Theorizing Communicative Styles on Social Media: An Etymological Shift

Chandra Reka Ramachandiran¹, Malissa Maria Mahmud ²

¹Faculty of Computing, Engineering and Technology, Asia Pacific University, Technology Park Malaysia, 57000 Kuala Lumpur, Malaysia
²Centre for American Education, Sunway University, Bandar Sunway, 47500 Petaling Jaya, Selangor, Malaysia
chandra.reka@apu.edu.my¹, malissam@sunway.edu.my²

Abstract—Distinct polarities of gender stereotypes ascertain that communicative styles demonstrated by men and women are fundamentally disparate. Numerous researches have established varying communicative styles and methods involved in interpersonal communication, predominantly in the analysis of conversational styles as well as etymological strategies. Nevertheless, the widespread of social media has contributed to a pivotal, fascinating shift in the utilization of lexes, encompassing less conventional gender-based articulacy and distinctness amongst youths within virtual setting. Drawing on the data from both disseminated survey and purposive observations on sampled Twitter accounts, this study probed on the correlation between gender stereotypes, communicative styles and linguistic features, manifesting the aggressive, assertive, passive-aggressive and passive traits which are associated with gender-based, stereotypical communicative styles. The findings yielded dominating percentages of males against females in which males possess and exhibit all four traits of communicative styles whereas the observations revealed that both genders demonstrate passive-aggressive and assertive traits.

Index Terms—e-cemetery, smart city, portal, urban society

1. Introduction

The evolution of human communication has been the focal disquisitions amongst scholars, systematically studied since ancient times. With the inception of technological advances, alternative approaches to communication emerge in copious means. The prevalence of social media such as Facebook, Twitter and Instagram has in a way changed the topography of how individuals from all over the world connect without the need to be at a proximal distance. Meanwhile, the virtual community has established imperative contrasts to the way the two genders communicate wherein these contrasts correlate with different identities portrayed and managed online [1]. In this context, some researchers concluded that females and males are at opposite ends of the spectrum in their styles of communication, whilst others claim that the two genders communicate in a similar manner [2-4].

Adolescents are one of the most avid users of social media and they demonstrate a more honest self-presentation of Facebook profiles [5-6]. Although adolescents generally are aware of gender stereotypes, most of them view themselves in a less stereotyped and more sexually undifferentiated way than does a typical adult [7]. Interestingly, females’ self-presentation is generally less feminine than males’ is masculine. Females are stereotypically more concerned with displaying their attractiveness, familial relations and emotional expressions, invest more time in reciprocating social links, responding with words of affection and fondness as discussed in [7]. Furthermore, females are described as more extroverted but also as more anxious, possess lower self-esteem whereas males are more straightforward and tend to be more aggressive and assertive [8]. In analyzing non-verbal communication elements,
2. Gender Stereotypes, Interpersonal and Mediated Communicative Styles Environment and Internet of Technology (IoT)

Numerous theoretical standpoints purported that to be able to appreciate unique variations in communication styles by men and women is to widely acknowledge that there is an existence of viable discrepancies [11-12]. In [13], it is emphasized that individuals of both genders identified similar sets of strengths and weaknesses in other individuals of their own gender and those of the opposite gender; specifically, elements involving empathy, relationships, cooperation and intuition. Females' communicative strengths include the ability to interpret body language and non-verbal cues owing to their effective listening skills. Furthermore, females possess a communicative behavior known as ‘rapport’ talk; an indirect style involving the use of qualifiers and succinct language in which they tend to apologize and downplay authority and role in a team’s success to demonstrate ‘egalitarian gender culture’ whereas males were more likely to use a form of communication known as ‘report’ talking, which is a pattern involving direct statements and factual information to emphasize one’s status, using reason and logic, and to engage in a competition as highlighted in [11]. Findings in [14] affirms that similar sentiment which indicated that males were more likely to describe themselves in an assertive manner, utilizing words involving status and power, while females chose words involving more affection and fondness. Females were observed to be more interested in social interactions with other individuals, making more references to themselves and others, deducing a fact that females are more inclined to emphasize on maintaining and developing interpersonal relationships as opposed to males [15].

Social media are avidly used by millennial as platforms for socialization, creating and negotiating mediated identity within online community. In article [16], it was suggested that females are more inclined to use social media to search for information and compare themselves with other users, fostering a positive presentation of themselves; in contrast to males in which they perceive social media as a ‘pragmatic communication medium’. Along similar line, it was suggested in [17] that the importance of managing online identities differs according to both gender and academic major that females in a university are more interested in their need for self-presentation, males tend to emphasize realistic impression made through a profile picture in which profile pictures are edited to showcase expertise in using the online application. Females may take the entertainment approach, using them for their own enjoyment, fulfilling their desire of presenting themselves in a positive light [16].

3. Research Methodology

The research design of this paper comprises of two methods; a quantitative analysis and a qualitative content analysis. Coalescing quantitative and qualitative methods had assisted in magnifying the scope and enriching the analysis to achieve the intended objective by adopting the worldview of both methods. Questions were aimed at testing the four types of communication styles highlighted in [17], a set of standard operational definitions for respective categories by which the context of tweets is clustered into the four communicative styles. The definition of each category is outlined in Table 1 showing traits associated with gender in terms of communicative style.
Table 1: Male and Female Communication Styles

| Male Communicative Styles       | Assertive                                    |
|-------------------------------|----------------------------------------------|
| Aggressive                    | Often interrupt people when they are speaking |
|                               | Use several ‘you’ statements                 |
|                               | Can be dominating in most circumstances      |
|                               | React instantly when someone pushes their buttons |
| Tend to be pushy              | Stand up for their rights                    |

| Female Communicative Styles   | Passive                                      |
|-------------------------------|----------------------------------------------|
| Passive-Aggressive            | Keep anger to themselves instead of confronting the issue |
|                               | Use sarcastic words                          |
|                               | Use pleasant words when intending to offend someone |
|                               | Often feel alienated around people           |
|                               | Use emoticons that do not correspond to their actual feelings (e.g. using a smiling emoji when they are angry) |
|                               | Often feel anxious when communicating        |

Questions probing on communicative styles were divided into four implicit subsections, each examining the four different communicative styles: aggressive, passive-aggressive, passive and assertive. Statements from the subsections were diffused and randomised to conceal the communicative styles from the respondents, ruling out biasness towards a certain communicative style. Each subsection contained five statements reflecting a particular communicative style in which a five-point Likert scale of agreement (strongly agree, agree, neutral, disagree, strongly disagree) was employed. The survey was administered to 100 university students which made up approximately 50% of the students’ population in American Degree Transfer Program (ADTP) Sunway University. The sample size is deemed apt to justify the rigour of the collected data as well as the generalizability estimation based on the total of population. Of the 100 respondents, 53 were males and 47 were females with ages ranged from 15 to 25 years, with a mean
average age of 20. At the end of the survey, the respondents were requested to provide his or her social media handle (although this was not compulsory). With full consent from the six identified participants, their statuses on social media (Twitter) were observed and analysed to determine whether they corresponded with either or all of the four communicative styles proposed by Bourne in [17].

4. Results and Discussion

Table 2 shows the results for perceived aggression in the survey participants.

| Statement | Agree | Neutral | Disagree |
|-----------|-------|---------|----------|
| I tend to interrupt people. | 22.6/4 | 10.6/4 | 24.5/3 |
| I use several ‘you’ statements. | 47.1/7 | 31.9/1 | 32.0/8 |
| I can be dominating in most circumstances. | 22.6/4 | 23.4/0 | 37.7/4 |
| I react instantly when someone pushes my buttons. | 37.7/4 | 40.4/3 | 22.6/4 |
| I tend to be pushy. | 41.5/1 | 17.0/2 | 24.5/3 |

Females are also more concerned with social interaction with others and are politer in speech, which is supported in our study as the results indicate that females interrupt less than males [10]. Nevertheless, the correlation to aggression in this first statement appears to be indicated by the percentage of males (52.83%) and females (65.96%) who disagree that they tend to interrupt others. According to [14], no significant difference was observed between the two genders in terms of anger expression, which is supported by the findings of the current study with respect to the first statement.

Of the participants, 47.17% of males agreed that they use several ‘you’ statements, as opposed to the 31.91% females who agreed with this statement. This finding supports previous research indicating that males have a more ‘report’ style of communicating, involving the use of directive statements and logical information as well as the exhibition of social dominance over others [10]. Females, in contrast, are more personal and have a lesser tendency to use ‘you’ statements; instead, they use more ‘I’ statements, an assertive trait typically possessed by females, as suggested in [14]. The collected data from the current study suggests that the neutral stance in a female’s dominating behavior may be influenced by her passive
traits. In particular, a very narrow percentage difference exists in the data of males and females as 22.64% and 23.40%, respectively. This pattern concurs with the study highlighted in [14], wherein negative expression between the genders shows no significant difference. Furthermore, research based on online identity management suggests that a fine line between online identification and face-to-face communication exists in university adolescents, thus explaining why females may tend to appear more aggressive on an online platform [18].

Table 3: displays the passive-aggressive traits of males and females in a series of five statements.

| Statement                                                                 | Agree | Neutral | Disagree |
|---------------------------------------------------------------------------|-------|---------|----------|
|                                                                           | Male  | Female  | Male     | Female  | Male  | Female |
| I would rather keep my anger to myself than confront a person about an issue. | 30.19 | 31.92   | 22.64    | 21.28   | 47.17 | 46.80 |
| I use a lot of sarcasm.                                                   | 20.75 | 14.89   | 15.10    | 29.79   | 64.15 | 55.32 |
| I use pleasant words when I intend to offend people.                     | 52.83 | 36.17   | 18.87    | 27.66   | 28.30 | 36.17 |
| I often feel alienated around people.                                    | 43.40 | 40.42   | 24.53    | 29.79   | 32.07 | 29.79 |
| I often use emoticons that do not correspond to my actual feelings (e.g. a smiley when I’m angry). | 56.60 | 46.81   | 18.87    | 19.15   | 24.53 | 34.04 |

Table 3: Passive-Aggressive Traits in Males and Females

Based on the tabulated information in Table 3, it was suggested that male traits are aggressiveness and assertiveness, as compared to females, whose traits are passiveness and passive-aggressiveness [19]. An analysis of the five statements used in the survey to evaluate passive-aggression showed that only in statement, ‘I keep my anger to myself rather than confront a person about an issue’, did females have a higher score than males. Females agreed that they keep their anger to themselves more than males do. This finding is supported by a findings from [20], which indicates that aggressiveness is expected of a male if he is not to be viewed negatively. Thus, we can conclude that while females are gentler and more submissive in conversation, males are more assertive and aggressive and will get involved in a confrontational head-on. In the fourth statement, ‘I often feel alienated around people’, males scored higher by 2.98%. This result is supported by findings from [3], which stated that females expend more effort into social circles as compared to males.

Table 4 shows passive traits for both males and females as reflected in the survey. According to [17] a passive communicator is someone who cannot speak confidently and often hesitates when confronted. Females, stereotypically, are considered to possess this trait because they are generally regarded as politer and tentative [3].
Table 4: Passive Traits in Males and Females

| Statement                                                                 | Agree | Neutral | Disagree |
|---------------------------------------------------------------------------|-------|---------|----------|
| I always fail to speak confidently and assertively for myself.            | 15.0  | 25.5    | 40.43    |
| I tend to allow others to infringe on my rights.                          | 13.2  | 4.26    | 65.96    |
| People find it difficult to understand me.                                | 20.7  | 8.51    | 48.94    |
| I am afraid to express my opinions and feelings.                          | 30.1  | 14.8    | 55.32    |
| I often feel anxious when communicating.                                  | 20.7  | 31.9    | 44.68    |

As depicted in Table 4, in statement 1, which deals with lack of confidence during communication, it is observed that more females agree with this passive trait than males. This corresponds with a study done by Merchant in [3] that examined the differences between males’ and females’ communication style. Majority of the males agreed with the remaining three statements. The second statement, ‘I tend to allow others to infringe on my rights’, reveals that more males concede as compared to females. This contradicts the findings in [3] that concluded the males employ words to enforce social dominance. Males mostly agree with the statement ‘People find it difficult to understand me’, with a percentage disparity of approximately 12% as compared to females. This is easily explained because females are better at expressing their emotions and feelings as compared to males, who employ more fragmented phrasing to express themselves [11]. For the fourth statement, which evaluates a participant’s degree of comfort in expressing his or her opinions and feelings, from females disagreed than males, unlike other studies, which have found males to be braver at asserting their opinions [13]. The final statement, ‘I feel anxious when communicating’, received a significant amount of disagreement from both males and females, at a mean of 44.98% and a standard deviation of 0.42. This indicates that most males and females do not have communication anxiety in CMC, and it aligns with the statement in [11], confirming that people create a vaguer online identity and are therefore generally more confident when communicating online.

Table 5 shows assertive traits in both genders. The findings yielded shows that assertiveness exists in both genders.

Table 5: Assertive Traits in Males and Females

| Statement                                                                 | Agree | Neutral | Disagree |
|---------------------------------------------------------------------------|-------|---------|----------|
| I always fail to speak confidently and assertively for myself.            | 15.0  | 25.5    | 40.43    |
| I tend to allow others to infringe on my rights.                          | 13.2  | 4.26    | 65.96    |
| People find it difficult to understand me.                                | 20.7  | 8.51    | 48.94    |
| I am afraid to express my opinions and feelings.                          | 30.1  | 14.8    | 55.32    |
| I often feel anxious when communicating.                                  | 20.7  | 31.9    | 44.68    |
Stereotypically, males possess assertive traits. However, the study results depicted in Table 5 have found that both genders have a relatively close percentage in terms of their assertive traits. Females were observed to assert their views by being passive-aggressive. In other words, females use sarcasm or words that express a different meaning in a certain context [21]. Furthermore, it was found that females are more inclined towards maintaining and developing interpersonal relationships. Females also actively use the first-person singular pronoun ‘I’, which indicates a more personal approach [14]. Assertive traits deal with clear expression and state one’s needs respectfully. However, the survey results contradicted these findings because only 21.3% of females agreed about their use of ‘I’ statements, in contrast to 45.3% of males who agreed. Therefore, this may contribute to their displaying assertiveness on social media, which may not be the case in real life. However, males tend to offer a direct solution to a problem at hand [3]. Males are observed to be more confident than females. The reason for this may be that males tend to utilise words that involve status and power [13]. Results have shown that a high percentage of females, at 19.1%, as opposed to 9.43% males, do not feel confident when communicating with other people. Moreover, 66% of males, in comparison to 48.9% of females, agree that they feel confident about who they are as a person. This suggests that a smaller number of females feel confident, which corresponds to the stereotype that females have lower self-esteem than males [22].

Figure 1 shows the overall analysis of frequency of each participant’s tweets over the span of one week. Each tweet was categorised pertaining to a particular communicative style, or in some circumstances, was undefined. Where tweets are discounted as undefined, inadequate information is available on the context and relevancy of the tweet. Within one week, an observation was performed on six different Twitter accounts of three male and three female participants. All participants are students at Sunway University, age ranging from 15 to 25 years. Participants are identified by pseudonyms for their confidentiality.
Fig. 1: Analysis of Tweets

With 54 tweets in one week, Participant A, a female, appears more assertive and, at times, aggressive. Most of her tweets were characterised by long statements with elaborate sentences. In some circumstances, she also showed passive-aggressive traits, as seen in the tweet ‘when you have less than 3 weeks to finish your research paper (: and i havent started one bit :)’.

The observation of the 24 tweets by Participant B, a female, revealed that they were made quite frequently in terms of the number of tweets posted within one week. Her tweets were direct and honest, which can be observed from a tweet, ‘I slapped myself because a mosquito landed on my face. I didn’t get the mosquito ...’ as well as ‘why tf do college assignments require so much unnecessary filming ... why can’t I stand infront of class & share what I learnt instead!?’. Among the four categories, 15 of Participant B’s tweets were considered assertive, and she comes across as someone who knows what she wants without sounding aggressive about it. Participant C, also a female, showed more passive traits. Though she only posted 8 tweets, her statements were very hesitant but straightforward. Her passive traits can be derived from the tweet ‘My attention span is so short’. Participant D, a male, tweeted more than 40 times in a week. He can be considered more assertive, passive and straightforward in conveying his messages. Passive traits can be derived from two continuous tweets stating ‘Someone’s watching’ and ‘I’m feeling insecure’. Though he appeared aggressive at times, he posted blunter, directive and short statements, with the longest of his tweets having an average of seven words.

The observations made about Participant E’s tweets involve language corresponding to assertive communication, including various ‘I’ statements and an expressive but respectful voicing of opinions. The majority of his tweets, that is, 10 out of 19, were categorised as assertive as a confident opinion was provided through a respectful stance. His tweets also indicated some sarcastic traits that can be linked to passive-aggression, which was the next highest ranking category for his tweets in terms of communicative style. Participant F’s communication style is defined as passive-aggressive as he subtly shows aggression in multiple instances through the use of insults and critical language. Twelve out of his 32 tweets are categorised as passive-aggressive due to the frequent use of sarcasm and metaphor, which contributes to the aspect of passive-aggression and indicates that his tweets have an underlying meaning.

Both genders are interactive, males show more signs of aggression when communicating with other users than females. However, females display aggressiveness as passive-aggressiveness, such as in the form of sarcasm. The highest number of aggressive tweets came from a male participant, as shown in his six aggressive tweets out of 32. However, from our qualitative analysis, it was discovered that more females are passive-aggressive. Research has shown that females use an indirect style that involves succinct language and a rather apologetic tone similar to [23]. In this study, the highest number of
passive-aggressive tweets from a female participant was 15 out of 20 (75%); however, a male participant had 12 out of 27 (44%) passive aggressive tweets. Based on the qualitative analysis, one of the Twitter participants from the observation showed a stereotypical female trait. Although females are commonly thought of as demonstrating passivity, one of the male participants used a rather apologetic tone in a tweet. Five out of eight of female, Participant C’s tweets were passive. However, the highest number of tweets out of the male participants had nine passive tweets. Both genders show assertive traits that support their confidence and social status. Stereotypically, males often use direct statements that express competition or logic or words that suggest higher status [10].

5. Conclusions

The quantitative result from the deployed survey indicated that a higher percentage of the communicative styles is dominated by males rather than females. This suggests that males employ all four types of communicative styles – a communicative style framework developed in [17]. The qualitative result from the Twitter observations demonstrate that both genders possess passive-aggressive as well as assertive traits. Only one in three females conformed to the female stereotype, whereas two out of three males conformed to the male stereotype. Thus, from both quantitative and qualitative results, it is postulated that gender stereotypes to a degree, matched the communicative styles and revealed a correlation though certain discrepancies in results can be found as well because passive-aggressiveness and assertiveness are strongly observed in both genders. This may be attributed to the differences in age, culture and online identity management.

References

[1] Schwartz H.A., Eichstaedt J.C., Kern M.L., Dzurzynski L., Ramones S.M., Agrawal M., Shah A., Kosinski M., Stillwell D., Seligman M.E.P., & Ungar L.H. (2013). Personality, gender, and age in the language of social media: The open-vocabulary approach. PLOS ONE 8(9).
[2] Hall, J.A., Gunnery, S.D. and Horgan, T.G., 2016. 15 Gender differences in interpersonal accuracy. The social psychology of perceiving others accurately, p.309.
[3] Merchant, K., ‘How Men and Women Differ: Gender Differences in Communication Styles, Influence Tactics, and Leadership Styles’ (2012). CMC Senior Theses. Paper 513.
[4] James, T., & Cinelli, B. (2003). Exploring gender-based communication styles. The Journal of school health, 73(1), 41.
[5] Back, M.D. and Nestler, S., 2016. Accuracy of judging personality. The social psychology of perceiving others accurately, pp.98-124.
[6] Kosinski, M., Matz, S.C., Gosling, S.D., Popov, V. and Stillwell, D., (2015). Facebook as a research tool for the social sciences: Opportunities, challenges, ethical considerations, and practical guidelines. American Psychologist, 70(6), p.543.
[7] Oberst, U., Chamarro, A., & Renau, V. (2016). Gender stereotypes 2.0: Self-representations of adolescents on facebook. Comunicar: Media Education Research Journal, 24(48), 81-90.
[8] Martey, R. M., Stromer-Galley, J., Banks, J., Wu, J., & Consalvo, M. (2014). The strategic female: gender-switching and player behavior in online games. Information, Communication & Society, 17(3), 286-300.
[9] Fivush, R. (2014). Gender and voice in emotional reminiscing. In Children and Emotion (Vol. 26, pp. 81-94). Karger Publishers.
[10] Mohindra, P. (2012). Gender communication: a comparative analysis of communicational approaches of men and women at workplaces. IOSR Journal of Humanities and Social Science, 2(1), 18-27.

[11] Adler, R. B., Rosenfeld, L. B., & Proctor, R. F. (2013). Interplay: The process of interpersonal communication. New York: Oxford University Press.

[12] Goman, C. K. (2016). Gender differences in communication is your communication style dictated by your gender. Personal Excel Essent, 21, 7-8.

[13] Mueller, W., Silva, T.H., Almeida, J.M. and Loureiro, A.A., 2017. Gender matters! Analyzing global cultural gender preferences for venues using social sensing. EPJ Data Science, 6(1), p.5.

[14] Iosub, D., Laniado, D., Castillo, C., Fuster Morell, M., & Kaltenbrunner, A. (2014) Emotions under Discussion: Gender, Status and Communication in Online Collaboration. PLoS ONE 9(8).

[15] Haferkamp, N., Eimler, S. C., Papadakis, A. M., & Kruck, J. V. (2012). Men are from Mars, women are from Venus? Examining gender differences in self-presentation on social networking sites. Cyberpsychology, Behavior, and Social Networking, 15(2), 91-98.

[16] Frunzaru, V. & Garbasevski, D. (2016). Students’ online identity management. Journal of Media Research, 9(1 (24), 3-13.

[17] Bourne, E. J. (2011). The anxiety and phobia workbook. New Harbinger Publications.

[18] Shafie, L., Nayan, S., & Osman, N. (2012). Constructing identity through facebook profiles: Online identity and visual impression management of university students in Malaysia. Procedia -Social and Behavioral Sciences, 65, 134-140.

[19] Attila, F.L., 2018. Impact of beck’s cognitive behavioural therapy on prevalence of depression among infertile women in Cape Coast, Ghana (Doctoral dissertation, University of Cape Coast).

[20] Dervishi, E. and Ibrahim, S., (2018). Agressivity in adolescence and its connection to attachment. International journal of school and cognitive psychology, 5(1), pp.1-4.

[21] Amelink, C. T., & Creamer, E. G. (2010). Gender differences in elements of the undergraduate experience that influence satisfaction with the engineering major and the intent to pursue engineering as a career. Journal of Engineering Education, 99(1), 81-92.

[22] Gupta, S., Kuchhal, D., Gupta, P., Ahamad, M., Gupta, M. and Kumaraguru, P., (2018). Under the Shadow of Sunshine: Characterizing Spam Campaigns Abusing Phone Numbers Across Online Social Networks. arXiv preprint arXiv:1804.00451.

[23] Benenson, J.F., Durosky, A., Nguyen, J., Crawford, A., Gauthier, E. and Dubé, É., (2018). Gender Differences in Egalitarian Behavior and Attitudes in Early Childhood. Developmental science, p.e12750.

[24] Mv Ngo Tien HoA,High Speed And Reliable Double Edge Triggered D- Flip-Flop For Memory Applications”,Journal of VLSI Circuits And Systems, 1 (01), 13-17,2019

[25] Pb Agus Ristono*,"Design Of Reliable And Efficient Manchester Carry Chain Adder Based 8-Bit Alu For High Speed Applications”,Journal Of VLSI Circuits And Systems, 1 (01), 1-4,2019