

Personality and Parental Guidance for Preferred Movies among Japanese Undergraduates: Focusing on Dark Triad and Big-five Personality Traits



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Abstract:

Background: Movie watching is a prevalent form of entertainment, and with the proliferation of video-on-demand platforms, movie preferences have diversified.

Objectives: The primary objective of this study was to examine the relationships between Big-Five personality traits, Dark Triad, and movie content preferences, exploring beyond traditional genre classifications.

Methods: 240 participants from a private university in Tokyo were required to complete the personality scales and answer their five favorite movies, with 139 complete responses analyzed. We converted the answers into movie preferences based on the ratings provided by the IMDb (Internet Movie Database) parental guidance. Parental guidance is an indicator for parents to determine the appropriateness of content when showing their children movies. It is divided into five categories - Sex/ Nudity, Violence, Profanity, Alcohol/ Drug, and Frightening.

Results: Correlation analysis revealed that Machiavellianism and Narcissism were positively related to scene descriptions of Sex/ Nudity and Alcohol/ Drug, and Psychopathy was positively associated with Profanity descriptions. Regarding the Big-Five personalities, Conscientiousness was negatively correlated with descriptions of Violence and Frightening, and Openness was positively related to descriptions of Sex/ Nudity, Alcohol/ Drug, and Profanity.

Conclusion: Dark personality traits are significant predictors of specific movie content preferences. This study can offer valuable insights for content providers and marketers.

Keywords: Japanese undergraduates, Big-Five personality traits, Movie preferences, IMDb parental guidance, Profanity.

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1. INTRODUCTION

Movies serve as a pivotal mode of entertainment globally, a sentiment echoed by the Statistical Handbook of Japan (2016) [1], which identified cinema as the third most popular leisure activity in Japan. The emergence and proliferation of video-on-demand platforms, including Netflix, YouTube, and Amazon Prime Video, have

augmented movie accessibility. Moreover, as shown by Statista (2021) [2], Netflix acquired 36.57 million new subscribers worldwide in 2020 due to restrictions on going out and public gatherings during the COVID-19 pandemic, which accelerated the change in ways of watching movies. As a result, movie preferences have become more diverse and personalized. Accordingly, inferring that one's

personality may influence one's movie preferences is reasonable.

The Dark Triad, encompassing Machiavellianism, Psychopathy, and Narcissism, outlines antisocial personality (Jonason and Webster, 2010 [3]; Paulhus and Williams, 2002 [4]; Tamura, Oshio, Tanaka, Masui, and Jonason, 2015 [5]). Machiavellianism is the trait of manipulating and lying to others for personal gain; Psychopathy is the trait of lacking empathy for others, having no concern for the right or wrong of actions, and being cold and fearless; and Narcissism is a self-centered trait of feeling that one is entitled to special recognition from others, such as fame and praise. The Big-Five is a framework that attempts to view the entirety of human personality in terms of five aspects: Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness (Gosling, Rentfrow, and Swann, 2003 [6]; Oshio, Abe, and Cutrone, 2012 [7]). Extraversion describes characteristics such as being outgoing and energetic; Agreeableness denotes being friendly and compassionate; Conscientiousness measures how efficient and organized an individual is; Neuroticism means an individual's sensitivity and nerve; Openness expresses curiosity and inventiveness. In addition, it has been consistently proven that Dark Triad traits are related to low Agreeableness.

Previous studies have extensively explored the impact of personality on movie preferences. Tamborini, Stiff, and Zillman (1987) [8] found that Machiavellianism was a good predictor of preferences for graphic horror. Hall (2005) [9] reported a negative correlation between psychoticism and watching romance and comedy movies, which Neuroticism moderated. Regarding Big-Five personalities, Karumur, Nguyen, and Konstan (2016) [10] provided a set of data showing that individuals who scored high on Openness fancied drama and romance movies, conscientious individuals were more inclined to enjoy romance genres, and neurotic individuals tended to prefer comedy and romantic movies.

Moreover, Kraaykamp and Eijck (2005) [11] studied three types of cultural practices - book reading (literary novels, literature in foreign languages, suspense, romantic novels), cultural behavior (visiting classical concerts, visiting art museums, visiting historical museums, visiting pop concerts), and television preferences (cultural programs, informative programs, soap programs, erotic programs). They found that people high in Openness enjoyed all those practices, whereas none appealed to extroverted people. Conscientious individuals preferred book reading but had no liking for watching TV programs. Emotionally stable (low in Neuroticism) people disliked soap or erotic TV programs. Moreover, people who scored high in Agreeableness showed particular interest in soap programs compared to other TV programs and fancied romantic novels.

However, the conventional approach of assessing movie preferences by genre is becoming increasingly challenging, given the complexity and overlap in modern

movie categorizations. For instance, some comedies can be violent (*e.g.*, *Hot Fuzz*), and some romance movies are full of frightening scenes (*e.g.*, *The Lodgers*). Therefore, we assessed movie preferences according to specific content instead of genres in this study. The particular contents were evaluated based on the ratings provided by the IMDb (Internet Movie Database) parental guidance. Parental guidance is an indicator for parents to determine the appropriateness of content when showing their children movies. It is divided into five categories - Sex/Nudity, Violence, Profanity, Alcohol/ Drug, and Frightening. We aim to unveil underlying patterns and motivations governing movie selection among distinct demographic groups by analyzing the relationships between these content preferences and personality traits.

2. METHODS

2.1. Participants and Procedure

The participants were 240 students enrolled in a private university in Tokyo. Before their involvement, all participants were briefed on the study's objectives, procedures, and the intention to publish the findings. The survey was carried out through Qualtrics in the second half of May 2021, and it remained open for 15 days. We ensured participants' anonymity and emphasized that their participation was voluntary, with the freedom to withdraw at any point. Incomplete answers were excluded from the analysis, and finally, we had 139 complete answers left (105 females, 33 males, 1 unknown, mean age = 20.3, SD = 3.19).

2.2. Materials

2.2.1. The Japanese Version of Dark Triad Dirty Dozen (DTDD-J)

The DTDD-J (Tamura *et al.*, 2015) [5] assesses individuals' tendency toward Machiavellianism, Psychopathy, and Narcissism, each calculated by summing four corresponding items. All items are scored on a scale from 1 (disagree strongly) to 5 (agree strongly).

2.2.2. The Japanese Version of Ten-item Personality Inventory (TIPI-J)

The TIPI-J (Oshio *et al.*, 2012) [7] briefly measures the Big-Five personality domains, including 10 items. Each domain (*i.e.*, openness, extraversion, agreeableness, conscientiousness, and neuroticism) is assessed by one positively and one negatively worded item. It is a 7-point Likert-type scale ranging from 1 (disagree strongly) to 7 (agree strongly).

2.2.3. An Open-ended Question about Favorite Movies

We asked an open-ended question, "Please fill in your five favorite movies." Movies from any country and of any genre were allowed. The average number of movies provided by each participant was 4.91, with a minimum provision of 2.

Table 1. Examples of how movies were converted into ratings.

Movie	Sex/Nudity	Violence	Profanity	Alcohol/Drug	Frightening
Marriage Story	2	2	3	2	2
Interstellar	1	2	2	1	3
Nocturnal Animals	3	3	3	2	4
Whiplash	1	2	4	2	3
The Wolf of Wall Street	4	3	4	4	3
Mean Value	2.2	2.4	3.2	2.2	3.0

Table 2. Descriptive statistics, and correlations among personality traits and ratings of descriptive categories.

-	Sex/Nudity	-	Violence	-	Profanity	-	Alcohol/Drug	-	Frightening	-	M	-	SD	-
Machiavellianism	.227	**	.070	-	.139	-	.200	*	.075	-	9.63	-	11.45	-
Psychopathy	.125	-	.048	-	.215	*	.165	+	-.042	-	9.71	-	8.25	-
Narcissism	.221	**	.101	-	.162	+	.275	**	.123	-	13.45	-	11.99	-
Extraversion	.049	-	.005	-	-.158	+	-.003	-	-.010	-	3.68	-	2.29	-
Agreeableness	-.134	-	-.097	-	-.159	+	-.024	-	-.127	-	5.37	-	0.96	-
Conscientiousness	-.016	-	-.240	**	-.092	-	-.008	-	-.247	**	3.71	-	2.01	-
Neuroticism	-.039	-	.029	-	-.012	-	-.069	**	.087	-	4.60	-	2.27	-
Openness	.192	*	.135	-	.169	*	.227	**	.159	+	3.88	-	2.18	-

Note: N = 139. ** $p < .01$, * $p < .05$, + $p < .10$.

2.3. Analyses

The titles of movies provided by participants were converted into numerical data based on the IMDb (Internet Movie Database) parental guidance. The five categories mentioned above - Sex/ Nudity, Violence, Profanity, Alcohol/ Drug, and Frightening were voted by IMDb users and rated on four levels - None, Mild, Moderate, and Severe. These ratings were quantified for our analysis as 1, 2, 3, and 4 points, respectively. The average ratings across the five descriptive categories for each participant’s favorite movies were then calculated. Examples are given in Table 1.

Descriptive statistics for each subscale of DTDD-J and TIPI-J were derived, followed by the calculation of correlations between these subscales and the content category ratings of the listed movies. All statistical computations were performed using R version 4.0.5.

3. RESULTS

The internal consistency, as measured by Cronbach’s Alpha, yielded reliability coefficients of 0.76 for Machiavellianism and Narcissism and 0.58 for Psychopathy. For the Big-Five personality traits measured by TIPI-J, the correlations between the paired items were as follows: Extraversion ($r=.60$), Agreeableness ($r=.20$), Conscientiousness ($r=.37$), Neuroticism ($r=.44$), and Openness ($r=.53$).

In examining the correlations between Dark Triad traits and movie content preferences, Machiavellianism positively correlated with Sex/ Nudity and Alcohol/ Drug, Psychopathy positively associated with Profanity and Alcohol/ Drug, and Narcissism positively related to Sex/ Nudity, Profanity and Alcohol/ Drug. Regarding Big-Five personality dimensions, Extraversion and Agreeableness

negatively correlated with Profanity. Conscientiousness had a negative correlation with Violence and Frightening. Openness is positively associated with Sex/ Nudity, Profanity, Alcohol/ Drug, and Frightening. The descriptive statistics and the matrix of correlations among the personality traits and content preference ratings are encapsulated in Table 2.

4. DISCUSSION

This study aimed to verify the relationship between personality traits and movie preferences. We assessed participants’ personalities by DTDD-J and TIPI-J, quantified the descriptions of each participant’s favorite movies, and then examined the associations.

Regarding Dark Triad personality traits, except for an insignificant negative correlation between Psychopathy and Frightening content, all showed positive associations with the content categories. It was proved that Narcissism and Psychopathy were predictors of sexual partners (Borráz-León and Rantala, 2021) [12], and narcissistic people were more highly aroused in sex (Zeigler-Hill and Andrews, 2021) [13], which may lead to preferences for Sex/ Nudity. Additionally, the positive correlation between the Dark Triad traits and sexual coercion (Lyons, Houghton, Brewer, and O’Brien, 2020) [14] might further substantiate this finding. The positive correlation between substance use and both Narcissism and Psychopathy (Stenason and Vernon, 2016) [15] illuminates the lack of resistance these individuals might have towards Alcohol/ Drug content. Masui and Ura (2016) [16] found that individuals who were high in Psychopathy used aggressive humor more frequently. Aggressive humor is antisocial humor that attempts to be funny by being sarcastic or humiliating to others (Martin, 2007) [17]. This may explain

the connection between Psychopathy and the preference for Profanity.

In the realm of Big-Five personality traits, Openness showed positive associations with all five categories, barring an insignificant correlation with Violence. One of the most important features of people high in Openness is that they proactively seek new experiences, which may result in their preferences for stimulating scenes. Agreeableness was generally negatively correlated with all content categories, given the aggressive and unpleasant nature of these contents, which contrasts with the disposition of agreeable individuals. Similarly, Conscientiousness was negatively correlated with all five categories at large. The tendency toward being diligent and careful may keep conscientious people away from dangerous and eccentric behaviors, and this feature may also be expressed in visual preferences. These results are consistent with Kraaykamp and Eijck's study (2005) [11], which suggested that high Openness leads to diversity in entertainment preferences, while those high in Conscientiousness are probably not fond of visual entertainment.

Exploring the relationships among behaviors, personalities, and content preferences has become common, especially in large enterprises. For instance, Cambridge Analytica Ltd (CA), a British consulting company, became famous for the Facebook-Cambridge Analytica data scandal in the 2010s. CA collected data from millions of Facebook accounts without consent and then used the data hoard for political activities by personality-profiling the users (Gibney, 2018) [18]. Video-on-demand platforms harness user data, such as search history and playback interactions, to predict and cater to viewers' content preferences. This study could augment our comprehension of the intricate dynamics between personality and behavior, promising academic insights and commercial utilities.

5. LIMITATIONS AND FUTURE DIRECTIONS

Three sampling biases can be raised in this study. First, the gender distribution of the participants was skewed, with males comprising only 25% of the sample. Given that gender differences in movie preferences are well-documented (Wühr, Lange, and Schwarz, 2017) [19], this imbalance might have influenced the results. Second, the narrow age range of the participants presents another limitation. As movie preferences evolve with age (Infortuna *et al.*, 2021) [20], a more diverse participant age range would provide a more comprehensive insight. Third, as stated in Glevarec, and Cibois, (2021) [21], educational level is critical in shaping an individual's movie preferences. Our study predominantly involved university students, which raises concerns about the lack of diversity in educational backgrounds among participants.

Another critical aspect is the cultural and geographical context of the IMDb parental guidance. The ratings are predominantly based on US cultural norms and values, but our study focused on a group of university students in

Japan. This geographical and cultural discrepancy could introduce a bias or misalignment in interpreting content preferences.

Moreover, the reliance on questionnaire-based data collection might need to fully encapsulate the complexity of movie preferences, which numerous external factors beyond personality traits can influence. For example, blockbuster movies may leave a stronger impression than normal ones, and recent films are likely to be recalled more easily than older ones. In addressing these limitations, future research should consider integrating experimental methods to enhance the reliability and validity of the findings. One potential approach could involve participants viewing movies with specific content in a controlled setting. Subsequently, assessing the correlation between their evaluations and their personality traits could offer more nuanced and reliable insights. This mixed-methods approach would mitigate the impact of recall bias and the influence of high-profile movies, providing a more authentic representation of true preferences.

CONCLUSION

The research aims to examine the relationships between the Dark Triad personality traits and specific movie content preferences, utilizing IMDb's parental guidance ratings as a nuanced alternative to traditional genre classifications and the proclivity of individuals high in Dark Triad traits towards more explicit or stimulating movie contents is elucidated. Further research is expected to integrate broader participant demographics and test methodologies.

LIST OF ABBREVIATIONS

IMDb	= Internet Movie Database
SD	= Standard Deviation
DTDD-J	= The Japanese version of Dark Traid Dirty Dozen
TIPI-J	= The Japanese version of Ten-item Personality Inventory
CA	= Cambridge Analytica Ltd

ETHICAL STATEMENT

In the design and execution of our study, we carefully considered the ethical implications and concluded that formal ethics approval was not necessary. This decision was based on the non-invasive nature of our research. Our study did not involve any physical interventions, invasive procedures, or collection of sensitive personal data that might pose a risk to the participants. Instead, it focused on the analysis of preferences for movies, a subject that does not intrinsically require ethical oversight in the same way as more invasive forms of research.

CONSENT FOR PUBLICATION

Before partaking in the research, all participants were informed about the purpose and methodology of the study and its intention for publication. Their participation is

implicit consent for the study's findings to be published.

STANDARDS OF REPORTING

COREQ guidelines were followed.

AVAILABILITY OF DATA AND MATERIALS

The data is stored at OSF. Anyone with the following link can view but not edit the data. https://osf.io/gjkz5/?view_only=00ab7d1139ba4a51a424c292b2f830a2

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CONFLICT OF INTEREST

The authors declare no conflict of interest, financial or otherwise.

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