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Violent Video Games are the Reason for Violation of Law by a Child

Tanish Arora[1], Mukul Tanwar[2], Khushwant[3]

Abstract: ***One of the main concerns that have been consistently raised for video games is that most games have an offensive element. This has led many to argue that it can have a negative impact on those who play such games. Despite more than 15 years of controversy, there are few obstacles to systematic research. This article outlines empirical research in this area, including research methods such as free play observations, self-reporting methods, and experimental research. This article argues that all published studies of video game violence have methodological issues and include only possible short-term measurements of offensive outcomes. The only consistent finding is that, in contrast to teenage children, most of the research on very young children shows that children become more aggressive after playing or watching violent video games. It means that there is a tendency. However, this is all the result of using a specific research method (that is, observing the child's free play). © 1998 Elsevier Science Ltd***

Keywords: ***video games, violence, aggression, adolescence***

I. INTRODUCTION

One of the main concerns that has been consistently raised by video and computer games is that most games are said to contain offensive elements. This has led some people to say that children will be more aggressive after playing such games. However, these claims were made without empirical evidence. Despite the controversy over 15 years, there are relatively few systematic studies. Themes are becoming more important as new games like Mortal Kombat use a clearer depiction of extreme and realistic violence. There are many reports (and discussions) about the link between violence on television and violent behavior in children.

With this in mind, We noted that there were similarities between television and video games in that they both have (a) entertainment value, (b) violent content, and (c) various physical feature similarities (e.g., action, pace and visual change). Many authors claim that most computer games are violent in nature and feature death and destruction (e.g., Dominick, 1984; Loftus & Loftus, 1983). In a survey reported by Bowman and Rotter (1983), 85% of games that were examined (n = 28) involved portici- pants in acts of simulated destruction, killing or violence. A more recent study of computer game content by Proven (1991) reported that of the 47 leading Nintendo games that he analyzed, only seven of them did not involve violence. He reported that video games were populated by terrorists, prizefighters, SWAT teams, robotic cops, and the like, and that women were cast as "victims, " and foreigners as “baddies.” Findings, such as this, led Proven to conclude that video games encourage sexism, violence and racism by conditioning children to view the world in a way that they see on the computer screen. By analyzing the content of video games, researchers have concluded that most computer games are violent, but the choice of games to analyze does not always match the best-selling games. If you look at one of the "Top 10 Games " charts in the swarm of monthly video game magazines, you'll see that many of the most popular games are definitely not " violent" (for example, an actor jumps on a mushroom). Super Mario) Turtles who don't kill either, Sonic the Hedgehog where actors jump on shaped and thorny creatures to reveal cute animals, actors pack mania who eat dots and spots, etc.)

II. THEORETICAL CONCERNS

Theoretically, video games can either stimulate aggressive tendencies (as social learning theory predicts) or display aggressive tendencies (as cathartic theory predicts). There is a possibility. In brief, social learning theory (Bandura, 1986 and others) suggests that aggressive video games promote aggressive behavior. In other words, children imitate what is displayed on the screen. Conversely, cathartic theory (Eshbach & Singer, 1971 and others) suggests that aggressive video games relax and generate potential aggression and thus have a positive effect on children's behavior. do. Despite the ongoing controversy, there are relatively few empirical studies in this field. Although a growing number of studies are examining the "aggression" of video games and their potential for follow-up behavior in children, they only look at short-term effects. The remainder of this article aims to explore the ever-increasing research that is being done to place the discussion in an empirical context. Although we would like to include all important studies addressing the issues raised, it is not the intention of the authors to review all studies in this area.

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TABLE 1. Summary of Self-Report Studies Examining the Relationship Between Video Games and Aggression

Researchers	*n*	Age	Main Finding(s)
Studies on adolescents			
Lin & Lepper (1987)	210	9–11 years	Significant relationship between amount of (arcade) video game play and aggressiveness/impulsivity.
Rush brook (1986)	Not stated	10–16 years	Significant relationship between amount of video game play and violent attitudes.
Kestenbaum & Weinstein (1985)	208	11–14 years	Aggressive video games have a calming effect.[A]
Fling et al. (1992)	153	11–17 years	Regular players think they are more aggressive as do their teachers.
Griffiths & Hunt (1993)	387	12–16 years	Self-reported aggression significantly core-lasted with video game playing
frequency. Dominick (1984)	250	15–16 years	Significant correlation between video game playing and aggressive delinquency. However, correlation was insignificant when control variables partial led out.
Studies on young adults			
Mehrabian & Waxen (1986)	100	Mean age = 18 years	Hostile feelings increased in college students while imagining playing video games.
Anderson & Ford (1986)	60	Undergraduates	Higher aggression video games increased hostility[b]
Study on mixed sample			
Gibb et al. (1983)	280	12–34 years	No relationship between amount of video game play and hostility.

[a] Eysenck shortform Extroversion and Neuroticism Scale (Eysenck, 1958); Singer and Antrobas Day Dreaming Scale (Singer & Antrobas, 1970).

[b] Multiple Affect Adjective Checklist.

III. SELF-REPORT METHODS

The presence of increased aggression was measured through self-report in many studies (see Table 1). Lin and Lepper (1987) found a positive association between male self-reported video game use (grades 4-6) and teacher aggression and impulsivity. Rush Brook (1986) reported a correlation between video games and more violent attitudes to war in grades 5-11. In a study of adolescents (grades 10-11), Dominik (1984) found that video games were correlated with aggression. However, if you exclude the influence of other factors, the correlation between video games and aggression is no longer significant. Anderson and Ford (1986) used a multiple-impact adjective checklist to measure hostility after a student played a very aggressive or slightly aggressive video game. Their results indicate that violent video games can negatively affect players' emotional states in the short term, and that players who play highly aggressive video games increase hostility and anxiety. I showed them Similar results were obtained by Mehrabian and Waxen (1986). He reported growing hostility when he imagined college students playing video games. However, an independent study by Gibb, Bailey, Lambeth, and Wilson (1983) between the ages of 12 and 34 found no association between the amount of video games, hostility, and self-esteem.

Von Kestenbaum and Weinstein (1985) found that video games had a sedative effect on 208 adolescents (11-14 years of age). In a study by Fling et al. (1992), it was reported that the frequency of video games among 153 students in grades 6-12 was correlated (rather than self-reported) with self-reported levels of aggression. Evidence for an association between video game volume and aggression is consistent with other researchers (eg, Dominick, 1984; Lin & Lepper, 1987).

In addition, self-esteem and aggression were reported to have a positive correlation with teacher evaluation, and a negative correlation with self-esteem was reported. Griffiths and Hunt (1993, 1995) have also reported that when video game playing adolescents were asked if they thought playing violent video games made them more aggressive, they responded that this was the case. It was further reported that this was highly significantly correlated with their frequency of playing. Both of these studies support the results of Dominick (1984) and Lin and Lepper (1987). However, they also noted that correlational results such as theirs could indicate that more aggressive children are drawn to video games rather than in addition to their aggression being a result of this activity. The problem with all of this type of research is that correlational evidence is unconvinced- Ing not only because any observed positive correlations may be due to backward causation (aggressive individuals having a greater penchant for video games), but for the more plausible reason that the correlations may not be directly causal at all but may result from mediating factors (e.g., low educational attainment, low socioeconomic status, etc. .) that may themselves be causally related both to video game playing and to aggressive behavior

IV. EXPERIMENTAL STUDIES

Although there are many experimental studies examining the relationship between aggression and video game play, some of these studies serve as experimental paradigms for exploring other theoretical questions (the relationship between aggression and temperature, effects, etc.). I'm using a video game. See Table 2 to assess the social role of gender differences through video games. Winkel, Nowak, and Hopson (1987) studied adolescents (grade 8) versus peers in simulated teacher/student role-play situations, even when they were playing violent video games. We found that there was no increase in aggression. In the short term, teens did not support simulated violence in video games. Violent video games can have a non-aggressive effect on a child's behavior. For example, Chambers and Asci One (1987) report that a grade 3–8 sample contributed less money to the donation box after playing an aggressive game than after playing a prosocial video game. did. Only experimental studies can be expected to provide conclusive evidence for causation. However, the two laboratory studies cited above looked at fantasy aggression (ie, “teacher-student” role situations and impersonation of charitable donations) rather than actual aggression. I did. The latter is rather insignificant, and increased aggression in fantasy role-playing vehicles is far from supporting the hypothesis that games induce aggression and is fully consistent with the cathartic hypothesis. In other words, it can be a fantastic attack that releases energy that can be expressed in aggressive behavior. Scott (1995) conducted a study with college students.

TABLE 2. Summary of Experimental Studies Examining the Relationship BetweenVideo Games and Aggression

Researchers	*n*	Age	Main Finding(s)
Studies on children and adolescents			
Chambers & Asci one (1987)	160	8–13 years	Playing aggressive video games suppressed prosocial behavior in an experimental situation.
Winkel et al. (1987)	56	12–13 years	Role playing experiment reported no increase in aggression.
Lynch (1994)	75	12–17 years	Prehensile subjects showed no differences in heart rate and blood pressure playing violent or nonviolent games.
Studies on young adults			
Light dale & Prentice (1994)	84	Undergraduates	Males more aggressive than females in individuated condition but not in deindividuated condition.
Anderson et al. (1995)	107	Undergraduates	Increasing temperature increases state hostility, hostile cognition, and physiological arousal.
Anderson & Morrow (1995)	60	Undergraduates	Subjects killed more in a competitive situation rather than a cooperative one.
Scott (1995)	117	Undergraduates	Playing aggressive video games does not make people more aggressive.
Ballard & West (1996)	30	Undergraduates	Playing aggressive video games produced increased heart rates and an increase in hostility scores on adjective checklist.

Offensive impact when playing video games with different levels of video game violence question scores in Buss-Durfee Hostility Inventory (Buss & Durfee, 1957) and Eysenck Personality Questionnaire (Eysenck & Eysenck, 1975). Related to aggression studies is Lynch (1994), who assumed that playing violent video games elicited greater cardiovascular responses in adolescent men than men playing nonviolent games.) It is a study. His study examined differences in heart rate and blood pressure between 76 hostile and non-hostile subjects (ages 12-16), but found no difference between the two groups. Lightdale and Prentice (1994) used video games to study the impact of social roles on gender differences. By individualizing the subjects, we found that there was no difference in aggression between males and females when playing video games, but males were more aggressive than females in the individualized state. Such findings say little about the relationship between video games and violence. In another experiment examining different theoretical problems using video games, Anderson, Dauser, and Denube (1995) tested a general model of emotional aggression based on video game research. did. Using 107 students, subjects manipulated room temperature while playing video games, and the rise in temperature consistently increased gamers' hostile feelings and perceptions. I found this the competitiveness of video games can also affect aggression. To investigate this, Anderson and Morrow (1995) extended and tested the theory of competitive effects in Germany (1993) using video games. Theory predicts this.

TABLE 3. Summary of Observational Studies Examining the Relationship BetweenVideo Games and Aggression in Children

Researchers	*n*	Age	Main Finding(s)
Silvern & Williamson (1987)	28	4–6 years	Increase in aggression.
Schutte et al. (1988)	31	5–7 years	Increase in aggression.
Irwin & Gross (1995)	60	7–8 years	Increase in aggression.
Cooper & Mackie (1986)	84	9–10 years	Girls increase in aggression; no increase in boys.

That people view competitive situations inherently more aggressive than cooperative ones. In a study of 60 undergraduates, competition primed subjects killed significantly more video game characters than cooperation primed subjects. The increased kill ratio occurredin the absence of changes of hostility, friendliness, or liking for one's game partner. Because laboratory studies cannot study serious aggressive behavior for ethical reasons, what is required are naturalistic field experiments. In the television violence literature, these are regarded as uniquely important but unfortunately there are no such studies of video games.

V. OBSERVATIONAL STUDIES

A number of studies have examined the differences in children's behavior after playing an aggressive video game by observing the child's free play (see Table 3). Cooper and Mackie (1986) observed the free play of 9- to 10-year-old children in the toy room after playing and watching aggressive video games. They reported that girls' aggressive activity significantly increased although boys remained unaffected. Silvern and Williamson (1987) found that individual 4- to 6-year-old children became more aggressive relative to a baseline condition when they were observed during free play after an aggressive video game. Both Cooper and Mackie (1986) and Silvern and Williamson (1987) noted there were no significant differences in aggression levels between active video game players and passive video game observers. Schutte, Malouf, Post-Garden, and Roadster (1988) also observed the free play of 5- to 7-year-old children after playing an aggressive video game and concluded that the child's subsequent behavior is similar to the character the individual controlled while playing the video game. For instance, those who played a jungle video game played with jungle like toys during free play, whereas those who played the violent video game became more aggressive. Finally, Irwin and Gross (1995) measured interpersonal aggression and aggression toward inanimate objects in 60 second grade boys (aged 7 to 8 years). After playing video games with aggressive or nonaggressive themes, they found that those who played the aggressive games exhibited significantly more object aggression during a free play situation and more interpersonal aggression duringa frustrating situation.

These studies, all of which were carried out on young children, do seem to suggest that the playing of violent video games has the effect of increasing a child's aggressive behavior—at least in the short term. It is possible that this particular methodology (i.e., observational analysis of free play) may itself be contributing to the effect.

TABLE 4. Summary of Other Studies Examining the Relationship Between VideoGames and Aggression

Researchers	*n*	Age	Main Finding(s)
Gardner (1991)	4	5, 7, 10 years	Case studies—video games contribute to releasing and controlling aggression.
Graybill et al. (1985)	116	7–11 years	Projective Test[a]—showed fewer defensive fantasies.
Graybill et al. (1987)	126	7–11 years	Projective Test[a]—no increase in aggression.

[a] Rosenzweig Picture-Frustration Study (Rosenzweig, 1978) and Response Hierarchy Measure.

VI. OTHER STUDIES (PROJECTIVE TESTS, CASE STUDIES)

Two studies by Graybill and his associates (Graybill, Kirsch, & Eshelman, 1985; Graybill, Strawman, Hunter, & O'Leary, 1987) have used a mixture of methodologies (self-report, experiment and observation) and have suggested that video games may have short-term beneficial effects for children (see Table 4). Graybill et al. (1985) reported that 6- to 11-year-old children exhibited fewer defensive fantasies and tended to exhibit more assertive fantasies after playing violent video games although this was a trend and not significantly significant. Aggression was assessed using a projective test—the Rosenzweig Picture- Frustration Study. The authors concluded that their results were more consistent with catharsis theory and that violent video games discharge aggressive impulses in a socially acceptable way and that playing violent video games may have a short-term beneficial effect for the children playing them.

In a further study, Graybill et al. (1987) used a behavioral measure involving apparatus in which children could push buttons to hurt or help another child, in addition to two self-report measures (the Response Hierarchy Measure and the Rosenzweig Picture- Frustration Study again). These were administered after the playing of violent and nonvoid- lent video games but no significant differences were recorded. Graybill and his associates also reported that there may be differences between television viewing and video game playing. One obvious difference reported was that although the video game's content may be violent, the graphics are not nearly as realistic as televised violence. However, longer-term effects were not ruled out.

In a more anecdotal case study account, Gardner (1991) claimed that the use of video games in his psychotherapy sessions provided common ground between himself and his client and provided excellent behavioral observation opportunities. Gardner described four particular case studies where video games were used to support psychotherapy, andadded that although other techniques were used as an adjunct in therapy (e.g., storytelling, drawing, other games etc.) it was the video games that were the most useful factors in the improvement during therapy. He claimed that video games contribute to releasing and controlling aggression although there was little evidence for this except for Gardner's own anecdotal observations.

VII. CONCLUDING COMMENTS

These growing number of studies examining the effects of video games on aggression have only involved a measure of possible short-term aggressive consequences. The majority of the studies on very young children—as opposed to those in their teens upwards—tended

TABLE 5. Categories of Video Games (Adapted from Griffiths, 1993)

1. Sport Simulations: This type is self-explanatory. These games simulate sports such as golf, ice hockey, athletics, etc. (e.g., *World Wide Soccer '97, NHL Powerplay '97,* etc.).
2. Racers: This type could be considered a type of sport simulation in that it simulates motor sports like Formula 1 racing (e.g., *Human Grand Prix, Speedster, Motor acer,* etc.).
3. Adventures: This type uses fantasy settings in which the player can escape to other worlds and take on new identities (e.g., *Atlantis, Star Trek Generations, Overboard,* etc.).
4. Puzzlers: This type is self-explanatory. These games are "brainteasers," which often require active thinking (e.g., *Tetris, Baku Animal,* etc.).
5. Weird Games: These games are not weird as such except they do not fit into any other category. They would be better termed *miscellaneous* (e.g., *Sim City 2000, Populous 3,* etc.).

6. Platformers: These games involve running and jumping along and onto platforms (e.g., *Mario 64,Sonic,* etc.).
7. Platform Blasters: These games are platformers but also involve blasting everything that comes intosight (*Robocop 2, Virtua Cop,* etc.).
8. Beat 'Me Ups: These games involve physical violence such as punching, kicking, etc. (e.g., *Street Fighter3, Tekken 2, Mortal Kombat,* etc.).
9. Shoot 'Me Ups: These games involve shooting and killing using various weapons (e.g., *Blast Corps,Mech Warrior, Turk Dinosaur Hunter,* etc.).

To show that children do become more aggressive after either playing or watching a violent video game but these were all based on the observation of a child's free play. Such evidence suggests that at a theoretical level, there is more empirical evidence supportingsocial learning theory than catharsis theory—particularly in younger children. However, there is much speculation as to whether the procedures to measure aggression levels are valid and reliable. There is also the question of developmental effects, that is, do video games have the same effect regardless of age? It could well be the case that violent videogames have a more pronounced effect in young children but less of an effect (if any) once they have reached their teenage years. There is also the social context of playing, that is, playing in groups or individually, with or against each other may affect the results. The findings of Anderson and Morrow (1995) suggest that competitiveness increases aggression. There are also problems concerning the definition of "violent" or "aggressive" as there are numerous television cartoons such as Tom and Jerry which may not be regarded as violent within the operational definitions employed in mass media research. Because all video games are animated, the same argument might be use for them also. Research into the effects of long-term exposure to video games on subsequent aggressive behavior is noticeably lacking and at present remains speculative.

It is evident that video games can have both positive and negative aspects. If care is taken in the design, and if games are put into the right context, they have the potential to be used as training aids in classrooms and therapeutic settings, and to provide skills in psychomotor coordination in simulations of real-life events, for example, training recruits for the armed forces. There is, however, a need for a general taxonomy of videogames as it could be the case that particular types of games have very positive effects while other types are not so positive.

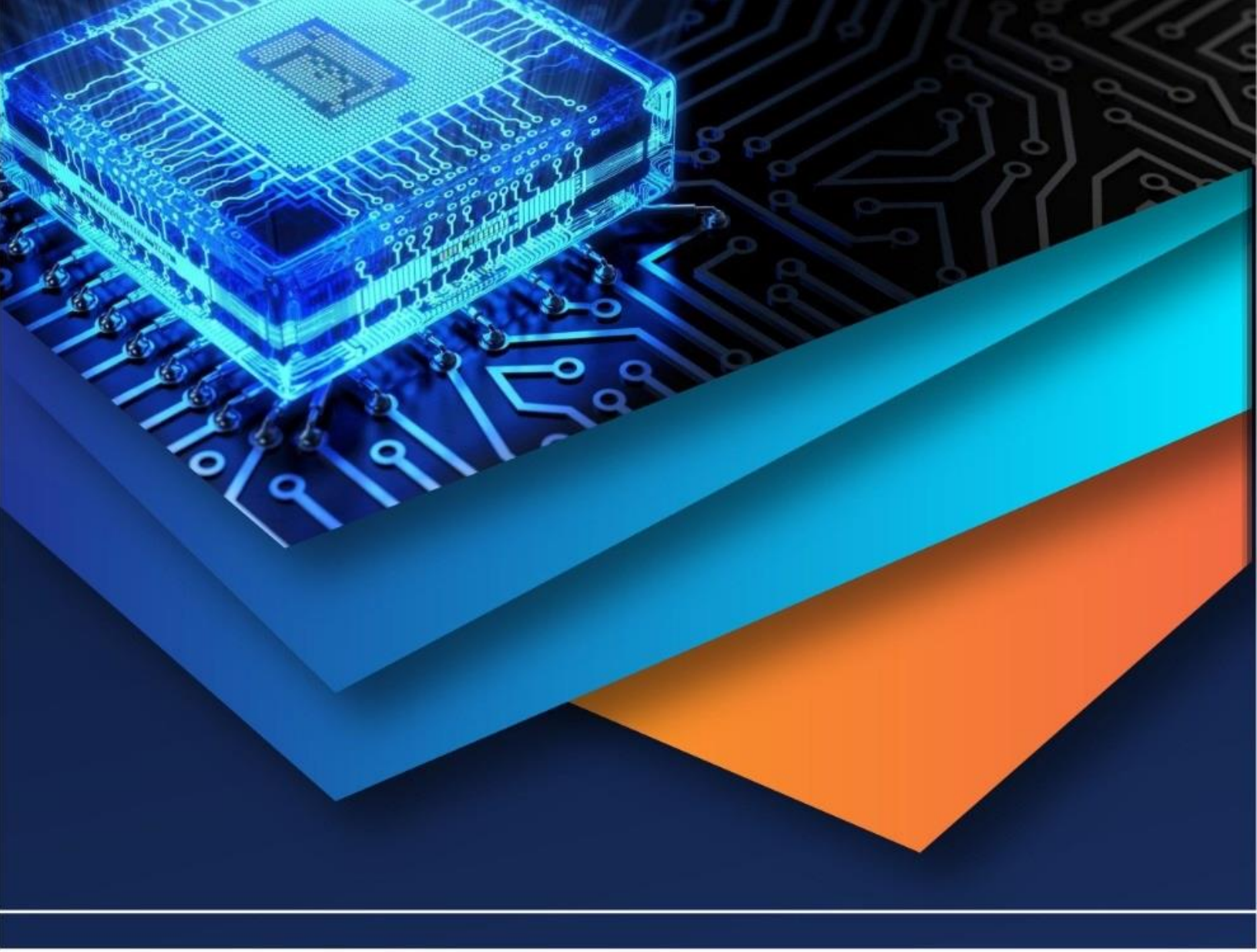
As Table 5 demonstrates, there are many different types of video games each of which have their own distinctive qualities. Only three of these categories ("beat 'me ups," "shoot 'me ups," and "platform blasters") have any kind of aggressive element. If children and adolescents work with this degree of definitional refinement it follows that other interested parties (e.g., educationalists, researchers, etc.) should do also. To briefly conclude, the question of whether video games promote aggressiveness cannot be answered at presentbecause the available literature is relatively sparse and conflicting, and there are many different types of video games which probably have different effects.

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