

Gender Differences in Adolescents' Enthusiasm towards Opinion-expression in Cyberspace and the Real World

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Abstract: Expressiveness has been a popular area of research for gender studies. While females are stereotyped as being more emotionally expressive than men, men appear to be expressive when it comes to stating one's opinions regarding important or controversial events. Given the widespread use of social media platforms, people now have more opportunities to learn about and discuss a variety of topics. To investigate gender differences in expressing thoughts in cyberspace and the real world, we analyzed questionnaire data from 82 adolescent participants and discovered that both genders prefer expressing their views in the real world rather than online, and there is no significant gender difference in one's tendency to voice their viewpoints based on self-report, although females are believed to be more enthusiastic towards expressing opinions based on participant's evaluation of their friends' behavior.

Keywords: expressiveness, gender, adolescent, social media

*The word “expressiveness” in this paper refers to the tendency for people to express their opinions.

1. Introduction

Many sociologists and psychologists have investigated gender disparities in expressiveness. Females are frequently thought to be more expressive than males, particularly when it comes to expressing sentimental feelings. This is because expressiveness is typically associated with the feminine stereotype [1]. Similar differences still occurred when males and females were asked to self-report their expressive traits. However, in other situations where being expressive means voicing one's opinions, women are often hesitant to do so while men mainly guide the entire discussion. With the spread of social networks, new platforms for discussion, debate, and viewpoint expression have emerged. While some people feel more comfortable expressing their opinions in anonymous online settings, others might prefer more face-to-face interaction because they place a higher value on having close, personal ties with friends and family in the real world. To find the influence of the internet on expressiveness, a limited number of studies have been done to

determine the relationship between online expressiveness and personality, gender differences in online self-disclosure, and gender differences in online political engagement.

1.1. Personality and Self-expression

In previous studies of people's online behavior, Turkle featured the internet as a laboratory for identity exploration [2]. In contrast to the "actual" self that we usually present in face-to-face interactions, the "true self" is defined by Bargh, McKenna, and Fitzsimons as "those identities important and authentic aspects of self not often or easily expressed to others," present mainly in online interactions [3-4]. The internet facilitates self-expression of one's true self as it offers the ability to remain anonymous to dyadic or group interaction partners and provides the opportunity to locate interaction partners who share aspects of one's true self. Furthermore, personality may influence this effect's strength [3]. People with low extraversion and high degrees of neuroticism prefer to express their true selves online rather than in face-to-face conversations. This finding is supported by a small study by Amichai-Hamburger, Wainapel, and Fox in 2002. The current investigation results revealed that Extraversion's influence on Shyness accounts for practically all of its functions [5]. Effectively, introverts are shyer in social settings; because of this, they feel more at ease sharing their true selves online than in person. Furthermore, Tosun and Lajunen (2010) discovered that the characteristics of neuroticism and psychoticism were positively related to expressing one's authentic self-online [6]. However, present research on the correlation between personality and preference for self-expression online as opposed to offline is relatively scarce and only covers a limited number of personality traits.

1.2. Gender Differences in Online Self-disclosure

Social networking sites' widespread use has made it simple for individuals to present themselves in a setting without worrying about receiving unfavorable comments from others in person [7]. Individuals can browse and construct highly individualized virtual selves on social media platforms such as Facebook and Instagram[8-10]. Gender has been studied as a possible factor impacting self-disclosure on social network sites. The results show that women are more likely than males to self-disclose a broader range of issues on their social network profiles [11-14]. Females utilize social networking sites to divulge information about their relationship with others (i.e., family, friends) and circumstances in which relationships are the primary focus (e.g., holidays). Contrarily, men share entertainment-related information on social networking sites, such as sports [15]. Gender differences in online self-disclosure may develop because of how men and women are socialized differently. Males are socialized to be more closed, less expressive, and unemotional, whereas females are socialized to be open, empathic, and revealing [16].

1.3. Gender Difference in Engagement in Online Political Discussions

Politics have always been a male-dominated area where female figures are discriminated against and trivialized. Even talented females like Madeleine Albright, the first female secretary of state, find themselves tongue-tied in meeting with other male participants [17]. But now, the emergence of social networks has provided more entries for women to learn, discuss and comment on politics. Many believe that the Internet could help to address offline discursive disparities [18]. However, studies of the gender gap in online participant rates in political issues suggest that women are less likely than men to comment online on state, national, or international topics. In contrast, men engage less than women in discussions about local news [18]. Despite hopes that online spaces will assist in equalizing demographics among those who participate, the gendering of online political discussion is occurring in ways that mimic what occurs offline [19, 20]. Additionally, women's

predisposition to avoid conflict and people's socialization into a political atmosphere dominated by men have both been linked to the gender difference in online political conversation [21-24].

Previous studies have mainly concentrated on gender differences in online self-disclosure, participation in political event comment sections, and the relationship between personality and expressional differences in real life and social networks. However, there don't appear to be many studies comparing gender disparities with online and offline expressiveness differences. Therefore, we conducted a study to examine the variations in expressiveness between male and female adolescent participants during online and offline discussions about social events and the potential variables causing the discrepancies. To investigate, we produced a questionnaire and received 82 answers for analysis. According to the result, both teenage girl and boys are more expressive offline, and girls are perceived to be more expressive than boy both online and offline.

2. Methodology

2.1. Sample

The total sample consisted of 82 Chinese teenagers aged between 11-19 years old. Males made up 30.5% (n=25) of the sample, while females accounted for 69.5% (n=57) of the sample. The majority of the participants identified as high school students, 51.2% (n=42) aged 17-19 and 42.7% (n=35) aged 14-16, while primary school students aged 11-13 made up 6.1% (n=5) of the sample.

2.2. Procedure

The study was conducted with an online questionnaire, publicized on a professional data-collection platform, Sojump, and answers were collected via social media. The study informed participants of the main theme at the beginning of the questionnaire and promised anonymity.

In the questionnaire, participants were asked to answer a total of 19 questions in the following aspects: a) self-evaluation on personality, concern on controversial social events, and enthusiasm to express opinions, b) self-report on their frequency and occasions of expressing opinions, and reasons for their preferences, c) estimation on males' and females' enthusiasm to express opinions in cyberspace and the real world.

2.3. Measures

2.3.1. Online and Offline Expressiveness

In expressiveness online and offline expressiveness, participants were asked to choose whether they prefer to discuss controversial social events in cyberspace or in real life. Also, they were asked to indicate their frequency of expressing opinions online and offline respectively on a 4-point scale (1 for "never", 2 for "seldom", 3 for "sometimes", 4 for "often"), and select choices best describing their misgivings about expressing opinions online or offline respectively.

2.3.2. Gender Differences Regarding Expressiveness

In demographics, participants were asked to identify their gender, and males' and females' self-description on the frequency of expressing opinions were compared using Chi-Square Test to examine whether there's a relationship between gender and expressiveness. Also, participants were asked to estimate 5 male friends' and 5 female friends' average tendency towards opinion-expression in both cyberspace and the real world respectively. Participants answered on a 5-point Likert-type scale ranging from 1 (no participation at all) to 5 (extremely active). The answers were

analyzed with Paired T-Test to find out whether males or females are generally perceived to be more expressive.

2.4. Other Factors Related

To explore other factors related to expressiveness, in demographics, participants were asked to identify their age and evaluate their introversion-extroversion personality on a 5-point Likert-type scale ranging from 1 (extremely introvert) to 5 (extremely extrovert). Whether there's a relationship between a) age and expressiveness and b) personality and expressiveness are examined with Chi-Square Test. Also, participants were asked to select choices describing that they prefer to express opinions on what occasions and discuss with whom.

3. Results

3.1. Online and Offline Opinion-expression

The survey revealed that the majority of Chinese teenagers prefer to express opinions in real life than in cyberspace; this conclusion applied to both genders, though the inclination is more significant for males, as shown in Table1.

Table 1: Self-Reported Preference in Online & Offline Expression.

	Male	Female	Total
Real life	72.0% (n=18)	52.6% (n=30)	58.5% (n=48)
Cyberspace	28.0% (n=7)	47.4% (n=27)	41.5% (n=34)

To validate this finding, participants' descriptions on the frequency of expressing opinions online and offline were also compared, and Paired T-Test was run to test this hypothesis.

Participants evaluated how often they express ideas online and offline respectively on a 4-point scale (1 for "never", 2 for "seldom", 3 for "sometimes", 4 for "often"). H1 proposed that people would express opinions more often in the real world than in cyberspace. As shown in Table2, the frequency of expression in real life (2.841 ± 0.761) was significantly higher than that on the Internet (2.317 ± 1.053), $p < .01$. H1 was supported. The test result was consistent with the self-reported preference.

Table 2: T-Test Suggesting Significant Difference between Online & Offline Expression Frequency.

Mean±Standard deviation			T-value	degree of freedom	P-value	Cohen's d
cyberspace	real world	D-value				
2.317±1.053	2.841±0.761	-0.524±0.291	-4.651	81	0.000	0.514

3.2. Gender Differences Regarding Expression

The relationship between gender and frequency of expressing opinions online and offline was examined with Chi-Square Test respectively. As shown in Table3, tests suggested that both p-

values>.05, thus no correlation was found, indicating that there's no significant gender difference

Table 3: Chi-Square Tests Suggesting No Significant Gender Difference in Expression Frequency.

		Male	Female	Total	X ²	X ² Correction	P
Frequency of opinion-expression in cyberspace	never	8	16	24	0.296	0.296	0.961
	seldom	6	14	20			
	sometimes	7	19	26			
	often	4	8	12			
Frequency of opinion-expression in real world	never	3	1	4	5.865	5.865	0.118
	seldom	3	16	19			
	sometimes	14	31	45			
	often	5	9	14			

regarding enthusiasm of expressing opinions.

However, when estimating their male friends' and female friends' participation in discussion over social issues, participants generally perceived women as more enthusiastic to express opinions, especially in cyberspace. Participants were asked to estimate on a 5-point Likert-type scale ranging from 1 (no participation at all) to 5 (extremely active).

As shown in Table4, in the test of cyberspace expression, H1 proposed that women were perceived to be more active in expressing opinions than males in cyberspace. The estimated degree of participation for women (3.598±1.004) was significantly higher than that for men (3.22±1.019), $p<.05$. H1 was supported. In the test of the real-world expression, the sample mean for women (3.317±1.099) was also higher than that for men (3.098±1.038), but with $p>.05$, the difference between sample means couldn't draw an inference to the population.

Table 4: T-Tests Comparing Perceived Gender Difference in Expression Frequency.

	Mean±Standard deviation			T-value	degree of freedom	P-value	Cohen's d
	Male	Female	D-value				
Cyber space	3.22±1.019	3.598±1.004	-0.378±0.014	-2.354	81	0.021	0.26
Real world	3.098±1.038	3.317±1.099	-0.22±0.061	-1.405	81	0.164	0.155

3.3. Other Factors Related

Whether there's a relationship between a) age and expressiveness b) personality and expressiveness is examined with Chi-Square Test.

- In the test of age, $p>.05$, suggesting there's no correlation between age and expressiveness.
- In the tests of introvert-extrovert personality and frequency of expression online and offline respectively, as shown in Table5, both p -values<.10, suggesting people who define themselves as extrovert are generally more enthusiastic to express opinions both online and offline.

Whether there's a relationship between gender and introvert-extrovert was also examined with Chi-Square Test, as shown in Table6, $p>.05$, indicating that there's no significant gender difference regarding inclination of introversion or extroversion, thus the finding that there's no significant gender difference regarding expressiveness was supported.

Table 5: Chi-Square Test Suggesting Correlation between Expression Frequency & Introvert-Extrovert Personality.

		1	2	3	4	5	Total	X ²	X ² Correction	P
Frequency of opinion-expression in cyberspace	never	4	8	8	3	1	24	18.941	18.941	0.090
	seldom	5	4	2	7	2	20			
	sometimes	1	4	7	8	6	26			
	often	0	2	3	3	4	12			
Frequency of opinion-expression in real world	never	0	1	2	1	0	4	22.049	22.049	0.037
	seldom	5	4	5	4	1	19			
	sometimes	5	12	11	12	5	45			
	often	0	1	2	4	7	14			

1 for “Introvert”, 5 for “Extrovert”.

Table 6: Chi-Square Test Suggesting No Significant Gender Difference in Introvert-Extrovert Personality.

	Male	Female	Total	X ²	X ² Correction	P
1	3	7	10	7.720	7.720	0.102
2	1	17	18			
3	8	12	20			
4	7	14	21			
5	6	7	21			

1 for “Introvert”, 5 for “Extrovert”.

3.4. Psychological Gender Differences Reflected

In selecting choices best describing their misgivings about expressing opinions online or offline respectively, male, and female participants held significantly different concerns.

As shown in Table7, in the case of cyberspace, men concerned most for “expressing online is easily tracked down” (48% of men select this option), while the primary reason of women for not expressing online was that they “prefer to discuss social events with familiar people” (61% of women select this option). In the case of real life, the primary reason given by both men and women was that they don’t want to “oppose others or cause conflict”, but women also showed great concern for “people holding views different from majority may be judged and reproached” (44% of women select this option), while fewer men worried about it (24% of men select this option).

Table 7: Top 2 Reasons for Not Expressing Online & Offline for Males & Females.

	Male	Female
Top 2 reasons for not expressing in cyberspace	expressing online is easily tracked down (48%)	prefer to discuss with familiar people (61%)
	prefer to discuss with familiar people (44%)	expressing online is easily tracked down (47%)
Top 2 reasons for not expressing in real world	avoid conflicts (60%)	avoid conflicts (58%)
	people holding views different from majority may be judged and reproached (24%)	people holding views different from majority may be judged and reproached (44%)

4. Discussion

Our study has investigated gender differences among Chinese adolescents regarding online and real-world expressiveness about controversial social events and the potential factors causing the differences. According to participants' self-evaluation, both genders are more expressive in real life than in cyberspace. All the selected 82 participants are Chinese adolescents who may be heavily influenced by collectivism, a culture that emphasizes group goals more than personal interests. According to a previous study, "collectivists will disregard information and knowledge sent using media that are less rich because there are not enough cues to completely analyze the communication." Therefore, our participants may prefer face-to-face communication when expressing their views instead of the cyber world because they think it is more efficient [25, 26].

In terms of personality and opinion expression, our result suggests that participants who perceive themselves as extroverts are generally more enthusiastic to express opinions in cyberspace and the real world. However, a previous study found that people with low extraversion and high neuroticism are more prone to express themselves on the Internet [5]. This contrast may occur because our questionnaire only contains one question asking about introversion-extroversion, thus the limited question decreases the validity of our result.

Furthermore, gender differences occur regarding reasons for not expressing opinions online. While men are concerned about being easily tracked down for what they said, women have a stronger preference for discussing social events with familiar people instead of strangers online. A research done by Chen, indicates that controversial events are more likely to be discussed when social acceptance is less threatened because the conversation partner knows the speaker [27]. Therefore, for women, they may feel more comfortable expressing their views with friends or other close people. However, when it comes to not being expressive in reality, both genders are worried about opposing others' ideas or causing conflicts. At the same time, women are more concerned about being judged and reproached for holding different views from the majority. Although women in China have gained much autonomy due to changes in politics and education since the 1950s, they are still facing many insecurities in social life [28]. As a result, some women may be unwilling to participate in discussions about controversial social events in reality.

Lastly, despite participants' self-evaluation revealing that there is no significant gender difference regarding enthusiasm for expressing opinions, participants' estimation of others demonstrate how women are perceived to be more enthusiastic to express opinions, especially in cyberspace, which is in accordance with existing stereotypes.

Despite all our efforts to improve it, the study has some limitations. Firstly, in our questionnaire used for the research, most questions require self-estimation based on subjective judgment. For example, considering that participants may not be aware of the exact number of times per week they express opinions about social events, we give choices of frequency adverbs to help participants evaluate how often they express them. Still, given that participants may hold different standards for the adverbs of frequency, their subjective descriptions may generate inaccurate results. Secondly, most of our accessible participants are from developed cities (Shenzhen, Shanghai, Nanjing) in China, sharing similar educational backgrounds and experiences. Thus the findings of our study can hardly apply to the whole population we intended to cover. A more randomly-selected sample will be required to produce more generalized and population-representative results. Thirdly, in discussing other related factors, we only consider one aspect of personality (introvert-extrovert). According to the previous study [5], people with low extraversion and high neuroticism may be more willing to express themselves on the Internet, which is more comprehensive than our results regarding the relationship between expression and personality.

5. Conclusion

In conclusion, our findings suggest that men and women are more willing to share opinions on social issues in real life than in cyberspace. Based on the self-reported frequency of participating in a discussion, the degree of enthusiasm to express opinions is not closely associated with gender, indicating that our previous assumption of viewing women as the “silent gender” may not be valid. Furthermore, people tend to perceive women as more active in discussion, again refuting the assumption. However, women’s general concern of “being judged and reproached” reflects their psychological insecurity and vulnerability, possibly due to societal pressure from stereotypes against women, suggesting more efforts need to be made to achieve gender equality.

Based on our findings, women are no longer the silent gender [17]. Instead, women are perceived to be more active in expressing opinions over social events. Modern education encouraging gender equality has played an essential role in releasing women from the bondage of traditional Chinese culture in which ignorance is a virtue for women.

Holding a global vision, we are impressed to see more women entering the political area, which used to be dominated by men [22-24]. In western countries, many women have achieved influential positions on the international stage, such as Angela Merkel, the former Chancellor of Germany, Ursula von der Leyen, the President of the European Commission; Sanna Marin, the Prime Minister of Finland, suggesting that women’s voices are gradually becoming heard and respected.

This education and political atmosphere that weaken prejudice and inequality should be further promoted. However, our finding that women concern more about “being judged and reproached for holding opinions different from the majority” than men do suggests that women are still under more societal pressure from traditional culture and stereotypes, thus more vulnerable and sensitive. To further eliminate women’s psychological insecurity and promote gender equality, education should focus more on encouraging women to strive for self-reliance and gain confidence in one’s competence.

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