

# Video Game Exposure and Risk Perception

Brandon Dlabik, Jonathan Seay, Troy Jones, and Sahaj Vohra  
Wittenberg University

Correspondence: dlabikb@wittenberg.edu



## Introduction

Previous research has identified relationships between video game exposure and risky behaviors such as increases in aggression and risky driving behaviors (Beullens et al, 2008).

Considering the importance of risk perception in shaping our everyday behaviors and decisions, we conducted a study investigating the relationship between video game exposure and risk perception more broadly. We also examined how the Big 5 personality traits would relate to video game exposure and risk perception.

Participants recruited from a university undergraduate subject pool and social media platforms completed a survey that assessed personality traits, risk perceptions, and a variety of video game behaviors and attitudes.

**Hypothesis: Greater video game exposure will predict lower riskiness ratings of potentially risky behaviors.**

## Method

109 people (47 male, 60 female) primarily recruited from an undergraduate student population completed an online survey that included the materials below. We excluded 11 respondents who failed an attention check or indicated that their data should be excluded, leaving a final sample of  $n=98$ .

### Materials

#### Big Five Personality Traits

We assessed the personality characteristics of Conscientiousness, Agreeableness, Open-Mindedness, Extraversion and Negative Emotionality using the Big Five Inventory-2 (Soto & John, 2017).

#### Risk Perception and Risky Behaviors

Participants completed the Adolescent Risk-taking Questionnaire (ARQ; Gullone et al., 2000) which asks them to rate how risky different potentially risky behaviors are (e.g., drinking, smoking, speeding, overeating, gambling), and to indicate how much they actually engage in those behaviors.

#### Video Game Exposure

We measured participants level of gaming exposure with items asking how often participants played video games (1=less than once a month; 6=everyday), how many hours they play video games per week, and how many years they have been playing video games.

Table 1. Correlations among ARQ Riskiness Judgments and Risk Behaviors, Video Game Exposure, and Personality.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. ARQ Riskiness Judgments									
2. ARQ Risky Behaviors	-.137								
3. VG Frequency	-.261*	.299**							
4. VG Hours per Week	.149	.123	.430**						
5. VG Years Playing	-.121	.368**	.674**	.461**					
6. Extraversion	-.157	.119	.074	-.064	-.111				
7. Agreeableness	.158	-.211*	-.107	-.070	-.164	.225*			
8. Conscientiousness	.165	-.335**	-.236*	-.004	-.191	.175	.303**		
9. Negative Emotionality	-.047	.064	-.023	-.114	-.041	-.457	-.164	-.334**	
10. Open-Mindedness	-.028	.153	.103	.040	.139	.181	.303**	-.059	-.080

Note. \*  $p < .05$ , \*\*  $p < .01$ , VG = Video Game.

## Results and Conclusion

Correlations among all of the variables are displayed in Table 1. We found a significant negative correlation between frequency of playing video games and how risky participants rated the behaviors on the ARQ. Frequency of playing video games and years playing video games were also positively associated with risky behaviors, though the correlation for years playing video games may be explained by older participants being more willing to engage in the risky behaviors listed on the ARQ. Agreeableness and conscientiousness were both negatively associated with risky behaviors, and conscientiousness was negatively associated with frequency of playing video games.

Our results indicate that video game exposure may be associated with risky behaviors, but correlations differed depending on how video game exposure was measured. Future research could try to determine what specific aspects of video game exposure are related to riskiness judgments and risky behaviors to better understand the potential effects of playing video games. Examining specific genres of video games to see if they have different associations is another possibility for future research.

## References

- Beullens, K., Roe, K., & Bulck, J. V. D. (2008). Video Games and Adolescents Intentions to Take Risks in Traffic. *Journal of Adolescent Health, 43*(1), 87-90. doi: 10.1016/j.jadohealth.2007.12.002
- Soto, C. J., & John, O. P. (2017). The next Big Five Inventory (BFI-2): Developing and assessing a hierarchical model with 15 facets to enhance bandwidth, fidelity, and predictive power. *Journal of Personality and Social Psychology, 113*, 117-143.
- Gullone, E., Moore, S., Moss, S., & Boyd, C. (2000). The Adolescent Risk-Taking Questionnaire. *Journal of Adolescent Research, 15*(2), 231-250. doi: 10.1177/0743558400152003