

A Study on the Correlation Between Teenagers' Pop Music Preferences and Big Five Personality Traits

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Abstract:

This study takes senior three students from an international high school in China as the research objects. Combined with the Big Five Personality theory and related researches on music preferences, it uses the questionnaire survey method to explore the correlation between contemporary high school students' pop music preferences and their personality traits. A total of 200 questionnaires were distributed in this study, and 165 valid questionnaires were collected. All respondents are high school students on campus, which is highly consistent with the author's own experience. The study finds that there is a significant correlation between high school students' music preferences and personality traits: students who prefer K-pop and electronic music have higher extraversion scores; students who prefer Chinese style music, Chinese pop music and classical music have higher conscientiousness and agreeableness scores; students who prefer rap, rock and indie music have higher openness scores and lower emotional stability scores at the same time. In addition, factors such as streaming media algorithm recommendation, further study and exam pressure, and fan culture also have an impact on high school students' music choices and personality expression. This study explains the correlation between music and personality in easy-to-understand language for high school students, and provides a reference for peers to adjust exam emotions and understand themselves and others through music.

Keywords: High school students; Pop music preference; Big Five Personality; Emotion regulation

1. Introduction

For our generation of high school students, pop mu-

sic is almost an indispensable part of life. The melody in our headphones is always with us on the way to and from school, during the evening self-study when

we do exercises, and when we hang out with friends. According to the 2024 report of the International Federation of the Phonographic Industry (IFPI), young people aged 16-24 contribute more than 40% of the global streaming playback volume, and we high school students are the main force of music consumption[3].

As a senior three international student who is preparing for IELTS and applying for overseas universities, I found an interesting phenomenon very early: the songs my classmates listen to are different, and their personalities and ways of doing things are also obviously different. For example, the most active student in the class who is good at organizing activities has almost all K-pop in his playlist; while the students who get stable grades in every exam and do things reliably mostly like to listen to Chinese pop and Chinese style music.

I have read some psychology papers before, and found that scholars have studied the relationship between music preference and personality for a long time, but many professional terms in these papers are too complicated for us high school students to understand. So I wondered if I could do a study for us high school students with the real situation around us and simple language, to see what is the connection between our favorite songs and our personality.

In this study, I sent questionnaires to my classmates in the same grade, combined with the most classic Big Five Personality theory in psychology and the research results of previous scholars, and sorted out this paper. I did not use complex statistical tools or obscure professional vocabulary, but just wanted to make the real situation of us high school students clear.

2. Relevant Theoretical Basis

2.1 The Big Five Personality Theory

The Big Five Personality Theory is the most commonly used personality description framework in the field of psychology at present. It divides human personality into 5 core dimensions, and I will explain them clearly in words we can understand:

2.1.1 Openness

Simply put, it is the acceptance of new things. People with high openness like to try things they have never been in contact with, such as niche music and novel ideas, and do not like to be bound by rules; people with low openness prefer stable and familiar things, and do not like to change casually.

2.1.2 Extraversion

It is what we often call "social butterfly" or "socially anxious". People with high extraversion like to deal with people, gain happiness from social interaction, and are full of energy; people with low extraversion prefer to be alone, feel tired in crowded places, and are more used to doing things by themselves.

2.1.3 Agreeableness

It is about whether you are easy to get along with and whether you can empathize with others. People with high agreeableness have a gentle personality, will take care of other people's feelings, and do not like to quarrel with others; people with low agreeableness have more their own opinions, speak directly, and do not like to accommodate others.

2.1.4 Conscientiousness

It is about whether you are self-disciplined and reliable. People with high conscientiousness do things in a planned way, can finish tasks on time, and have requirements for themselves; people with low conscientiousness are more likely to procrastinate and do things with fewer rules.

2.1.5 Emotional Stability

It is about whether you are prone to anxiety and negative emotions. People with high emotional stability have a steady mind, are not easily affected by small things, and can adjust quickly when encountering problems; people with low emotional stability are sensitive, are easily affected by emotions, and are prone to nervousness and insomnia before exams.

2.2 Relevant Studies on Music Preference and Personality

As early as 2003, psychologists Rentfrow and Gosling did a very classic study. They divided music into 4 major categories and found that people with different personalities like completely different types of music[1]:[9]

2.2.1 Reflective and Complex

Such as classical music, folk music, indie music. People who like this type of music mostly have high openness, are sensitive, and like to think;

- Intense and Rebellious: such as rap, rock, heavy metal. People who like this type of music have high openness, dare to think and act, but also have relatively large emotional fluctuations;

2.2.2 Upbeat and Conventional

Such as Chinese pop, Chinese style music, country music. People who like this type of music have high agreeableness and conscientiousness, have a gentle personality, and do things reliably;

2.2.3 Energetic and Rhythmic

Such as K-pop, electronic music, dance music. People who like this type of music have high extraversion, like socializing, and are full of energy.

Many domestic scholars have also done relevant studies later, and found that these conclusions are also applicable to Chinese teenagers[2,4]. However, most of these studies are for college students, and few are for us high school students, especially international high school students. So I wanted to do this study to see if our situation is also consistent with these conclusions.

3. Research Design

3.1 Research Objects

The research objects of this study are students from my high school, a total of 200 people, all between 16 and 18 years old, just like me. Finally, 165 valid questionnaires were collected, including 78 boys and 87 girls.[8]

3.2 Research Tools

I used two simplified questionnaires, both adjusted from existing mature scales, to ensure that students can finish them quickly without feeling troublesome:

The first one is a simplified Big Five Personality scale, with a total of 20 questions, 4 questions for each dimension. For example, "I like to deal with people" corresponds to extraversion, and "I do things in a planned way" corresponds to conscientiousness. Students are asked to score according to their own situation, 1 point is completely inconsistent, 5 points is completely consistent, and finally calculate the score of each dimension.[10]

The second one is a music preference questionnaire. I listed 8 types of music that we high school students often listen to: K-pop, Chinese pop, rap/hip-hop, indie music/folk, Chinese style music, electronic music, rock, classical/light music. Students are asked to choose 2-3 types they listen to most often, and also choose the main purposes of listening to music, such as refreshing themselves when doing exercises, relieving anxiety, finding common topics with friends, etc.

3.3 Data Analysis

I used Excel to do simple statistics on the collected questionnaires. First, I calculated the average score of each dimension for all students, then compared whether there were obvious differences in the scores of each personality dimension among students with different music preferences. At the same time, I calculated the correlation between music preference and personality dimensions to ensure

that the results are meaningful.

4. Research Results

4.1 Overall Distribution of High School Students' Music Preferences

From the questionnaire results, the music preferences of us international high school students are very diversified. Among them, K-pop accounts for the highest proportion, with 63% of students listing it as their often-listened type; the second is Chinese pop, accounting for 58%; then rap/hip-hop, accounting for 42%; indie music/folk accounting for 37%; Chinese style music accounting for 32%; electronic music accounting for 28%; rock accounting for 22%; classical/light music accounting for 18%.

This result is also very consistent with our daily situation. K-pop is indeed very popular among us high school students, and the proportion of Chinese style music is not low. Especially for us students who are preparing to go abroad, many of us like to listen to Chinese style songs, which is also a kind of recognition of local culture.

4.2 Correlation Between Music Preference and Personality Traits

I compared the personality scores of students with different music preferences, and found several very obvious rules, which are basically consistent with the research results of previous scholars[1,4]:

Firstly, extraversion scores have a significant positive correlation with the preference for K-pop and electronic music.

Simply put, the more students like to listen to K-pop and electronic music, the more extroverted they are, and the more they like socializing. The questionnaire results show that the average extraversion score of students who list K-pop as their often-listened type is 3.9 points (out of 5 points), which is 0.8 points higher than the average score of 3.1 points of students who do not often listen to K-pop, and the gap is very obvious.

I also think of my deskmate here. She is a typical K-pop lover, 90% of her playlist are songs from Korean and domestic idol groups, and her extraversion score is one of the highest in the class. When the semester just started, she was the first person to get familiar with all the classmates in the class. She always takes the lead in organizing our group homework. She never gets nervous in the IELTS speaking test, and can continue the conversation naturally even if she encounters questions she can't answer.

Secondly, conscientiousness and agreeableness scores

have a significant positive correlation with the preference for Chinese style music, Chinese pop, and classical/light music.

That is to say, the more students like to listen to Chinese style music, Chinese pop and classical music, the more self-disciplined and reliable they are, and the more gentle and easy to get along with they are. The questionnaire results show that the average conscientiousness score of students who often listen to Chinese style music is 3.8 points, which is 0.6 points higher than the 3.2 points of students who do not often listen to it; the average agreeableness score is 3.7 points, which is also much higher than the 3.1 points of students who do not often listen to it.

I also have personal experience with this. When I prepare for IELTS and do exercises, I like to listen to the instrumental version of Chinese pop or soothing Chinese style music very much, because these songs do not have too many lyrics to distract my attention, and can make me calm down quickly. Moreover, the top three students in our class in every IELTS mock test have a lot of Chinese style and classical music in their playlists. They are the most self-disciplined students in the class. They have set a detailed preparation plan since the beginning of senior three, recite words and do real questions on time every day, and never procrastinate.

Thirdly, openness scores have a significant positive correlation with the preference for rap/hip-hop, rock, and indie music/folk.

The more students like to listen to rap, rock and indie music, the higher their acceptance of new things, the more ideas they have, and the less they like to be bound by rules. The questionnaire results show that the average openness score of students who often listen to rap is 4.0 points, which is 0.7 points higher than the 3.3 points of students who do not often listen to it; the average openness score of students who often listen to indie music is also 3.9 points, which is also significantly higher than other students.

There is a male classmate in our class who likes rap, and he is just like this. He has a lot of ideas. For our IB papers, everyone chose relatively safe topics, only he chose "the impact of fan circle culture on teenagers' consumption concept", and did a questionnaire survey by himself. Finally, he got full marks for the paper. In class, if the teacher says something wrong, he will point it out directly. If the school has unreasonable rules, he will also take the initiative to go to the teacher to make comments, and never be afraid of "offending people".

Finally, emotional stability scores have a significant negative correlation with the preference for rap/hip-hop and indie music/folk, and a significant positive correlation with the preference for Chinese style music and classical/

light music.

Simply put, the more students like to listen to rap and indie music, the more sensitive their emotions are, and the more prone they are to anxiety and negative emotions; while the more students like to listen to Chinese style and classical music, the more stable their mindset is, and the less likely their emotions are to fluctuate. The questionnaire results show that the average emotional stability score of students who often listen to indie music is only 2.8 points, which is 0.7 points lower than the 3.5 points of students who do not often listen to it; while the average emotional stability score of students who often listen to classical music is 3.8 points, which is significantly higher than other students.

I am just like this myself. My emotional stability score is not high. During the period of preparing for IELTS and applying for universities, I often feel anxious and even have insomnia because I didn't do well in the mock test or the application deadline is approaching. At this time, I will loop the indie music and folk songs I collected. Because the emotions written in the lyrics of these songs are just like the feelings in my own heart. When I listen to them, I feel that "I am not the only one like this", and I will feel much better in my heart.[7]

4.3 Main Purposes of High School Students Listening to Music

In addition to the correlation between music and personality, I also found that the purposes of us high school students listening to music are also closely related to our personality. Students with high extraversion mostly use music to socialize and find common topics with friends; students with high conscientiousness mostly use music as background sound when doing exercises to help themselves calm down; while students with low emotional stability mostly use music to relieve anxiety and soothe their emotions.[4][5]

5. Discussion

5.1 Why Is There Such a Correlation Between Music Preference and Personality?

In fact, it is very simple: what songs we choose is essentially to choose something that matches our personality and needs. This rule is also supported by previous studies[1-2].

Extroverted people like socializing and need music that can be shared and enjoyed with everyone. K-pop and electronic music have bright rhythm and many dances that can be danced together, which are very suitable for

group activities, so they are naturally liked by extroverted people. On the contrary, often listening to these songs and participating in the collective activities of fans will also make us more extroverted and better at socializing.

Self-disciplined and gentle people need music that can calm them down and will not bring interference. Chinese style music, Chinese pop and classical music have soothing melody and positive lyrics, without too strong emotional fluctuations, which just meet their needs.[6]

People with many ideas and who do not like to be bound need music that can express their attitude and has content. The lyrics of rap dare to tell the truth, rock has a strong attitude, and indie music has many niche ideas, which can just meet their needs for new things and real expression.

People with sensitive emotions and who are prone to anxiety need music that can empathize and soothe themselves. The lyrics of indie music and folk songs are mostly very delicate, writing a lot of ordinary people's emotions and troubles, which can make us feel understood, not lectured, so they will naturally become our choice to relieve anxiety.

5.2 What Other Factors Will Affect Our Music Choice?

In addition to personality itself, there are several things we high school students are exposed to every day, which will affect our music choice, and even make our personality and music more and more consistent.

The first is the algorithm recommendation of streaming media platforms. The apps we usually use, such as NetEase Cloud Music, QQ Music, Spotify, all have the functions of "Daily Recommendation" and "Guess You Like". The more you listen to a certain type of music, the more it will recommend similar ones to you. For example, if I listen to too much indie music, the software will hardly recommend rap or electronic music to me. Slowly, I only listen to the types I am familiar with, and rarely contact other songs. It is like locking myself in a small house, and my personality will become more and more similar to the characteristics of this music.

The second is fan culture and social needs. Most of the time, we listen to certain songs not just because we like them, but also to have common topics with friends and classmates. For example, most of the classmates in the class are listening to the new song of a Korean group, if you haven't heard it, you can't join their chat; if your good friend is following an idol, you will also listen to his songs, and slowly fall in love with them. Moreover, in the fan group, everyone listens to songs and talks about idols together, which will let us find a sense of belonging, and our personality will slowly become more and more like

the people in the group.

The third is the pressure of further study and exam preparation in senior three. As international students, we not only need to take language tests, but also deal with school courses, and apply for foreign universities. The pressure is really great. Students with different personalities will choose different music to relieve pressure. Slowly, the pressure of exam preparation will make us more dependent on the music that meets our needs, and make the bond between music and our personality deeper.

5.3 What Is the Use of This Study for Us High School Students?

Many parents and teachers think that listening to music by high school students is "not doing their job properly" and will affect their study. But through this study, I found that music is far more than entertainment for us.

First of all, music can help us know ourselves better. Before, I only knew that I like to listen to slow songs and am easy to be anxious. But through this study, I understood that I choose these songs because I need emotional resonance, and a way to soothe myself without talking. Now when I feel anxious about exam preparation, I will not randomly listen to very negative songs, but choose songs with soothing melody and positive lyrics to help myself adjust my state, instead of becoming more negative after listening.

Secondly, music can help us understand the classmates around us better. Before, I always thought that the classmates who like rap are rebellious and not easy to get along with, and the classmates who like K-pop are too noisy and only chase stars. But now I know that they just use their favorite music to express their emotions and relieve their pressure. Later, our class also held a "preparation playlist sharing meeting". Everyone shared the songs they listened to when preparing for the exam, as well as the stories behind them. After that, the classmates in the class understood each other better, and the relationship became better. Finally, music is the best "emotion antidote" on our way of senior three exam preparation. In this year of senior three, we have to face too much pressure and uncertainty: can we get the target score in the language test? Will the applied university admit us? What will the future be like? These questions often make us unable to sleep. And the melody in the headphones is like a safe small corner. No matter we are happy or sad, anxious or confused, it can accompany us and give us strength.

6. Conclusion and Limitations

6.1 Research Conclusion

Through the questionnaire survey and analysis this time, I can draw several clear conclusions:

Firstly, there is a significant correlation between the pop music preferences of us high school students and our personality traits. Students who prefer K-pop and electronic music have higher extraversion; students who prefer Chinese style music, Chinese pop and classical music have higher conscientiousness and agreeableness; students who prefer rap, rock and indie music have higher openness and lower emotional stability at the same time.

Secondly, what type of music we choose is essentially to choose content that matches our personality and needs. Music is not only our way of entertainment, but also an important tool for us to express ourselves, regulate emotions and interact socially.

Thirdly, factors such as streaming media algorithm recommendation, fan culture, and senior three exam preparation pressure will all affect our music choice, and further strengthen the correlation between music preference and personality traits.

6.2 Limitations of the Study

There are also many limitations in this study. For example, the research objects are only 200 students from my high school, the sample size is too small to represent all high school students. In addition, the scale I used is simplified, and the statistical method is also very simple, so the results may not be as accurate as professional academic research.

If I have the opportunity in the future, I want to expand the sample size, include students from public high schools, and see if there are differences in the correlation between music preference and personality of high school students in different environments. At the same time, I can do a long-term follow-up to see if our music preferences and personality will change after we enter university.

Finally, I want to say that there is no distinction between high and low music, and there is no absolute rule that

"you must be a certain kind of person if you listen to certain songs". No matter what songs you like to listen to, it is your company in youth, and your way to express yourself. For us senior three students who are preparing for exams, the melody in the headphones is the most gentle and powerful light in our stumbling youth.

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