation still exhibits greater collectivistic traits than similar age people from the United States, which is not surprising considering that these Hungarian young adults were raised and educated by older generations. Further analysis of these data could assess whether age of the interactants is related to collectivistic or individualistic traits.

Additionally, it has been questioned whether 19 years is enough time to change underlying values within a society and to lay new social foundations. As Berend (2007) notes, "social transformation, including the adoption of a new value system and social behavioral pattern, is not a process of one or two decades. It takes generations" (p. 279).

Similarly, Bakacsi et al. (2002) also expressed that although countries in the Eastern European cluster have shown tendencies towards individualism in work-related values, they are highly group oriented and rated high on group and family collectivism as to their societal values and practices. Therefore, since Hungary and the whole Eastern European region in general is currently in a transitional period, it would be important for future studies to further investigate the speed and nature of this transition. Furthermore, it would be also useful to study adoption rates of Western user-generated media in Eastern countries and to examine how societal practices might influence the use of such media and vica versa.

5.2. Masculinity and femininity

The second hypothesis of this study stated that stronger masculinity values – corresponding to both higher masculinity and femininity scores as conceptualized by Hofstede (i.e., more extreme scores on masculinity and femininity) – would be exhibited in Hungarian MySpace comments than in U.S. comments. It can be concluded that the findings of this study partially supported this hypothesis and that differences occurred in the predicted direction. More femininity and masculinity on both cultural and individual level were shown in Hungarian MySpace comments than in U.S. comments based on higher mean scores on each variable except for female topic. Female-stereotypical topics were a little more common in American comments.

Overall, out of the 28 dependent masculinity/femininity variables, 24 showed significant or near-significant interaction or main effects in the 2 X 2 X 2 ANOVA test. Thus similar to the individualism/collectivism variables, almost all categories of variables showed significance by either main or interaction effects. All six of the linguistic/stylistic

variables, both orientation measures and both variables that attempted to measure the amount of talk showed significance. Six out of nine variables that were categorized by topic, four of five expressive type variables and two of the four speech act category variables showed significance, which shows that no apparent superiority of one particular category of variables were present.

The use of questions, directives, references to quantities and locatives were not significantly different in American and Hungarian comments considering the sex of the sender and receiver of the comments. Of the significant or near-significant variables, main effects by country were shown in 10 cases. Hungarian MySpacers used more of both feminine and masculine written communication traits, except they were less likely to write about female-stereotypical topics compared to Americans. On the contrary, Hungarians were more likely to reference to both career and success, topics that have been linked to highly masculine countries. Hungarians in general also posted significantly longer comments, with higher number of sentences to their fellow MySpacers than Americans did. This finding calls for further investigation of the issue of why and how people in different countries use comments on social networking sites as a form of communication compared to other forms of written communication online or offline. In addition, it would be worthwhile to study whether the length of comments could relate to the purpose and intention or the goal of communication through these types of messages and whether these communication goals differ cross-culturally.

The similarity that in both countries female discourse predominated communication messages in MySpace, since the random sampling of comments lead to more female initiated Hungarian and American comments, relates to another area that

could be further investigated. Is commenting in general more of a feminine type of written communication genre? As Herring and Paolillo (2006) suggested, certain genres of writings are often linked to males or females, as diary-type blogs are written mostly by females and favor female-preferential language, while filter-type blogs are written predominantly by males and favor male-preferential language use. In the current study, females dominated the discussion through MySpace comments, and also, overall more femininity variables showed either significant main or interaction effects than masculinity variables. Differences of how males and females express and present themselves through comments could be also studied in more depth.

Since previous research on sex-linked language use in same-sex and mixed-sex dyads was based on different types of written communication genres (e.g., email, chat room discussions) the findings of the current study show that the phenomenon that female and male initiated same-sex and mixed-sex dyads communicate differently, most likely are present regardless of the context of the writing. Similar to chat room discussions and email correspondence, sex-linked written communication features in male and female initiated same-sex and mixed-sex dyads were found across MySpace comments as well.

Other similarities that were found in both Hungarian and American MySpace comments include very few uses of oppositions, hedges, dashes and brackets, which might be due to the type and nature of communication through comments in MySpace or any other social networking sites. These forms of communication are different from any other written communication in terms of their casual nature, length and their public notion, which might affect the use of certain linguistic and stylistic features.

The third hypothesis asserted that the way female and male initiated same-sex and mixed-sex dyads communicate through MySpace comments is different. Similar to the first and second one, the third hypothesis was also partially supported and predicted differences mostly occurred in the predicted direction. Female-linked language features were most frequently used in female-to-female communication, except for the use of dashes, which was most frequent in male to female comments. Male-linked language features were also most common in male-to-male comments, except reference to money was a motive that appeared about the same amount of times in both male and female initiated same sex dyads.

Although variables included in the current research were based on previous literature (Mulac, Bradac, & Gibbons, 2001) that identified male or female communication features in written texts based on the results of more than 30 empirical studies, not every variable included showed significance in MySpace comments. However, those femininity language features that showed significance were more frequently used by females, and the significant masculinity language features were more common in comments posted by males. Mulac et al. reported reported that mean length sentence was found to be a female feature by more studies, however some studies reported it as a male feature. The current research also found that females in general used higher number of sentences than males.

One reason why previously identified sex-linked language features did not show significance in the environment of MySpace comments might be due to the notion that previous findings were based on the content analysis of academic essays (e.g., Rubin & Green, 1992; Levin & Geldman-Caspar, 1997). MySpace comments are very different in

several ways from any type of formal writing and hence, the content analysis of this new form of communication poses several challenges to the researcher. This new venue of communication through the use of MySpace comments, on one hand, allows the users to communicate freely the way they want and what they want while bringing down communication to the lowest level. Users are able to express themselves without following any grammatical rules or without being forced to edit their own writings. On the other hand, this type of communication challenges the researcher to develop new measures of sex-linked language features since the previously identified ones are not always compatible to the new communication features.

The research question of this study attempted to find out whether the way female and male initiated same-sex and mixed-sex dyads communicate through MySpace comments is different in the United States compared to Hungary. Although, only very few variables showed significant interactions of country and same-sex and mixed-sex dyads, the results were mixed. It can be said that American and Hungarian female and male initiated same-sex and mixed-sex dyads communicate quite differently through MySpace comments considering both the patterns and amounts of use of the sex-linked language features. However, clear patterns of these differences cannot be identified, since differences occurred in various ways in the case of each significant dependent variable. The use of feminine and masculine language traits in mixed- and same-sex dyads gets even more complex in cross-cultural settings, which finding raises the question whether previous research results regarding communication patterns in same sex and mixed sex dyads (Athenstaedt, Haas, & Schwab, 2004; Carli, 1990; Fitzpatrick, Mulac, Dindia, 1995; Mulac, Wiemann, Widenmann, & Gibson, 1988; Thomson, Murachver, Green,

2001; Wolf, 2000) could be generalized in cross-cultural settings. This is especially important to consider since 24 of the 28 variables showed no significant differences by country or sex of the interaction partners.

For example, Wolf (2000) showed that emoticon use is different in same sex and mixed sex dyads as people adapt to the sex of their communication partner in language use. This phenomenon seemed to differ cross-culturally as different patterns of emoticon use were found in U.S. and Hungarian female-male and female-female interactions. In the U.S. females used more emoticons when communicating with males than with females, whereas in Hungary, more emoticons were present in famale-to-female comments than in female-to-male comments. Additionally, in female initiated same-sex dyads, Hungarians used emoticons 13 times as much as Americans. One explanation of this notion could be that in highly masculine countries people do not try to adapt to their communication partner's sex-linked language, since they would like to maintain or maybe even emphasize on the existing difference in between males and females. Since the United States is a less masculine country than Hungary, it might provide more opportunities for this phenomenon to occur.

Another difference that was found in this study is that Hungarian MySpacers used more sentences than Americans did in almost all type of dyads. This finding calls for further investigation of the issue of why and how people in different countries use comments on social networking sites as a form of communication compared to other forms of written communication. In addition, it would be worthwhile to study whether the length of comments could relate to the purpose and intention or the goal of

communication through these types of messages and whether these communication goals differ cross-culturally.

Technological challenges encountered in the studying of both value dimensions

During the current study, several challenges associated with studying user-generated media have arisen and for future studies these should be kept in mind. Most importantly it has to be noted that the current research dealt with only public MySpace profiles, since private profiles cannot be accessed without becoming a member within the users' network of friends. Therefore, the findings of this study are not representative of all MySpace profiles and need to be interpreted by keeping this notion in mind.

The content analysis of this new form of communication poses several challenges to the researcher, especially in a cross-cultural setting, where variables in two different language settings need to be analyzed and where different communication features may need to be identified keeping the specific language and culture in mind. This new venue of communication through the use of MySpace comments allows users to communicate freely the way they want and what they want while bringing down communication to the lowest level. Users are able to express themselves without following any grammatical rules or without being forced to edit their own writings. Thus this type of communication challenges the researcher to develop new measures of certain language features since the previously identified ones are not always compatible to this new technological context. Moreover, in cross-cultural communication different communication features may need to be identified keeping the specific language and culture in mind.

For example, American MySpace users in their comments often drop the pronouns from their writing, thus requiring the receiver of the message to interpret the

meaning from the context or based on previous thought exchanges. This phenomenon has been found only in the comments written in English, since the Hungarian language includes pronoun references at the end of the verbs. The relationship between language and culture has been a major issue since the seminal works of Sapir (1970) and Whorf (1956), who stated that language determines, or at least influences, the way we look at our world. Specifically, Kashima and Kashima (1998) have found empirical evidence that based on the use of personal pronouns, a country can be identified as more or less individualistic or collectivistic and found the English language as a reflection of more individualistic traits.

Another issue that needs to be operationalized carefully for future content analysis research is the references to friends or family. Just based on a first name reference within a comment, the researcher cannot determine whether the person referred a family member or a friend or whether he or she is even a human. Thus, because of the lack of the ability to follow threads of written discussion in user-generated media, only those features should be coded that can be clearly identified based on the available information.

Some of the artifacts that might be encountered during the process of coding feminine or masculine written communication features, should be noted. The following list includes some of these artifacts.

- *Quantification of words and sentences* in a given text in user-generated media is a challenging task as people often use acronyms, (e.g., *LOL*), abbreviations or might not use contractions properly. The inappropriate use of grammar, punctuation marks, (the lack of) use of capital letters or sentence structures also enhance these difficulties.

- *Elliptical sentences* previously have been identified (Mulac, Bradac, & Gibbons, 2001) as a male feature in written communication. Yet, in this study they were not significantly different by country or by the sex of the communicators. Due to the nature of communication in MySpace or perhaps technology, it can be assumed that elliptical sentences might be more frequently used by anyone regardless of their sex. Additionally, elliptical sentences are also harder to identify in this environment due to the lack of or inappropriate use of punctuation marks.
- *Reference to quantity* has also shown to be a more frequently present feature in males' written texts (Mulac, Bradac, & Gibbons, 2001). Measuring this variable in content analysis requires careful operationalization of this measure. MySpacers often substitute words with numbers to shorten certain words such as "2gether," "l8er," etc., which terms are not referring to quantity at all.
- *The use of dashes and parentheses* (Rubin & Green, 1992; Winn & Rubin, 2001) have been associated with female communication. Counting dashes and parentheses in user-generated texts online also have to be carefully operationalized. Since dashes and brackets are frequently part of emoticons, in those cases they fulfill different roles, thus need to be accounted for in another ways. Furthermore, dashes and parentheses in more formal written communications are typically used in pairs. In MySpace comments though, users often forget to close their brakets or they might not use dashes in a grammatically correct manner.

Other than linguistic and stylistic variables, the coding of demographic variables on social networking sites or any user-generated media, also leads to additional

challenges. The information that users present about themselves might not be very accurate. For example, MySpace users often submit false information regarding their age, sex, sexual orientation or race when creating their accounts. Therefore, the interpretation of these variables might also be misleading, even though it should not be the researcher's task to make judgements on the information that is provided by the users.

Furthermore, several technological challenges can threaten the coding process. Some of these challenges include the notion of the growing amount of private profiles on social networking sites due to the negative media portrayals of the possible dangers associated with such medium. Additionally, download problems of certain MySpace profiles that use flash format can make the sampling process more challenging.

Due to the challenges that social networking sites or user generated media pose for the researcher, it would be useful to develop dictionaries compatible with Computer Associated Text Analysis (CATA) programs in order to be able to analyze computer-based language with software and not only by human coding as in the current study. This importance is even more enhanced because of the idea of the global and evolving Internet cultural forming, which actually has already developed its own linguistic code, "netspeak" (Crystal, 2004). Hence, dictionaries should consider incorporating netspeak elements and probably the translation of different foreign languages into English.

5.3. Conclusion

The current study of MySpace comments revealed that real-life cultural differences are still reflected in how users communicate via this social networking site. Therefore, of the assumptions that Hanna and DeNooy (2004) summarized regarding the role of culture and the Internet, the current research found the most evidence for the

proposition that behavior in computer-mediated communication conforms to other tendencies in cultural behavior. Similarly, these findings also confirm the idea that the Internet is not a culturally neutral space and that real-world cultural differences can be related to the virtual world (e.g., Pfeil, Zaphiris & Ang, 2006; Singh & Baack, 2004; Singh, Zhao, & Hu, 2003; Tsikriktis, 2002).

However, other than culture specific differences, this cross-cultural snapshot also surfaced a mixed bag of similarities. It seems that this social networking site does reflect collectivistic uses globally and functions more as OurSpace than just "my." Hence it can be suspected that we might be witnessing the beginning of an emergent "MySpace culture." Therefore, further investigation of cross-cultural comparisons on social networking sites, perhaps including other cultural value dimensions, other elements of MySpace profiles, like blog entries, photos or self-descriptions, other types of research methods and other cultures should also be conducted.

Since both Hungarian and American users displayed similarities and differences in their communication through MySpace comments, it can be assumed that memberships in both an online MySpace culture and an offline traditional culture can co-exist. The idea of co-existing memberships in various cultures can be further explained by the Social Identity and Deindividuation (SIDE) model (Spears & Lea, 1994), which specifies that under different situational conditions, individuals will find different self-categories as salient to them. In particular, this theory explains that the salience of an individual's personal identity or a particular social identity influences the individual's computer-mediated behavior. Thus the SIDE model introduces the idea of contextually appropriate expression of behavior, which relates to the findings of the current study. Considering

contextually appropriate linguistic behavior, it is possible that certain linguistic elements might carry over from the online culture to the offline and vica versa. Additionally, the salience of an individuals' membership in an online or offline culture might be activated contextually. Thus, when communicating online, individuals could display both MySpace specific communication patterns, or patterns that are influenced by their traditional culture, depending on which identity is activated in the particular context.

Therefore, future studies of MySpace or any other online communication could consider the combination of content analysis with survey instruments. Online surveys could be developed and mailed via MySpace for the users. This method could also reveal additional information, such as the possible differences or similarities of people who have been using MySpace for a long time and have been acculturated to it and those who are new to it.

The idea of an emerging global Internet culture also raises concerns regarding some of Hofstede's ideas. Although Hofstede (2001) indicates that the word culture can be applied to any human collectivities, he notes that societies are "the most 'complete' human groups that exist" (p. 10) as they are characterized by the highest level of self-sufficiency in relation to their environments. However, with the growing popularity of the Internet and amount of time spent online, it can be assumed that people are engaging in various web-based groups or online cultures, which homogenizes online and face-to-face interactions. Moreover, people can now engage in such activities in an online culture that previously were only possible to engage in as members of a traditional society before the Internet era (e.g., shopping, chatting, developing friendships, meeting soul mates, paying the bills, taking university classes). Therefore, Hofstede's idea that societies are the most

complex and self-sufficient cultures that exist might become increasingly debatable with people's growing dependence on the Internet in order to perform basic societal tasks.

Furthermore, Hofstede's theory of cultural value dimensions also raises other issues that need to be addressed. Hofstede states that the individualism/collectivism and masculinity/femininity dimensions are statistically wholly independent, since the earlier one is about the "I" versus "we," independence from versus dependence on in-groups, whereas the later one is about relationship enhancement versus ego enhancement. However, when studying cultures based on language, in certain instances it might be difficult to determine the dimension that certain communication patterns might relate to. For instance, if a person uses a first person plural pronoun ("we"), it might be hard to know whether he or she is expressing dependence on in-groups (individualism/collectivism) or rather focusing on relationship enhancement (masculinity/femininity). Thus, there could be certain cases when individual indicators of different value dimensions might correlate. To investigate those patterns of correlations, further analysis even on the current dataset could be conducted. For example canonical correlation, which explains the relation of two sets of variables and can assess how strongly they are related, could test whether Hofstede's assumptions that the individualism/collectivism and masculinity/femininity dimensions are unrelated.

Similarly, additional analysis would be appropriate to look into the differences between communication via MySpace and other aspects of the Internet. In a larger picture, other than MySpace, what other Internet-based cultures can we refer to? Does the Internet divide or connect cultures? Do cultures adapt their use of Internet to their real-world habits? How are Internet users around the world influenced by this new form of

technology? With the growing accessibility and popularity of this medium worldwide, and particularly with exponential growth in user-generated online content, these are important questions to address.

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APPENDIX

Appendix A: Codebook (English version)

Codebook for Cross-cultural Analysis of MySpace Comments
English Version

Bettina Lunk

Unit of data collection: Each written comment sampled from MySpace users with public profiles, located in the United States. Comments that need to be coded appear in the top of each page in the collection of sample comments.
First, code the demographic data associated with the person, who left the comment, second code demographic data about the receiver of the comment, and finally the features of the comment considering the specified variables.

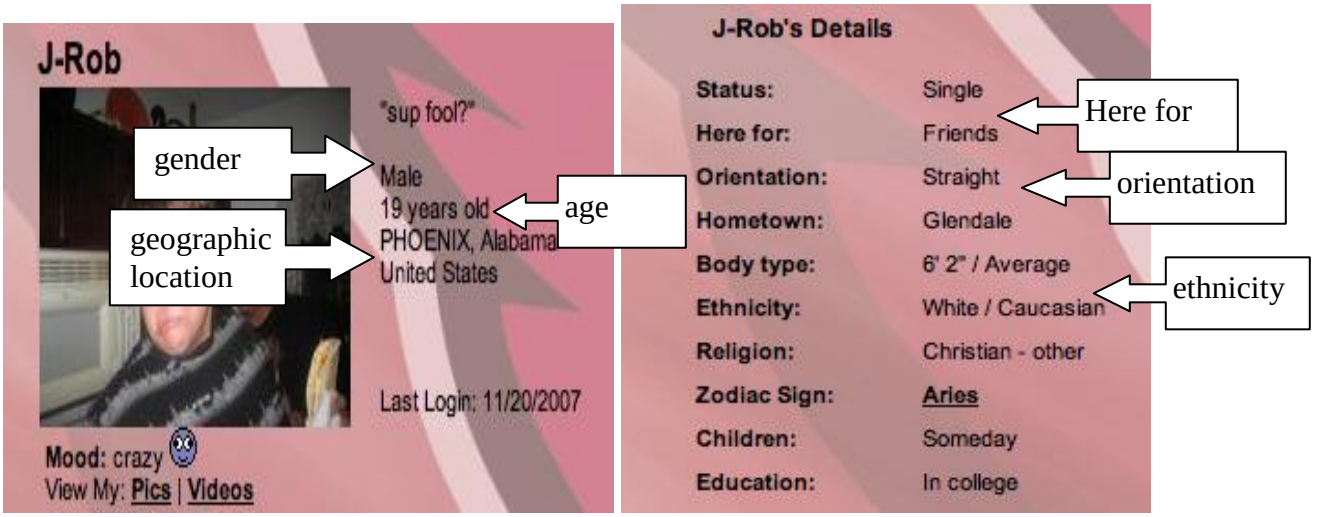
1. Coder ID:

1- Bettina Lunk
2- Szabolcs Farkas
3- Carolyn Kane

2. Comment #:
The number that appears on the top of the page next to the "comment#" (marked by Arabic numerals; 1, 2, 3, etc.)

(language) Language of comment
1- English
2- Hungarian
3- Mixed (contains elements of both Hungarian and English language)

The following print screen shows you where you will find (if available) the next set of variables that need to be coded:



(sender1) Sender's sex
The gender indicated by the sender of the comment. This information is found next to the profile photo, right below the tagline of the person.

0. Not indicated
1. M
2. F

(sender2) Sender's age
The age indicated in years on the sender's profile next to his/her photo, above his/her location and below his/her tagline.

(sender3) Sender is on MySpace for
The reason indicated by the sender why he/she is on MySpace. This information, if available, is found in the "details" section of the page.

0. not indicated
1. dating
2. networking
3. relationships
4. friends
5. networking and friends
6. dating and relationships
7. dating, networking, relationships and friends
8. networking, dating, friends
9. dating, relationships, friends
10. dating, friends
11. relationships, friends
12. networking, relationships, friends
13. netowrking, dating

(sender4) Sender's orientation
The information regarding the sender's sexual orientation. This information is found in the "Details" section of the profile, although it might not always be available.

0. Not indicated
1. straight
2. bi
3. gay
4. not sure

(sender5) Sender's ethnicity
The ethnicity indicated by the sender of the comment, found in the "details" section of the page if available.

0. Not indicated
1. Asian
2. Black/African
3. East Indian

4. Latino/Hispanic
5. Middle Eastern
6. Native American
7. Pacific Islander
8. White
9. Other

(receiver1) Receiver's sex
The gender indicated by the sender of the comment. This information is found next to the profile photo, right below the tagline of the person.

0. Not indicated
1. M
2. F

(receiver2) Receiver's age
The age indicated in years on the sender's profile next to his/her photo, above his/her location and below his/her tagline.

(receiver3) Receiver is on MySpace for
The reason indicated by the sender why he/she is on MySpace. This information, if available, is found in the "details" section of the page.

0. Not indicated
1. dating
2. networking
3. relationships
4. friends
5. networking and friends
6. dating and relationships
7. dating, networking, relationships and friends
8. networking, dating, friends
9. dating, relationships, friends
10. dating, friends
11. relationships, friends
12. networking, relationships, friends
13. netowrking, dating

(receiver4) Receiver's orientation
The information regarding the sender's sexual orientation. This information is found in the "Details" section of the profile, although it might not always be available.

0. Not indicated
1. straight
2. bi
3. gay
4. not sure

(receiver5) Receiver's ethnicity
The ethnicity indicated by the sender of the comment, found in the "details" section of the page if available.

0. Not indicated
1. Asian
2. Black/African
3. East Indian
4. Latino/Hispanic
5. Middle Eastern
6. Native American
7. Pacific Islander
8. White
9. Other

(location) Sender's and receiver's geographic location
Look at the geographic location of the sender and the receiver. This information, if available, is found next to their profile photos.

0. no information available
1. same state, same city
2. same state, different city
3. different state, different city
4. same state, unknown city/cities
5. different state, unknown cities

Individualism/Collectivism variables

When considering these variables, evaluate the presence of these variables based on the comment as a whole. Do not try to assume the presence of a certain variable, only code those features that are clearly present in the comment.

(ind1) # of "I"/ self references
Number of times any variations of first person singular pronouns, such as "I," "me," "my," "mine," etc. is used in the comment.

(coll1) # of "we" references
Number of times any variations of first person singular or plural pronouns, such as "we," "our," "ours," "us," etc. are used in the comment.

(coll2) # of "you" / other references
Number of times any variations of second person plural pronouns, such as "you," "your," "yours," etc. is used in the comment.

(coll3) # of he/she/they references
Number of times any variations of singular and plural third person pronouns, such as "he," "his," "him," "she," "her," "they," their," "them," etc. are used in the comment.

(ind2) reference to happiness

Expressing happy states of emotions, joy, pleasure, thrill, enjoyment of something or someone, cheerfulness, contentment, satisfaction that something is right or has been done right, a hope that somebody will enjoy a special day or holiday, enthusiasm about a particular thing or anything that results in happiness.

0. no reference to anyone's happiness
1. yes, **I REFERENCE**: sender's (own) happiness
2. yes, **YOU REFERENCE**: receiver's or receiver and third party/ies' happiness
3. yes, **WE REFERENCE**: both the sender and receiver and/or sender and third party/ies
4. yes, **HE/SHE/THEY REFERENCE**: reference to happiness of a singular or plural third party, not including the sender or receiver
5. yes, any COMBINATION of I/You/We/She/He/They references to happiness
6. yes, reference to happiness IN GENERAL
99. unable to determine / other

(ind3) use of apology

Use of a statement expressing remorse for something that typically the source of apology has done, by admitting guilt, regret, confessing something, requesting forgiveness, or defending the source of remorse.

0. no reference to anyone's apologies
1. yes, **I REFERENCE**: sender's (own) apologies only , nobody else's apologies mentioned
2. yes, **YOU REFERENCE**: receiver's or receiver and third party/ies' apologies (but no reference to the sender's own apologies)
3. yes, **WE REFERENCE**: both the sender's and receiver's and/or sender's and third party/ies'
4. yes, **HE/SHE/THEY REFERENCE**: reference to apologies of a singular or plural third party, not including the sender or receiver
5. yes, any COMBINATION of I/You/We/She/He/They references to apologies
6. yes, reference to apologies IN GENERAL
99. unable to determine / other

(ind4) use of request

Reference to a future behavior that asks something to be given or done, asks somebody to do something in a polite, courteous or formal way.

0. no use of requests
1. yes, **I REFERENCE**: sender's (own) request only , nobody else's requests mentioned
2. yes, **YOU REFERENCE**: receiver's or receiver and third party/ies' requests (but no reference to the sender's own requests)
3. yes, **WE REFERENCE**: both the sender's and receiver's and/or sender's and third party/ies' request
4. yes, **HE/SHE/THEY REFERENCE**: party reference to request of a singular or plural third, not including the sender or receiver

5. yes, any COMBINATION of I/You/We/He/She/They references to request
6. yes, reference to request IN GENERAL
99. unable to determine / other

(ind5) reference to resisting compliance

Any reference to the resistance to act or conform with or agreeing to do something. Resistance of obedience.

0. no reference to resisting compliance
1. yes, **I REFERENCE**: reference to sender resisting compliance
2. yes, **YOU REFERENCE**: reference to receiver's or receiver and third party/ies' resisting compliance
3. yes, **WE REFERENCE**: reference to both the sender's and receiver's and/or sender's and third party/ies' resisting compliance
4. yes, **HE/SHE/THEY REFERENCE**: reference to a singular or plural third party's resisting compliance, not including the sender or receiver
5. yes, any COMBINATION of I/You/We/He/She/They references to resisting compliance
6. yes, reference to resisting compliance IN GENERAL
99. unable to determine / other

(ind6) commanding an act

The sender (source), who has some sort of (personal) power or authority over the recipient to control and direct his/her actions, expresses an order or instruction to be done.

0. no reference to command an act
1. yes, **I REFERENCE**: sender commands an act
2. yes, **YOU REFERENCE**: reference to receiver's or receiver and third party/ies' commanding an act
3. yes, **WE REFERENCE**: reference to both the sender's and receiver's and/or sender's and third party/ies' commanding an act
4. yes, **HE/SHE/THEY REFERENCE**: reference to commanding an act of a singular or plural third party, not including the sender or receiver
5. yes, any COMBINATION of I/You/We/He/She/They references to commanding an act
6. yes, reference to commanding an act IN GENERAL
99. unable to determine / other

(ind7) use of excuse

Expressing release from an obligation or responsibility, providing a reason or explanation for a behavior in order to make it appear more acceptable or less offensive. This explanation is related to a reason that the sender has no control of.

0. no uses of excuse
1. yes, **I REFERENCE**: sender uses an excuse
2. yes, **YOU REFERENCE**: reference to receiver's or receiver and third party/ies' uses of excuse

3. yes, **WE REFERENCE**: reference to both the sender's and receiver's and/or sender's and third party/ies' using an excuse
4. yes, **HE/SHE/THEY REFERENCE**: reference to using an excuse of a singular or plural third party, not including the sender or receiver
5. yes, any COMBINATION of I/You/We/He/She/They references to using an excuse
6. yes, reference to using an excuse IN GENERAL
99. unable to determine / other

(ind8) references to autonomy needs
Expressing a concern of the need for others to acknowledge independence, self-sufficiency, privacy, boundary, nonimposition, control issues.

0. no reference to autonomy needs
1. yes, **I REFERENCE**: sender expressing his/her autonomy needs
2. yes, **YOU REFERENCE**: reference to receiver's or receiver and third party/ies' autonomy needs
3. yes, **WE REFERENCE**: reference to both the sender's and receiver's and/or sender's and third party/ies' autonomy needs
4. yes, **HE/SHE/THEY REFERENCE**: reference to autonomy needs of a singular or plural third party, not including the sender or receiver
5. yes, any COMBINATION of I/You/We/He/She/They references to autonomy needs
6. yes, reference to autonomy needs IN GENERAL
99. unable to determine / other

(ind9) references to hedonism
References to a devotion, especially a self-indulgent one, to pleasure and happiness as a way of life, references to pleasure-seeking behaviors and activities, expression of self-satisfaction. Might refer to an activity that results in fun.

0. no reference to hedonism
1. yes, **I REFERENCE**: sender expressing his/her hedonistic needs/habits
2. yes, **YOU REFERENCE**: reference to receiver's or receiver and third party/ies' hedonistic needs
3. yes, **WE REFERENCE**: reference to both the sender's and receiver's and/or sender's and third party/ies' hedonistic needs
4. yes, **HE/SHE/THEY REFERENCE**: reference to hedonism of a singular or plural third party, not including the sender or receiver
5. yes, any COMBINATION of I/You/We/He/She/They references to resisting compliance
6. yes, reference to hedonism IN GENERAL
99. unable to determine / other

(coll4) references to family
Any reference to family ties, either by mentioning the term "family" or a reference that indicates family status from the context of the comment.

0. no reference to any family

1. yes, **I REFERENCE**: sender refers to his/her family/ family ties
2. yes, **YOU REFERENCE**: reference to receiver's or receiver and third party/ies' family/family ties
3. yes, **WE REFERENCE**: reference to both the sender's and receiver's and/or sender's and third party/ies' family ties
4. yes, **HE/SHE/THEY REFERENCE**: reference to family ties of a singular or plural third party, not including the sender or receiver
5. yes, any COMBINATION of I/You/We/He/She/They references to family ties
6. yes, reference to family/family ties IN GENERAL
99. unable to determine / other

(coll5) references to friends

Any reference to friendship or friends, either by specifically using the term "friend" or an indication that implies to friendship.

0. no reference to any friends
1. yes, **I REFERENCE**: sender refers to his/her friends/friendships
2. yes, **YOU REFERENCE**: reference to receiver's or receiver and third party/ies' friends/friendships
3. yes, **WE REFERENCE**: reference to both the sender's and receiver's and/or sender's and third party/ies' friends/friendships
4. yes, **HE/SHE/THEY REFERENCE**: reference to friends of a singular or plural third party, not including the sender or receiver
5. yes, any COMBINATION of I/You/We/He/She/They references to friends/friendships
6. yes, reference to friends/friendships IN GENERAL
99. unable to determine / other

(coll6) references to any other social role(s)

Any reference to one's membership in school, church, clubs, associations, organizations, work, etc. Any references that are not family roles or friendship status.

0. no reference to anyone's social role(s)
1. yes, **I REFERENCE**: sender refers to his/her social roles
2. yes, **YOU REFERENCE**: reference to receiver's or receiver and third party/ies' social roles
3. yes, **WE REFERENCE**: reference to both the sender's and receiver's and/or sender's and third party/ies' social roles
4. yes, **HE/SHE/THEY REFERENCE**: reference to social roles of a singular or plural third party, not including the sender or receiver
5. yes, any COMBINATION of I/You/We/She/He/They references to social roles
6. yes, reference to social roles IN GENERAL
99. unable to determine / other

(coll7) reference to sadness

Expressing sad states of emotions, depression, exhaustion, negative feelings, loss of someone or something, grief, sorrow, an unfortunate event, hopelessness, misery, heartbreak, distress, gloomy mood, dark feelings or anything that results in sadness.

0. no reference to anyone's sadness
1. yes, **I REFERENCE**: sender expressing his/her sadness
2. yes, **YOU REFERENCE**: reference to receiver's or receiver and third party/ies' sadness
3. yes, **WE REFERENCE**: reference to both the sender's and receiver's and/or sender's and third party/ies' sadness
4. yes, **HE/SHE/THEY REFERENCE**: reference to sadness of a singular or plural third party, not including the sender or receiver
5. yes, any COMBINATION of I/You/We/He/She/They references to sadness
6. yes, reference to sadness IN GENERAL
99. unable to determine / other

(coll8) use of compliment

Reference to something to express praise and approval, to show respect or honor regarding something that has been done, congratulating for someone, expressing good wishes, admires. The sender of the compliment typically likes what the receiver of the compliment has done.

0. no use of compliments
1. yes, **I REFERENCE**: sender uses compliments
2. yes, **YOU REFERENCE**: reference to receiver's and/or receiver's and third party/ies' compliments
3. yes, **WE REFERENCE**: reference to both the sender's and receiver's and/or sender's and third party/ies' compliments
4. yes, **HE/SHE/THEY REFERENCE**: reference to compliments of a singular or plural third party, not including the sender or receiver
5. yes, any COMBINATION of I/You/We/He/She/They references to compliments
6. yes, reference to compliments IN GENERAL
99. unable to determine / other

(coll9) use of promise

Assuring, pledging to somebody that something will certainly happen or be done, will be provided, thus can be expected.

0. no use of promises
1. yes, **I REFERENCE**: sender promises something
2. yes, **YOU REFERENCE**: reference to receiver's and/or receiver's and third party/ies' promises
3. yes, **WE REFERENCE**: reference to both the sender's and receiver's and/or sender's and third party/ies' promises
4. yes, **HE/SHE/THEY REFERENCE**: reference to promises of a singular or plural third party, not including the sender or receiver
5. yes, any COMBINATION of I/You/We/He/She/They references to promises
6. yes, reference to promises IN GENERAL
99. unable to determine / other

(coll10) use of dispositional accounts
The sender of a comment providing a reason or explanation for a behavior, based on internal causes instead of external causes for something that has happened or something that he or she has done, taking responsibility for the action.

0. no use of dispositional accounts
1. yes, **I REFERENCE**: sender uses dispositional accounts
2. yes, **YOU REFERENCE**: reference to receiver's and/or receiver's and third party/ies' dispositional accounts
3. yes, **WE REFERENCE**: reference to both the sender's and receiver's and/or sender's and third party/ies' dispositional accounts
4. yes, **HE/SHE/THEY REFERENCE**: reference to dispositional accounts of a singular or plural third party, not including the sender or receiver
5. yes, any COMBINATION of I/You/We/He/She/They references to dispositional accounts
6. yes, reference to dispositional accounts IN GENERAL
99. unable to determine / other

(coll11) references to inclusion needs
Indicating a need for others to recognize that one is a worthy companion, likable, agreeable, pleasant, friendly and cooperative, or a need to get together with someone. Expressing any desires for any types of interaction, such as communicating, meeting, talking, or doing anything together with a person.

0. no reference to inclusion needs
1. yes, **I REFERENCE**: sender expresses his/her needs for inclusion
2. yes, **YOU REFERENCE**: reference to receiver's and/or receiver's and third party/ies' need for inclusion
3. yes, **WE REFERENCE**: reference to both the sender's and receiver's and/or sender's and third party/ies' needs for inclusion
4. yes, **HE/SHE/THEY REFERENCE**: reference to inclusion needs of a singular or plural third party, not including the sender or receiver
5. yes, any COMBINATION of I/You/We/He/She/They references to needs for inclusion
6. yes, reference to inclusion needs IN GENERAL
99. unable to determine / other

(coll12) references to survival
Expressing difficulties of managing to live through something, referring to lack of endurance.

0. no reference to survival
1. yes, **I REFERENCE**: sender refers to his/her survival difficulties
2. yes, **YOU REFERENCE**: reference to receiver's and/or receiver's and third party/ies' survival difficulties
3. yes, **WE REFERENCE**: reference to both the sender's and receiver's and/or sender's and third party/ies' survival difficulties

4. yes, **HE/SHE/THEY REFERENCE**: reference to survival of a singular or plural third party, not including the sender or receiver
5. yes, any COMBINATION of I/You/We/He/She/They references to survival difficulties
6. yes, reference to survival difficulties IN GENERAL
99. unable to determine / other

Masculinity/Femininity variables

(length1) # of sentences in the comment
The total number of sentences in the comment. Sentences are typically divided by punctuation marks, such as periods, exclamation points or question marks. New sentences might, but don't necessarily start with capital letters.
If the sentences are lacking punctuation marks, count the number of thought processes, where new thoughts divide sentences.

- Do not count acronyms, such as LOL as separate sentences

(length2) # of words
The total number of words in the comment. A word is a unit of language that carries meaning and consists of one or more morphemes which are linked more or less tightly together, and has a phonetical value.
- Punctuation marks, dashes, hyphens, emoticons are not considered words.
- contractions (e.g. don't, wasn't, can't) count as 2 separate words
- acronyms (LOL, LMAO, wtf, btw, BS, etc.) count as 1 word

(fem1) # of exclamation points
(*!*)
The use of the ! punctuation mark. Generally used at the end of a sentence, but it might occur within the sentence.

(fem2) use of egocentric sequences
(e.g., I think, I guess, I believe)
A sequence in which a first-person pronoun is followed by a cognitive activity verb. These sequences attempt to reflect on one's opinion, judgment or understanding of a particular issue, thus they reflect a certain degree of uncertainty of the claim that follows.
1- yes
0-no

(fem3) # of intensifiers
(eg. *really, so, very, extremely, awesomely*)
A word tending to give force or emphasis to an adverb (which modifies a verb) or an adjective (which modifies a noun). An intensifier has little meaning by itself, except to intensify the meaning of the adverb or adjective it modifies.

(fem4) # of oppositions
(eg. *peaceful, **yet** full of movement; hard, **but** fun*)
Retracting a statement and posing one with an opposite meaning.

(fem5) # of negations
(eg. *it's not a..., I'm not a liar*)
A statement of what something is not. Any time when the word "not" is used, including contractions (can't, won't, etc.) even if they are spelled without apostrophes.

(fem6) # of hedges
(eg. *sort of, somewhat, kind of, maybe*)
Modifiers that indicate lack of confidence in, or diminished assuredness of, the statement.

(fem7) # of questions
(eg. *What are you doing? Who are you?)*
A request for information or for a reply, which usually ends with a question mark.
- If the question mark is missing from the end of the sentence, but the sentence is a form of question, still code it as a question.
- Don't count the number of question marks, count the number of questions!

(fem8) # of dashes
(-, ~)
The use of the – or ~ punctuation marks.
- Don't count them if they are part of emoticons!

(fem9) # of pair of brackets/parantheses
( ) and [ ]
The use of what is sometimes referred to curved brackets or oval brackets. Parentheses typically contain material that could be omitted without destroying or altering the meaning of a sentence. Parentheses when part of an emoticon is not coded here.
Count pairs as one. Eg: ( ) = 1

(fem10) # of references to emotion
(eg. *happy, hurt, sad, depressed*)
Count the number of adjectives that refer to the following emotions. Code only if the following words or their synonyms are found:

- *fear*
- *anxiety*
- *anger, hostility*
- *sadness*
- *embarrassment*
- *pride*
- *shame*
- *guilt*
- *disgust*
- *love and attachment*
- *happiness*
- *empathy and sympathy*

(fem11) # of emoticons
An emoticon is an emotional icon that is used to indicate the emotional state of the communicator in computer-mediated communication. Emoticons can refer to jokes, humor, sarcasm, irony or non-seriousness. Emoticons consists of various punctuation marks and are viewed by turning the page sideways or tilting someone's head to the left or right. The most widely used emoticons are:
:-) Basic smiley
;-) Winking smiley
:-(Sad smiley
:-p Sticking out the tounge smiley
The hyphenless forms of these smileys are often called "midget smileys" :) ;) :(:p
- if an emoticon has just one eye, but several mouthes, e.g. :)))))), count them all as separate!

(fem12) expressing caring/gentleness
A prosocial behavior in which one expresses a considerable or kind disposition to the other person or offer support in difficult times. A thoughtful approach to serve others, typically involving the exhibition of feelings, concerns and/or empathy through the expression of love, warmth, positive emotions. Looking after someone, taking responsibility or being worried about someone.
- Asking someone about how they or any of their friends/relatives are doing, what needs they might have or being concerned about their physical/emotional well-being are just some examples.
1-yes
0-no

(mas1) use of connective phrases
(e.g., *for example, for instance*)
Phrases that show the relationship between ideas in an effort to help the reader/listener to interpret ideas that the writer wants the reader/listener to understand.
Can be used to:
- contrast two items (*on the other hand*)
- illustrate and argument (*for example*)
- extend an argument (*in addition*)
- coming to a conclusion of a topic, section, issue (*in conclusion*)
- move on to a next step in an argument or description (*aside from this; after that*)

Other connective phrases:
on the one hand. . . It can be seen from this that. . . first(ly). . . second(ly). . . and finally. . . two further points need to be considered, firstly. . . secondly. . . in addition. . . for instance. . . an example of this can be seen in. . . to return to the point. . .
1-yes
0-no

(mas2) # of judgmental adjectives
(eg. *stupid, distracting, dumb, nice*)
An adjective that indicates personal evaluation rather than merely description.

- They include those words that you typically would not use in an academic paper.
- These adjectives rather express judgments than just objectively describing something/or someone.

(mas3) use of elliptical sentences
(eg. *Gorgeous!, Great picture! Day time. A beautiful snowy setting.)*
- The historic definition of an elliptical sentence is: "A unit beginning with a capital letter and ending with a period (or other end point) in which a part of the structure of the sentence is omitted/missing." (Originates from the latin ellipsis, which means "falling short"). Elliptical sentences lack an element that is recoverable or inferable from the context. Because of the logic or pattern of the entire sentence, it is easy to infer the missing words.
- Examples of elliptical sentences also include short answers to questions. (E.g., Where are you going? *To Greymouth.)*
- In MySpace comments, due to the lack of use of capital letters or punctuation marks, an elliptical sentence might just stand on its own as a separate thought divided by several punctuation marks from other sentences, or no punctuation marks at all.
1- yes
0- no

(mas4) use of directives
(eg. *Write that down!, Call me!, Think of another!)*
Apparently telling another person what to do.
1-yes
0-no

(mas5) use of references to quantity
(eg. *below 52 F, 6'4" tall, most of the area, 6-8 thousand feet, all, a, an*)
Any reference to an amount of quantity within the comment.
- Do not count numbers that are used to shorten a word, e.g. 2gether, 2day, etc.
1-yes
0-no

(mas6) use of locatives / references to places
(eg. *in New York City, right next to*)
Any indication of the position or location of objects.
1-yes
0-no

(mas7) reference to career
References to any course of successive situations or overall evaluations to one's worklife or positions. For students, references to school does count as a reference to career.
1-yes

0-no

(mas8) reference to success
Reference to a level of social status, achievement of an object/goal in any area of life.
1-yes
0-no

(mas9) reference to money
Reference to any kind of monetary unit, the lack or abundance of money, or the price of an object/possession.
1-yes
0-no

(mas10) reference to material things/possessions
Reference to property, belongings, holding, something owned or any kinds of tangible and intangible possessions.
1-yes
0-no

(mas11) expressing ambition
Expressing an ardent desire for rank, frame or power, to achieve a particular end/goal.
- Expressing any kinds of goals for personal-, career-, financial-, emotional-achievements.
1-yes
0-no

(mas12) Ego boosting
A comment in which the sender attempts to enhance, increase, heighten his/her own ego by using self-compliments, referring to his/her merits, values, or by articulating only great things about him/herself. The sender's goal is to enhance his/her own ego instead of his/her relationship with the receiver.
1-yes
0-no

(topic) Topic of the comment
1. Male-stereotypical topics: sports, cars, computers, pornography
2. Female-stereotypical topics: fashion, health, shopping, celebrity gossip, personal issues
3. Gender neutral topics: music, films, TV, books, current affairs, fitness
4. other
Only code as 1, 2, or 3 if those exact topics are present. Code everything else as 4 (other).

Appendix B: Descriptive statistics for senders and receivers of the comments

	Total Comments (*N* = 300)	U.S. Comments (*N* = 150)	Hungarian Comments (*N* = 150)
Sex/sender	36.7% male 63.3% female	35.8% male 64.2% female	37.6% male 62.4% female
Sex / receiver	43% male 56.7% female	45% male 55% female	40.9% male 58.4% female
Mean age / sender	24.14 (*SD*=12.033)	25.33 years (*SD*=11.131)	22.97 years (*SD*=12.796)
Mean age / receiver	22.64 (*SD*=5.393)	24.09 years (*SD*=6.611)	21.17 (*SD*=3.206)
Sexual orientation / sender	• 68.3% straight • 29% not indicated • 1.7% gay • .7% not sure • .3% bi sexual	• 84.8% straight • 12.6% not indicated • 2% gay • .7% bi sexual	• 51.7% straight • 45.6% not indicated • 1.3% gay • 1.3% not sure
Sexual orientation / receiver	• 95% straight • 1.7% not indicated • 1.3% bi sexual • 1% gay • 1% not sure	• 95.4% straight • 2.6% bi sexual • 1.3% gay • .7% not indicated	• 94.6% straight • 2.7% not indicated • 2% not sure • .7% gay
Ethnicity / sender	• 50.3% not indicated • 38.7% White • 5% Hispanic • 3.7% Black • 1% Pacific Islander • .7% Native American • .3% Asian • .3% Middle Eastern	• 49.7% White • 29.8% not indicated • 9.3% Hispanic • 7.3% Black • 2% Pacific Islander • 1.3% Native American • .7% Middle Eastern	• 71.1% not indicated • 27.5% White • .7% Asian • .7% Hispanic

	Total Comments (N = 300)	U.S. Comments (N = 150)	Hungarian Comments (N = 150)
Ethnicity / receiver	• 83% White • 6.7% not indicated • 4.7% Black • 3% Hispanic • 1.3% Native American • .7% Pacific Islander • .3% Middle Eastern • .3% Other	• 75.5% White • 8.6% Black • 6% Hispanic • 5.3% not indicated • 2.6% Native American • 1.3% Pacific Islander • .7% Other	• 90.6% White • 8.1% not indicated • .7% Black • .7%Middle Eastern
Language of comment	• 50.3% English • 43% Hungarian • 6.7% 'mixed' (English & Hungarian)	• 100% English	• 86.6% Hungarian • 13.4% 'mixed' (English & Hungarian)
Average number of sentences	3.25 (SD=1.925)	2.94 (SD=1.567)	3.56 (SD=2.191)
Primary reasons for using MySpace / sender	• Friends (39%) • Relationships (1.3%) • Networking (1.3%) • Dating (.7%) • Combinations of reasons (22.7%) • Not indicated (35%)	• Friends (51%) • Networking (2%) • Combinations of reasons (31.1%) • Not indicated (15.9%)	• Friends (26.8%) • Relationships (2.7%) • Dating (1.3%) • Networking (.7%) • Combinations of reasons (22.7%) • Not indicated (35%)
Primary reasons for using MySpace / receiver	• Friends (62.7%) • Networking (1.3%) • Relationships (.3%) • Combinations of reasons (34.7%) • Not indicated (1%)	• Friends (65.6%) • Networking (.7%) • Combinations of reasons (33.1%) • Not indicated (.7%)	• Friends (59.7%) • Networking (2%) • Relationships (.7%) • Combinations of reasons (36.2%) • Not indicated (1.3%)

	Total Comments (N = 300)	U.S. Comments (N = 150)	Hungarian Comments (N = 150)
Geographic location of the sender compared to the receiver	• Same state/county, same city (27.3%) • Same state/county, different city (21.7%) • Different state/county, different city (21.7%) • Cannot be determined (29.3%)	• Same state, different city (35.1%) • Different state, different city (27.8%) • Same state, same city (20.5%) • Cannot be determined (16.6%)	• Same county, same city (34.2%) • Different county, different city (15.4%) • Same county, different city (8.1%) • Cannot be determined (42.3%)

Appendix C: Summary of the ANOVA tests for hypothesis 1

Variable name	Total *M* *(N=300)*	U. S. *(n*= 150)	Hungary *(n*=150)	*F*	*P*
"I" reference (ind1)	*M*=1.63 *SD*=1.953	*M*=1.45 *SD*=1.482	*M*=1.81 *SD*=2.322	2.562	.111
Happiness reference (ind2d)	*M*=.2700 *SD*=.44470	*M*=.2467 *SD*=.43252	*M*=.2933 *SD*=.45682	.825	.364
Apology (ind3d)	*M*=.0533 *SD*=.22507	*M*=.0667 *SD*=.25028	*M*=.0400 *SD*=.19662	1.053	.306
Request (ind4d)	*M*=.1967 *SD*=.39814	*M*=.1933 *SD*=.39624	*M*=.2000 *SD*=.40134	.021	.885
Resisting compliance (ind5d)	*M*=.0767 *SD*=.26651	*M*=.0933 *SD*=.29187	*M*=.0600 *SD*=.23828	1.174	.279
Commanding an act (ind6d)	*M*=.1600 *SD*=.36722	*M*=.2000 *SD*=.40134	*M*=.1200 *SD*=.32605	3.590	.059
Excuse (ind7d)	*M*=.0900 *SD*=.28666	*M*=.0733 *SD*=.26156	*M*=.1067 *SD*=.30972	1.014	.315
Autonomy needs (ind8d)	*M*=.0467 *SD*=.21128	*M*=.0600 *SD*=.23828	*M*=.0333 *SD*=.18011	1.196	.275
Hedonism reference (ind9d)	*M*=.3467 *SD*=.47670	*M*=.3600 *SD*=.48161	*M*=.3333 *SD*=.47298	.234	.629
"We" reference (coll1)	*M*=.26 *SD*=.685	*M*=.19 *SD*=.510	*M*=.34 *SD*=.818	3.796	.052
"You/other" reference (coll2)	*M*=1.43 *SD*=1.242	*M*=1.39 *SD*=1.192	*M*=1.47 *SD*=1.294	.261	.610
"S/he/they" reference (coll3)	*M*=.33 *SD*=.826	*M*=.33 *SD*=.680	*M*=.33 *SD*=.952	.000	1.000
Family reference (coll4d)	*M*=.1133 *SD*=.31753	*M*=.1600 *SD*=.36783	*M*=.0667 *SD*=.25028	6.601	**.011**
Friends reference (coll5d)	*M*=.1667 *SD*=.37330	*M*=.1667 *SD*=.37393	*M*=.1667 *SD*=.37393	.000	1.000
Social roles reference (coll6d)	*M*=.1000 *SD*=.30050	*M*=.0667 *SD*=.25028	*M*=.1333 *SD*=.34107	3.725	.055
Sadness reference (coll7d)	*M*=.0633 *SD*=.24397	*M*=.0600 *SD*=.23828	*M*=.0667 *SD*=.25028	.056	.813
Compliment (coll8d)	*M*=.1767 *SD*=.38202	*M*=.1267 *SD*=.33371	*M*=.2267 *SD*=.42008	5.211	**.023**

Variable name	Total *M* *(N=300)*	U. S. *(n*= 150)	Hungary *(n*=150)	*F*	*P*
Promise (coll9d)	*M*=.1267 *SD*=.33315	*M*=.0667 *SD*=.25028	*M*=.1867 *SD*=.39095	10.024	**.002**
Dispositional accounts (coll10d)	*M*=.0300 *SD*=.17087	*M*=.0400 *SD*=.19662	*M*=.0200 *SD*=.14047	1.028	.312
Inclusion needs (coll11d)	*M*=.4333 *SD*=.49636	*M*=.4467 *SD*=.49881	*M*=.4200 *SD*=.49521	.216	.643
Survival (coll12d)	*M*=.1333 *SD*=.34050	*M*=.0667 *SD*=.25028	*M*=.2000 *SD*=.40134	11.920	**.001**

Appendix D: Summary of the ANOVA tests for hypotheses 2 and 3

Dependent variable	Country 1=U.S. 2=HU **Hypothesis 2**	Sender1 1=Male 2=Female	Receiver1 1=Male 2=Female	Country*Sender1 1/1=US/Male 1/2= US/Female 2/1= HU/Male 2/2= HU/Female	Sender1*Receiver1 1/1=Male/Male 1/2= Male/Female 2/1= Female/Male 2/2= Female/Female **Hypothesis 3**
# of sentences (length1)	***p*=.021** $\boldsymbol{F_{(1, 293)}=5.38}$ $\boldsymbol{M_1=2.94}$ $\boldsymbol{SD_1=1.567}$ $\boldsymbol{M_2=3.57}$ $\boldsymbol{SD_2=2.195}$	***p*=.026** $\boldsymbol{F_{(1, 293)}=4.99}$ $\boldsymbol{M_1=2.88}$ $\boldsymbol{SD_1=1.720}$ $\boldsymbol{M_2=3.46}$ $\boldsymbol{SD_2=2.010}$	*p*=.129 $F_{(1, 293)}=2.32$ $M_1=2.95$ $SD_1=1.733$ $M_2=3.48$ $SD_2=2.036$	*p*=.228 $F_{(1, 293)}=1.46$ $M_{1/1}=2.76$ $SD_{1/1}=1.613$ $M_{1/2}=3.04$ $SD_{1/2}=1.541$ $M_{2/1}=2.98$ $SD_{2/1}=1.814$ $M_{2/2}=3.90$ $SD_{2/2}=2.332$	*p*=.339 $F_{(1, 293)}=.916$ $M_{1/1}=2.83$ $SD_{1/1}=1.673$ $M_{1/2}=2.94$ $SD_{1/2}=1.789$ $M_{2/1}=3.04$ $SD_{2/1}=1.789$ $M_{2/2}=3.71$ $SD_{2/2}=2.096$
# of words (length2)	<u>*p*=.081</u> $F_{(1, 293)}=3.06$ $M_1=21.35$ $SD_1=14.977$ $M_2=18.57$ $SD_2=17.456$	<u>*p*=.080</u> $F_{(1, 293)}=3.08$ $M_1=17.07$ $SD_1=12.967$ $M_2=21.64$ $SD_2=17.706$	***p*=.004** $\boldsymbol{F_{(1, 293)}=8.47}$ $\boldsymbol{M_1=16.25}$ $\boldsymbol{SD_1=11.887}$ $\boldsymbol{M_2=22.80}$ $\boldsymbol{SD_2=18.491}$	*p*=.607 $F_{(1, 293)}=.266$ $M_{1/1}=19.44$ $SD_{1/1}=12.292$ $M_{1/2}=22.41$ $SD_{1/2}=16.245$ $M_{2/1}=14.75$ $SD_{2/1}=13.290$ $M_{2/2}=20.83$ $SD_{2/2}=19.167$	*p*=.472 $F_{(1, 293)}=.518$ $M_{1/1}=14.95$ $SD_{1/1}=11.517$ $M_{1/2}=19.58$ $SD_{1/2}=14.322$ $M_{2/1}=17.34$ $SD_{2/1}=12.164$ $M_{2/2}=24.14$ $SD_{2/2}=19.73$

Dependent variable	Country	Sender1	Receiver1	Country*Sender1	Sender1*Receiver1
	1=U.S. 2=HU	1=Male 2=Female	1=Male 2=Female	1/1=US/Male 1/2= US/Female 2/1= HU/Male 2/2= HU/Female	1/1=Male/Male 1/2= Male/Female 2/1= Female/Male 2/2= Female/Female
	Hypothesis 2				**Hypothesis 3**
Exclamation points (fem1)	p=.274 $F_{(1, 293)=}$1.20	p=.256 $F_{(1, 293)=}$1.29	***p*=.020** $\boldsymbol{F_{(1, 293)=}}$**5.51**	p=.093 $F_{(1, 293)=}$2.834	p=.369 $F_{(1, 293)=}$.808
	M_1=1.82 SD_1=5.952	M_1=1.92 SD_1=6.765	$\boldsymbol{M_1}$**=1.00** $\boldsymbol{SD_1}$**=1.682**	$M_{1/1}$=2.78 $SD_{1/1}$=9.526	$M_{1/1}$=1.05 $SD_{1/1}$=1.795
	M_2=1.47 SD_2=2.481	M_2=1.49 SD_2=2.555	$\boldsymbol{M_2}$**=2.15** $\boldsymbol{SD_2}$**=5.845**	$M_{1/2}$=1.29 $SD_{1/2}$=2.111	$M_{1/2}$=2.98 $SD_{1/2}$=9.791
				$M_{2/1}$=1.09 $SD_{2/1}$=1.352	$M_{2/1}$=.96 $SD_{2/1}$=1.592
				$M_{2/2}$=1.70 $SD_{2/2}$=2.944	$M_{2/2}$=1.80 $SD_{2/2}$=2.938
Egocentric sequences (fem2)	***p*=.050** $\boldsymbol{F_{(1, 293)=}}$**3.88**	p=.318 $F_{(1, 293)=}$1.00	p=.325 $F_{(1, 293)=}$.973	p=.093 $F_{(1, 293)=}$2.84	***p*=.020** $\boldsymbol{F_{(1, 293)=}}$**5.49**
	$\boldsymbol{M_1}$**=.12** $\boldsymbol{SD_1}$**=.325**	M_1=.12 SD_1=.324	M_1=.12 SD_1=.322	$M_{1/1}$=..04 $SD_{1/1}$=.191	$\boldsymbol{M_{1/1}}$**=.15** $\boldsymbol{SD_{1/1}}$**=.363**
	$\boldsymbol{M_2}$**=.19** $\boldsymbol{SD_2}$**=.397**	M_2=.18 SD_2=.384	M_2=.19 SD_2=.392	$M_{1/2}$=.16 $SD_{1/2}$=.373	$\boldsymbol{M_{1/2}}$**=.08** $\boldsymbol{SD_{1/2}}$**=.274**
				$M_{2/1}$=.20 $SD_{2/1}$=.401	$\boldsymbol{M_{2/1}}$**=.09** $\boldsymbol{SD_{2/1}}$**=.282**
				$M_{2/2}$=.19 $SD_{2/2}$=.397	$\boldsymbol{M_{2/2}}$**=.23** $\boldsymbol{SD_{2/2}}$**=.425**

Dependent variable	Country	Sender1	Receiver1	Country*Sender1	Sender1*Receiver1
	1=U.S. 2=HU	1=Male 2=Female	1=Male 2=Female	1/1=US/Male 1/2= US/Female 2/1= HU/Male 2/2= HU/Female	1/1=Male/Male 1/2= Male/Female 2/1= Female/Male 2/2= Female/Female
	Hypothesis 2				**Hypothesis 3**
Intensifiers (fem3)	p=.129 $F_{(1, 293)=}$2.31	p=.069 $F_{(1, 293)=}$3.34	p=.122 $F_{(1, 293)=}$2.40	p=.105 $F_{(1, 293)=}$2.64	**p=.038** **$F_{(1, 293)=}$4.35**
	M_1=.25 SD_1=.489	M_1=.22 SD_1=.436	M_1=.22 SD_1=.467	$M_{1/1}$=.22 $SD_{1/1}$=.420	**$M_{1/1}$=.24** **$SD_{1/1}$=.468**
	M_2=.40 SD_2=.676	M_2=.38 SD_2=.662	M_2=.40 SD_2=.665	$M_{1/2}$=.26 $SD_{1/2}$=.526	**$M_{1/2}$=.20** **$SD_{1/2}$=.404**
				$M_{2/1}$=.21 $SD_{2/1}$=.456	**$M_{2/1}$=.20** **$SD_{2/1}$=.469**
				$M_{2/2}$ =.51 $SD_{2/2}$=.761	**$M_{2/2}$=.48** **$SD_{2/2}$=.733**
Oppositions (fem4)	**p<.001** **$F_{(1, 293)=}$13.6**	p=.102 $F_{(1, 293)=}$2.67	p=.747 $F_{(1, 293)=}$.104	p=.066 $F_{(1, 293)=}$3.418	p=.738 $F_{(1, 293)=}$.112
	M_1=.11 **SD_1=.330**	M_1=.16 SD_1=.440	M_1=.19 SD_1=.452	$M_{1/1}$=.11 $SD_{1/1}$=.372	$M_{1/1}$=.17 $SD_{1/1}$=.461
	M_2=.35 **SD_2=.603**	M_2=.26 SD_2=.529	M_2=.25 SD_2=.534	$M_{1/2}$=.10 $SD_{1/2}$=.306	$M_{1/2}$=.16 $SD_{1/2}$=.422
				$M_{2/1}$=.21 $SD_{2/1}$=.494	$M_{2/1}$=.21 $SD_{2/1}$=.447
				$M_{2/2}$=.43 $SD_{2/2}$=.649	$M_{2/2}$=.29 $SD_{2/2}$=.571
Negations (fem5)	p=.246 $F_{(1, 293)=}$1.35	p=.616 $F_{(1, 293)=}$.253	**p=.036** **$F_{(1, 293)=}$4.45**	p=.622 $F_{(1, 293)=}$.244	p=.699 $F_{(1, 293)=}$.150
	M_1=.36 SD_1=.605	M_1=.37 SD_1=.702	**M_1=.30** **SD_1=.680**	$M_{1/1}$=.35 $SD_{1/1}$=.588	$M_{1/1}$=.31 $SD_{1/1}$=.701
	M_2=.49 SD_2=.890	M_2=.46 SD_2=.794	**M_2=.52** **SD_2=.808**	$M_{1/2}$=.37 $SD_{1/2}$=.618	$M_{1/2}$=.46 $SD_{1/2}$=.706
				$M_{2/1}$=.39 $SD_{2/1}$=.802	$M_{2/1}$=.30 $SD_{2/1}$=.667
				$M_{2/2}$=.55 $SD_{2/2}$=.939	$M_{2/2}$=.55 $SD_{2/2}$=.849

Dependent variable	Country	Sender1	Receiver1	Country*Sender1	Sender1*Receiver1
	1=U.S. 2=HU	1=Male 2=Female	1=Male 2=Female	1/1=US/Male 1/2= US/Female 2/1= HU/Male 2/2= HU/Female	1/1=Male/Male 1/2= Male/Female 2/1= Female/Male 2/2= Female/Female
	Hypothesis 2				**Hypothesis 3**
Hedges (fem6)	***p*=.029** **$F_{(1, 293)}$=4.80** ***M_1*=.09** ***SD_1*=.304** ***M_2*=.16** ***SD_2*=.369**	*p*=.946 $F_{(1, 293)}$=.005 M_1=.12 SD_1=.324 M_2=.13 SD_2=.349	*p*=.231 $F_{(1, 293)}$=1.44 M_1=.10 SD_1=.327 M_2=.14 SD_2=.349	*p*=.287 $F_{(1, 293)}$=1.14 $M_{1/1}$=.06 $SD_{1/1}$=.231 $M_{1/2}$=.10 $SD_{1/2}$=.338 $M_{2/1}$=.18 $SD_{2/1}$=.386 $M_{2/2}$=.15 $SD_{2/2}$=.360	*p*=.383 $F_{(1, 293)}$=.764 $M_{1/1}$=.08 $SD_{1/1}$=.281 $M_{1/2}$=.16 $SD_{1/2}$=.370 $M_{2/1}$=.11 $SD_{2/1}$=.363 $M_{2/2}$=.13 $SD_{2/2}$=.349
Questions (fem7)	*p*=.835 $F_{(1, 293)}$=.044 M_1=.50 SD_1=.652 M_2=.51 SD_2=.819	*p*=.672 $F_{(1, 293)}$=.179 M_1=.52 SD_1=.865 M_2=.49 SD_2=.657	*p*=.327 $F_{(1, 293)}$=.963 M_1=.47 SD_1=.674 M_2=.54 SD_2=.786	*p*=.984 $F_{(1, 293)}$=.000 $M_{1/1}$=.52 $SD_{1/1}$=.693 $M_{1/2}$=.48 $SD_{1/2}$=.631 $M_{2/1}$=.52 $SD_{2/1}$=1.009 $M_{2/2}$=.51 $SD_{2/2}$=.686	*p*=.550 $F_{(1, 293)}$=.358 $M_{1/1}$=.46 $SD_{1/1}$=.773 $M_{1/2}$=.60 $SD_{1/2}$=.969 $M_{2/1}$=.47 $SD_{2/1}$=.583 $M_{2/2}$=.51 $SD_{2/2}$=.698
Dashes (fem8)	***p*=.034** **$F_{(1, 293)}$=4.55** ***M_1*=.07** ***SD_1*=.434** ***M_2*=.17** ***SD_2*=.485**	*p*=.211 $F_{(1, 293)}$=1.57 M_1=.15 SD_1=.593 M_2=.10 SD_2=.364	***p*=.012** **$F_{(1, 293)}$=6.42** ***M_1*=.06** ***SD_1*=.272** ***M_2*=.16** ***SD_2*=.562**	*p*=.240 $F_{(1, 293)}$=1.39 $M_{1/1}$=.07 $SD_{1/1}$=.544 $M_{1/2}$=.07 $SD_{1/2}$=.361 $M_{2/1}$=.23 $SD_{2/1}$=.632 $M_{2/2}$=.13 $SD_{2/2}$=.368	*p*=.067 $F_{(1, 293)}$=3.37 $M_{1/1}$=.05 $SD_{1/1}$=.222 $M_{1/2}$=.28 $SD_{1/2}$=.834 $M_{2/1}$=.07 $SD_{2/1}$=.310 $M_{2/2}$=.12 $SD_{2/2}$=.393

Dependent variable	Country	Sender1	Receiver1	Country*Sender1	Sender1*Receiver1
	1=U.S. 2=HU	1=Male 2=Female	1=Male 2=Female	1/1=US/Male 1/2= US/Female 2/1= HU/Male 2/2= HU/Female	1/1=Male/Male 1/2= Male/Female 2/1= Female/Male 2/2= Female/Female
	Hypothesis 2				**Hypothesis 3**
Brackets (fem9)	***p*=.026** ***F*$_{(1, 293)=}$5.01** ***M*$_1$=.02** ***SD*$_1$=.140** ***M*$_2$=.10** ***SD*$_2$=.302**	*p*=.595 *F*$_{(1, 293)=}$.283 *M*$_1$=.06 *SD*$_1$=.245 *M*$_2$=.06 *SD*$_2$=.234	*p*=.208 *F*$_{(1, 293)=}$1.59 *M*$_1$=.03 *SD*$_1$=.174 *M*$_2$=.08 *SD*$_2$=.276	*p*=.100 *F*$_{(1, 293)=}$2.71 *M*$_{1/1}$=.06 *SD*$_{1/1}$=.231 *M*$_{1/2}$=.00 *SD*$_{1/2}$=.000 *M*$_{2/1}$=.07 *SD*$_{2/1}$=.260 *M*$_{2/2}$=.12 *SD*$_{2/2}$=.325	*p*=.138 *F*$_{(1, 293)=}$2.20 *M*$_{1/1}$=.07 *SD*$_{1/1}$=.254 *M*$_{1/2}$=.06 *SD*$_{1/2}$=.240 *M*$_{2/1}$=.00 *SD*$_{2/1}$=.000 *M*$_{2/2}$=.09 *SD*$_{2/2}$=.290
Reference to emotion (fem10)	*p*=.214 *F*$_{(1, 293)=}$1.55 *M*$_1$=.32 *SD*$_1$=.667 *M*$_2$=.22 *SD*$_2$=.477	<u>*p*=.062</u> *F*$_{(1, 293)=}$3.51 *M*$_1$=.17 *SD*$_1$=.504 *M*$_2$=.33 *SD*$_2$=.625	*p*=.206 *F*$_{(1, 293)=}$1.60 *M*$_1$=.21 *SD*$_1$=.495 *M*$_2$=.32 *SD*$_2$=.647	*p*=.609 *F*$_{(1, 293)=}$.262 *M*$_{1/1}$=.20 *SD*$_{1/1}$=.595 *M*$_{1/2}$=.38 *SD*$_{1/2}$=.714 *M*$_{2/1}$=.14 *SD*$_{2/1}$=.401 *M*$_{2/2}$=.27 *SD*$_{2/2}$=.514	*p*=.881 *F*$_{(1, 293)=}$.023 *M*$_{1/1}$=.14 *SD*$_{1/1}$=.507 *M*$_{1/2}$=.22 *SD*$_{1/2}$=.507 *M*$_{2/1}$=.27 *SD*$_{2/1}$=.479 *M*$_{2/2}$=.36 *SD*$_{2/2}$=.696
Emoticons (fem11)	***p*<.001** ***F*$_{(1, 293)=}$84.6** ***M*$_1$=.15** ***SD*$_1$=.428** ***M*$_2$=1.82** ***SD*$_2$=1.973**	***p*<.001** ***F*$_{(1, 293)=}$15.4** ***M*$_1$=.57** ***SD*$_1$=1.600** ***M*$_2$=1.22** ***SD*$_2$=1.633**	*p*=.402 *F*$_{(1, 293)=}$.704 *M*$_1$=.77 *SD*$_1$=1.367 *M*$_2$=1.14 *SD*$_2$=1.823	***p*<.001** ***F*$_{(1, 293)=}$10.9** ***M*$_{1/1}$=.07** ***SD*$_{1/1}$=.264** ***M*$_{1/2}$=.20** ***SD*$_{1/2}$=.492** ***M*$_{2/1}$=1.05** ***SD*$_{2/1}$=2.127** ***M*$_{2/2}$=2.28** ***SD*$_{2/2}$=1.728**	*p*=.891 *F*$_{(1, 293)=}$.019 *M*$_{1/1}$=.54 *SD*$_{1/1}$=1.222 *M*$_{1/2}$=.58 *SD*$_{1/2}$=1.970 *M*$_{2/1}$=.96 *SD*$_{2/1}$=1.459 *M*$_{2/2}$=1.37 *SD*$_{2/2}$=1.715

Dependent variable	Country	Sender1	Receiver1	Country*Sender1	Sender1*Receiver1
	1=U.S. 2=HU	1=Male 2=Female	1=Male 2=Female	1/1=US/Male 1/2= US/Female 2/1= HU/Male 2/2= HU/Female	1/1=Male/Male 1/2= Male/Female 2/1= Female/Male 2/2= Female/Female
	Hypothesis 2				**Hypothesis 3**
Expressing caring (fem12)	p=.910 $F_{(1, 293)=}$.013 M_1=.61 SD_1=.490 M_2=.60 SD_2=.492	***p*=.000** ***F*(1, 293)=24** ***M*1=.42** ***SD*1=.496** ***M*2=.71** ***SD*2=.455**	***p*=.019** ***F*(1, 293)=5.6** ***M*1=.51** ***SD*1=.502** ***M*2=.67** ***SD*2=.471**	p=.307 $F_{(1, 293)=}$1.04 $M_{1/1}$=.39 $SD_{1/1}$=.492 $M_{1/2}$=.73 $SD_{1/2}$=.445 $M_{2/1}$=.45 $SD_{2/1}$=.502 $M_{2/2}$=.69 $SD_{2/2}$=.466	p=.239 $F_{(1, 293)=}$1.39 $M_{1/1}$=.32 $SD_{1/1}$=.471 $M_{1/2}$=.52 $SD_{1/2}$=.505 $M_{2/1}$=.67 $SD_{2/1}$=.473 $M_{2/2}$=.73 $SD_{2/2}$=.444
Female-stereotypical topic (femaletopic)	***p*=.002** ***F*(1, 293)=10.1** ***M*1=.480** ***SD*1=.501** ***M*2=.302** ***SD*2=.460**	***p*<.001** ***F*(1, 293)=48.6** ***M*1=.136** ***SD*1=.344** ***M*2=.539** ***SD*2=.499**	***p*=.031** ***F*(1, 293)=4.7** ***M*1=.289** ***SD*1=.455** ***M*2=.470** ***SD*2=.500**	p=.415 $F_{(1, 293)=}$.666 $M_{1/1}$=.203 $SD_{1/1}$=.406 $M_{1/2}$=.635 $SD_{1/2}$=.483 $M_{2/1}$=.071 $SD_{2/1}$=.259 $M_{2/2}$=.440 $SD_{2/2}$=.499	p=.362 $F_{(1, 293)=}$.832 $M_{1/1}$=.101 $SD_{1/1}$=.304 $M_{1/2}$=.180 $SD_{1/2}$=.388 $M_{2/1}$=.449 $SD_{2/1}$=.501 $M_{2/2}$=.591 $SD_{2/2}$=.493
Connective phrases (mas1)	p=.143 $F_{(1, 293)=}$2.15 M_1=.01 SD_1=.115 M_2=.04 SD_2=.197	p=.780 $F_{(1, 293)=}$.078 M_1=.02 SD_1=.134 M_2=.03 SD_2=.175	***p*=.021** ***F*(1, 293)=5.36** ***M*1=.00** ***SD*1=.000** ***M*2=.05** ***SD*2=.212**	p=.557 $F_{(1, 293)=}$.346 $M_{1/1}$=.00 $SD_{1/1}$=.000 $M_{1/2}$=.00 $SD_{1/2}$=.000 $M_{2/1}$=.00 $SD_{2/1}$=.000 $M_{2/2}$=.04 $SD_{2/2}$=.187	p=.906 $F_{(1, 293)=}$.014 $M_{1/1}$=.00 $SD_{1/1}$=.000 $M_{1/2}$=.04 $SD_{1/2}$=.198 $M_{2/1}$=.00 $SD_{2/1}$=.000 $M_{2/2}$=.05 $SD_{2/2}$=.219

Dependent variable	Country 1=U.S. 2=HU **Hypothesis 2**	Sender1 1=Male 2=Female	Receiver1 1=Male 2=Female	Country*Sender1 1/1=US/Male 1/2= US/Female 2/1= HU/Male 2/2= HU/Female	Sender1*Receiver1 1/1=Male/Male 1/2= Male/Female 2/1= Female/Male 2/2= Female/Female **Hypothesis 3**
Judgmental adjectives (mas2)	p=.148 $F_{(1, 293)=}$2.10 M_1=.79 SD_1=.970 M_2=1.05 SD_2=1.207	p=.620 $F_{(1, 293)=}$.246 M_1=.85 SD_1=.917 M_2=.96 SD_2=1.194	**p=.053** **$F_{(1, 293)=}$3.77** **M_1=.74** **SD_1=1.012** **M_2=1.05** **SD_2=1.147**	p=.146 $F_{(1, 293)=}$2.13 $M_{1/1}$=.85 $SD_{1/1}$=.979 $M_{1/2}$=.75 $SD_{1/2}$=.969 $M_{2/1}$=.86 $SD_{2/1}$=.862 $M_{2/2}$=1.17 $SD_{2/2}$=1.364	p=.541 $F_{(1, 293)=}$.375 $M_{1/1}$=.76 $SD_{1/1}$=.971 $M_{1/2}$=.94 $SD_{1/2}$=.843 $M_{2/1}$=.71 $SD_{2/1}$=1.051 $M_{2/2}$=1.10 $SD_{2/2}$=1.253
Elliptical sentences (mas3)	p=.135 $F_{(1, 293)=}$2.24 M_1=.50 SD_1=.502 M_2=.57 SD_2=.497	**p=.012** **$F_{(1, 293)=}$6.46** **M_1=.65** **SD_1=.478** **M_2=.47** **SD_2=.500**	**p<.001** **$F_{(1, 293)=}$13.2** **M_1=.67** **SD_1=.473** **M_2=.44** **SD_2=.497**	p=.165 $F_{(1, 293)=}$1.93 $M_{1/1}$=.56 $SD_{1/1}$=.502 $M_{1/2}$=.47 $SD_{1/2}$=.502 $M_{2/1}$=.75 $SD_{2/1}$=.437 $M_{2/2}$=.46 $SD_{2/2}$=.501	p=.389 $F_{(1, 293)=}$.745 $M_{1/1}$=.78 $SD_{1/1}$=.418 $M_{1/2}$=.50 $SD_{1/2}$=.505 $M_{2/1}$=.57 $SD_{2/1}$=.498 $M_{2/2}$=.41 $SD_{2/2}$=.494
Directives (mas4)	p=.130 $F_{(1, 293)=}$2.31 M_1=.29 SD_1=.456 M_2=.21 SD_2=.412	p=.308 $F_{(1, 293)=}$1.04 M_1=.28 SD_1=.452 M_2=.24 SD_2=.426	p=.865 $F_{(1, 293)=}$.029 M_1=.26 SD_1=.438 M_2=.25 SD_2=.436	p=.812 $F_{(1, 293)=}$.057 $M_{1/1}$=.31 $SD_{1/1}$=.469 $M_{1/2}$=.28 $SD_{1/2}$=.451 $M_{2/1}$=.25 $SD_{2/1}$=.437 $M_{2/2}$=.19 $SD_{2/2}$=.397	p=.143 $F_{(1, 293)=}$2.15 $M_{1/1}$=.32 $SD_{1/1}$=.471 $M_{1/2}$=.24 $SD_{1/2}$=.431 $M_{2/1}$=.20 $SD_{2/1}$=.403 $M_{2/2}$=.26 $SD_{2/2}$=.440

Dependent variable	Country	Sender1	Receiver1	Country*Sender1	Sender1*Receiver1
	1=U.S. 2=HU	1=Male 2=Female	1=Male 2=Female	1/1=US/Male 1/2= US/Female 2/1= HU/Male 2/2= HU/Female	1/1=Male/Male 1/2= Male/Female 2/1= Female/Male 2/2= Female/Female
	Hypothesis 2				**Hypothesis 3**
Reference to quantity (mas5)	p=.180 $F_{(1, 293)=}$1.80	p=.559 $F_{(1, 293)=}$.341	p=.405 $F_{(1, 293)=}$.697	p=.892 $F_{(1, 293)=}$.018	p=.749 $F_{(1, 293)=}$.103
	M_1=.37 SD_1=.485	M_1=.38 SD_1=.488	M_1=.38 SD_1=.487	$M_{1/1}$=.35 $SD_{1/1}$=.482	$M_{1/1}$=.36 $SD_{1/1}$=.483
	M_2=.45 SD_2=.499	M_2=.43 SD_2=.496	M_2=.44 SD_2=.497	$M_{1/2}$=.38 $SD_{1/2}$=.488	$M_{1/2}$=.42 $SD_{1/2}$=.499
				$M_{2/1}$=.41 $SD_{2/1}$=.496	$M_{2/1}$=.40 $SD_{2/1}$=.493
				$M_{2/2}$=.47 $SD_{2/2}$=.502	$M_{2/2}$=.44 $SD_{2/2}$=.499
Locatives (mas6)	p=.448 $F_{(1, 293)=}$.578	p=.690 $F_{(1, 293)=}$.159	p=.454 $F_{(1, 293)=}$.561	p=.660 $F_{(1, 293)=}$.194	p=.557 $F_{(1, 293)=}$.346
	M_1=.39 SD_1=.490	M_1=.38 SD_1=.488	M_1=.35 SD_1=.478	$M_{1/1}$=.39 $SD_{1/1}$=.492	$M_{1/1}$=.34 $SD_{1/1}$=.477
	M_2=.34 SD_2=.476	M_2=.36 SD_2=.481	M_2=.38 SD_2=.486	$M_{1/2}$=.39 $SD_{1/2}$=.491	$M_{1/2}$=.42 $SD_{1/2}$=.499
				$M_{2/1}$=.38 $SD_{2/1}$=.489	$M_{2/1}$=.36 $SD_{2/1}$=.483
				$M_{2/2}$=.32 $SD_{2/2}$=.470	$M_{2/2}$=.36 $SD_{2/2}$=.482
Reference to career (mas7)	**p<.001** **$F_{(1, 293)=}$13.1**	p=.974 $F_{(1, 293)=}$.001	p=.784 $F_{(1, 293)=}$.075	p=.229 $F_{(1, 293)=}$1.45	p=.561 $F_{(1, 293)=}$.339
	M_1=.09 **SD_1=.291**	M_1=.19 SD_1=.395	M_1=.17 SD_1=.378	$M_{1/1}$=.13 $SD_{1/1}$=.339	$M_{1/1}$=.17 $SD_{1/1}$=.378
	M_2=.28 **SD_2=.448**	M_2=.18 SD_2=.384	M_2=.19 SD_2=.392	$M_{1/2}$=.07 $SD_{1/2}$=.260	$M_{1/2}$=.20 $SD_{1/2}$=.404
				$M_{2/1}$=.25 $SD_{2/1}$=.437	$M_{2/1}$=.17 $SD_{2/1}$=.380
				$M_{2/2}$=.29 $SD_{2/2}$=.456	$M_{2/2}$=.18 $SD_{2/2}$=.384

Dependent variable	Country	Sender1	Receiver1	Country*Sender1	Sender1*Receiver1
	1=U.S. 2=HU	1=Male 2=Female	1=Male 2=Female	1/1=US/Male 1/2= US/Female 2/1= HU/Male 2/2= HU/Female	1/1=Male/Male 1/2= Male/Female 2/1= Female/Male 2/2= Female/Female
	Hypothesis 2				**Hypothesis 3**
Reference to success (mas8)	***p*=.002** ***F*$_{(1, 293)=}$9.91** ***M*$_1$=.07** ***SD*$_1$=.261** ***M*$_2$=.21** ***SD*$_2$=.412**	*p*=.559 *F*$_{(1, 293)=}$.342 *M*$_1$=.15 *SD*$_1$=.363 *M*$_2$=.14 *SD*$_2$=.345	*p*=.932 *F*$_{(1, 293)=}$.007 *M*$_1$=.13 *SD*$_1$=.340 *M*$_2$=.15 *SD*$_2$=.361	*p*=.757 *F*$_{(1, 293)=}$.096 *M*$_{1/1}$=.09 *SD*$_{1/1}$=.293 *M*$_{1/2}$=.06 *SD*$_{1/2}$=.242 *M*$_{2/1}$=.21 *SD*$_{2/1}$=.414 *M*$_{2/2}$=.22 *SD*$_{2/2}$=.413	***p*=.034** ***F*$_{(1, 293)=}$4.56** ***M*$_{1/1}$=.20** ***SD*$_{1/1}$=.406** ***M*$_{1/2}$=.10** ***SD*$_{1/2}$=.303** ***M*$_{2/1}$=.07** ***SD*$_{2/1}$=.259** ***M*$_{2/2}$=.18** ***SD*$_{2/2}$=.382**
Reference to money (mas9)	*p*=.862 *F*$_{(1, 293)=}$.030 *M*$_1$=.01 *SD*$_1$=.115 *M*$_2$=.02 *SD*$_2$=.141	*p*=.788 *F*$_{(1, 293)=}$.072 *M*$_1$=.02 *SD*$_1$=.134 *M*$_2$=.02 *SD*$_2$=.125	*p*=.747 *F*$_{(1, 293)=}$.104 *M*$_1$=.02* *SD*$_1$=.124 *M*$_2$=.02 *SD*$_2$=.132	*p*=.708 *F*$_{(1, 293)=}$.141 *M*$_{1/1}$=.02 *SD*$_{1/1}$=.136 *M*$_{1/2}$=.01 *SD*$_{1/2}$=.102 *M*$_{2/1}$=.02 *SD*$_{2/1}$=.134 *M*$_{2/2}$=.02 *SD*$_{2/2}$=.146	*p*=.066 *F*$_{(1, 293)=}$3.39 *M*$_{1/1}$=.03 *SD*$_{1/1}$=.183 *M*$_{1/2}$=.00 *SD*$_{1/2}$=.000 *M*$_{2/1}$=.00 *SD*$_{2/1}$=.000 *M*$_{2/2}$=.03 *SD*$_{2/2}$=.157
Reference to material possessions (mas10)	*p*=.593 *F*$_{(1, 293)=}$.287 *M*$_1$=.15 *SD*$_1$=.361 *M*$_2$=.19 *SD*$_2$=.397	***p*<.001** ***F*$_{(1, 293)=}$13.6** ***M*$_1$=.27** ***SD*$_1$=.447** ***M*$_2$=.12** ***SD*$_2$=.321**	*p*=.827 *F*$_{(1, 293)=}$.048 *M*$_1$=.17 *SD*$_1$=.378 *M*$_2$=.18 *SD*$_2$=.382	*p*=.443 *F*$_{(1, 293)=}$.590 *M*$_{1/1}$=.28 *SD*$_{1/1}$=.452 *M*$_{1/2}$=.08 *SD*$_{1/2}$=.277 *M*$_{2/1}$=.27 *SD*$_{2/1}$=.447 *M*$_{2/2}$=.15 *SD*$_{2/2}$=.360	*p*=.097 *F*$_{(1, 293)=}$2.772 *M*$_{1/1}$=.31 *SD*$_{1/1}$=.464 *M*$_{1/2}$=.24 *SD*$_{1/2}$=.431 *M*$_{2/1}$=.06 *SD*$_{2/1}$=.234 *M*$_{2/2}$=.15 *SD*$_{2/2}$=.359

Dependent variable	Country	Sender1	Receiver1	Country*Sender1	Sender1*Receiver1
	1=U.S. 2=HU	1=Male 2=Female	1=Male 2=Female	1/1=US/Male 1/2= US/Female 2/1= HU/Male 2/2= HU/Female	1/1=Male/Male 1/2= Male/Female 2/1= Female/Male 2/2= Female/Female
	Hypothesis 2				**Hypothesis 3**
Expressing ambition (mas11)	p=.816 $F_{(1, 293)=}$.054	p=.764 $F_{(1, 293)=}$.090	***p*=.021** ***F*(1, 293)=5.42**	p=.539 $F_{(1, 293)=}$.378	p=.592 $F_{(1, 293)=}$.288
	M_1=.26 SD_1=.439	M_1=.24 SD_1=.427	***M*1=.19** ***SD*1=.397**	$M_{1/1}$=.22 $SD_{1/1}$=.420	$M_{1/1}$=.17 $SD_{1/1}$=.378
	M_2=.26 SD_2=.441	M_2=.27 SD_2=.447	***M*2=.31** ***SD*2=.465**	$M_{1/2}$=.28 $SD_{1/2}$=.451	$M_{1/2}$=.32 $SD_{1/2}$=.471
				$M_{2/1}$=.25 $SD_{2/1}$=.437	$M_{2/1}$=.21 $SD_{2/1}$=.413
				$M_{2/2}$=.27 $SD_{2/2}$=.446	$M_{2/2}$=.31 $SD_{2/2}$=.464
Ego boosting (mas12)	p=.837 $F_{(1, 293)=}$.042	***p*=.021** ***F*(1, 293)=5.42**	p=.891 $F_{(1, 293)=}$.019	p=.495 $F_{(1, 293)=}$.467	p=.977 $F_{(1, 293)=}$.001
	M_1=.09 SD_1=.292	***M*1=.14** ***SD*1=.345**	M_1=.09 SD_1=.293	$M_{1/1}$=.13 $SD_{1/1}$=.339	$M_{1/1}$=.14 $SD_{1/1}$=.345
	M_2=.08 SD_2=.273	***M*2=.06** ***SD*2=.235**	M_2=.08 SD_2=.276	$M_{1/2}$=.07 $SD_{1/2}$=.261	$M_{1/2}$=.14 $SD_{1/2}$=.351
				$M_{2/1}$=.14 $SD_{2/1}$=.353	$M_{2/1}$=.06 $SD_{2/1}$=.235
				$M_{2/2}$=.04 $SD_{2/2}$=.204	$M_{2/2}$=.06 $SD_{2/2}$=.235
Male-stereotypical topic (maletopic)	p=.488 $F_{(1, 293)=}$.488	***p*=.002** ***F*(1, 293)=.002**	p=.094 $F_{(1, 293)=}$2.81	p=.870 $F_{(1, 293)=}$.027	p=.737 $F_{(1, 293)=}$.113
	M_1=.066 SD_1=.250	***M*1=.118** ***SD*1=.324**	M_1=.093 SD_1=.292	$M_{1/1}$=.129 $SD_{1/1}$=.339	$M_{1/1}$=.135 $SD_{1/1}$=.345
	M_2=.047 SD_2=.212	***M*2=.021** ***SD*2=.144**	M_2=.029 SD_2=.169	$M_{1/2}$=.031 $SD_{1/2}$=.174	$M_{1/2}$=.100 $SD_{1/2}$=.303
				$M_{2/1}$=.107 $SD_{2/1}$=.312	$M_{2/1}$=.058 $SD_{2/1}$=.235
				$M_{2/2}$=.010 $SD_{2/2}$=.103	$M_{2/2}$=.000 $SD_{2/2}$=.000

Appendix E: Summary of the ANOVA tests for research question 1

Dependent variables / characteristics intended to measure by variable	Country 1=U.S. 2=Hungary	Gendmix 1=MM, 2=MF 3=FF, 4=FM	Country*GendMix 1/1=US/MM, 2/1=HU/MM 1/2=/US/MF, 2/2=HU/MF 1/3=US/FF, 2/3=HU/FF 1/4=US/FM, 2/4=HU/FM (interaction effect)
			Research Question 1
Number of sentences (length1) / Individual	p=.041 $F_{(1,289)}$=4.216 M_1=2.93, SD=1.570 M_2=3.55, SD=2.193	p=.013 $F_{(3,289)}$=3.682 M_1=2.78, SD=1.633 M_2=2.94, SD=1.789 M_3=3.71, SD=2.105 M_4=3.04, SD=1.789	**p=.011** **$F_{(1,289)}$=3.770** **$M_{1/1}$=3.11, SD=1.928, $M_{1/2}$=2.41, SD=1.152** **$M_{1/3}$=3.07, SD=1.585, $M_{1/4}$=2.98, SD=1.508** **$M_{2/1}$=2.48, SD=1.288, $M_{2/2}$=3.57, SD=2.191** **$M_{2/3}$=4.25, SD=2.344, $M_{2/4}$=3.14, SD=2.150**
Exclamation points (fem1) / Individual	p=.165 $F_{(1,289)}$=1.934 M_1=1.83, SD=5.970 M_2=1.48, SD=2.495	p=.096 $F_{(3,289)}$=2.132 M_1=1.05, SD=1.811 M_2=2.98, SD=9.791 M_3=1.82, SD=2.946 M_4=.96, SD=1.592	**p=.051** **$F_{(3,289)}$=2.618** **$M_{1/1}$=1.00, SD=2.287, $M_{1/2}$=4.56, SD=13.160** **$M_{1/3}$=1.38, SD=2.297, $M_{1/4}$=1.20, SD=1.874** **$M_{2/1}$=1.10, SD=1.300, $M_{2/2}$=1.13, SD=1.486** **$M_{2/3}$=2.19, SD=3.380, $M_{2/4}$=.62, SD=1.015**
Oppositions (fem4) / Individual	p<.001 $F_{(1,289)}$=13.255 M_1=.11, SD=.331 M_2=.35, SD=.606	p=.355 $F_{(3,289)}$=1.086 M_1=.17, SD=.464 M_2=.16, SD=.422 M_3=.29, SD=.573 M_4=.21, SD=.447	p=.358 $F_{(3,289)}$=1.079 $M_{1/1}$=.11, SD=.320, $M_{1/2}$=.11, SD=.424 $M_{1/3}$=.13, SD=.336, $M_{1/4}$=.07, SD=.264 $M_{2/1}$=.23, SD=.560, $M_{2/2}$=.22, SD=.422 $M_{2/3}$=.44, SD=.687, $M_{2/4}$=.41, SD=.568
Hedges (fem6) / Individual	p=.068 $F_{(1,289)}$=3.367 M_1=.09, SD=.305 M_2=.16, SD=.371	p=.569 $F_{(3,289)}$=.673 M_1=.09, SD=.283 M_2=.16, SD=.370 M_3=.13, SD=.343 M_4=.11, SD=.363	**p=.006** **$F_{(3,289)}$=4.216** **$M_{1/1}$=.07, SD=.267, $M_{1/2}$=.04, SD=.192** **$M_{1/3}$=.05, SD=.229, $M_{1/4}$=.17, SD=.442** **$M_{2/1}$=.10, SD=.301, $M_{2/2}$=.30, SD=.470** **$M_{2/3}$=.20, SD=.406, $M_{2/4}$=.03, SD=.186**
Dashes (fem8) / Individual	p=.031 $F_{(1,289)}$=4.676 M_1=.07, SD=.435 M_2=.17, SD=.488	p=.031 $F_{(3,289)}$=2.997 M_1=.05, SD=.223 M_2=.28, SD=.834 M_3=.12, SD=.394 M_4=.07, SD=.310	p=.461 $F_{(3,289)}$=.862 $M_{1/1}$=.00, SD=.000, $M_{1/2}$=.15, SD=.770 $M_{1/3}$=.09, SD=.398, $M_{1/4}$=.05, SD=.312 $M_{2/1}$=.10, SD=.301, $M_{2/2}$=.43, SD=.896 $M_{2/3}$=.14, SD=.393, $M_{2/4}$=.10, SD=.310

Dependent variables / characteristics intended to measure by variable	Country 1=U.S. 2=Hungary	Gendmix 1=MM, 2=MF 3=FF, 4=FM	Country*GendMix 1/1=US/MM, 2/1=HU/MM 1/2=/US/MF, 2/2=HU/MF 1/3=US/FF, 2/3=HU/FF 1/4=US/FM, 2/4=HU/FM (interaction effect)
			Research Question 1
Brackets/parentheses (fem9) / Individual	p=.106 $F_{(1,289)}$=2.623 M_1=.02, SD=.140 M_2=.10, SD=.295	p=.100 $F_{(3,289)}$=2.103 M_1=.05, SD=.223 M_2=.06, SD=.240 M_3=.09, SD=.291 M_4=.00, SD=.000	***p*=.011** **$F_{(3,289)}$=3.763** **$M_{1/1}$=.07, SD=.267, $M_{1/2}$=.04, SD=.192** **$M_{1/3}$=.00, SD=.000, $M_{1/4}$=.00, SD=.000** **$M_{2/1}$=.03, SD=.180, $M_{2/2}$=.09, SD=.288** **$M_{2/3}$=.17, SD=.380, $M_{2/4}$=.00, SD=.000**
Emoticons (fem11) / Individual	p<.001 $F_{(1,289)}$=77.09 M_1=.15, SD=.429 M_2=1.82, SD=1.986	p=.001 $F_{(3,289)}$=5.848 M_1=.52, SD=1.217 M_2=.58, SD=1.970 M_3=1.38, SD=1.717 M_4=.96, SD=1.459	***p*=.007** **$F_{(3,289)}$= 4.164** **$M_{1/1}$=.07, SD=.267, $M_{1/2}$=.07, SD=.267** **$M_{1/3}$=.18, SD=.512, $M_{1/4}$=.22, SD=.475** **$M_{2/1}$=.90, SD=1.557, $M_{2/2}$=1.17, SD=2.807** **$M_{2/3}$=2.41, SD=1.725, $M_{2/4}$=2.00, SD=1.732**
Reference to career (mas7) / Cultural	p=.001 $F_{(1,289)}$=11.646 M_1=.09, SD=.292 M_2=27, SD=.447	p=.955 $F_{(3,289)}$=.109 M_1=.17, SD=.381 M_2=.20, SD=.404 M_3=.18, SD=.390 M_4=.17, SD=.380	p=.242 $F_{(3,289)}$=1.403 $M_{1/1}$=.15, SD=.362, $M_{1/2}$=.11, SD=.320 $M_{1/3}$=.04, SD=.189, $M_{1/4}$=.12, SD=.331 $M_{2/1}$=.19, SD=.402, $M_{2/2}$=.30, SD=470 $M_{2/3}$=.31, SD=.467, $M_{2/4}$=.24, SD=.435
Reference to success (mas8) / Cultural	p=.004 $F_{(1,289)}$=8.635 M_1=.07, SD=.262 M_2=.22, SD=.414	p=.156 $F_{(3,289)}$=1.757 M_1=.21, SD=.409 M_2=.10, SD=.303 M_3=.18, SD=.383 M_4=.07, SD=.259	p=.219 $F_{(3,289)}$=1.485 $M_{1/1}$=.07, SD=.267, $M_{1/2}$=.11, SD=.320 $M_{1/3}$=.09, SD=.290, $M_{1/4}$=.02, SD=.156 $M_{2/1}$=.32, SD=.475, $M_{2/2}$=.09, SD=288 $M_{2/3}$=.25, SD=.436, $M_{2/4}$=.14, SD=.351
Female stereotypical topic (femaletopic)/ Individual	p=.001 $F_{(1,287)}$=10.66 M_1=.479, SD=.501 M_2=.306, SD=.462	p<.001 $F_{(3,287)}$=21.187 M_1=.103 SD=307 M_2=.180 SD=.388 M_3=.596 SD=.492 M_4=.441 SD=.500	p=.219 $F_{(3,287)}$=.522 $M_{1/1}$=.185, SD=.395, $M_{1/2}$=.2222 SD=.423 $M_{1/3}$=.690, SD=.466, $M_{1/4}$=.5641 SD=.502 $M_{2/1}$=.032, SD=.179, $M_{2/2}$=.1304 SD=344 $M_{2/3}$=.515, SD=.503, $M_{2/4}$=.2759, SD=.454