

Naturalistic Observation: Social Appearance Anxiety among High School Students in China

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Abstract: *The purposes of this study are to measure the scale of social appearance anxiety in the RDFZ Xishan AP Program and find the characters of susceptible students. We counted the number of people who looked into the mirror inside the school building elevator and took notes on their characters. The prediction was that social appearance anxiety would be substantial in the given population, and females would take up a more significant percentage of susceptible students. The hypotheses proved valid: an average of 18.6% of participants looked in the mirror, and 75% were female. In addition, the following data analysis results illustrate characters of students susceptible to appearance anxiety: S2 (junior year) students took up the most significant proportion of participants who looked in the mirror, and the most common colors of clothing were black and white. Based on these results, we suggest that the school should focus on the social appearance anxiety among susceptible students and supports their mental development.*

Keywords: *Social Appearance Anxiety, Mirror-looking behavior, Naturalistic observation*

1. Introduction

Almost everyone looks in the mirror, whether to observe their own physical changes or manage their impressions for socializing. Nevertheless, the behavior of looking in the mirror could also frequently reflect facial anxiety. According to Jiang Wenxiu, who has worked at the Department of Psychiatry at Zhongda Hospital, Southeast University in Nanjing, appearance anxiety usually applies to people who are not confident enough about their appearance in a social situation that magnifies their appearance; the characteristics of facial anxiety are especially apparent among the young under 30 years old^[1]. A group of scholars from Griffith University and Menzies Health Institute of Queensland further explored the problem of facial anxiety among adolescents. Their case studies participated by 387 adolescents (44% boys) aged from 10 to 13 revealed, “Girls had more elevated appearance anxiety symptoms and lower appearance esteem than boys.” On top of that, earlier physical maturation and ridicule of appearance from others could contribute to increased symptoms of appearance anxiety in girls and boys^[2].

Another study, mainly focusing on unveiling the difference in appearance anxiety between girls and boys, showed that 8 out of 10 girls are dissatisfied with their images in the mirror, and about half of them see a distorted image of their bodies. Dissatisfaction starts in early childhood — very young girls with average weight are concerned that they are fat and unattractive — and remains through adulthood. On the other hand, most boys feel either pleased or do not care about their images in the mirror. Puberty and mid-life crisis might bring a short phase of concern in appearance, but it does not last long^[3].

In order to figure out and study other potential pathogenic factors, researchers continued to conduct series of research. A summary of research findings on body image published by Social Issues Research Centre (SIRC), a non-profit organization founded to investigate social and lifestyle issues, pointed out that nowadays, the media such as televisions, billboards, and magazines have made the mass public accustomed to the rigid and unified aesthetic standards by frequently exposing them to the people with exceptionally nice appearance^[3].

The general aesthetic standards of the public are becoming stricter, and while the pursuit of beauty still exists, perfection is unreachable. Hence, more people are anxious about their looks.

In fact, social appearance anxiety is a topic worth discussing because it can be detrimental to both physical and mental health. Multiple studies have shown that appearance anxiety is often associated with other psychological disorders, including eating disorders, body dysmorphic disorder, etc. A scientific

report published on the official website of the national library of medicine, appearance anxiety is a common risk factor between social anxiety and eating disorder symptoms; it is possible that treating negative appearance evaluation fears may alleviate both of these psychological disorders^[4].

Based on the aforementioned research reports, for high school students in the development stage both physically and mentally, appearance anxiety is harmful but relatively universal. This paper narrows the research scope to the students and teachers in the AP Program in RDFZ Xishan School, aiming to explore whether they have underlying trends toward or manifest symptoms of social appearance anxiety, as well as which kind of students would more likely possess a latent tendency or displaying symptoms by using naturalistic observation. The results of the research report would provide information and data basis for the school or other organizations to carry out further experiments and discuss approaches to relieve the problem of appearance anxiety. Take a step further, the study could also be used as a wake-up call for society to attach attention to the “novel” psychological diseases that are becoming more and more popular among young generations. The purposes of this study are to measure the scale of social appearance anxiety in the RDFZ Xishan AP Program and find the characters of susceptible students. We counted the number of people who looked into the mirror inside the school building elevator and took notes on their characters. The prediction was that social appearance anxiety would be substantial in the given population, and females would take up a more significant percentage of susceptible students. The hypotheses proved valid: an average of 18.6% of participants looked in the mirror, and 75% were female. In addition, the following data analysis results illustrate characters of students susceptible to appearance anxiety: S2 (junior year) students took up the most significant proportion of participants who looked in the mirror, and the most common colors of clothing were black and white. Based on these results, we suggest that the school should focus on the social appearance anxiety among susceptible students and supports their mental development.

2. Method

Overall, the research was a naturalistic observation. We performed it inside the only elevator that possesses a big mirror at RDFZ Xishan School in the main teaching building. The study was carried out after lunchtime at 12:30 - 12:45 [Beijing time] from May 25th to May 28th and from June 1st to June 3rd; due to the special school schedule for Mondays, the study was done at 12:50 - 13:05 [Beijing time] on May 24th and May 31st. We aimed to seek out the characteristics of RDFZ Xishan AP program students and teachers who looked into the mirror and the situations they were in. The estimated number of participants for each day's observation was 50. To operationally define “looking into the mirror,” it refers to staring at one's own reflection in the elevator mirror for about 3 seconds or more. We recorded behaviors and characteristics of students and teachers (including both foreign teachers and Chinese teachers) from the AP Program in RDFZ Xishan, who entered the elevator during the observation time.

During the research period, one researcher collected data on Notes on iPhone in the elevator while the other researcher was responsible for organizing the notes and information gained in Excel. The researcher in the elevator pretended to be busy texting to others on her phone to hide the note-taking behaviors in order to eliminate the confounding variable that researchers would influence them if we stared at the participants straightforwardly.

Note-taking is essential in naturalistic observation; a sample with our format is presented in Table 1. In our research, the information we recorded of our participants includes age, gender, the clothes they were wearing, appearance, the amount of time they looked into the mirror, and the number of people standing in the elevator. Since we recognized most students in the AP program and knew which grade they were in, we wrote: “S1,” “S2,” or “S3” down instead of exposing us that we were researching by asking them the exact age. For teachers, we did not include this part. We examined the gender (male or female) of the participants based on observation. For the section of clothes, we involved the type of attire (shirts, shorts, dress, skirt, etc.) and the colors and the total number of colors in the outfit. To predict whether the participants put much effort into primping, appearance, whether wearing glasses, clearly visible makeup, having dyed and, or permed hair or not, was also recorded. We measured the length of time participants looking at their reflections in the mirror by utilizing the timer on our phone. For the last part of our notes, we counted the total number of people in the elevator, including ourselves, the two researchers.

After collecting all data, we organized them in Excel. Then, we used WenjuanXing, a professional online platform that supports questionnaire survey design, to analyze statistics and generate graphs. We first inserted the Excel form into WenjuanXing. Aided by its intelligent “statistics and analysis” Excel

processing function, we successfully gained the visual interpretations of collected data.

Table 1 Notetaking Sample

Age	S2
Gender	Male
Clothes	Dark Blue Polo T-shirt, Grey shorts, White socks & Black Adidas sneakers
Appearance	No glasses, no makeup
Time	4s
Number of others present	6

3. Results

Based on observation and data analysis, we organized the following results: the number of participants who looked in the mirror, their characters (gender, grade, outfit, and makeup), the time length of mirror-looking, and the number of others present in the elevator.

Each day, the percentage of students looking in the mirror averaged 18.6%, ranging from 13% to 26%. The specific data for each day is shown in Table 2.

Table 2 Percentage of people looking into the mirror in the elevator every day

May 24 th	19%
May 25 th	26%
May 26 th	13%
May 27 th	15%
May 28 th	14%
May 31 st	20%
June 1 st	18%
June 2 nd	24%

The number of people who took the elevator every day varies, and the average number was 38. The number of people who looked in the mirror every day had an average of 7.

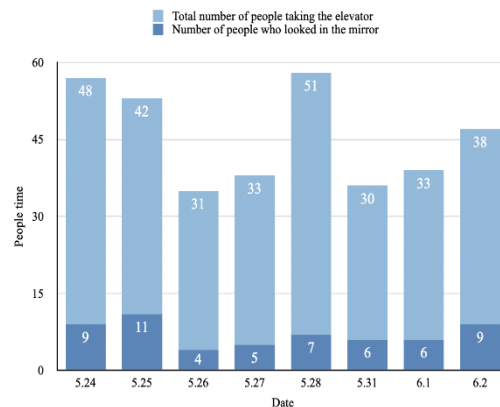


Figure 1: Number of People Who Took the Elevator and Number of People Who Looked in the Mirror

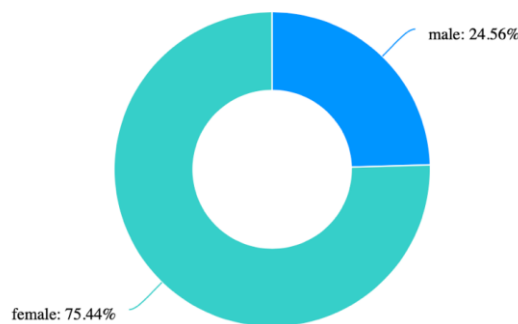


Figure 2: Percentages of Genders

Among the people who looked in the mirror, about 75% were female, while males only took up about 25%. Again, these results were based on observed physical sexes, due to the nature of our naturalistic observation study.

By recognizing which grades the participants were in, we approximated the age groups of participants and recorded the number of teachers. S1 students are about 16 years old, S2 students are about 17, and S3 students are about 18. We also noted that since S3 students had finished their college applications, not all of them attended school on a daily basis. In figure 3, “S” stands for senior high school; S1 is equivalent to sophomore, S2 is junior, and S3 is senior.

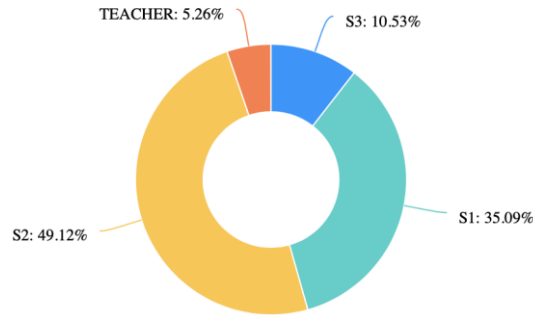


Figure 3: Percentages of Different Grades (Ages)

Through analyzing word frequencies in our notes for outfits, we found that some types and colors were significantly more than others. Regardless of gender, T-shirts and pants were the most common clothing. White and black appeared most frequently in colors of participants’ clothing, while bright colors (like pink, yellow, and orange) appeared much less. In the RDFZ Xishan School AP Program, students are required to wear uniforms on Mondays (which were May 24th and 31st in the research period), contributing 12 out of 24 “uniform” frequencies; however, some students wore their own clothes despite this rule. Some students choose to wear the uniform on other days of the week as well, though it is not a requirement. Detailed information is shown in Figure 4, in which all categories except “uniform” are the participants’ own clothes.

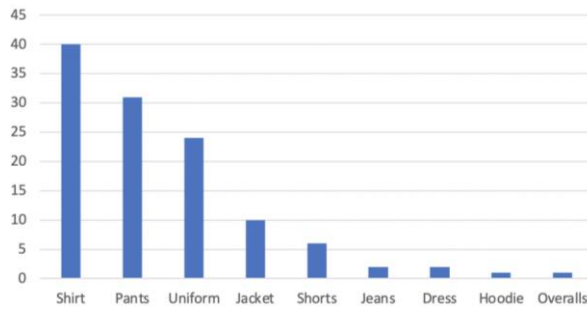


Figure 4: Frequencies of Types of Outfits

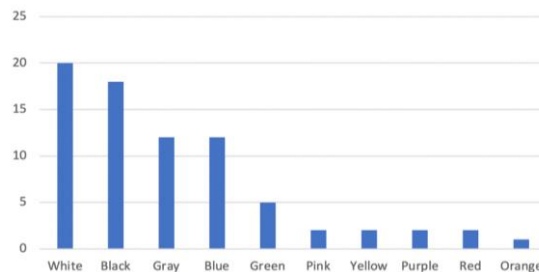


Figure 5: Frequencies of Colors in Outfits

Though wearing makeup is not strictly prohibited, the school discourages students to do so. However, about 20% of the participants who looked in the mirror wore makeup.

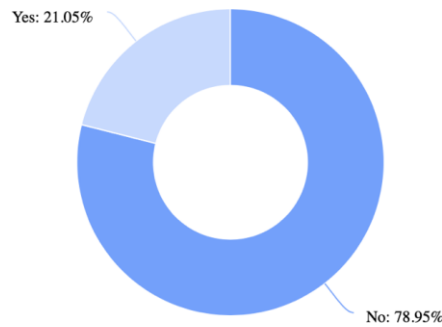


Figure 6: Percentage Wearing Makeup

Approximately 70% of mirror-looking cases are below 5 seconds in length, while only about 5% are 10 seconds or more. The mode of time lengths is 3 seconds, the mean is 4.9 seconds, and the median is 4 seconds.

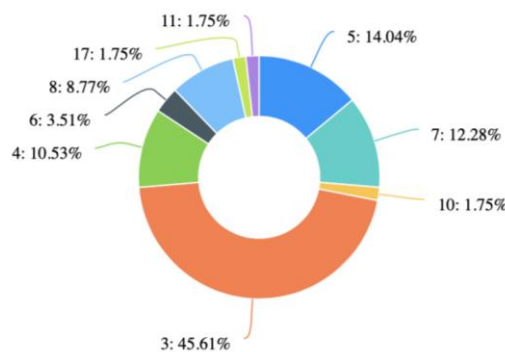


Figure 7: Percentages of Different Time Lengths

The number of others present in the elevator, defined as the number of people in the elevator the moment a participant looks in the mirror (including observers and excluding this participant), underwent correlational analysis with the time length data. The Pearson coefficient was not statistically significant.

Table 3: Pearson Correlation Results Between Others in the Elevator and Time

Pearson Correlation	Time
Others in the Elevator	0.152

4. Conclusions

Although merely looking in the elevator mirror does not suggest the presence of a mental disorder, we believe the present research can reflect the general social appearance anxiety phenomenon — samples that looked in the mirror before entering social situations display great attention to how others might perceive their appearances. Our study focuses on general behavioral patterns instead of individual characteristics.

According to a comparison between information in former research results and the data collected in this study, we found that the gender differences in appearance anxiety in the population are typical: three-quarters of the participants who looked in the mirror were female. However, as society has changed dramatically through the years, not only the female gender is surrounded by images of beautiful people and various aesthetic standards; the exposure to this information is gradually increasing for males as well. Boys are becoming more and more aware of their hairstyles, clothing choices, and other aspects of their appearance. The fact that boys chose the take the stairs more often while girls preferred the elevator may have influenced results; a possible improvement to our study is to observe participants' reactions to a mirror placed elsewhere (for example, the hallway).

Since the age difference within the AP program is not large enough to represent different development stages (childhood, puberty, adolescence, etc.), we cannot compare the results of our study to that of former researches. However, the portions for S1 and S2 students had a notable difference. We infer that

this was due to the S2 students being more mature and closer to adulthood, which leads to a transition from beauty standards of adolescents to that of adults and a manifestation of other anxieties related to role confusion, both increasing the possibility of appearance anxiety.

Outfit characteristics have a noticeable trend. Both girls and boys prefer T-shirts and pants over any other clothing type. Instead of wearing unique bright-colored clothes, the colors that participants showing appearance anxiety chose most were black and white. A possible explanation is that most appearance anxiety problems resulted in blending in rather than standing out. Since they are concerned that others might judge their appearances, they choose the safest combination of clothes to avoid too much attention. However, naturalistic observation cannot conclude cause and effect (due to the properties of this type of research). We suggest further studies to ask participants about their true feelings and thoughts through surveys or interviews.

Over 20% of participants who looked in the mirror wore makeup, which is a rather large proportion considering school rules. People with social appearance anxiety are likely to magnify flaws on their faces and put on makeup to adjust them. We observed that many of them examined their lips and eyebrows in the elevator mirror to make sure they looked good before heading on to social occasions.

Time lengths of mirror-looking were mainly brief due to intentions of the behavior. Most of the participants who looked in the mirror merely wanted to reassure themselves that their appearances were appealing: they ran a finger through their hair, tugged on their collars, or wiped off a bit of extra lip balm, then turned away from the mirror. There is no significant correlation between the number of others present in the elevator and the number of seconds the participant looks in the mirror, but this could be due to our observation periods only covering rush hours: it is reasonable to assume the individuals' behavior would be different if they were on their own. An observation through cameras during non-rush hours would be complementary to our study by providing data for the participants' behavior when they are alone.

In conclusion, our study fulfilled the purpose of showing the scales of social appearance anxiety problems and characteristics of people displaying related behaviors in the RDFZ Xishan AP program. Our results show that the issue is significant, and the features "female," "S2", and "wearing black and white clothes" are correlated with high susceptibility to social appearance anxiety. This research will provide evidence and data for the school to consider further experiments and support susceptible students. Possible methods of guidance and assistance include but are not limited to lectures on the transition to adulthood, activities for maintaining a positive self-image, courses about anxiety-coping strategies, and so on. We believe that students should develop a healthy, positive attitude toward appearance-related issues during their high school years.

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