

Research on the Influences of Competitive Factors of Video Game Based on Multiple Intelligences on Women Players' Aggression

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Abstract: With the development of modern technology, video games have gradually entered people's lives. Violent video games have a close relationship with female players' aggression. A large number of studies have shown that violent content in violent video games is the main cause of changes in aggression-related variables of female players. And some studies have shown that the impact of the competition of video games on aggression may even exceed the violent nature. Therefore, this research will simultaneously examine the relationship between violence and competitiveness and aggressiveness of violent video games, and compare the contribution of the two to the improvement of aggressiveness. At the same time, in the analysis of the prediction data of the impact of electronic games on the multiple intelligences of female players, result shows that electronic games have significant effects on the cultivation and development of the overall intelligence of female players, and also have positive effects on the development of individual intelligence.

1. Introduction

Video games have entered China for more than 20 years, and has gradually become an important means of entertainment in people's daily lives. Violent video games are especially popular among teenagers. Due to the fact that video games grew popular later in China compared to western countries, the related research in this field in China started relatively late^[1]. Domestic attention to electronic games originates from the reflection on the phenomenon of game addiction^[2]. In recent years, with the wide spread of the theory of multiple intelligences to China, the cultivation and development of students' multiple intelligences has gradually attracted the attention of society and family. The cultivation and development of multiple intelligences will become an essential goal in future society and family education for children. Everyone has all intelligence; Most people's intelligence can be fully developed. The two main processes in the development of intelligence are explicitness experience and paralysis experience^[3]. Intelligence is not a capability but a set of abilities, that is, the existence of multiple intelligences: speech-language intelligence, logic-mathematics intelligence, visual-spatial intelligence, limb-kinestics intelligence, music intelligence, interpersonal intelligence, self-awareness, intelligence, nature observe intelligence. Aggressive behavior refers to the act of intentionally injuring others. The general attack model is a good explanation for the reasons why violent video games cause female players to be aggressive and even lead to aggressive personality. This study found that there is a significant positive correlation between violent games and aggressive behavior and illegal behavior; the longer violent games are played, the more aggressive behavior the subjects tend to display; academic performance is significantly negatively correlated with the length of time playing violent games^[4].

2. How do Competitive Factors in Video Games Affect the Aggressiveness of Female Players

2.1 Triggering aggressive cognition

In an experiment, female players were asked to play violent games, and then predicted the

behavior of the driver who was hit on the rear of the car. Results showed that they were more inclined to think that the driver would make aggressive reactions such as fighting and abuse. This reflects the aggressive cognition of the subjects caused by violent games. Previous studies have shown that individuals with high aggressiveness are more inclined to interpret others' behaviors as hostile or vicious than individuals with low aggressiveness. People tend to like games that can reflect or strengthen certain aspects of their personality, and subjects who are easily angered are more likely to make hostile attribution to other people's behavior after violent video games^[5]. There are significant differences in hostile cognition, hostile emotion and hostile behavior, which may be related to the way we focus on events in real life. Everyone has all the intelligence, and most people's intelligence can be fully developed, Therefore, we need to make full use of various resources and tools, adopt various methods and means, and cultivate and develop multiple intelligences in a good environment. If the same situation is repeatedly presented to the individual, it may change the personality trait of the individual, and the change of personality will in turn affect the way the individual interacts with the environment. This is the long-term effect described in the upper part of the model^[6].

2.2 Affect emotional and physiological arousal

In one study, subjects' level of hostility and anxiety increased after playing violent games; exposure to violent games was more likely to increase heart rate, systolic and diastolic blood pressure. The study found that the physical effects of violent games are more significant on children who have already been aggressive. Active aggression is an aggressive behavior to obtain resources and dominant motives, which has nothing to do with situation arousal, while the latter is a hostile response to perceived threats or situations; and reactive aggression is an aggressive response to intentional arousal. Compared with the non-violent video game group, the subjects in the violent video game group expected more aggressive responses from the protagonists in the story^[7]. However, according to relevant research, the difference between violent or competitive video games and non-violent low-competition groups is not significant^[8]. The theory of multiple intelligences recognizes the diversity and uniqueness of intelligence, emphasizing that intelligence is the ability of individuals to solve practical problems and the ability to produce and create effective products needed by society. Some researchers also used individual violent video game experience as an indicator to test its long-term effects, and found that participants with more game experience showed higher aggression in the task of measuring attack behavior.

2.3 Induce aggressive behavior

Female players who are exposed to more violent games have more frequent attacks, such as quarrels and fights. The study found that a positive correlation between aggressive behavior and exposure time to violent games. Only when the individual presents contextual cues related to his traits, the individual will exhibit the characteristics of this trait and then show the corresponding behavior. Individuals will incorporate relevant contents of this stimulus into their knowledge structure^[9]. With the passage of time and repetition of stimuli, new knowledge structures will gradually take shape. Besides the differences in violent and competitive dimensions, the game has certain equivalence in other dimensions. But their experimental group and control group do not match. The intelligent combination of each individual is also different. It is these differences that lead to differences in learning interests between students and differences in thinking. Any knowledge point or even a skill specification in our daily teaching can be explained and expressed in different ways. Some obvious clues, such as saboteurs, are likely to be mistaken for a wake-up alternative to violent video games, allowing individuals to attack these obvious clues. The higher the similarity between the role played in the video game and the crime situation, the greater the impact would be on crime tolerance. On the contrary, if the role played is similar to the crime situation, the impact on crime tolerance is smaller.

3. Theoretical Model Interpretation

3.1 Social learning theory

Social learning theory holds that exposure to violent video games will lead to imitation of the behavior in the game, strengthen the existing aggressive habits, enhance internal arousal (such as anger, hostility, etc.), and then increase the aggressiveness of individuals. When the game situation matches the aggressive characteristics of female players, the situation can activate the characteristics and show the corresponding aggressive behavior; not only violent video games can cause individual aggressive emotions, but also non violent electronic games can. For example, frustrating games can lead to anger. Violence itself can not arouse people's anger, but the result of interaction between violence content and people can produce emotional experience. Some studies have shown that violent content and competitiveness can significantly improve the level of aggression. There is no significant difference in the contribution of violent content and competition in video games to the enhancement of offensive level, but when video games are both violent and competitive, the offensive level is strongest^[10]. Playing violent video games is the result of an existing motive, not the cause of such a motive, just like engaging in adventurous sports or fierce competition. Thus, the relationship between violent video games and female players' aggressive behavior is not fixed. Female players' experience in violent games, aggressive characteristics and gender factors may all affect the role of video games for female players.

Video games can cultivate and develop players' multiple intelligences. With the increase of time, players' multiple intelligences will gradually improve. There are significant differences between playing games and not playing games in terms of multiple intelligences, which shows that video games greatly affect the cultivation and development of players' multiple intelligences. Table 1 is a chart of the mean values of the observed variables in each group. As can be seen from the table, with the increase of playing years, its multiple intelligences are gradually improved.[11]

Table 1 The influence of pgame4 on total multiple intelligence^[11]

Years of playing	Novice	More than 1 years	More than 3 years	More than 5 years
Mean or overall intelligent mean	3.5	3.7	4.0	4.5

3.2 Social information processing mode

Some researchers attribute aggressive behavior to hostility attribution bias. Antagonistic attribution bias can distort cues when individuals are frustrated. People interpret stimulus as aggressive cues and react against them. Social experience of playing violent games will lead to hostile attribution bias. It has been found that competition in games can also enhance aggression. However, the existing research in this field is not very strict in controlling the competitiveness of electronic games. Video games can cultivate and develop female players' multiple intelligences. With the increase of time, female players' multiple intelligences will gradually improve. There are significant differences in multiple intelligences between playing games and not playing games, video games to a large extent. In addition, the competition in the game may enable the individual to extract the information related to the attack in the competitive situation in the past experience by activating the aggressive cognition in the individual cognitive structure, thereby causing the attack behavior. Violent video games are only used as a catalyst to affect the manifestation of aggressive behavior, and there is no direct causal relationship between it and aggression. The model believes that individuals with aggressive personality are more likely to generate aggressive behavior in stressful situations, and those with aggressive traits may require less environmental stress to provoke aggressive behavior. Figure 1 below shows the catalyst model.

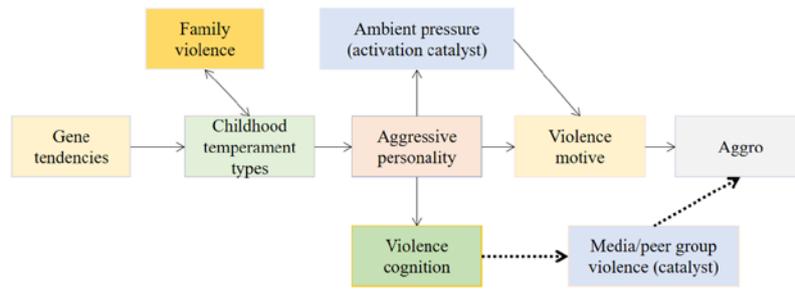


Figure 1 Catalyst model

3.3 General attack model

General attack models believe that violent video games have both short-term and long-term effects on adolescents' aggressiveness. In the short-term model, each input variable directly acts on 1~3 internal states (i.e. cognition, emotion and physiological activation), thus affecting decision-making and behavior. Individuals feed back information to the environment and form a cycle. When individuals are exposed to violent video games for a long time, their brains will form interconnected cognitive networks, including emotions, concepts and operational skills related to aggressive behaviors in the games. Then in some specific situations related to aggressiveness, the activation of relevant cognitive networks in the individual's brain may indicate aggressive behavior. Because setbacks are often disgusting, when setbacks occur, individuals may have an attack tendency to avoid setbacks. Many studies have shown that individuals who are frustrated in completing a desired goal will feel negative emotions that will inevitably be released in other disgusting situations. The competition hypothesis believes that the competition in the game enhances the level of individual aggression. According to this hypothesis, the relationship between violent games and aggressiveness found in many previous experimental experiments on video games was not caused by violent content but by competitive factors contained in video games. The violent game initially triggers behavior based on an individual's almost unconscious automatic evaluation of the situation. When the cognitive capacity is sufficient, a well-thought-out rational assessment is generated, and the evaluation determines whether to take an aggressive behavior.

4. Discussion and Analysis

At present, most of the research relies on the laboratory, mainly investigating the aggressive cognition, emotion and behavior in the laboratory context. We can pay more attention to the impact of violent video games on aggression in real life, so as to expand the external validity. At the same time, the short-term effects of general aggressive models also describe the impact of environmental stimulus on individuals after short-term contact with the environment. Usually, the acts of the protagonist in the observed or heard events are more, followed by the emotional experience of the protagonist, and finally the psychological process of the protagonist. When the competitive factors of video games are input into individuals as contextual variables, they will activate the diagrams related to "competition-attack" in the existing cognitive structure of individuals, thus enabling individuals to extract relevant information and generate aggressive behavior. Or trigger offensive emotions, such as anger, hostile, etc., resulting in aggressive behavior. That is to say, the violent content and competition in the video game have an effect on the hostile state, but there is no significant difference in the effect of their influence on the hostile state. Using a multi-dimensional perspective to think about teaching methods and teaching strategies, and strive to tap the potential of teachers and students, not only to enable students to master the basic capabilities of circuit analysis, but also to integrate knowledge transfer and ability training. Delayed missions can result in reduced hostility in violent or competitive game groups, but have no significant impact on non-violent low-competition groups.

A simple effect analysis of gender \times hostile expectations revealed that girls were significantly lower than boys in hostile behavior, $MD = -4.43 \pm 1.26, p < 0.05$. The specific values are shown

in Table 2 and Figure 2.

Table 2 Hostile expectation of back testing

Hostile expectation	Average deviation	Standard deviation
Hostile behavior	40.36	1.33
Hostile cognition	39.67	2.17

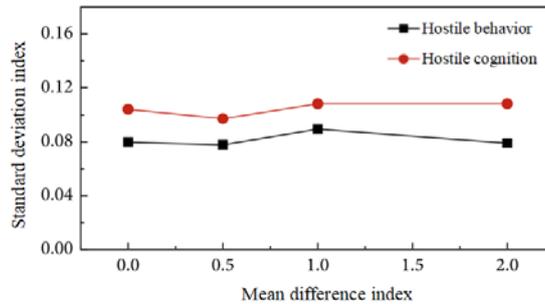


Figure 2 Hostile expectation of back testing

How to reduce the impact of media violence on individuals is something we should pay attention to. Research shows that good parent-child communication and parents' supervision and restriction on children's media use can slow down the aggressive level of female players. Violent video games will increase the aggressiveness of subjects, but not all subjects will increase aggressiveness, which is related to the personality type of subjects. The aggressiveness of subjects with high aggressiveness is significantly higher than that of subjects with low aggressiveness. In other words, the aggressiveness will decrease after delaying the task, because the aggressive cognition and behavior schema will gradually fade after a short period of high accessibility. That is, there is no significant difference in natural observation intelligence between people who play games every day and those who never play games, that is, the influence of electronic games on the cultivation and development of natural observation intelligence for female players is not significant. From the results of the event-related potential technique, we interpret this phenomenon as the individual's desensitization of the game content. Desensitization due to highly competitive video games can continue into the real life after the game, resulting in the generation of individual aggression. Video games have a significant effect on the development and development of women's overall multi-intelligence, and have a certain impact on the development and development of individual intelligence, but the results are different. Such results deserve our deep thought.

The current popular video games that female players often play have significant effects in cultivating and developing female players' visual space intelligence, body motion intelligence, music intelligence and introspection intelligence, but are lacking in other intelligent training development. Different individuals have different perceptions of the same objective stimulus, mainly because different individuals have different knowledge and experience. The cognitive experience holds that the individual's knowledge and experience constitute a large and hierarchical and meaningful network structure. The network structure is formed by connecting schemata through certain relationships. In the competitive situation, both female players try to win their own victory by preventing the opponent from completing the mission goal. In the process of overcoming difficulties and winning, both sides need to face many difficulties. Especially under the incentive of reward, female players who fail will feel more frustration. At the same time, female players have a strong need for acceptance and acceptance. If a child shows more aggression, he may be excluded by normal peer groups, and have to choose the same aggressive groups to seek acceptance and acceptance. So when an individual is in a non-violent game situation, neither of the two types (high-aggressive trait and low-aggressive trait) shows aggression; while in a violent game situation, the violent content of the game matches the personality of female players with high-aggressive trait and activates this trait, which makes the subjects show corresponding aggressive behavior.

5. Conclusion

Video games can cultivate and develop multiple intelligences of players, which is a good educational resource. Different kinds of video games have different effects on players' intelligent development, that is, each kind of video game has the best effect on one or several intelligent development. Therefore, when choosing a game, we should make an effective choice according to the goal of intelligent cultivation. If we want to develop natural observation intelligence through video games, we should choose the kind of intelligent video games with partial natural observation, that is to say, we should choose the video games that can promote the natural observation intelligence of players. The impact of violent video games on female players' aggressive behavior is influenced by personality types of female players. The aggressiveness of high-aggressiveness subjects in violent video games is significantly higher than that of low-aggressiveness subjects. However, in non-violent video games, the difference between the two groups is not significant, that is, the impact of violent video games on female players' aggressiveness is regulated by personality traits. Exposure effect is derived from the initiation of aggressive schema or hostile emotion, rather than the activation of aggressive-related targets, which supports the cognitive priming hypothesis. Compared with playing low-competition video games, female players with low game experience who play high-competition video games have smaller amplitude when watching violent pictures, which indicates that high-competition games can also cause female players to desensitize to real violence. Moreover, the violent content in the game is no longer the only source of offensive behavior, and competitive factors can also change players' aggressive behavior.

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