AGGRESSION AND VIDEO GAMES:
THE EFFECT OF JUSTIFICATION OF VIOLENCE AND
PRESENCE OF A STEREOTYPED TARGET

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ABSTRACT

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The purpose of the current study is to examine how some of the factors in violent video games affect subsequent aggression. Firstly, the effect of violent content in video games was examined with a prior study. 42 participants (22 female, 20 male) were randomly assigned to play a violent or a neutral game. Results showed that game type did not have an effect on post-gaming aggression. Disregarding the effects of in-game variables was suggested to be the reason for this result. Thus, a second study was conducted to see whether two in-game variables (justification of violence and presence of a stereotyped target) influence post-gaming aggression. 90 participants (43 male, 47 female) were asked to play a violent video game where justification of violence and presence of a stereotyped target were manipulated. Stereotyped target was specified with a pilot study where 53 participants indicated their ratings for a major prejudiced group. Results of the second study showed that aggression increased when violence was justified and the target was stereotyped, and when violence was unjustified and the target was not stereotyped. Additionally, no gender difference was observed. Current thesis contributed to the literature by showing that aggression should be investigated with in-game factors. Besides, joint effects of justification of violence and presence of a stereotyped target were shown to

be crucial. Current findings can also be applied to real life since they imply that violent content does not always lead to aggression and in-game factors are as important as violent content.

Keywords: Violent video games, Aggression, Virtual violence

ÖZ

SALDIRGANLIK VE VİDEO OYUNLARI: ŞİDDETİN MEŞRULUĞUNUN VE STEREOTİPİK HEDEFİN ETKİSİ

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Bu çalışma, şiddet içeren video oyunlarındaki bazı faktörlerin oyun sonrası saldırganlığa olan etkisini incelemek amacıyla yapılmıştır. İlk olarak, şiddet içeren ve içermeyen oyunların etkisi ön bir çalışma ile karşılaştırılmıştır. 42 katılımcı (22 kadın, 20 erkek) rastgele bir şekilde şiddet içeren bir oyunu ya da nötr bir oyunu oynamaları için seçilmiştir. Ön çalışmanın sonuçları, oyun tipinin oyun sonrası saldırganlığa etki etmediğini göstermiştir. Bu sonucun sebebi olarak oyun içi değişkenlerin etkisinin göz ardı edilmesi önerilmiştir. Bu yüzden ikinci bir çalışma yapılarak, iki temel oyun içi değişkenin (şiddetin meşruluğu ve stereotipik hedefin bulunması) oyun sonrası saldırganlığa etki edip etmediği araştırılmıştır. 90 katılımcıdan (43 erkek, 47 kadın), şiddetin meşruluğu ve hedefin stereotipik olup olmamasının manipüle edildiği şiddet içerikli bir oyun oynamaları istenmiştir. Stereotipik hedef, 53 katılımcının önyargı duyulan ana bir grubu beyan ettikleri öncül bir çalışma ile belirlenmiştir. İkinci çalışmanın sonuçları oyun sonrası saldırganlığın, meşru görülen şiddet ile stereotipik bir hedef bulunduğunda ve meşru görülmeyen şiddet ile stereotipik olmayan bir hedef bulunduğunda arttığını göstermiştir. Buna ek olarak, cinsiyet açısından herhangi bir farklılık gözlenmemiştir. Bu tez şiddet içeren video oyunları ile ilgili olan saldırganlığın oyun içi faktörlerin göz önünde bulundurarak incelenmesini göstermesi dolayısıyla literatüre katkıda bulunmuştur.

Bunun yanında, şiddetin meşruluğunun ve stereotipik bir hedefin bulunuşunun ortak etkisinin bu konu için çok önemli olduğu gösterilmiştir. Bu çalışmanın sonuçları, şiddetli içeriğin her zaman saldırganlığa yol açmayacağını işaret etmesi ve oyun içi değişkenlerin içerik kadar önemli olduğunu göstermesi sebebiyle gerçek hayata aktarılabilir.

Anahtar Kelimeler: Şiddet içeren video oyunları, Saldırganlık, Sanal şiddet

To My Precious

Family

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INTRODUCTION

1.1.Overview

Looking around nowadays, almost each person on the planet has their representations in cyberspace. Apart from the concrete reality we live in, we have been creating parallel realities and multiple selves, which exist via technology. Advances in technology have been flourishing people's interactions with the internet, computers or mobile devices and this enabled people to represent themselves in another reality. According to Turkish Statistical Institute (2015), nearly half of the population in Turkey is regularly using the internet and social media cites take the first place for the usage. In addition to this, users are reported to spend at least 2 hours in social media and they are reported to have multiple accounts (Global Web Index, 2015). In each account people create, they are actually creating a reflection of themselves in another reality.

Social media is one way people represent themselves, and I think another one is video games. Video games create a cyber-universe, which is quite different from the social media. In social media, people are somehow connected to the concrete reality; however, in video games, people can assume many fictional roles. They can re-create themselves from head to toe; they can be any gender, age, race or they even do not need to be human, they can be machines or any other species. Again thanks to the technological improvements, new devices facilitate the access to various and realistic fictional universes. In addition to this, video games can be played via mobile phones, computers or gaming consoles; people generally prefer to play games via computers (Newzoo, 2013). Forty-eight percent of internet users, between the ages of 16 and 64, prefer computers for online gameplay. This amount is 58% for our country (Global Web Index, 2015). More importantly, Turkey holds the third place in the rankings for time spent on playing games via computer and 61% of the gamer

population in our country stated that they spend money for games (Newzoo, 2013). Among 100 countries all around the world, Turkey is the 18th country when it comes to the amount of income obtained from videogames (Newzoo, 2014).

Video games have become an important issue for psychology since they have such prevalence all around the world. Apart from this prevalence, research on the effects of media, especially for the television, also had an impact on the growing interest for video game research. Possible harmful effects of television were largely investigated in the literature and the central research subject was violent TV content (e.g. Eron, Lefkowitz, Huesmann, & Walder, 1972; Huesmann, Titus, Podolski, & Eron, 2003). It was generally suggested that violent TV content has negative effects on viewer's behaviors: Depictions of violence on TV were reported to result in fear, aggression and desensitization (Donnerstein & Smith, 1997). In short, research on the effects of violent TV content paved the way to the investigation of how violent video games affect people.

It is also important to note that, violent genre in video games are highly preferred (e.g. Bunchman & Funk, 1996). In terms of the player amount, Counter-Strike: Global Offensive (Valve, 2012), which is a violent video game rated as "mature" by Entertainment Software Rating Board (ESRB) ("Counter-Strike," n.d.), holds the second place ("Steam: Game," n.d.). Since violent video games have such huge audience, their effects are needed to be investigated. In violent video game research, aggression has yielded controversial findings; three main findings were reached in the literature: One involves that violent video games make people aggressive (e.g., Anderson & Bushman, 2001), second one involves that video games help people release their anger (e.g., Kestenbaum & Weinstein, 1985) and the last finding includes that violent video games does not influence people (e.g., Scott, 1995). From my point of view, one reason why there are controversies between the findings is that studied variables were not adequately clear. Within each violent video game, there are some variables which might go unnoticed. For instance, some violent video games can be competitive as well, and the experience of competition might be a confounding variable for the studies. Therefore, extra attention is needed for picking the appropriate video game for research. In order to investigate the

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effects of violent video games, variables should be chosen specifically. Current study is an experimental social psychological study and the aim of the present thesis is to focus on some in-game variables ("justification of violence" and "presence of a stereotyped target"), which can influence post-gaming aggression.

In the introduction chapter of this thesis, I will firstly discuss the popularity of violent video games both in the world and in psychology literature. Then I will touch upon aggression concept, by giving its definition, forms and theories. Internal and external factors which can contribute to aggression will be discussed, as well. Then, a brief literature review about violent video games and aggression will be given. After the review, the two in-game factors, which I believe is important for this research area, will be mentioned. Lastly, I will present the purpose of my study along with the hypotheses.

1.2. Violent Video Games: Interest in Literature and Popularity

New varieties of technological devices have been emerging and such devices ease the access to the cyber-world. This also contributed to the developments in video games. With improvements in graphics, for instance, video games have become more realistic. The increasing realism in video games is particularly important since it might remove the fictional atmosphere of video games. Violent content in older video games was suggested to include an unrealistic impression because of the graphical availability (Dill & Dill, 1998). Apart from the graphical improvements, games present a real-life perspective. Video games can have a first-person or a third-person perspective. First-person perspective allows players to see the game through the character's eyes and it resembles to the perspective of us in real life (Hollingdale & Greitemeyer, 2014). Having better graphics and the perspective makes the game more realistic, thus players can easily become involved in the games. Sherry (2004) states that involvement increases the amount of enjoyment players get; thus, more enjoyment results in further engagement in video games.

As I stated before, the interest in violent video games was partially triggered by the research on the violent media. Observing media violence was reported to result in aggression, desensitization and fear (Donnerstein & Smith, 1997). With

technological advances, gaming culture has been growing and whether violent content in video games could make the same effect as violent media content was the main point. It was suggested that when people play video games, they have a more active role than merely observing a similar content. Because of the involvement in the games, it was claimed that violent video games influence people more than violent media (Dill & Dill, 1998). People are able to manipulate their characters in the game actively and this contributes to the involvement (Wallop, 2012). This also helps people identify with the in-game characters. Identification with the characters was suggested to be lower for media content because people are passively observing the characters in media (Dill & Dill, 1998). In video games, people generally choose or create their characters. When this process and the realistic atmosphere of video games come together, I think it is easier for players to identify themselves with the characters. Identification with in-game characters is revealed to have an impact on people's behavior. To exemplify, Konijn and colleagues (2007) found that players tended to act aggressively when they identified themselves with violent heroes in the games. Another important point suggested was that video games have rewarding mechanism, which other media tools lack. Players can be awarded with points, equipment or by unlocking new levels for their achievements in the game. More importantly, just the sense of achievement itself can be a reward for the players (Dill & Dill, 1998).

Besides those reasons mentioned above, people's preferences for violent video games also contributed to interest in research. The preference for violent video games is really huge. For instance, 59% of female and 73% of male 4th grade students reported that they prefer to play violent video games (Bunchman & Funk, 1996). In the study by Gentile and colleagues (2004), 607 students in 8th and 9th grades rated how much violence their favorite video games involved and it was found that males rated 49% of their games; females rated 20% of their games as having intense amount of violence. More importantly, students' preference for games which involve zero violence was crucially low: It was revealed that sixteen percent of females and one percent of males wanted to play a video game which does not involve violence. Apart from these, male, 5th, 8th, 11th grade and university students

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reported that they mostly prefer to play games involving shooting and fighting (Greenberg, Sherry, Lachlan, Lucas, & Holmstrom, 2010).

Perhaps the most important reason why violent video games began to be a hot topic is some severe incidents. One of them happened in a high school in Colorado, where two students injured 21 and killed 13 others (Backholm, Moritz, & Björkqvist, 2012). The perpetrators were found to be playing DOOM (id software, 1993), a violent video game rated as "mature" by ESRB ("Doom", n.d.,). The game is a "first person shooter" (FPS), meaning that players play the game through the eyes of the main character (Hollingdale & Greitemeyer, 2014). In the game, players play as a space marine and their duty is to kill alien invaders ("Buy Ultimate DOOM," n.d.). The game was used in a study to measure its effects on aggression. It was found that participants, who played DOOM, tended to attribute aggressive traits to themselves more (Uhlmann & Swanson, 2004). Bondü and Scheithauer (2012) examined the relationship between violent media usage and shooting incidents in German schools. Seven incidents were investigated and it was found that violent media (video games and movies) usage was prominent for 5 of the incidents. After the incidents, violent video games gained accusations for making people more aggressive (Ferguson & Ivory, 2012). Here, whether playing violent games is the real culprit remains important. Can they really bring the evil out of people who play them? Absolutely the media likes those kinds of accusations since people pay attention to such news. As I previously mentioned, people might show fear reactions to the content they see on media (as cited in Donnerstein & Smith, 1997). Therefore, the news, which creates the impression that video games are harmful, can make people avoid from playing.

1.3. Aggression: Definition, Types, Theories and Additional Factors

As explained previously, various factors led to the growing interest for violent video games. Many studies were conducted to investigate the influence of violent video games. One of the highly focused consequences was aggression, which is the main issue for this thesis. One of the oldest definitions for aggression stated aggression as a behavior set aimed at harming another person (Dollard, Doob, Miller,

Mowrer, & Sears, 1939 as cited in Berkowitz, 1988). Later Buss (1961) defined aggression as a reaction which conveys the harmful stimuli to another entity. These two definitions had similar contents; later some contributions to these basic definitions were made. Berkowitz (1989) addressed the importance of intention, Bushman and Anderson (2001) focused on the importance of the characteristics of the person inflicting the harm and the target. Adding these together, there are some key aspects for a harmful behavior to be classified as aggression. Firstly, it is necessary that the behavior is intentional. As Anderson and Bushman (2002) suggested, causing harm to another person by not meaning any harm cannot be defined as aggression. The person, who inflicts harm, also needs to know that his/her actions will cause harm. Another important aspect is that the person affected by a harmful behavior, should have the motivation to avoid. People can endure the inflicted harm and this cannot be classified as aggression. To clarify, if a person wants to get a tattoo, this person endures the pain inflicted by the tattoo artist and actions of the tattoo artist cannot be classified as aggressive.

It is also necessary to address the difference between violence and aggression. Violence can be defined as the act of inflicting extreme harm on another being. To begin with, intention is the essential element for both aggression and violence. The distinction lies in the intended result and the intensity of the concerned action. As Anderson and Bushman (2001) suggested, the final goal of violence is inflicting extreme harm. For example, intentionally killing a person can be classified as violence since the intensity of the aggressive action is really high. Note that the action itself is aggressive, as well. To clarify, it is necessary that violence involves aggression; however, aggression does not need to involve violence. This point will be clarified more during the discussion of aggression types.

1.3.1.Aggression Types

Aggression can get many classifications according to its form, how it's delivered, how the final goal is defined or the social context. One of the basic classifications is between "physical", "verbal" and "non-verbal" aggression. "Physical aggression" involves physically hurting someone; "verbal aggression"

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involves hurting someone with words, not with physical conduct (Björkqvist, 1994 as cited in Ramirez & Andreu, 2003). "Non-verbal" or "postural" aggression is the form which involves bodily gestures and facial expressions (Underwood, 2012 as cited in Ramirez & Andreu, 2003). Intentionally insulting and psychologically harming another individual with condescending expressions can be an example for non-verbal aggression. This also represents an example for how aggression does not need to include violence. As an aggressive action, facial and gestural expressions of contempt can hurt another person and this does not necessarily involve violence.

Another significant categorization is formed according to the motive of the aggressive behavior. Regarding this, Feshbach (1964) categorized aggression into "hostile" and "instrumental" classes. "Hostile aggression" has its ultimate goal as harming another individual; whereas in "instrumental aggression" aggression is used as a mean to reach another desired goal. Those categories are well-accepted in literature and they can also be called as "reactive/affective" and "proactive", respectively (Anderson & Bushman, 2002). Hostile aggression is suggested to include specific emotions and a triggering reason. The primary emotion included in hostile aggression is anger and it is triggered by a provocative source. In other words, hostile aggression emerges when a provocative stimulus elicits anger and arousal. Geen (2001) identified three main components which are necessary for the emergence of hostile aggression: "Provocation", "methods/, situational factors" and "background/disposition". Geen (2001) suggested hostile aggression as a composition of the arousal produced by an anger-eliciting stimulus, situational factors such as availability of weapons and the tendency to behave aggressively, attitudes of caregivers and media tools. Additionally he pointed out that those aspects were not really adequate to elicit hostile aggression on their own; the interaction between them was responsible for harming another individual. For instrumental aggression, on the other hand, the primary goal is not harm. For example, resorting to aggression in order to protect self against threats is instrumental aggression since the main objective is not hurting another being intentionally. Bullying behavior is can be considered as another example because it involves using aggression to gain authority and power; the main goal is not infliction of harm.

Following these, "direct" and "indirect/social/relational" forms of aggression are also important. Direct and indirect aggression generally occurs in social situations, where people can confront others directly or indirectly. Direct aggression can be verbal, physical or postural; but it needs to be conveyed directly to the target. Indirect aggression happens through another agent (Buss, 1961). In addition to these, Rosenzweig (1941) differentiated between "need-persistive" and "ego-defensive" aggression. In this classification, aggression is kind of a response to frustration; which will be focused on during theories of aggression. In "need-persistive" aggression, there is a desired goal, which is blocked. The blockage results in frustration and the aggressive reaction to the frustration is reaching the goal no matter what. The "ego-defensive" one involves defending the self against the thing causing frustration.

Mostly used classifications of aggression are listed above and it is obvious that an aggressive action can be put under various categories. Here, what I would like to emphasize is that an aggressive action can be put under many different classifications. An act of verbal aggression, for example, can be instrumental as well. As it is previously mentioned bullying others to gain power might be considered as instrumental aggression. Bullying behavior can be physical, verbal or non-verbal. If the bully also wants to hurt a particular person, beside the desire for being powerful, it can also be considered as hostile aggression. All in all, categorizations should not be considered as separate entities; emergence of an aggressive action can include several aspects.

1.3.2. Psychological Theories of Aggression
1.3.2.1. Instinct Theories

In the literature, various theories focus on how aggression functions. One oldest theory is Freud's psychoanalytical "instinct theory", in which Freud (1922) claimed that innate sources are responsible for aggressive behaviors. Regarding this, he names two main instincts: "Eros" or "sexual instinct" and "Thanatos" or "ego instinct". "Eros" was defined as a human instinct which encourages people to keep living, whereas "Thanatos" was defined as the one which carries the desire for death

and demolition. According to Freud (1922), those two instincts contradict with each other and people need to fulfill their instinctual desires to restore equilibrium between them. Therefore, people resort to aggression because they need to release their instinctual death desire. People can direct death desires to others and to themselves. Self-harming behaviors are because of "Thanatos" which is directed at self. Freud (1933) also supported the idea that if an aggressive action is blocked, people may direct the instinctual tension to themselves. However, since people also have "Eros", they avoid harming themselves and this encourages people to act more aggressively (as cited in Bandura, 1973). It is clear that Freud's instinctual theory is difficult to test scientifically. Besides this difficulty, it seems that he does not take situational factors into consideration and regards the release of aggression as inevitable. Inevitability of aggression and impacts of situational factors will be discussed in other theories presented below.

Another instinctual theory is proposed by Lorenz (1996) and suggested that aggression in an innate mechanism which helps species survive. This conclusion was reached by observation of animals. Basically the suggestion was that the behaviors of humans and animals are similar and aggressive behavior is inevitable as it helps survival. Apart from its inevitability, aggression was supported to be practical rather than destructive. This conclusion was again derived from the observation of behaviors of various species, such as how aggression can reduce overpopulation and appropriate distribution of food resources. Lorenz emphasized the irrelevance of environmental factors in triggering aggressive responses and insisted that aggression was an inner natural impulse. He defended the idea that aggression stemmed from inner mechanisms and stated that "The fact that the central nervous system does not need to wait for stimuli, like an electric bell with a push button, before it can respond, but it can itself produce stimuli" (p. 41). Thus, emerging from the inner biological mechanisms, until the aggressive drive gets released, it accumulates continuously.

1.3.2.2. Social Learning Theory

"Social learning theory" (SLT) postulated that people can acquire behaviors through undergoing the behavior itself, observing another person experiencing it or observing the consequences of someone's behavior (Bandura, 1977). According to the theory, acquisition of aggressive behavior should be similar to acquisition of any kind of behavior. Bandura (1983) focused on the importance of learning by stating that "People are not born with preformed repertoires of aggressive behavior. They must learn them" (p. 4). It is essential to note that SLT does not disregard physiological features. The theory suggests that biology by itself is not adequate to behave aggressively; there need to be some external factors triggering the aggressive response. People have the necessary physiological equipment to behave aggressively; however, cognitive and situational factors play a detrimental role in this process. Just like observing an aggressive behavior and its consequences, the theory puts emphasis on situational factors. For instance, accessibility of weapons is one of the situational factors which can help people decide to act aggressively or not (Bandura, 1983).

Consistent with SLT, aggressive behaviors can be acquired by observing another one doing it and, or, with the help of positive reinforcement. In the well-known study by Bandura and colleagues (1961), children were allowed to watch another person playing with a toy: Bobo-doll. This person played with Bobo-doll either aggressively or non-aggressively. After their playing sessions, children were allowed to play with the doll and their playstyle with Bobo-doll was observed. It was found that children, who observed aggressive play before, tended to act aggressively towards Bobo-doll. In brief, watching another person act aggressively can be modelled by the observers. If the aggressive person is rewarded after the act, observers can conclude that the behavior is rewarding.

Bandura (1983) noted the key sources whose behavior can be imitated: Family, society and the media. People can model aggression from these three sources. Family can be seen as the first place people began to understand and shape the world, so the behaviors of caregivers are really important. In the literature, it was reported that children with history of abuse, have a tendency to engage in criminal activity (Widom, 1989). This link was also measured across three generations and

the results were similar. Conger and colleagues (2003) investigated the parenting styles of two generations: a group of adults, their children and their own mothers. The study revealed that adults with aggressive parenting style tended to have a similar aggressive parenting to their children. The second source includes the society and the culture people live in. The immediate environment presents cues about whether engaging in an aggressive behavior is efficient. It was suggested that socioeconomic status (SES) can present people with such cues and in a study it was found that adolescents with low SES tended to act delinquently (Heimer, 1997). Regarding the findings, authors interpreted that for lower SES, aggressive behaviors were encouraged more. Although this interpretation is open to discussion, the main point remains to be the one that if the environment people live in encourages aggression; it is more likely for its residents to model it.

Media, especially televised violence literature presents decent examples. For short-term effects of observation of violent media, Bushman and Geen (1990) measured the affective and cognitive responses after watching a violent video. Results showed that, if the video included more violence, participants were more likely to have aggressive cognitions, which was measured by listing the things they were thinking when they were watching videos, they reported more hostility and they had higher blood pressure. For long-term impacts of violent media, longitudinal studies were conducted. For instance, in one study children, who watched violent content when they were 6-10 years old, measured for their present aggressive behavior at the age of twenties. It was found that watching violent television content in childhood, correlated with their aggressive behaviors in adolescence (Huesmann et al, 2003).

1.3.2.3.Frustration-Aggression Hypothesis

As proposed by Dollard and colleagues (1939), *Frustration-aggression hypothesis* stated that frustrations, obstruction of a wanted objective, result in aggressive behavior (as cited in Bandura, 1973). The desired goal was suggested to be attainable, as well (Berkowitz, 1988). In other words, if a person expects acquisition of something, prevention of acquisition creates frustration which leads to

aggression. The hypothesis received some criticisms. One was about the characteristics of the desired result. It was suggested that if there is a reasonable explanation for the obstacle, frustration might not cause aggression (Pastore, 1952). Another criticism questioned whether every frustration results in aggression. Regarding this, it was suggested that frustration may trigger many responses and aggression was one of them (Miller, 1941). In addition to these, the hypothesis also made some clarifications about why people choose to direct aggression to another object/person instead of the thing causing frustration. People may not prefer responding to frustration all the time. Miller (1959) suggested three basic aspects which explain this situation. These are the power of provocation, existence and harshness of a punishment and the resemblance between the primary and shifted targets. According to those three aspects, people can prefer to direct aggression to another target since not doing this might have negative consequences for themselves.

1.3.2.4.Cognitive Neoassociationism

Deriving from *frustration-aggression hypothesis*, Berkowitz (1988) postulated "Cognitive Neoassociation Theory", in which the significance of unpleasant affect was specified. According to the theory, in order for a behavior to be classified as aggressive; frustrations need to cause "unpleasant affect". The unpleasant feeling was suggested to occur automatically when faced with a frustrating condition. Following this, *fight* or *flight* responses were suggested to emerge. *Fight* response was claimed to be followed by aggression; whereas *flight* was claimed to be followed with fear. The difference of the theory lies in the addition of the affective component which was suggested to occur after frustration. This theory also helps explaining why every frustration does not end up with aggression can be explained with this theory. Impact of unpleasant affect associated with the frustration-aggression relation is shown in a recent study. In this study, participants were required to play a video game and losing the game was the frustrating condition. Consistent with Berkowitz's (1988) theory, higher aggression was observed for the participants who reported having higher levels of unpleasant affect after losing the game (Breuer, Scharkow, & Quandt, 2015).

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1.3.2.5.Excitation Transfer Theory

"Cognitive Neoassociationism" specified the importance of unpleasant affect and "Excitation Transfer Theory" discussed how people interpret this unpleasant feeling. According to Zillmann (1988), *flight* and *fight* responses suggested by Berkowitz (1988) were not sufficient to explain aggression; as Zillmann stated: "Responding "emotionally" threats to health, social power, social status, or self-esteem not only may lack adaptive value, but can be counterproductive and maladaptive" (p. 53). Besides recognizing the automatic aggressive responses triggered by emotions and arousal, Zillmann tried to emphasize the role of cognition. How emotions and arousal are interpreted and attribution processes are key points in this theory. To clarify, after people get aroused by a situation causing unpleasant affect, they try to make sense of the arousal.

Zillmann (1988) also suggested that if people get aroused by consecutive situations, they can misinterpret the reason of arousal. In a study conducted by Zilmmann and colleagues (1972) participants were firstly irritated by experimenters, and then they were required to exercise by riding a bike. After exercise session, participants were given chances to retaliate to the irritating experimenters by giving shocks, which were non-existent. The intensity of the shocks given was higher for the participants who were subjected to higher levels of exercise. In brief, the arousal created by exercise accumulated with the arousal created by irritation. Thus, the participants who exercised more, felt aroused more and they attributed the joint arousal to their anger towards the experimenter. An important point which can be derived from this study is that after an event, people stay aroused for a while; they do not calm down immediately. If people associate their aggressiveness with a source, there is no need for another arousal. People can still behave aggressively in the face of the relevant source, since they interpreted that their previous arousal had stemmed from this source.

1.3.2.6. General Aggression Model

In addition to these theories, "General Aggression Model" was proposed by Anderson and Bushman (2002). As a cognitive theory, it involves many variables and tries to account for how different types of aggression functions. According to the theory, social conditions begin the aggression process by working together with personality and situational factors. After situational and personal factors enter the process, they influence the affective, cognitive and arousal mechanisms. Engaging in an aggressive behavior is a result of those mechanisms helping people to make a decision.

Cognitive mechanism is generally relevant to priming, which can be defined as having ease of access for a short-time (Anderson & Bushman, 2002). In studies conducted by Berkowitz (1998), participants were asked to watch violent and non-violent videos. After watching the videos, they were required to complete a task about words. The task included homonym words and second meanings of words were related to violence. Participants were asked to write the first thing they thought next to the homonym words as quickly as possible. The results of the study indicated that participants who watched violent videos, tended to write aggressive words more. Following this study, another one was conducted in which reaction times were measured. Participants watched violent and non-violent videos again; but this time they completed a different task. In this task, they were required to indicate whether the words they see in the computer screen was in English or not. It was anticipated that, reaction times would be lower when participants who watched violent video was presented with a violent word. Results were in line with the anticipation. In short, it can be concluded that existence of situational cues which prime aggression increases accessibility of aggression-related concepts. For how affective and arousal component might be affected, we can refer to the study by Bushman and Geen (1990), which was mentioned during short-term effects of observing violent content. In the study, participants who watched violent videos reported more hostility, which relates to affect; and they also had higher levels of blood pressure, which relates to how environmental factors influence physiology.

It is important to note that these three mechanisms also interact with each other. For example, for how cognitive and affective processes interact; it was shown that being in a room filled with different odors, influenced the memories participants remember When the room was filled with a pleasant smell, participants reported remembering happy memories more as compared to the situation in which the smell of the room was unpleasant (Ehrlichman & Halpern, 1988). Apart from this, Heuer and Reisberg's (1990) experiment can be an illustration of how arousal interacts with cognitive processes. In this experiment, participants were shown neutral and arousal-induced versions of a video. Two weeks later, participants' recall rates of the video were measured and it was found that participants who watched arousal induced video remembered more details. In short, affective, cognitive and arousal processes cannot be considered as separate entities.

After situational and personal variables trigger affective, arousal and, or, cognitive processes, decision making begins. According to these entries, a decision can be made automatically or in a more controlled way. As the name suggests, automatic one is described as quick, impulsive, unconscious and effort-free. It is proposed that if environmental cues and personality characteristics are adequate and the consequence is unimportant, people act with impulse. On the other hand, even if the environmental and personal factors are adequate, if people think that the consequence of their actions are important, they will consider their decision more carefully. In brief, decision making process can have two results: an impulsive or a thoughtful behavior. People reach to the conclusion by evaluating the surrounding cues and the importance of the consequence. Surrounding cues may involve time, for instance. If a person has a limited time to respond to an anger-eliciting stimulus, this person will probably act on impulse since there is not enough time to consider about the consequences (Anderson & Bushman, 2002).

1.3.2.7.Script Theory

"Script theory" is highly related with SLT and it stems from media violence research (Huesmann, 1986). As it was mentioned before, media was listed as a source, from which people model aggressive behavior (Bandura, 1983). Huesmann

(1986) suggested that media content teaches *scripts*, which were defined as learnt concepts shaping people's actions. Therefore, violent media content can present aggressive behaviors which can be picked up and restored as scripts in memory. *Scripts* are also needed to be rehearsed in order not to fade from memory. In other words, if people continue to see similar violent content in media, the *scripts* in their memory get stronger due to repetition. A restored *script* can be used later. Usage of a script depends on some factors. Reinforcement, for instance, facilitates accessibility and usage of a *script,* which increases the possibility of its usage. To illustrate, imagine a child watching a movie, in which the main character resolves his/her problems with violence. This presents a strategy and the child can pick this up as a *script*. If the child sees this repeatedly, it is more likely that it will be recalled easily. More importantly, if the child prefers to use the encoded *script* and gets rewarded afterwards, it is highly likely that the script will be used again later. Situational factors can also facilitate accessibility and they are not necessarily a part of a script involved in its creation. It is adequate that the situational factor is related to a script. For example, sight of a gun can activate a violent script and guns might not be included in attainment of this script (Huesmann, 1986).

1.4. Internal Factors and Aggression
1.4.1.Genetics

Regarding aggression, whether human beings are innately aggressive is one of the highly investigated issues. Twin and adoption studies are generally conducted to study hereditary basis of aggression. One twin study conducted by Rushton and colleagues (1986) measured the trait aggression of monozygotic and dizygotic twins. They found that correlations between monozygotic twins in aggression were higher than it is for dizygotic twins. One adoption study involved criminals in order to investigate the hereditary links. The times criminals, their biological and adoptive parents were found guilty at the court were compared for violent and property crimes. The results showed higher correlations between criminals and their biological parents in terms of crimes related with properties. Regarding violent crimes, no similarities between criminals and their biological parents were observed. For the

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adoptive parents, no associations with criminals were detected and authors conclude that genetics influences the tendencies to get involved in criminal activities (Mednick, Gabrielli, & Hutchings, 1984). The meta-analysis conducted by Miles and Carey (1997), reported that genetics play an important role in predicting aggressive behavior. A recent meta-analysis; however, reported the opposite. Vassos and colleagues (2014) reviewed 185 studies and they found no significant relationships between genetics and aggression, overall. Taking these into consideration, it is better to approach hereditary basis of aggression with care. As Mednick and colleagues (1984) suggested, it seems more reasonable to think genetics as an inclination mechanism rather than the cause.

1.4.2.Gender and Hormones

In the literature, it was generally reported that males tended to be more aggressive than females (e.g., Eagly & Steffen, 1986). However, a more detailed look into meta-analyses and studies reveals interesting findings. For example, meta-analysis conducted by Hyde (1984) concluded that gender differences in aggression seem to be rather small and these differences also change according to the type of the studies: In experimental studies, gender differences were found to be smaller than correlational studies. Gender differences in terms of aggression types are also important. It was reported that females resort to indirect aggression more than males, whereas males prefer direct aggression (Lagerspetz, Björqvist, & Peltonen, 1988). Nevertheless, other factors, such as age, were revealed to be an important factor for this finding. Archer (2004) found that this difference in indirect aggression can be observed till adulthood; in adulthood there is no difference. Provocation was also shown as an important factor for gender differences (Bettencourt & Miller, 1996). In short, gender differences in aggression cannot be studied independent of situational and individual factors.

One suggested reason why males can be more aggressive than females was testosterone activity. In the reproduction time for animals, it was found that testosterone activity positively correlates with aggression (as cited in Archer, 1991). Regarding humans, findings are controversial since it is difficult to manipulate

hormone levels. Also it is possible that aggression can be the one triggering testosterone activity; testosterone might not be the reason. Thus, developmental studies were conducted to see the effect of testosterone. Halpern and colleagues (1993) investigated the relationship between testosterone and aggression in males at times of puberty. In this study, no relationship was found overall. In addition, the meta-analysis by Archer (1991) reported that how aggression was measured also mattered. When aggression was measured with self-reports studies generally found no or smaller associations; whereas when it was measured by the views of other people, associations were larger.

1.5. External Factors and Aggression

In this section, I will mention situational and environmental factors which may influence aggressive behavior. Situational factors generally involve presence of aggression triggering signs. In the literature, presence of guns was generally investigated as a sign. Berkowitz and LePage (1967) examined how sight of guns impacted male participants' aggressive behavior, which was measured by observing the times participants gave shocks. Participants were previously given electric shocks and when they were allowed to deliver retaliatory shocks, guns, nothing and badminton rackets were present. Results showed that participants, who received many shocks and had the sight of a gun, prefer to give more shocks to whom they believed to had given shocks to themselves. In conclusion, presence of a stimulus which is related with aggressive behavior can enhance a person's readiness to aggress. This is basically the "priming effect", which was mentioned during "General Aggression Model". To recap, it can be said that situational cues related with aggression eases the access to thoughts related with aggression. For instance, in a study participants were asked to write stories with the words they were given. After stories, they were required to pick a video to watch. Results showed that the participants, who were given aggressive words, were more likely to pick violent videos (Langley, O'Neal, Craig, & Yost, 1992).

Regarding environmental factors, temperature is highly focused. The starting point for this is the observed similarity between crime rates and temperature. In order

to investigate the issue empirically, studies were conducted. In one study, data about temperature and criminal activity were collected form Chicago and Houston. Study revealed a positive correlation between the temperature and crimes; the hotter the weather the higher the reported crimes (Anderson & Anderson, 1984). Apart from criminal activity, the relationships between people's aggressive tendencies were also studied. The results of the study by Anderson and colleagues (1995) indicated that when temperature rises, people were more likely to report aggressive thoughts and had more aggressive emotions. Authors also carried out a follow-up study, in which the effects of not only hot, but also cold temperatures were measured. In this study, both extremely high and low temperatures yielded an increase in aggression related thoughts and emotions (Anderson, Anderson, & Deuser, 1996). Noise is another environmental condition, which functions similarly. Studies generally reported that loud noise resulted in increased aggression in people who were irritated (e.g., Donnerstein & Wilson, 1976). The influence of temperature and noise can be attributed to "Cognitive Neoassociationist Theory" as they play the role of frustration which triggers an emotional reaction from the individual. Following this, it can be said that environmental conditions that cause unpleasant affect can influence aggressive behavior.

Besides these, alcohol consumption is one of the highly focused issues. The effects of drinking alcohol were generally observed in domestic violence (e.g., Leonard & Blane, 1992). Sexual violence was also found to be influenced by alcohol. For example, in the USA, alcohol consumption was found to be associated with sexual violence (Davis, Danube, Norris, & George, 2015). Meta-analyses regarding the connection between alcohol consumption and aggressive behavior showed that the link depends on some other factors. Frustration, for instance, was reported to be a factor influencing the relationship between alcohol and aggression. It was found that people, who consumed alcohol and who were frustrated, tended to behave more aggressively compared to the people who did not drink (Ito, Miller & Pollock, 1996).

1.6.Aggression and Video Games: The Road so far

The literature regarding violent video games generally involved comparing aggressive behaviors of individuals who were asked to play a violent and a neutral game. Correlational studies were also conducted to see the possible links between an already existing aggressive pattern and violent video games. Literature also represented controversial findings. Some studies supported that violent video games increased the aggressive behavior while some reported no relationship at all. A few studies supported the opposite. In this section, I am going to review some exemplary studies and try to point out a possible root for controversy between studies.

First sets of studies I would like to discuss are the ones reporting links between violent video games and aggression. To begin with the correlational studies, some studies reported that increased aggression was generally accompanied with exposure to violent video games. For instance, in a study, university students were asked to report their favorite video games, how they categorize them and how long they had played those games. These were then compared with the reported aggressive behaviors of participants. Results showed positive correlations between reported aggressive behaviors and the games categorized as violent along with the time participants spent playing (Anderson & Dill, 2000). Exposure to violent video games was also investigated by consecutively taking measures. In the study by Hasan and colleagues (2013), participants were required to play a violent or a neutral video game for 3 days. Higher levels of aggression were found for the participants who played the violent video game. Coker and colleagues (2015) involved 10-11 years old students in their study and results showed a positive correlation between the time spent in playing violent videogames and the physically aggressive instances. Time devoted to videogame play was also investigated in terms of the aggressive behavior in schools. Students' performance at school, physical engagement in fights and quarrels with their teachers were reported to be positively associated with the time devoted to play (Gentile et al., 2004). In addition to these, there are important meta-analyses in the literature which supported the effect of violent video games (e.g., Dill & Dill, 1998; Anderson & Bushman, 2001). Reviews of the existing studies revealed

that playing violent video games not only increases aggression, but also reduces empathy and prosocial behaviors (Anderson et. al., 2010).

Whether particular features of video games influence the relationship between aggression and violent video games were also studied. For instance, the equipment used to play video games was investigated in a study. Aggression after playing a violent game with a basic controller or a controller shaped as a gun was measured and it was found that playing the game with the latter increased aggression more than the former (Barlett, Harris, & Baldassaro, 2007). Hollingdale and Greitemeyer (2014) investigated the issue in terms of online and offline gameplay. Results revealed an overall effect of violent video gameplay; playing a violent video game increased aggression as compared to playing a neutral video game. Moreover, online gameplay increased aggression more than the offline gameplay condition.

Second sets of the studies involved the ones which found no or diverse relations. To exemplify, university students were divided into groups in a study. Some were asked to play video games, which involved violence or did not involve violence. Some of them were told that they were going to play a video game; however, they were not going to play a game as they were in control condition. They believed that there was a problem with the computer and in their session they did nothing. Before and after the game aggression measures were taken. Results indicated that there was no effect of violent video games on aggression. Moreover, participants who played no game were the ones with higher aggression scores (Ferguson & Rueda, 2010). In another study participants were to play very violent, averagely violent and non-violent video games. Participants' aggression scores were also measured before and after gameplay. Results indicated a decrease in aggression for the averagely violent game condition. Moreover, male participants who played the non-violent videogame reported the highest aggression scores (Scott, 1995).

Correlational studies were reviewed by Ferguson and colleagues (2010) and they found no relationship between playing violent video games and delinquent behavior. More importantly, it was reported that the correlational findings on the literature depends on other variables. Aggression as a trait and the amount of stress players had were the observed intervening variables in the relationship between

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aggression and video games. For experimental studies regarding video games, Ferguson (2007) claimed that "publication bias" can happen. "Publication bias" can be defined as publishing the studies which have favorable results (Ferguson & Brannick, 2012). To clarify, it is unlikely that studies which fail to find significant results will be published. Consequently, the majority of published studies indicate similar results and this makes it difficult to conduct reviews. A literature review, which was conducted after controlling for the potential effects of publication bias, reported that violent video games did not influence aggression (Ferguson, 2007).

Last sets of studies claim that playing a violent video game decreases aggressive behaviors. Sometimes referred as "Catharsis Effect" (Dill & Dill, 1998), it was suggested that people get rid of their aggressive tendencies by playing violent video games. In the literature, there are not enough studies to present the Catharsis Effect. One example I can give is the study by Ferguson and Rueda (2010), in which playing a violent game resulted in a reduction in hostility. They found no effect in terms of aggressive behavior, but participants reported less hostility after playing a violent video game. Therefore, people seemed to be getting rid of their hostile emotions via violent gameplay. In brief, aggressive behavior showed no difference; aggressive emotions were the ones affected. Apart from this, a review conducted by Sherry (2001) reported a decrease in aggression, when the time spent in playing violent video games increases.

The roots of those inconsistencies between findings were also examined in the literature. As I mentioned previously, publication bias is one of the suggested reasons. If such bias exists, its effects should be controlled for in order to get a better grasp of the literature. Another reason is that studies generally ignore the features of video games. For example, competitiveness is an important feature and a video game can be both violent and competitive. Competitiveness, instead of violence, might be the factor which causes more aggression. The study by Adachi and Willoughby (2011) demonstrated that competitiveness can be more effective than violence in video games. This experiment involved two studies; one measured the effect of violence and the other measured competitiveness. Controlling for all other variables, it was found that competitiveness increased subsequent aggression, whereas violence

did not. Apart from this, studies also seem to be disregarding the genre of violent video games. As Barlett and colleagues (2007) suggested, characteristics of the games should be taken into consideration, since each points towards different directions.

I think the characteristics of violent video games should be investigated separately, since in-game variables can affect subsequent aggression. Aggressive behavior after playing a game cannot be understood by underestimating the power of in-game variables. One overlooked in-game variable I investigated in my study is *justification of violence* and the other one is *presence of a stereotyped target*. I will focus on these two in the following sections.

1.7.Justification of Violence

In video game literature, video game research for justification of violence is limited. In televised violent media; however, its effects are well-examined. For instance, the experiment conducted by Berkowitz and Powers (1979) involved measuring aggressive behavior after watching violent video clips. Before participants watched the clip, they were frustrated by confederates and they were told that the clips they were going to watch contain justified or unjustified violent actions. After participants watched the clips, they were given chances to retaliate against the confederates. Results indicated that justified violence in a video facilitated aggressive behavior towards the confederates; whereas giving unjustified reasons for the violence depicted in the video decreased it. A similar procedure which is carried out by Meyer (1972) found similar results. Moreover, a recent study reported that justification of violence intervenes in the relationship between aggression and violent TV content (Orue & Calvete, 2012).

From my own observations, it seems to be the case that people justify their behavior in violent video games. If you are playing as a super hero, actions of the hero are justified since superheroes always bring justice. If you are in a war game, you shoot people in order to protect yourself or your allies. Even if you are playing as a villain, you are acting in-line with what it means to be a villain. Villains can resort to violence and there can be some background information suggesting that

their point of view is right. All in all, it seems justifiable to act violently in violent video games. In literature, Dominick (1984) suggested that people generally assume that they are engaging in justified acts in violent video games. Apart from this, players tend to think that video games do not reflect real life (Klimmt, Schmid, Nosper, Hartmann, & Vorderer, 2006); therefore, their in-game actions are already justifiable. However, there is some research pointing that it is highly likely for a player to interact with the game as if it is real. For example, a study replicated Milgram's famous obedience experiment with computer-generated simulation. In this study, even if participants were conscious of the simulation, their stress levels were heightened and they showed concerns for the simulated human beings (Slater et al., 2006).

What if people are notified that their actions are unjustified? It was found that gamers, who unjustifiably killed people for a quest in *Call of Duty: Modern Warfare 2* (Infinity Ward, 2009), felt really distressed (as cited in Hartmann, Toz, & Brandon, 2010). When people were made clear that they will unjustifiably harm others in a video game, they reported feeling guilty and the more they were emphatic, they felt guiltier (Hartmann et al., 2010). Following this, I think that if unjustified violence results in an increase in guilt, the subsequent aggression should decrease. However, this is not adequately investigated in the literature and this is one of the reasons why I included justification of violence in my study.

1.8.Presence of a stereotyped target

In 1922, Walter Lippman, a journalist, was the one who used the term "stereotype" for the first time. His usage was referred to common characteristics of groups (as cited in Judd & Park, 1983). Similar to his usage, stereotypes can be defined as mental categories people have, which involve representative characteristics of a social group (Judd & Park, 1983). Stereotyping is beneficial since it help people comprehend the world quicker by making classifications. People are exposed to explicit and implicit forms of stereotypic information throughout their lives, family, peers and media play a role in the acquisition of stereotypes (Whitley & Kite, 2006). Stereotypical information may not reflect reality as they depend on

archetypal features of groups (Hilton & Von Hippel, 1996). They are also related with prejudice; Allport (1954) suggested that flawed stereotyping leads to prejudice (as cited in Hilton, & Von Hippel, 1996). Decreased prejudice goes parallel with changing stereotypical information (e.g., Hill & Augoustinos, 2011).

How do stereotypes in media affect people? The study by Rudman and Borgida (1995) investigated the influence of female stereotypes in the advertisements. Their study showed that males, who watched the advertisements which included stereotypically sexual presentations of females, tended to perceive sex-related words faster. Apart from this, participants' behaviors after watching the advertisements were examined and it was found that participants tended to behave in a sexually prejudiced way towards females. Stereotypes were also investigated in video game research. Burgess and colleagues (2011) reviewed magazines about video games and it was found that Caucasians were largely involved in games; whereas other ethnicities, such as Blacks or Hispanics, were fewer. More importantly, when those ethnicities were present, they generally had a role related with violence or terrorism. Apart from ethnicity, gender in video games was also studied. In the study by Brand, Knight and Majewski (2003), 130 different video games were examined and the findings were similar to the results for ethnicity: The existence of female characters was much fewer than males. In addition, main characters were generally male. Furthermore, for the existing females in video games, their sexuality was highly prioritized (Beasley & Standly, 2002). The study by Downs and Smith (2010) revealed that female costumes in video games are generally see-through. Female bodies are also reported to be excessively sexual in a way that which is distant from the reality.

Given that videogames involve stereotypical information, how this influences players is an important research question. In order to study this issue, Saleem and Anderson (2013) investigated the effects of having Arabic targets in violent and non-violent videogames. In their study, participants' implicit attitudes towards Arabic terrorists were measured after participants played the video games. Findings indicated increased negative attitudes for the participants who played the violent video game involving Arabic targets. Non-violent game did not have an influence on

post-game implicit attitudes. Authors also conducted a follow-up study to examine the effects of the content, since Arabic people were portrayed as terrorists in the study mentioned above. Even when terrorism component of the games was removed, participants who played the violent video game with Arabic targets showed facilitated negative attitudes towards Arabic people. Besides this, Dill and colleagues (2008) studied how presence of stereotypically sexual depictions of females in video games influences perceptions of actual sexual harassment. It was found that males tended to be more open-minded about sexual harassment of females after they were presented with stereotyped images of females. In brief, stereotypical information in video games plays a role on players' subsequent behaviors. Therefore, I wanted to investigate its impact on post-game aggression.

1.9. Purpose and Hypotheses of Current Thesis

As it was mentioned before, there are some controversies about the effects of violent video gameplay. The primary aim of this thesis is to clarify some of the reasons why controversies occur. I think studies generally measured aggression independent of the features of violent video games. Some important in-game variables are not fully focused and with this thesis, two important in-game variables which can influence aggressive behavior are focused on. To recap, justification of violence and presence of a stereotyped target are focused on as in-game variables. Justification of violence seems to be partially ignored in video game research. If most people already assume that their actions are justified in violent video games, subsequent aggression can be a result of justification of violence; not because of the violent theme. Presence of a stereotyped target is crucial as violent acts are conducted towards a target and features of the target can amplify or diminish the subsequent aggression. Following this reasoning and existing literature, here I will present my research questions and hypotheses with regards to the present thesis:

Research Question 1: Does pure violence in a violent video game (not including effects of any in-game variables) influence post-game aggression?

Hypothesis 1: Aggression measurement after playing a violent video game, in which no in-game variables are manipulated, will not be conclusive.

As it is mentioned briefly, disregarding in-game variables may cause methodological problems (see Section 1.6). Therefore, I expect that pure violence will not have any effect on subsequent aggression.

Research question 2: Does inclusion of justification of violence and presence of a stereotyped target influence post-game aggression?

Hypothesis 2:

(a) Justified violence will increase post-game aggression as compared to the condition in which violence is unjustified.

As it is noted before, unjustified violence is related with feelings of distress and guilt (Hartmann et al., 2010). Therefore; it is expected that aggression will be lower when the violence is unjustified.

(b) When the target is stereotyped, aggression will be higher than it is for not-stereotyped target.

It is predicted so because having a stereotyped target can present justification for violent actions and existing literature suggests that people justify violent actions towards stereotyped targets (e.g. Gillum, 2002).

(c) Both for stereotyped and not-stereotyped targets, aggression will increase when violence is justified. However, aggression will dramatically increase when the target is stereotyped.

(d) Both for justified and unjustified violence, when the target is stereotyped, aggression will be higher than the condition where the target is not stereotyped.

Research question 3: When justification of violence and presence of a stereotyped target are included, does gender influence post-game aggression?

Hypothesis 3: Gender will have an effect on post-game aggression. Males will tend to be more aggressive than females when violence is justified and the target is stereotyped. Aggression scores of females will tend to be much lower than males when violence is unjustified and the target is not stereotyped.

CHAPTER II

PRELIMINARY STUDY

2.1.Method
2.1.1.Participants

In order to specify the stereotyped group which will be used in the main study, 53 participants (21 male, 32 female) filled out a mini-questionnaire. 39.6% of the participants were university students and the rest had varying occupations. Ranging between 19 and 29, mean age was 24.2 ($SD = 1.94$).

2.1.2.Instrument and Procedure

After participants signed the consent form, they were asked to fulfill a mini-questionnaire along with a demographic information form. Demographics form involved 8 questions which asked gender, age, occupation, education level, parents' level of education, SES and monthly income (see Appendix A). In all studies, the same demographics form was used. Mini-prejudice questionnaire is created by the researcher and it involves one main question. Basically, the communities (except the minority groups) which Turkish society is prejudiced towards were asked. Participants were asked to list 5 social groups where the first one is the most stereotyped (see Appendix B). The minority groups living in Turkey were told to be excluded because of the ethical reasons. Participation in this survey was voluntary and forms were filled via web.

2.1.3.Results

Before analysis, responses with similar terms were gathered under a main category. Basically, the responses involving nations or their citizens were coded as their citizen names. If other variations of nations were absent, no alterations were done. Rankings of the responses were disregarded as equality and a noticeable

proximity was not present between responses. 194 valid responses were obtained at total. Because of the ethical reasons, responses are displayed as "Group X". Group A was found to be the most repeated response (10.3%) and it was followed by Group B (9.3%). For further information, see Table 1.

Table 1. Mini-prejudice questionnaire results

Response	Frequency	Percentage
Group A	20	10.3%
Group B	18	9.3%
Group C	13	6.7%
Group D	12	6.2%
Group E	11	5.7%
Group F	11	5.7%
Group G	10	5.2%
Group H	10	5.2%
Others*	93	47.9%

*Includes the response frequencies lower than 10

STUDY 1

2.2.Method

2.2.1.Participants

In order to measure the effect of pure violent video game play on aggression 42 participants (22 female, 20 male) were included in the study. Mean age was 22.1 ($SD = 3.12$), ranging between 17 and 29. 85.7% of the participants were students. 26.2% of the participants were high school, 69% was university graduates. 4.8% of the participants were post-graduate students. 7.1% of the participants were the in lower, 66.6% was in the middle and 26.2% was in the higher SES category. Further information can be seen in Table 2.

Table 2. Demographic statistics of participants in Study 1. ($n = 42$)

Demographic variables	Mean/Frequency	Percentage
Gender		
Male	20	47.6%
Female	22	52.4%
Age	22.1 ($SD = 3.12$)	
17-21	21	49.9%
22-25	15	35.7%
26-29	6	14.2%
Education level		
High school	11	26.2%
University	29	69%
Graduate School	2	4.8%
Education level of mothers		
Primary school	9	21.4%
Secondary school	2	4.8%
High school	16	38.1%
University	13	31%
Graduate school	1	2.4%
Education level of fathers		
Primary school	8	19%
Secondary school	1	2.4%
High school	16	38.1%
University	13	31%
Graduate school	3	7.1%
SES		
Lower	11	26.1%
Middle	20	47.6%
Upper	11	26.2%
Monthly income		
Lower than 1000 TL	2	4.8%
1000-2000 TL	7	16.7%
2001-4000 TL	23	54.8%
Higher than 4000 TL	10	23.8%

2.2.2.Instruments

Forms and questionnaires were used to obtain demographic information, gaming history and perceived attributes of video games. To measure pre-game aggression, Turkish version of Buss-Perry Aggression Questionnaire (BAQ) (Buss & Perry, 1992) was used. For post-game aggression, a punishment scale adapted from Barlett et al. (2007) was used. The violent video game used in the study was Far Cry (Crytek Studios, 2004) and the neutral game was Minecraft (Mojang, 2011).

2.2.2.1.Demographic Information Form

The demographics form used in the preliminary study was administered. To recap, the form involved 8 questions which asked gender, age, occupation, education level, parents' level of education (separately for father and mother), SES and monthly income (see Appendix A).

2.2.2.2.Buss-Perry Aggression Questionnaire (BAQ)

Deriving from Buss-Durkee Hostility Inventory (Buss & Durkee, 1957), BAQ was developed by Buss and Perry (1992). BAQ involves 29 items for measuring aggression. Items are required to be rated using a 5 point scale ranging from "extremely uncharacteristic of me" to "extremely characteristic of me". Scale also involves 4 sub-scales aimed to measure 4 dimensions of aggression. Dimensions involve physical aggression, verbal aggression, anger and hostility (as cited in Madran, 2012). The scale was found to be highly reliable (Archer, Kilpatrick, & Bramwell, 1995). BAQ was also translated to Turkish and its reliability and validity were tested by Madran (2012). The study by Madran (2012) showed that the Turkish version of BAQ and its 4 sub-scales are highly reliable and valid. In the present study, Turkish version of BAQ was used (see Appendix C).

2.2.2.3.Punishment Scale

Post-gaming aggression was measured by a questionnaire which involves imaginary punishment scenarios. Post-gaming aggression scale is different from the pre-game one since otherwise is repetitive and participants can strive to be

consistent. Scenarios were adapted from the scale which is used by Bartlett and colleagues (2007). The scale involves 9 questions which presents hypothetical situations. Participants are asked how they would react if they were in those presented situations. Each scenario presented 5 different options which differ in terms of the degree of reactions (see Appendix D). The purpose of having such aggression measurement is to measure state aggression.

2.2.2.4.Perceived Attributes of Video Games

To measure how participants perceived the game they played, a 5-point (ranging from none to very much) questionnaire was used. Questionnaire involved 8 items which asked perceived level of enjoyment, video game violence, competiveness, involvement, identification with main character, identification with target, achievement, and relief (see Appendix E).

2.2.2.5.Familiarity with Video Games

In order to obtain gaming history and preferences, a mini questionnaire was used. The questionnaire involved 4 questions asking weekly engagement in video games (5 point, from none to everyday), previous experience with shooting games (present or absent), video game genre preferences and in-game elements of preferred video games. Video game preferences presented 13 different genres which participants can opt for more than one. A blank space was also provided in case given options do not include participants' preferences. In-game elements of preferred video games consisted of 11 items. Same as genre, participants could choose more than one option and they can add an option if their preference is not presented (see Appendix F).

2.2.2.6.Video Games

Far Cry (Crytek Studios, 2004) was chosen as the violent video game. The game is a first person shooter (FPS) and it is rated as "mature" by ESRB, which means that players should be 17 years old or older to play the game. ESRB also points out that the game involves "intense violence" and "blood" ("Far Cry", n.d.).

For in-game options, graphics and difficulty were set to "realistic". A code was added in the game so that the main character cannot die. However, the main character was capable of being wounded. Two separate sections of the game were used; one included the training part and the other included an enemy camp. For brief description of the game, see Appendix G.

Minecraft (Mojang, 2011) was picked as the neutral video game. The game is basically a building game and ESRB rated the game as "everyone" meaning that no age restriction was put ("Minecraft", n.d.). In Minecraft, two different game modes, which are called as "Survival" and "Creative", exist and in the present study creative mode was used. In creative mode, players have limitless materials to build anything. Additionally, unlike to the survival mode, there are no monsters in the creative mode ("Minecraft: How to play", n.d). For brief description of the game, see Appendix H.

2.2.2.7.Equipment

A laptop with an i7 processor, 2 gigabytes of graphics card and a Windows operating system was used to run the games. The laptop met the minimum requirements to run Far Cry and Minecraft. For gameplay and navigation in the games, a wired mouse was used. A wired headset was also present in case participants prefer to use.

2.2.2.8.Procedure

Participants voluntarily took part in the study and they were processed separately. Gaming sessions and completion of questionnaires were conducted in an experiment room. After the participants' arrival, they were asked to read and sign the consent form. The form involved present study's aim, reassurance of confidentiality, experimenter's contact information and a reminder of the voluntary termination of the study at any time. Participants were randomly assigned to one of the two gaming conditions: Far Cry (experimental) and Minecraft (control).

After getting the consents, participants were asked to fulfill BAQ. Gaming sessions started after participants completed BAQ. Before participants were allowed to play their assigned games, whether participants get any kind of physiological

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complaint when they played a video game was verbally asked. After this was checked, a mini-practice was conducted so that participants can get used to the gameplay and keyboard controls. As a reminder, a note involving the keyboard controls was placed next to the participants. Approximately for 5 minutes (lower for the ones who were familiar with video games), the gameplay was introduced by showing how to use the keyboard and the mouse. Following the practice, participants were given minimum 10 and maximum 15 minutes to play their assigned games. After the playing sessions, punishment questionnaire, demographic information form and questionnaires measuring perceived attributes of the video game and familiarity were given, respectively. When participants completed the questionnaires, they were debriefed and thanked for their contribution.

2.3.Results of Study 1

2.3.1.Main Analyses

Prior to all main analyses, data was checked for outliers and normality. For handling missing data, mean replacement was done as missing data did not exceed 5%. For analyses, sums of BAQ scores were taken and scores were divided into two by using median split. Computed two groups indicated pre-aggression scores with high and low categories. Post-aggression scores were obtained by taking the sum of punishment scale responses.

Study 1 was conducted to replicate previous studies which investigated the effect of game type (violent versus neutral) on post-gaming aggressive behavior. Apart from the replication purposes, it is conducted to see whether it leads to conclusive results. Data screening was done before the analysis. A case with a high Z-score on pre-aggression was detected as a univariate outlier and removed from the data. No multivariate outliers were detected. 41 cases remained for the analysis. Linearity, homoscedasticity and normality assumptions were met. Homogeneity of variance assumption was also met.

A between subjects analysis of covariance (ANCOVA) with two factors (*Pre-aggression:* high/low; and *Game type*: violent/neutral), where dependent variable was post-aggression and covariates were gender, age, education level, SES and income was carried out. Homogeneity of regression was met for all covariates.

Controlling for gender ($F(1,32) = .438$, $p = .51$, $\eta^2 = .013$), age ($F(1,32) = .323$, $p = .32$, $\eta^2 = .031$), education level ($F(1,32) = .386$, $p = .38$, $\eta^2 = .024$), SES ($F(1,32) = .003$, $p = .95$, $\eta^2 = .001$), and income ($F(1,32) = .787$, $p = .38$, $\eta^2 = .024$), main effect of pre-aggression ($F(1,32) = .012$, $p = .91$, $\eta^2 = .001$), and game-type ($F(1,32) = .901$, $p = .35$, $\eta^2 = .027$) were not significant. Interaction term was, also, not significant ($F(1,32) = 2.478$, $p = .12$, $\eta^2 = .072$). Descriptive statistics for the variables are represented in Table 3, and Table 4 can be seen for ANCOVA results.

Table 3. Descriptive statistics for factors in Study 1

Source		Violent game type				Neutral game type				Total			
		M	SD	Adj. M		M	SD	Adj. M	SE	M	SD	Adj. M	SE
	Low pre-aggression	24	5.31	24.3	2.01	19.8	4.15	19.6	1.44	21.3	4.9	21.9	1.2
Post-aggression	High pre-aggression	21.4	5.12	21.2	1.6	21.8	6.64	22.3	2.21	21.5	5.47	21.7	1.3
	Total	22.4	5.22	22.7	1.2	20.4	.4.89	20.9	1.3				

Table 4. ANCOVA results of Study 1

Source	SS	df	MS	F	p	Partial η^2
Gender (CV)	11.9	1	11.9	.438	.513	.013
Age (CV)	27.6	1	27.6	1.01	.323	.031
Education (CV)	21.1	1	21.1	.772	.386	.024
SES (CV)	.083	1	.083	.003	.956	.001
Income (CV)	21.5	1	21.5	.787	.382	.024
Pre-aggression	.324	1	.324	.012	.914	.001
Game-type	24.6	1	24.6	.901	.350	.027
Pre-aggression* Game-type	67.7	1	67.7	2.478	.125	.072
Error	875.2	32	27.3			
Total	19842	41				

2.3.2.Manipulation Check

The results showed that Minecraft was perceived to include low amount of violence. For Minecraft, 66.7% of the participants rated the game as involving less than average violence ($M = 2.09$, $SD = 1.2$). For Far Cry, 55% of the participants reported that Far Cry included more than average amount of violence and 30% of them indicated that the game involved average amount of violence ($M = 3.8$, $SD = 1.2$). Those results confirmed the game-type manipulation.

2.3.3.Secondary Analyses for Study 1

For Minecraft, 85.8% of the participants rated the game as involving less than average amount of competition ($M = 1.4$, $SD = 1.02$). In terms of weekly engagement in video games, 47.6% of the participants indicated that they did not play video games within a week, 23.8% of them stated playing video games for 1-2 days within a week, 9.6% played 2-6 days and 19% responded that they play video games every day.

Fifty-five percent of the participants who played Far Cry stated the game as including low amount of competition. For weekly engagement in video games, 35% of the participants reported not to play games within a week, 30% played 1-2 days, and 5% of the participants played 4-6 days. Thirty percent of the participants stated playing video games each day. Table 5 shows descriptive statistics for neutral and violent game types.

For violent game-type, most important findings of correlational analysis showed that; the amount of violence and enjoyment was negatively associated (r (18) = -.45, $p<.05$). There was a negative correlation between amount of violence and feeling relieved after gameplay (r (18) = -.63, $p<.01$). A significant positive correlation between identification with main character and with the victims was observed (r (18) = .60, $p<.01$). Detailed results can be seen in Table 6.

Correlational analysis was also conducted to see patterns among perceived attributes of video games. For neutral game-type, most important findings are as follows: There was a significant positive correlation between enjoyment (r (19) = .75, $p<.01$) and identification with the main character (r (19) = .79, $p<.01$), and

feelings of accomplishment (r (19) = .5, $p<.05$), and amount of post-gaming relief (r (19) = .84, $p<.01$). The amount of involvement was positively correlated with identification with the main character (r (19) = .87, $p<.01$). For further information see Table 7.

Table 5. Descriptive statistics of weekly gameplay engagement and perceived amount of violence & competition of participants ($n = 41$)

Variables	Violent game-type		Neutral game-type	
	Mean/frequency	*%*	*Mean/frequency*	*%*
Weekly engagement	2.6 (*SD* = 1.7)		2.2 (*SD* = 1.5)	
None	7	35%	10	47.6%
1-2 days	6	30%	5	23.8%
3-6 days	1	5%	2	9.6%
Each day	6	30%	4	19%
Perceived level of violence*	3.8 (*SD* = 1.2)		2.09 (*SD* = 1.2)	
Low	3	15%	14	66.7%
Average	6	30%	5	23.8%
High	11	55%	2	9.5%
Perceived level of competition*	2.6 (*SD* =1.4)		1.4 (*SD* = 1.02)	
Low	11	55%	18	85.8%
Average	3	15%	2	9.5%
High	6	30%	1	4.8%

* Measured with a 5 point scale, ranging from none to extremely high.

Table 6. Bivariate correlations among perceived attributes of video games for the violent game type

Variable	1	2	3	4	5	6	7
1. Enjoyment	-						
2. Amount of violence	-.45*	-					
3. Amount of competition	.11	.33	-				
4. Involvement	.46*	-.11	.11	-			
5. Identification with main character	.43	-.35	.18	.66**	-		
6. Identification with victim	.27	.12	.3	.52*	.6**	-	
7. Achievement	.6**	-.29	.01	.14	.06	-.13	-
8. Relief	.61**	-.63**	-.03	.01	.37	-.21	.49*

*Correlation is significant at the 0.05 level.
**Correlation is significant at the 0.01 level.

Table 7. Bivariate correlations between perceived attributes of video games for the neutral game type

Variable	1	2	3	4	5	6	7
1. Enjoyment	-						
2. Amount of violence	.01	-					
3. Amount of competition	.2	.16	-				
4. Involvement	.75**	.31	.05	-			
5. Identification with main character	.79**	.11	.09	.87**	-		
6. Achievement	.5*	.23	-.05	.67**	.46*	-	
7. Relief	.84**	-.28	.13	.55**	.62*	.4	-

*Correlation is significant at the 0.05 level.
**Correlation is significant at the 0.01 level.

DICUSSION

Throughout this section, the main findings of the Study 1 will be evaluated. The findings will be interpreted with an emphasis on the existing literature and the hypotheses. First study was carried out in order to investigate the effect of violent content on post-gaming aggression. I think that contradictory results in the literature stem from disregarding the effects of in-game variables. In order to investigate this, no in-game variables were manipulated in the first study. Basically, participants were asked to play a violent or a neutral game. Results of this study confirmed the predictions; there were no effects of game type (violent/neutral) on post-gaming aggression. In the analyses, age, gender, SES, education level and monthly income was controlled for. The effect of pre-gaming aggression was also investigated and it was non-significant, as well. Moreover, pre-gaming aggression and game type did not produce an interaction effect. In Study 1, it is concluded that pre-gaming aggression and game-type do not affect post-gaming aggression.

In the introduction chapter, conflicting findings about violent video games and aggression were presented. Results of Study 1 are parallel with some of the studies, which reported no effects (e.g. Ferguson & Rueda, 2010). However, I do not think that current findings increase the robustness of similar findings in the literature. With present results, it cannot be concluded that game type do not influence post-gaming aggression. The results can support two issues: One is that there are inconsistencies between the findings. The other one is that this type of measurement is not adequate to investigate the effects of violent video game play. It is difficult to investigate the effects of "pure violence" on subsequent aggression. "Pure violence" can be affected by other features in the game. For example, offline and online violent video game influence post-gaming aggression (Hollingdale & Greitemeyer, 2014); controller sort has an effect on aggression (Barlett et al., 2007); extended engagement in violent video games affect aggression (Hasan et al., 2013); competition makes an impact on aggression (Adachi & Willoughby 2011); using male or female icons while playing a violent video game plays a role on aggression

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(Yang, Huesmann, & Bushman, 2014). Thus, it is highly unlikely that what we measure is "pure violence". I agree that various in-game elements can influence post-gaming aggressive tendencies. That is why Study 2 is conducted in order to focus on two in-game elements, which are what I believed to be more important and rarely investigated in the literature.

Findings also showed that 30% of Far Cry participants rated the game as having average amount of violence; 23% of Minecraft participants stated that Minecraft involved average amount of violence. Relatively similar amount of participants rated their games as having average amount of violence; thus, whether the games differed enough in terms of the amount of perceived violence is debatable. Participants were asked to play Minecraft's "creative mode", where they built anything they wanted. However, if participants knew its "survival mode", where participants need to avoid/shoot other creatures to survive ("Minecraft: How to play", n.d.), they might had rated the game as violent. Apart from this, for both games, there was a positive correlation between involvement and the amount of enjoyment players had. In other words, the more participants felt involved in the game, the more enjoyment they got. This finding is consistent with existing literature (e.g., Sherry, 2004). For violent game type, it is found that the amount of violence and enjoyment participants experienced were negatively associated. This means that when the amount of perceived violence increased, participants were less likely to enjoy the game. In the literature, Anderson and colleagues (2004) found that people tended to experience more enjoyment when they played a neutral game. Their study also pointed out that enjoyment gained from a violent and a neutral game did not differ largely. Therefore, the results are partially consistent with the literature.

Regarding enjoyment and violent video games, literature has been dealing with the dilemma of enjoying violence. In the introduction chapter, increased preference for violent video games was mentioned (e.g. Bunchman & Funk, 1996). Enjoyment can be one of the reasons for high preference for violent content in video games (e.g. Sherry, 2004). Here, how people enjoy violent gameplay gains importance and it is suggested that people resort to some detachment strategies in order to distance themselves from game-related ethical distress (Klimmt et al., 2006).

Taking its start form Bandura's (2002) "Moral Disengagement Theory" Klimmt and colleagues (2006) claim that people can use some mental strategies to handle ethical distress and keep having fun from the violent content. Bandura and colleagues (1996) suggest that when encountered with an immoral alarm, people are able to turn on or off some cognitive processes which are responsible for self-control. In simpler terms, if people do something wrong, they can distance themselves from the ethical questions using some strategies. Regarding the targets of immoral actions as less than human, rationalizing the actions by justifications, or decreasing the importance of the outcomes can be given as examples of some cognitive strategies people use (Bandura, 2002). Klimmt and colleagues (2006) adapted Bandura's (2002) perspective into video game context and they supported the idea that usage of such cognitive processes help people get over the ethical distress emerging from violent gameplay. Thus, it is possible that violent video game players might continue to have fun killing people in the games; as they can distance themselves from the ethical concerns. For the present study; however, people reported decreased levels of enjoyment when the amount of perceived violence increased. Therefore, it is possible for the present sample that they did not need to use detachment strategies. Since no other manipulation of other in-game factors was present, violent content might not be enough to trigger such detachment techniques.

Overall, the first study adds up to the findings which suggested contradictions among studies. A study in which only violent content is investigated is not adequate to measure the effects of violent gameplay and that is why the second study was conducted.

CHAPTER III

STUDY 2

3.1.Method
3.1.1.Participants

90 participants (43 male, 47 female) were involved in the study. 78.9% of participants were students. Mean age was 21.8 ($SD = 2.1$) and it was ranged between 18 and 29. Majority of the participants (92.2%) was university students, 5.6% were high school graduates and 2.2% were graduate students. For SES, 82.2% of participants fell into the middle SES category. Additional demographic information can be seen in Table 8.

3.1.2.Instruments

Same forms and questionnaires which were used in the Study 1 were administered. These involved: Demographic information form, BAQ, punishment scale, perceived attributes of video games and familiarity with the video games questionnaires. Far Cry was used as the violent video game and the equipment was the same with Study 1.

Table 8. Demographic statistics of participants in Study 2 ($n = 90$)

Demographic variables	Mean/Frequency	Percentage
Gender		
Male	43	47.8%
Female	48	52.2%
Age	21.8 ($SD = 2.1$)	
18-21	47	52.2%
22-25	37	41.1%
26-29	6	6.7%
Education level		
High school	5	5.6%
University	83	92.2%
Graduate School	2	2.2%
Education level of mothers		
Primary school	25	27.8%
Secondary school	13	14.4%
High school	26	28.9%
University	21	23.3%
Graduate school	3	3.3%
Education level of fathers		
Primary school	14	15.6%
Secondary school	7	7.8%
High school	33	36.7%
University	26	28.9%
Graduate school	9	10.0%
SES		
Lower	3	3.3%
Middle	74	82.2%
Upper	12	13.3%
Monthly income		
Lower than 1000 TL	3	3.3%
1000-2000 TL	24	26.7%
2001-4000 TL	37	41.1%
Higher than 4000 TL	25	27.8%

3.1.3.Procedure

Participation in the second study was voluntary and participants, who were METU undergraduates, received bonus credits for participation. Procedure was similar with Study 1, except that participants were randomly assigned to one of the four Far Cry conditions (justified violence & stereotyped target, justified violence & non-stereotyped target, unjustified violence & stereotyped target, unjustified violence & non-stereotyped target). These four conditions involved specific scenarios which served to manipulate justification of violence and presence of a stereotyped target. Scenarios were adapted from the study by Hartmann, Toz and Brandon (2011) and they can be seen in Table 9.

Participants were processed separately. Firstly, whether participants got any physiological discomfort from gameplay, such as nausea or dizziness was asked to participants verbally. After physiological discomfort checks, participants were also verbally asked whether they had played Far Cry before. For manipulation purposes, addition of the scenarios can conflict with the original story of the game. Therefore, it was assured that participants had never played the game before. After these were checked, a mini-practice was conducted for nearly 5 minutes. After the practice, participants were given time to read the scenarios. Participants were given minimum 10 and maximum 15 minutes to play the game. After the gameplay, punishment questionnaire, demographic information form and questionnaires measuring perceived attributes of the video game and familiarity were given, respectively. Participants were thanked and debriefed when they were done completing the questionnaires.

Table 9. In-game scenarios with a function of independent variables

	Stereotyped target	Not-Stereotyped target
Justified Violence	You will attack a "Group A" camp where innocent people are tortured and killed by the "Group A". The purpose is to restore justice.	You will attack an enemy camp where innocent people are tortured and killed. The purpose is to restore justice.
Unjustified Violence	You will attack a "Group A" camp to kidnap innocent people. The purpose is to kill "Group A" to reach innocents.	You will attack a camp to kidnap innocent people. The purpose is to kill the campers to reach innocents.

3.2. Results of Study 2

3.2.1. Main Analyses

Following Study 1, where the effects of violent versus neutral game were investigated, Study 2 was conducted to examine whether in-game factors have an effect on aggression. Justification of violence and presence of a stereotyped target were studied as in-game factors.

Before the analyses, data was screened for normality. Computed post-aggression scores were positively skewed with a value of .725 ($SE = .254$). After observation of histograms and Q-Q plots along with a Shapiro-Wilk's test ($p < .05$), it is concluded that the data was not normally distributed. In order to deal with normality issues, logarithmic transformation was applied. After the transformation, linearity, homoscedasticity and normality assumptions were met. There was also no violation of homogeneity of variance assumption.

For the main analysis, an ANCOVA with two factors (*Justification of violence:* justified/unjustified; and *Presence of a stereotyped target*: stereotyped/not-stereotyped), where dependent variable was post-aggression and covariates were pre-aggression, gender, age, education level, SES and income was conducted. Homogeneity of regression was met for all covariates.

After controlling for pre-aggression (F (1,79) = 1.47, p = .22, η^2 = .018), gender (F (1,79) = 2.1, p = .15, η^2 = .026), age (F (1,79) = .01, p = .91, η^2 = .001), education level (F (1,79) = .32, p = .57, η^2 = .004), SES (F (1,79) = .37, p = .54, η^2 = .005) and income (F (1,79) = .99, p = .32, η^2 = .012), no main effect of justification of violence (F (1,79) = 1.27, p = .26, η^2 = .016) and presence of a stereotyped target (F (1,79) = 1.04, p = .31, η^2 = .013) was detected. However, there was a significant interaction between justification of violence and presence of a stereotyped target (F (1,79) = 4.13, p = .045, η^2 = .05).

Investigation of adjusted means revealed that, when violence was justified and the target was stereotyped (adjusted M = 1.352, SD = .08), participants had higher post-aggression scores than the condition where violence was justified and target was not-stereotyped (adjusted M = 1.29, SD = .08). Interestingly, participants in unjustified violence and not-stereotyped target (adjusted M = 1.354, SD= .08) condition reported higher aggression than participants in unjustified violence and stereotyped target (adjusted M = 1.33, SD = .08). Interaction plot can be seen at page 53; descriptive statistics of variables and results of ANCOVA can be seen in Table 10 and 11, respectively.

Table 10. Descriptive statistics for factors in Study 2

Source		Justified violence				Unjustified violence				Total			
		M	SD	Adj. M	SE	M	SD	Adj. M	SE	M	SD	Adj. M	SE
Post-aggression	Stereotyped target	1.34	.08	1.35	.02	1.33	.08	1.33	.019	1.34	.08	1.34	.014
	Not- stereotyped target	1.29	.08	1.29	.014	1.35	.08	1.35	.019	1.32	.09	1.32	.014
	Total	1.32	.09	1.32	.014	1.34	.08	1.34	.013				

Table 11. ANCOVA results for Study 2

Source	SS	*df*	MS	*F*	*p*	Partial η^2
Pre-aggression (CV)	.011	1	.011	1.47	.228	.018
Gender (CV)	.016	1	.016	2.1	.150	.026
Age (CV)	.001	1	.001	.012	.913	.001
Education (CV)	.002	1	.002	.321	.573	.004
SES (CV)	.003	1	.003	.370	.545	.005
Income (CV)	.008	1	.008	.994	.322	.012
Justification of violence	.01	1	.01	1.27	.262	.016
Presence of a stereotyped target	.008	1	.008	1.04	.309	.013
Justification of violence* Presence of a stereotyped target	.032	1	.032	4.13	.045	.05
Error	.613	79	.008			
Total	159.2	89				
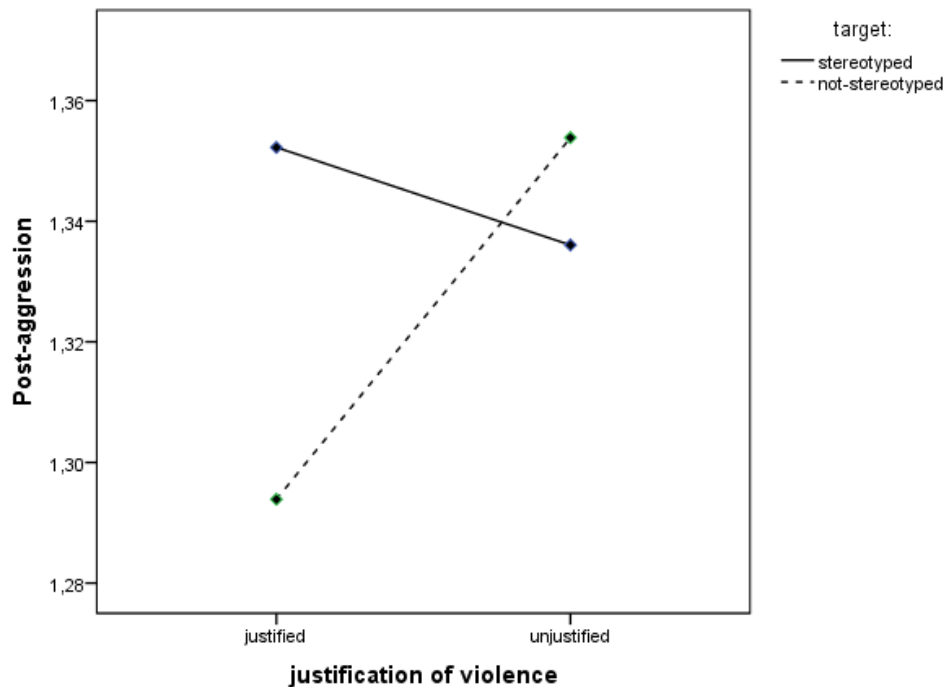
Covariates appearing in the model are evaluated at the following values: Pre_aggression = 1,5056, gender = 1,5169, age = 21,85, education = 3,9663, SES = 4,4382, income = 3,9326

Figure 1. Interaction effect of justification of violence and presence of a stereotyped target on post-aggression.

Note: Adjusted means are displayed.

3.2.2.Gender Differences

Apart from the main analyses, for investigating whether gender has an impact on post-aggression, 2 justification of violence (justified, unjustified) X 2 presence of a stereotyped target (stereotyped, not-stereotyped) X 2 gender (female, male) between-subjects ANCOVA was carried out. Covariates were the same except gender. Controlling for pre-aggression (F (1,76) = .98, p = .32, η^2 = .013), age (F (1.76) = .045, p = .83, η^2 = .001), level of education (F (1.76) = .33, p = .56, η^2 = .004), SES (F (1,76) = 395, p = .53, η^2 = .005) and income (F (1,76) = 1.29, p = .25, η^2 = .017), results showed no main effect of justification of violence (F (1,76) = 1.02, p = .32, η^2 = .013), presence of a stereotyped target (F (1,76) = 1.11, p = .29, η^2 =

.014) and gender (F (1,76) = 1.99, p = .16, η^2 = .026). Besides this, interaction between gender and justification of violence (F (1,76) = .58, p = .44, η^2 = .008), presence of a stereotyped target (F (1,76) = .11, $.p$ = .73 , η^2 = .002) and the three way interaction between gender, justification of violence and presence of a stereotyped target (F (1,76) = .74, p = .39, η^2 = .01) were not significant. However, the interaction between justification of violence and presence of a stereotyped target remained to be significant (F (1,76) = 4.24, p = .043, η^2 = .053).

3.2.3.Manipulation Check

Findings confirmed that Far Cry was perceived as a violent video game as majority of the participants stated that the game involved a considerable amount of violence. Basically, 94.4% of participants rated the game as having average or above average amount of violence (M = 4.1, SD = .9). Ratings indicating less than average amount of violence consisted of 5.6% of responses.

3.2.4.Secondary Analyses

Perceived level of competition was marginally below average (M = 2.9, SD = 1.4). Apart from these, participants' overall responses are as follows: Involvement (M = 3, SD = 1.2), enjoyment (M = 2.9, SD = 1.1), relief (M = 2.3, SD = 1.2) and achievement (M = 2.7, SD = 1.2) were reported to be average. Identification with main character (M = 2.2, SD = 1.3) and particularly with the targets (M = 1.7, SD = 1.09) were found to be low.

Results for weekly engagement in video games indicated that 54.4% of participants did not play video games within a week. Participants who play video games each day consisted of 11.1% of the sample. Fifty-eight percent of the participants had never played a FPS video game before. Besides this, the number of genres participants tended to prefer and the number of in-game elements generally involved in participants' favorite games were measured. Twenty percent of the participants indicated that their favorite games were generally comprised of just one genre. Only 3.3% of the participants indicated that their favorite games can include more than 10 genres. Similar findings were obtained for the number of in-game

elements; 52.2% of the participants opt for only one in-game element and 14.4% of them stated having more than 5 elements in their favorite games (see Table 12).

For investigating the relationships between perceived attributes of video games, correlational analysis was conducted. Perceived level of violence was positively correlated with competition (r (88) = .29, $p<.01$) and prior FPS experience (r (88) = .24, $p <.05$). Perceived level of violence was negatively related with weekly gameplay (r (88) = -.3, $p<.01$) and preference for multiple in-game elements (r (88) = -.3, $p<.01$). Competition was negatively related with weekly gameplay (r (88) = -.22, $p<.05$), preference for multiple genres (r (88) = -.25, $p<.05$) and elements (r (88) = -.25, $p<.05$). Enjoyment was found to be negatively related with FPS experience (r (88) = -.23, $p<.05$), and positively related with involvement (r (88) = .67, $p<.01$), identification with main character (r (87) = .4, $p<.01$), achievement (r (88) = .39, $p<.01$), post-gaming relief (r (88) = .67, $p<.01$), multiple genre (r (88) = .38, $p<.01$) and in-game elements (r (88) = .29, $p<.01$) preferences. Moreover, there was a statistically significant positive relationship between involvement and identification with the character (r (87) = .55, $p <.01$), with the target (r (87) = .34, $p<.01$), perceived level of achievement (r (88) = .36, $p <.01$) and relief (r (88) =.57, $p<.01$).

Identification with the main character was positively associated with identification with the targets (r (86) = .57, $p<.01$) and relief (r (87) =.39, $p <.01$). Perceived level of achievement was found to be negatively associated to FPS experience (r (88) = -.39, $p<.01$); positively with feeling relieved (r (88) =.42, $p<.01$), weekly engagement (r (88) = .34, $p<.01$), multiple genre (r (88) = .48, $p<.01$) and in-game elements (r (88) = .45, $p<.01$) preferences. Relief and in-game elements preference was found to be positively related (r (88) = .22, $p<.05$). Significant positive relationships were found between weekly engagement and multiple genre *(r* (88) = .56, $p<.01$) and element (r (88) = .6, $p<.01$) preferences. However, weekly engagement and FPS experience was negatively correlated (r (88) = -.34, $p<.01$). FPS experience was negatively linked with multiple genre (r (88) = .41, $p<.01$) and element (r (88) = -.44, $p<.01$) preferences. Lastly, multiple genre and in-game elements preferences were positively associated (r (88) = .67, $p<.01$). For bivariate correlations between the variables, see Table 13.

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Table 12. Descriptive statistics of perceived attributes of video games for participants (*n* = 90) in Study 2.

Variables	Mean/ Frequency	Percentage
Weekly engagement	1.9 (*SD* = 1.3)	
None	49	54.4%
1-2 days	21	23.3%
3-6 days	10	11.1%
Each day	10	11.1%
Perceived violence*	4.1 (*SD* = .95)	
Low	5	5.6%
Average	20	22.2%
High	65	72.2%
Perceived competition*	2.9 (*SD* = 1.4)	
Low	36	40%
Average	20	22.2%
High	34	37.7%
Prior FPS experience		
Present	58	64.4%
Absent	32	35.6%
Preference for multiple genres		
Just 1	18	20%
2-5	55	61.2%
6-9	14	15.5%
More than 10	3	3.3%
Preference for multiple elements		
Just 1	47	52.2%
2-5	30	38.9%
More than 5	13	8.8%

*Measured with a 5 point scale ranging from none to very high

Table 13. Bivariate correlations between perceived attributes of video games for Study 2

Variable	1	2	3	4	5	6	7	8	9	10	11
1. Amount of violence	-										
2. Amount of competition	.29**	-									
3. Enjoyment	-.15	-.02	-								
4. Involvement	.14	.17	.67**	-							
5. Identification with character	.06	.17	.4**	.55**	-						
6. Identification with target	.06	.11	.18	.34**	.57**	-					
7. Achievement	-.19	-.12	.39**	.36**	.13	.02	-				
8. Relief	-.03	.01	.67**	.57**	.39**	.19	.42**	-			
9. Weekly engagement	-.3**	-.22*	.14	-.03	-.08	-.18	.34**	.11	-		
10. Prior FPS experience	.24*	.11	-.23*	-.09	-.01	.07	-.39**	-.15	-.34**	-	
11. Multiple genre preference	-.14	-.25*	.38**	.13	.11	-.13	.48**	.22*	.56**	-.41**	-
12. Multiple element preference	-.3**	-.25*	.29**-	.06	.74	-.16	.45**	.15	.6**	-.44**	.67**

*Correlation is significant at the .05 level.
**Correlation is significant at the .01 level.

DISCUSSION

In the second study, the effects of two in-game factors (justification of violence and presence of a stereotyped target) on post-gaming aggression were investigated. In this section, the results obtained from the second study will be evaluated with the help of the psychological literature.

3.3.Gender Differences

Study 2 showed no effect of gender on post-gaming aggression. Moreover, there was no interaction between gender, justification of violence and presence of a stereotyped target. Thus, Hypothesis 3 (Gender will have an effect on post-game aggression. Males will tend to be more aggressive than females when violence is justified and the target is stereotyped. Aggression scores of females will tend to be much lower than males when violence is unjustified and the target is not stereotyped.), was not supported. In the literature, it was reported that females tend to be more empathetic than males (e.g., Hoffman, 1977), and it was revealed that empathy played a role in unjustified video game violence (Hartmann et al., 2010). In brief, the potential role of empathy resulted in the production of Hypothesis 3. However, the literature also suggested inconsistencies about the effect of gender. For example, in the study by Bartholow and Anderson (2002), participants were required to play a neutral and a violent video game. For the violent game, male participants showed higher aggression than females. In another study, female children who played a violent video game, showed more aggressive free-play after the video games (Cooper & Mackie, 1986). Developmental processes might be responsible for the difference in those findings as Archer (2004) revealed age as an important factor for gender differences in aggression. Since the effect of age was controlled for in the present study, another factor might have been responsible for current results. Presence of provocation was reported to be effective for gender differences in aggression (Bettencourt & Miller, 1996). All in all, justification of violence and

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presence of a stereotyped target did not interact with gender and for future studies, other variables, such as provocation, can be investigated.

Another reason for obtaining the current findings can be that some questions in the punishment scale might be male-oriented. To clarify, the participants were required to identify with football and basketball players in three questions. Males are generally thought as more relevant to sports (Matteo, 1986). Therefore, it is possible that it could have been difficult for the female participants to associate themselves with a football player. Apart from this, I think sports can be associated with feelings of competition and perceived competition and gender might have an interaction. Regarding those, questions about sports can be changed for future investigations.

3.4. Distinct Effects for Justification of Violence and Presence of a Stereotyped Target

After the impacts of age, gender, SES, monthly income, education level and pre-gaming aggression were controlled, analyses showed no main effects of justification of violence and presence of a stereotyped target. This means that aggressive behavior after playing a violent video game where violence was justified did not differ from the condition where violence was unjustified. Whether the target is stereotyped or not is also did not have an effect on post-gaming aggression; aggression scores did not significantly vary for presence of stereotyped and not-stereotyped targets. Therefore, Hypotheses 2a (justified violence will increase post-game aggression as compared to the condition in which violence is unjustified) and 2b (when the target is stereotyped, aggression will be higher than it is for not-stereotyped target) were not confirmed.

One reason why justification of violence did not affect post-game aggression can be that participants may have their own justifications for their behavior which is the fact that game is fictional. The study by Klimmt et al. (2006) showed that gamers tend to prioritize the unrealistic nature of the games when they were reminded that they could engage in inexcusable actions in video games. For example, one participant in the study by Klimmt and colleagues (2006) stated: "I know it is a video game, I know that it is not real, and I know, that it does not have any consequences

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for me" (p. 317). This participant clearly emphasized that she/he cannot be held responsible for in-game actions. Consequently, merely manipulating the justification of violence may not be effective enough to trigger aggression-related responses. In order to handle this, a questionnaire measuring the perceptions of participants regarding the reality of the game content can be used. How real/fictional in-game content felt and how responsible participants felt during gameplay can be asked. Later, the effects of those can be controlled in order to differentiate the effect of justification of violence. Apart from this, Hartmann et al. (2010) found that feelings of guilt emerged when people played violent video games in which unjustified violence was present. Additionally, justified violence in violent video games was reported to result in feeling less guilty (Hartmann, & Vorderer, 2010). Following this, I anticipated that aggression could be lower as people might not be comfortable executing unjustified acts. However, results of the present study were not in line with my predictions. Therefore, it can be claimed that feeling uncomfortable or remorseful may not be relevant with subsequent aggressive behavior. (See Section 4.2 for further discussion).

As it is mentioned in the introduction chapter, violent video games generally involve stereotypical targets (Burgess et al., 2011) and they can reinforce existing stereotypical beliefs (e.g. Beasley, & Standly, 2002). In addition, people tend to rationalize aggression towards stereotyped people (Bandura, 2002) and they tend to disregard humanness of stereotyped targets (e.g. Hodson, & Costello, 2007). The process which involves disregarding the humanness of others is called as "dehumanization" (Haslam, Loughnan, Reynolds, & Wilson, 2007). Stereotyped targets are likely to be dehumanized and this can yield to justification of any aggressive behavior towards them (Bandura, 2002). Therefore, it was predicted that having a stereotyped target would increase aggression. Contrary to the predictions, having a stereotyped target did not influence post-gaming aggression. In pilot study, participants were asked to report a stereotyped group and the majority of responses indicated "Group A" as stereotyped group. "Group A" might not be a major representative of a stereotyped group in Turkey. This might be one of the reasons

why presence of a stereotyped target was not effective. (See Section 4.2 for further discussion).

Additionally, participants could have perceived the non-stereotyped targets as stereotyped. To clarify, for manipulation purposes, participants were given stories about the game they were playing. Apart from the stereotypical information of the targets, the stories also implied that the targets were enemies or innocents. This can also present other information (i.e. good vs. bad), which can be confused with the main stereotypical information. Even if the target was not stereotyped, participants could have inferred that targets were bad people, therefore they needed to be punished. This might have surpassed a potential effect of presence or absence of stereotypical targets (See section 4.2).

3.5. Joint Effect of Justification of Violence and Presence of a Stereotyped Target

Results of the second study showed that post-game aggression increased when the target was stereotyped and violence was justified. When the target was not stereotyped, aggression decreased. Therefore, Hypothesis 2c (both for stereotyped and not-stereotyped targets, aggression will increase when violence is justified. However, aggression will increase more when the target is stereotyped) was partially confirmed. Justified violence and non-stereotyped target resulted in a decrease in aggression; moreover, the lowest aggression scores were observed for this condition.

Increased aggression for the condition involving justified violence and stereotyped target was parallel with literature. For example, it was reported that approval and support of stereotypes for African American females were accompanied with justifying domestic violence (Gillum & Tameka, 2002). The finding also makes sense because concerns which might derive from ethical questionability of the in-game scenario were eliminated by giving justified reasons. There were no factors which challenged the ethical beliefs of the participants. As Bandura (2002) suggests, one way people can detach themselves from unethical actions is finding a justification for the actions. Here there was no need for such a strategy as engaging in a violent action was already justifiable and it was supported

with the presence of a stereotyped target. Even though the effect of dehumanization was not measured in the present study, it can help illuminating this issue. As it was mentioned before, stereotyped targets are likely to be excluded from humanness (Bandura, 2002), and this hinders suppression of aggressive behaviors (Bandura, Underwood, & Fromson, 1975). As well as this, dehumanization can lead to rationalization of aggressive actions towards stereotyped groups (Haslam et al, 2007). It can even result in mass violence (Kelman, 1975). As a result, presence of justified violence and stereotyped targets can serve as triggers for aggression.

Hypothesis 2d (both for justified and unjustified violence, when the target is stereotyped, aggression will be higher than the condition where the target is not stereotyped) was not confirmed. Contrary to the predictions, aggression scores were the highest for the condition in which the target was not stereotyped and the violence was unjustified. How did engaging in violent acts, which cannot be rationalized through stereotypes or justification concept, result in an escalation in aggression? Previously it was noted that people tend to feel guilty after they act violently for an unjustifiable reason (Hartmann et al., 2010). It was also suggested that discomfort can emerge when people does something conflicting with their ethical beliefs (Klimmt et al., 2008, cited in Hartmann & Vorderer, 2010). Reported existence of such conditions can be ascribed to cognitive dissonance. "Cognitive dissonance" can be described as the state emerging from the conflict between thoughts (Festinger, 1962). If cognitive dissonance is present, people strive to diminish the dissonance as Festinger (1962) stated that "The existence of dissonance, being psychologically uncomfortable, will motivate the person to try to reduce the dissonance and achieve consonance" (p. 3). In order to do this, people can change their conflicting thoughts, add new thoughts or change their behaviors (Festinger, 1962). Thus, participants of the second study might have felt distressed since they killed innocent people unjustifiably. Their unjustifiable actions can conflict with their morality. Therefore, participants might have tried to decrease distress by continuing to behave aggressively. Continuation of aggression decreases the dissonance as their in-game behaviors can be attributed to the idea that they were in an aggressive state.

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Attributing unjustifiable and morally wrong in-game actions to the state of being aggressive is consistent with their aggressive behavior after the game.

In the light of the things discussed above, it can be concluded that justification of violence and presence of a stereotyped target depends on each other to influence gaming-related aggression. Just one of them is not enough to trigger an aggressive response: If both of them are present, aggression can be attributed to the lack of moral setbacks, and if both of them are absent, aggression can be traced back to cognitive dissonance.

CHAPTER IV

CONCLUSION

Present thesis mainly investigated the impact of two main in-game factors (justification of violence and presence of a stereotyped target) on post-gaming aggression. In a violent video game, effects of justified/unjustified violence and presence of a stereotyped/not-stereotyped target were studied with an experimental design (Study 2). Besides this, the effect of playing a violent video game versus a neutral game was examined with a prior study. Prior study (Study 1) was conducted to replicate previous studies and to emphasize the importance of in-game variables. Throughout this section, contributions and possible real life applications of the studies will be discussed. After that, limitations of the studies and ideas for future research will be presented.

4.1. Contributions and Real Life Applications

The present study firstly showed that it is efficient to investigate the relationship between video games and aggression with the help of in-game variables. As it was demonstrated in the preliminary study, disregarding the impact of in-game variables makes it harder to reach powerful findings. In addition to this, present study examined the influence of justification of violence. Justification of violence in violent video games is generally blurry; people tend to think that what they do in the game is justified (Dominick, 1984). Referring to the introduction chapter, its effect is generally overlooked. Thus, one of the aims of the current study was to investigate people's responses when unjustified violence was made salient. Justification of violence did not have an effect by itself, but it had a joint effect with the presence of a stereotyped target. In other words, what players do in violent video games; whom they kill and how they interpret their actions are really important. This is one of the

main contributions of current thesis. Violent video games should not be examined irrespective of those aspects.

Current study also contributed to the literature by reporting that examining the mere violent content was inconclusive. Failing to find an effect is as important as finding one as it can help figuring out the limitations and conducting stronger studies. It is also important as Ferguson (2007) suggested *publication bias* can influence the literature in a negative way; it can make it harder to carry out meta-analyses and reviews. Findings from the first study paved the way for my second study and it can help clarifying and guiding future research. Findings from the first study can also contribute to real life. It is possible for people to accuse violent video games of making people aggressive and the first study shows that it is not the case all the time. With the help of second study, it was made clear that other in-game variables can influence aggression. In short, people should not judge a game just for its violent context. To exemplify, people who are diagnosed with cancer were asked to play Re-Mission (Realtime Associates, 2006), in which the purpose is to shoot cancerous cells ("Innovative Solutions", n.d.). Results showed that, compared to the control group, participants who played Re-mission trusted their abilities to fight back more They also showed increased understanding of the disease and committed to their treatments more (Kato, Cole, Marin-Bowling, Dahl, & Pollock, 2006, cited in Ferguson, 2007). The game has violent content; however, this study showed that violent games can have positive results. Thus, other variables, such as the purpose and the story of the games can be looked into to infer its effects on people. For children, their parents can examine the games their children want to play. Parents can check out how in-game stories are told and what other factors, other than the mere violence, can affect their children. In brief, current findings help eliminating the unnecessary and invalid blame violent video games can get.

Knowing the effects of justification of violence and presence of a stereotyped target, how we can apply it to real life? To begin with, the increase in aggression was observed in two conditions: When violence was justified and the target was stereotyped, and when violence was unjustified and the target was not stereotyped. Decreased aggression, on the other hand, was observed when one of the variables

was present and the other one was absent. Therefore, there seems to be an invisible balance between those in-game variables. If one of them is present, another one should be absent in order to protect the balance. When they are both absent/present, it disrupts the balance and it results in aggression. To clarify, if all aspects point towards engaging in justified violence, subsequent aggression keeps going on. Similarly, if all aspects imply that each in-game action is inexcusable; people can resort to continuation of aggression since they need to be consistent with their actions. I suggest that this can be generalized for all in-game variables. In the current thesis, two important variables were investigated. Game companies should consider each aspect their games have. They need to focus on the aspects which can influence people's behavior and they should try to keep them in balance. Having an aspect which stabilizes the balance between in-game variables can decrease post-gaming aggression. In short, in-game aspects and how can they be kept in balance should be taken into consideration.

4.2.Limitations and Further Investigations

One thing I would like to touch upon is that sample size for the preliminary study was relatively small. In the mini-prejudice study, 53 participants were involved and the majority of the participants were university students or graduates. Whether the sample represented the attitudes of Turkish society is questionable. Turkish society might not be that prejudiced towards "Group A". Nevertheless, a possible effect of small sample size was tried to be handled by controlling the effects of demographic variables. Main studies were also conducted with a similar sample; participants were university students mostly. However, a secondary check, such as a confirmation survey for the obtained result, would have been useful. In addition to these, although participants were asked a simple question (the communities, except minority groups, which Turkish society is prejudiced towards), interpretations of the question might have not been that simple. To clarify, participants gave various responses including groups from different religions, nations, sexual orientations and very specific groups, such as "widows", "women who live alone" or "people who dresses unusually". Regarding the concept of the violent video game and the ethical

reasons, a clear, to-the-point question should be asked. Thus, future research should use a clearer measurement with a larger sample size with varying backgrounds.

In Study 1, the effects of violent versus neutral game were measured and two different games were used. Both of them involved first person perspective, both games included playing with just one main character and for both games participants made clear about the purpose of the games. However, games did differ in terms of graphics. Far Cry involved more realistic graphics as compared to Minecraft. In Minecraft, the environment is comprised of cubic shapes ("Minecraft: How to play", n.d.) and I think it seems unrealistic with respect to Far Cry. For future research, a game including both violent and non-violent gameplay can be used. For Far Cry, participants were provided with notes which involve the story of the game. If stories were presented inside the game, it would have been more convincing. For further investigations, an in-game story-telling can be used. This can also help people get involved in the game more. As I mentioned previously, participants can be given a post-gaming questionnaire to measure the realistic nature of in-game stories. Measuring the extent the game felt realistic is advantageous since it helps improving the design and findings. Future studies should include such measurement to overcome a possible interference from "game is fictional" arguments.

Regarding in-game scenarios, a potential impact of good versus bad inference was mentioned before. Since justification of violence and presence of stereotyped target were studied together, stereotypical information could have been confused with justification information. Even in the targets were not stereotyped, justified violence implied that those targets can be "bad" people. Thus, the absence of national stereotypical information can be confused with a simpler one: Bad versus good people. In order to overcome this, stories can be changed so that having a stereotyped group or not cannot be attributed to targets' good or bad characteristics. The game also involved a military atmosphere; future studies can use another concept. I think it is possible for participants to relate the military concept with survival. Thinking that the targets in the game were also shooting the main character (i.e. the participants), participants could have reacted with survival drives. Even if participants were killing the targets unjustifiably, kill or get killed idea could be present for participants. Thus,

creation and manipulation of in-game stories are crucial; future research should take all of those in consideration and include better stories.

In order to measure post-gaming aggression, participants were asked how they would react to imaginary circumstances. Such measurement was preferred to examine state aggression. Although the scale was adapted from the study by Barlett and colleagues (2007), scale's reliability and validity are debatable. I think that people's aggressive tendencies, rather than how they can really behave in such situations, can be measured with this type of measurement. In the literature, interpersonal aggressive behavior was generally measured with how participants, who were previously frustrated by the confederates, reacted when they were given chances to get back at the confederates (e.g., Zilmann et al., 1972; Bartholow, & Anderson, 2002; Hasan et al., 2013). Both kinds of measurement can be informative; however the latter measures aggression towards a specific target, whereas the one used in the current studies can measure aggression in wider concepts. Thus, which aggression measurement is better depends on what type of aggression researchers wants to measure.

Referring to the discussions of present studies, dehumanization can be linked to stereotyping and justifying violence. Dehumanization has been started to be investigated in video game literature. For instance, the study by Greitmeyer and McLatchie (2011) revealed an increase in dehumanization for the participants who played a violent video game with respect to the participants who played a non-violent video game. Moreover, the authors reported that dehumanization serve as a mediator variable for the relationship between aggression and violent video games; dehumanization reinforced the relationship. Therefore, dehumanization can be measured along with the factors of the present study.

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APPENDIX A

DEMOGRAPHIC INFORMATION FORM

DEMOGRAFİK BİLGİ FORMU

Aşağıda yöneltilen soruları boşlukları doldurarak ve uygun kutucukları işaretleyerek yanıtlayınız.

- **Cinsiyetiniz:** Erkek ( ) Kadın ( ) Diğer ( )

- **Yaşınız:**_____

- **Mesleğiniz:**_____

- **Eğitim Durumunuz:** □ ilkokul □ortaokul □lise □ üniversite □lisansüstü

- **Annenizin Eğitim Durumu:** □ ilkokul □ortaokul □ lise □üniversite □lisansüstü

- **Babanızın Eğitim Durumu:** □ ilkokul □ortaokul □lise □ üniversite □lisansüstü

- **Kendinizi, sosyo-ekonomik statü skalasında hangi konumda görüyorsunuz?**

□ 1 (En alt statü) □ 2 □ 3 □ 4 □ 5 □ 6 □ 7 (En üst statü)

- **Ailenizin aylık geliri (TL olarak):**

  □ 500 TL altı □ 500-1000 TL □ 1000-2000 TL □ 2000-4000 TL □ 4000 TL ve üstü

APPENDIX B

MINI-PREJUDICE QUESTIONNAIRE

MİNİ ÖNYARGI ANKETİ

Sizce Türk toplumunda hangi toplumlara (**Türkiye'de yaşayan azınlık gruplar hariç**) karşı önyargı bulunmaktadır? İlk sıradaki en çok önyargı gösterilen grup olmak üzere, 5 grup belirtiniz lütfen.

1. …………………..
2. …………………..
3. …………………..
4. …………………..
5. …………………..

BUSS-PERRY AGGRESSION QUESTIONNAIRE (Buss & Perry, 1992)

BUSS-PERRY SALDIRGANLIK ÖLÇEĞİ (Türkçe Formu, Madran, 2012)

Aşağıdaki her bir maddeyi okuyarak, bu madde sizin için her zaman doğru ise **"Tamamen Katılıyorum"**, genelde doğru ise **Katılıyorum"**, emin değilseniz **"Kararsızım"**, genelde doğru değilse **"Katılmıyorum"**, hiçbir zaman doğru değilse **"Kesinlikle Katılmıyorum"** şeklinde işaretleme yapmanız rica olunur.	Tamamen Katılıyorum	Katılıyorum	Kararsızım	Katılmıyorum	Kesinlikle Katılmıyorum
1. Bazı arkadaşlarım benim öfkeli biri olduğumu söylerler					
2. Gerekirse hakkımı korumak için şiddete başvurabilirim					
3. Birisi bana fazlasıyla iyi davrandığında "acaba benden ne istiyor" diye düşünürüm					
4. Arkadaşlarımın görüşlerine katılmadığım zaman bunu onlara açıkça söylerim					
5. Öfkeden deliye döndüğümde bir şeyler kırıp dökerim					
6. İnsanlar benim görüşlerime katılmadıklarında onlarla tartışmaktan kendimi alıkoyamam					
7. Zaman zaman bazı olaylara/kişilere yönelik kızgınlığım uzun süre bitmek bilmez					
8. Bazen başkalarına vurma dürtümü kontrol edemiyorum					
9. Sakin yapılı biriyimdir					
10. Tanımadığım insanlar bana fazla yakın davrandıklarında onlara şüpheyle yaklaşırım					
11. Daha önce, tanıdığım insanları tehdit ettiğim oldu					
12. Çok çabuk parlar ve hemen sakinleşirim					
13. Birisi bana sataşırsa kolaylıkla onu itip tartaklayabilirim					
14. İnsanlar sinirimi bozduklarında kolaylıkla onlar hakkında ne düşündüğümü söyleyebilirim					
15. Zaman zaman kıskançlık beni yiyip bitirir					
16. Bir insana vurmanın mantıklı bir gerekçesi olamayacağını düşünüyorum					
17. Bazen hayatın bana adaletsiz davrandığını düşünürüm					
18. Öfkemi kontrol etmekte zorluk çekerim					
19. Yapmak istediğim bir şey engellendiğinde kızgınlığımı açıkça ortaya koyarım					

20. Zaman zaman insanların arkamdan güldüğü duygusuna kapılırım					
21. İnsanlarla sıkça görüş ayrılığına düşerim					
22. Birisi bana vurursa ben de karşılık veririm					
23. Bazen kendimi patlamaya hazır bir bomba gibi hissediyorum					
24. Diğer insanların her zaman çok iyi fırsatlar yakaladıklarını düşünüyorum					
25. Birisi beni iterse onunla kavgaya tutuşurum					
26. Arkadaşlarımın arkamdan konuştuklarını biliyorum					
27. Arkadaşlarım münakaşacı/tartışmayı seven biri olduğumu söylerler					
28. Bazen olmadık şeylere ortada mantıklı bir neden yokken aniden sinirlenir, tepki veririm.					
29. Çoğu insana kıyasla daha sık kavgaya karıştığımı söyleyebilirim.					

PUNISHMENT SCALE (Adapted from Barlett et al., 2007)

CEZALANDIRMA ÖLÇEĞİ (Bartlett ve ark., 2007'den uyarlanmıştır)

Lütfen aşağıda verilen senaryolarla ilgili soruları kendi fikirleriniz doğrultusunda yanıtlayınız.

1. Suçlanan kişinin kasıtlı fakat planlamadan başka bir kişiyi öldürdüğü bir davada hakim olarak görev yapmaktasınız. Bütün karar verme yetkisi sizde olduğuna göre suçluyu aşağıdakilerden hangisine mahkum edersiniz?

- ☐ Şartlı tahliye
- ☐ 10 yıla kadar hapis
- ☐ 10-15 yıl hapis
- ☐ 15-30 yıl hapis
- ☐ Müebbet hapis

2. Bir davada hakim olarak görev yapmaktasınız ve suçlanan kişinin hırsızlık yaparken bir şahsı yaraladığı biliniyor. Bütün karar verme yetkisi sizde olduğuna göre suçluyu aşağıdakilerden hangisine mahkum edersiniz?

- ☐ Şartlı tahliye
- ☐ 10 yıla kadar hapis
- ☐ 10-15 yıl hapis
- ☐ 15-30 yıl hapis
- ☐ Müebbet hapis

3. Hakim olarak görev yaptığınız bir davada suçlanan kişinin planlı bir şekilde birini kaçırdığı öne sürülüyor. Bütün karar verme yetkisi sizde olduğuna göre suçluyu aşağıdakilerden hangisine mahkum edersiniz?

- ☐ Şartlı tahliye
- ☐ 10 yıla kadar hapis
- ☐ 10-15 yıl hapis
- ☐ 15-30 yıl hapis
- ☐ Müebbet hapis

4. Bir futbolcusunuz ve oynadığınız maçta gol ile sonuçlanabilecek bir atak yapmaktasınız. Rakip oyunculardan biri o sırada kasıtlı olarak ayağınıza hamle yapıyor ve pozisyonu kaybediyorsunuz. Bu durumda aşağıdakilerden hangisini yaparsınız?

☐ Hiç bir şey yapmadan hakemin kararını beklerim
☐ Hakeme rakip oyuncuyu cezalandırması için baskı yaparım
☐ Rakip oyuncuya uzaktan bağırırım
☐ Rakip oyuncunun üzerine yürür, yüzüne bağırırım
☐ Hemen rakip oyuncuyla kavga etmeye başlarım

5. Bir basketbol oyuncususunuz ve tam basket atmak üzereyken rakip oyunculardan biri sizi formanızdan çekiyor ve yere düşüyorsunuz. Burumda aşağıdakilerden hangisini yaparsınız?

☐ Hiç bir şey yapmadan hakemin kararını beklerim
☐ Hakeme rakip oyuncuyu cezalandırması için baskı yaparım
☐ Rakip oyuncuya uzaktan bağırırım
☐ Rakip oyuncunun üzerine yürür, yüzüne bağırırım
☐ Rakip oyuncuyla kavga etmeye başlarım

6. Bir futbolcusunuz ve bir maçta oynamaktasınız. Takım arkadaşınızdan gelen bir pası karşılayacakken, rakip takım oyuncularından biri kasıtlı olarak sizi ittiriyor ve topu kaçırıyorsunuz. Bu durumda aşağıdakilerden hangisini yaparsınız?

☐ Hiç bir şey yapmadan hakemin kararını beklerim
☐ Hakeme rakip oyuncuyu cezalandırması için baskı yaparım
☐ Rakip oyuncuya uzaktan bağırırım
☐ Rakip oyuncunun üzerine yürür, yüzüne bağırırım
☐ Rakip oyuncuyla kavga etmeye başlarım

7. Çocuğunuzun okulda bir sınav sırasında kopya çektiğini öğrendiniz. Bu durumda ebeveyni olarak aşağıdakilerden hangisini yapmayı tercih edersiniz?

☐ Sözlü bir şekilde azarlarım
☐ Birkaç saat boyunca çeşitli aktivitelerden alıkoyarım (TV izlemek vb. gibi)
☐ Birkaç saatlik ev hapsi veririm
☐ Bir günlük ev hapsi veririm
☐ Tüm hafta sonunu kapsayan ev hapsi veririm

8. Çocuğunuzun birkaç gündür okula gitmediğini öğrendiniz. Bu durumda ebeveyni olarak aşağıdakilerden hangisini yapmayı tercih ederdiniz?

☐ Sözlü bir şekilde azarlarım

☐ Birkaç saat boyunca çeşitli aktivitelerden alıkoyarım (TV izlemek vb. gibi)

☐ Birkaç saatlik ev hapsi veririm

☐ Bir günlük ev hapsi veririm

☐ Tüm hafta sonunu kapsayan ev hapsi veririm

9. Çocuğunuzu başka bir çocukla kavga ederken yakaladınız. Bu durumda ebeveyni olarak aşağıdakilerden hangisini yapmayı tercih edersiniz?

☐ Sözlü bir şekilde azarlarım

☐ Birkaç saat boyunca çeşitli aktivitelerden alıkoyarım (TV izlemek vb. gibi)

☐ Birkaç saatlik ev hapsi veririm

☐ Bir günlük ev hapsi veririm

☐ Tüm hafta sonunu kapsayan ev hapsi veririm

PERCEIVED ATTRIBUTES OF VIDEO GAMES SCALE

ALGILANAN OYUN ÖZELLİKLERİ ÖLÇEĞİ

Aşağıda oynadığınız oyuna yönelik birkaç soru yöneltilmiştir. Lütfen bu soruları kendi fikirleriniz doğrultusunda, uygun kutucuğu işaretleyerek yanıtlayınız.

	Hiç	Biraz	Orta	Biraz çok	Oldukça Çok
1. Oynadığınız oyundan ne ölçüde zevk aldınız?					
2. Sizce oynadığınız oyun ne ölçüde şiddet içermekteydi?					
3. Sizce oynadığınız oyun ne ölçüde rekabet içeriyordu?					
4. Kendinizi ne ölçüde oynadığınız oyunun içinde hissettiniz?					
5. Kendinizi ne ölçüde oynadığınız karaktere yakın hissettiniz?					
6. Kendinizi ne ölçüde şiddet uygulanan karakterlere yakın hissettiniz?					
7. Kendinizi oyunda ne kadar başarılı buldunuz?					
8. Oyunu oynamak sizi rahatlattı mı?					

FAMILIARITY WITH VIDEO GAMES SCALE

VİDEO OYUNLARINA AŞİNALIK ÖLÇEĞİ

- **Bir hafta içerisinde bilgisayar oyunları ile ne kadar meşgul oluyorsunuz?**

□ Hiç   □ 1-2 Gün   □ 2-4 Gün   □ 4-6 Gün   □ Her Gün

- **Daha önce birinci şahıs nişancı (karakterin gözünden, çeşitli uzun menzilli silahların kullanıldığı oyun türleri) türünde oyun oynadınız mı?**
□ Evet   □ Hayır

- **En çok hangi tür oyunları oynamayı tercih ediyorsunuz? (Birden fazla seçeneği işaretleyebilirsiniz)**

□ Tek Oyunculu	□ Rol Yapma Oyunları	□ Spor
□ Çok Oyunculu	□ Bilmece, Bulmaca, Zeka	□ Dövüş
□ Birinci Şahıs Nişancı (Karakterin gözünden, çeşitli uzun menzilli silahların kullanıldığı oyun türleri)	□ Strateji Oyunları	□ Aksiyon
□ Üçüncü Şahıs Nişancı (Karakterin görülebildiği, menzilli silahların kullanıldığı oyun türleri)	□ Simülasyon	□ Macera
□ Diğer (Lütfen belirtiniz): ………	□ Çevrimiçi oyunlar	

- **Oynamayı tercih ettiğiniz oyunlar genelde hangi öğeleri içermektedir?**

□ Komedi, mizah	□ Çıplaklık, cinsellik	□ Kan, katliam
□ Doğaüstü korku öğeleri	□ Kumar	□ Ateşli silahların kullanımı
□ Küfür içerebilen kaba konuşmalar	□ Alkol, tütün, uyuşturucu kullanımı	□ Gerçek hayatla ilintili korku öğeleri
□ Şiddet	□ Ayrımcılığa teşvik edebilecek öğeler	

□ Diğer (Lütfen belirtiniz): ………

APPENDIX G

FAR CRY (VIDEO GAME)

Far Cry (Crytek Studios, 2004) is a first person shooter game, rated as "Mature" by ESRB. The appropriate age for playing this game is suggested as 17 or above ("Far Cry", n.d.). In the game, the main character gets trapped in an island. In the island there are enemies whose purpose is to terminate the main character. As the main character, players need to survive ("Far Cry for Playstation", n.d). (For an in-game illustration of the game, see Figure 2).

Figure 2. Far Cry, the violent video game used in Study 1 and Study 2

MINECRAFT (VIDEO GAME)

Minecraft (Mojang, 2011) is a building game, rated as "Everyone" by ESRB. It indicates that there is no age restriction for playing this game ("Minecraft", n.d.). The environment in Minecraft is comprised of cubicles which can be gathered, broken, or built together ("Minecraft: Game", n.d.). Minecraft involves two different game modes, which are called as "Survival" and "Creative". In "Survival" mode there are monsters in the environment and the purpose is to survive. In "Creative" mode, players have limitless materials in their inventories and they can build anything using those materials. Also there are no monsters in this mode ("Minecraft: How to play", n.d). In Study 1 of the thesis, "Creative" mode was used. (For an in-game illustration, see Figure 3).

Figure 3. Minecraft, the video game used in the control condition of Study 1**.**

TÜRKÇE ÖZET

1.GİRİŞ

Teknolojik gelişmeler insanların internet, bilgisayar ve cep telefonu ile etkileşimlerini artırmaktadır. Türk İstatistik Kurumu'na göre (2015), Türkiye'deki nüfusun neredeyse yarısı interneti düzenli bir şekilde kullanmaktadır ve bu kullanımda sosyal medya ile ilgili siteler birinci sıradadır. İnsanlar sosyal medyada kendilerini sanal bir gerçeklikte temsil edebilirler ve video oyunları insanların bunu yapabilmesi için başka bir yoldur. Video oyunları ülkemizde son derece popülerdir; Türkiye bilgisayarda oyun oynanarak geçirilen sürede dünyada üçüncü sıradadır (Newzoo, 2013). Video oyunlarında, şiddet temaları en çok tercih edilen türlerden biri olmuştur (Bunchman ve Funk, 1956).

Saldırganlık, başka birine kasıtlı olarak zarar vermek amacıyla yapılan davranış olarak tanımlanabilir. Davranışı uygulayanın, davranışının bilincinde olması ve davranışın uygulandığı kişinin de durumdan kaçınmak istemesi bir davranışın saldırganlık olarak adlandırılabilmesi için gereklidir (Anderson ve Bushman, 2002). Saldırganlık tipleri de konuyu anlamlandırmak açısından önem taşımaktadır. "Fiziksel" saldırganlık fiziksel olarak, "sözel" saldırganlık sözel yolla ve "duruşsal" saldırganlık ise vücudun duruşu ve yüz ifadeleri ile bir başkasını zarar vermeyi içerir (akt. Ramirez ve Andreu, 2003). Bunların dışında "düşmanca" saldırganlıkta nihai amaç bir başkasına zarar vermek iken, "araçsal" saldırganlıkta amaç istenilen bir sonuca ulaşmak için saldırganlığın araç olarak kullanılmasıdır (Feshbach, 1964). Saldırganlık, ayrıca, kişisel ve çevresel faktörlerle ilişkilendirilebilir. Örneğin; literatürde genelde erkeklerin kadınlardan daha saldırgan olduğu öne sürülmüş olsa da (örn., Eagly ve Steffen, 1986), cinsiyeti saldırganlık için bir nedenden çok yatkınlık sağlayan bir mekanizma olarak düşünmek daha faydalıdır çünkü çevresel ve kişisel faktörler bu açıdan önemlidir (Bettencourt ve Miller, 1996). Silahların

çevrede bulunması insanların saldırganlığa olan yönelimini tetikleyen çevresel bir faktör olarak bulunmuştur (Berkowitz ve LePage, 1967). Çok yüksek ve düşük ortam sıcaklıklarının da saldırganlığı artırabileceği de rapor edilmiştir (Anderson, Anderson ve Deuser, 1996). Son olarak, alkol kullanımının saldırganlıkla ilişkili olduğu, özellikle ailevi şiddetti artırabileceği bulunmuştur (örn., Leonard ve Blane, 1992).

Psikoloji Literatürü'nde saldırganlığa yönelik pek çok teori öne sürülmüştür. Bunlardan birincisi Freud'un (1922) desteklediği içgüdüsel teoridir. Bu teoride, yaşam ve ölüm içgüdüleri arasındaki gerilimin, saldırganlık ile serbest bırakılabileceği öne sürülmüştür. Bunun dışında Lorenz (1996) hayatta kalma içgüdüsünün saldırganlık ile ilişkili olduğunu savunmuştur. Daha sonra, Bandura (1972) "Sosyal Öğrenme Kuramı" ile saldırganlığın başka bir kişinin saldırgan davranışlarını gözlemleyerek, modelleyerek ya da pozitif pekiştirme ile öğrenilebileceğini savunmuştur Huesmann (1986) ise medyada sunulan konseptlerin insanların hafızasında modellenip depolanabileceği öne sürmüş ve medyanın saldırganlığı öğretebileceği vurgulanmıştır. "Engellenme-saldırganlık hipotezi" (Dollard ve ark., 1939) ise saldırganlığın istenilen bir sonucun engellenmesi yoluyla açığa çıktığını öneren bir kuramdır. Berkowitz (1988) her engellenmenin saldırganlığa yol açmayabileceğini savunarak duyguların önemini betimlemiştir. Bunun dışında, Zillmann (1988) insanların saldırganlık ile ilgili yaşadığı uyarılmayı yanlış yorumlayabileceği üzerinde durmuştur. Son olarak "Genel Saldırganlık Modeli" Anderson ve Bushman (2002) tarafından öne sürülmüştür. Bu modelde, kişisel ve çevresel faktörlerin, duygusal, bilişsel ve uyarımsal mekanizmaları harekete geçirerek saldırganlıkla ilgili bir karar verme sürecini tetikledikleri savunulmuştur. Karar verme süreci otomatik ya da düşünceli bir şekilde olabilir.

Şiddet içeren video oyunları psikolojik literatür için de önem teşkil etmektedir ve bu alanda çalışmalar yapılmıştır.Yapılan çalışmalar çelişkili sonuçlar doğurmuştur: Şiddet içeren video oyunlarının saldırganlığı artırdığı (örn., Anderson ve Bushman, 2001), azalttığı (örn., Sherry, 2001) ve şiddet içeren video oyunlarının saldırganlığı etkilemediği (örn., Ferguson ve Rueda, 2010) yönünde sonuçlar rapor edilmiştir. Bu sonuçlara yönelik, Ferguson (2007) "yayınlamada yanlılık"; yani arzu edilen sonuçlar raporlayan araştırmaların daha çok yayınlanabileceği (Ferguson ve

Brannick, 2012), olabileceğinden bahsetmiştir. Bu durum meta-analiz ve yeniden inceleme çalışmalarının yapılmasını zorlaştırabilir (Ferguson, 2007). Bu tezde ise, çoğu çalışmanın video oyunlarındaki oyun içi faktörlere odaklanmaksızın yapılması, çelişen sonuçların potansiyel bir sebebi olarak öne sürülmüştür. Bu sebeple, bu tezde iki önemli oyun içi değişkeninin (şiddetin meşruluğu ve stereotipik bir hedefin bulunması) oyun sonrası saldırganlığa olan etkisi incelenmiştir.

Daha önce bahsedildiği gibi, şiddet içeren video oyunları ve oyun sonrası saldırganlık arasındaki ilişkileri inceleyen çalışmalar genelde çelişkili sonuçlar rapor etmiştir. Şiddet içeren bir video oyunu aynı zamanda başka değişkenler içerebilir. Örneğin, bir video oyunu aynı zamanda şiddetli ve rekabetçi olabilir. Adachi ve Willoughby (2011) şiddet temasının değil, rekabetçi içeriğin oyun sonrası saldırganlığı artırdığını bulmuştur. Bu yüzden oyun içi değişkenler şiddet içeriği kadar önemlidir. Bu tezde incelenmek üzere seçilen iki temel oyun içi değişkeni, oyundaki şiddetin meşruluğu ve oyunda stereotipik bir hedefin bulunmasıdır. Yapılan çalışmalarda şiddetin meşruluğu genelde göz ardı edilmiştir ve insanlar oynadıkları oyunlardaki davranışlarını genelde meşru olarak görmektedirler (Dominick, 1984). Bunun dışında, oyunculara oyun içindeki saldırgan davranışlarının haksız yere olduğunun belirtilmesi sonucunda, oyuncular kendilerini suçlu hissettiklerini beyan etmişlerdir (Hartmann, Toz ve Brandon, 2010). Dolayısıyla oyundaki şiddetin haklı ya da haksız gerekçelerinin olması çok önemli bir faktördür. Oyunda stereotipik bir hedefin olması ise literatürde incelenen önemli değişkenlerden biridir. Video oyunlarının gerek cinsiyet gerek ırk açısından stereotipik bilgi içerdiği rapor edilmiştir (örn., Burgess ve ark., 2011). Video oyunlarında kadınların objeleştirilmesi de önemli bir konudur (Downs ve Smith, 2010).

1.1. Çalışmanın Amacı ve Hipotezler

Bu çalışmanın temel amaçlarından biri, literatürde şiddet içeren video oyunları ile saldırganlık arasındaki ilişkiyi inceleyen çalışmaların sonuçlarındaki çelişkileri aydınlatmaktır. Daha önce de bahsedildiği gibi, çalışmaların genel olarak oyun içi değişkenlerden bağımsız olarak yapılması gerekçesiyle bu tezde, şiddetin

meşruluğu ve hedefin stereotipik olup olmamasının etkisi incelenmiştir. Literatür taramasına ve öne sürülen düşüncelere göre, bu tezdeki araştırma soruları ve hipotezler aşağıdaki gibidir:

AS1: Şiddet içeren bir video oyunundaki "saf" şiddet (hiçbir oyun içi değişkenin etkisini kapsamayan şiddet), oyun sonrası saldırganlığı etkiler mi?

Hipotez 1: Şiddet içerikli ve hiçbir oyun içi değişkeninin manipüle edilmediği bir video oyunu oynadıktan sonra alınan saldırganlık ölçümü tamamlayıcı sonuçlar içermeyecektir.

AS2: Şiddetin meşruluğu ve stereotipik bir hedefin bulunması, oyun sonrası saldırganlığı etkiler mi?

Hipotez 2:

(a) Şiddetin haklı gerekçelerinin olması, haklı gerekçelerin olmadığı duruma göre, oyun sonrası saldırganlığı artıracaktır.

(b) Hedef stereotipik olduğunda, hedefin stereotipik olmadığı duruma göre, daha yüksek bir saldırganlık gözlenecektir.

(c) Stereotipik ve stereotipik olmayan hedeflerin bulunduğu her iki durum için, şiddetin haklı gerekçelerinin olması saldırganlığı artıracaktır. Stereotipik bir hedefin bulunduğu durumda saldırganlık daha da yüksek olacaktır.

(d) Şiddetin haklı ve haksız gerekçelerinin olduğu her iki durum için, hedef stereotipik olduğunda, stereotipik olmadığı duruma göre, saldırganlık daha yüksek olacaktır.

AS3: Şiddetin meşruluğu ve stereotipik bir hedefin bulunması dahil edildiğinde, cinsiyet oyun sonrası saldırganlığı etkiler mi?

Hipotez 3: Cinsiyetin oyun sonrası saldırganlık üzerinde bir etkisi olacaktır. Şiddetin meşru olduğu ve stereotipik bir hedefin bulunduğu durum için, erkeklerin kadınlardan daha saldırgan olmaya eğilimi olacaktır. Şiddet haksız görüldüğünde ve hedef stereotipik olmadığında, kadınların saldırganlık skorları erkeklerinkine göre daha düşük olacaktır.

2.ÇALIŞMALAR

2.1. Ön Çalışma

Ön çalışma ana çalışmalarda kullanılacak stereotipik grubu belirlemek amacıyla yapılmıştır. Bunun için 53 katılımcı (21 erkek, 32 kadın) küçük bir anket doldurmuşlardır. Demografik bilgilerin alınmasının ardından katılımcılara; "Sizce Türk toplumunda hangi toplumlara (Türkiye'de yaşayan azınlık gruplar hariç) karşı önyargı bulunmaktadır? İlk sıradaki en çok önyargı gösterilen grup olmak üzere, 5 grup belirtiniz lütfen", şeklinde bir soru yöneltilmiştir. Anket sonuçları için 194 geçerli yanıt olduğu saptanmış ve en çok tekrar edilen yanıt, etik sebepler açısından "Grup A" olarak kodlanmıştır. Bu noktadan itibaren, ana çalışmalarda kullanılan stereotipik hedef "Grup A" olarak bahsedilecektir.

2.2. Birinci Çalışma: Yöntem
2.2.1. Örneklem

Saf şiddet içeriğinin oyun sonrası saldırganlığa etkisini ölçmek amacıyla, ortalama yaşın 22.1 (SS = 3.12) olduğu 42 katılımcı (22 kadın, 20 erkek) birinci çalışmada yer almışlardır.

2.2.2. Ölçekler
2.2.2.1. Demografik Bilgi Formu

Katılımcıların, yaş, cinsiyet, sosyoekonomik statü, meslek, eğitim düzeyi, ebeveynlerin eğitim düzeyi ve gelir bilgilerini almak amacıyla 8 soru içeren bir form kullanılmıştır.

2.2.2.2. Buss-Perry Saldırganlık Ölçeği

Öncelikle, oyun öncesi saldırganlığı ölçmek için, Buss-Perry Saldırganlık Ölçeği'nin (Buss ve Perry, 1992), Madran (2012) tarafından geçerlik ve güvenirlik çalışması yapılmış olan Türkçe versiyonu kullanılmıştır. Ölçek 29 maddeden oluşan 5 dereceli bir ankettir (Buss ve Perry, 1992).

2.2.2.3. Cezalandırma Ölçeği

Oyun sonrası saldırganlık için ise Barlett ve arkadaşları (2007) tarafından kullanılan ölçek, uyarlanarak "Cezalandırma Ölçeği" olarak kullanılmıştır. Ölçek 9 varsayıma dayalı soru içerir ve yanıtlayanlardan kendilerini sorulardaki senaryoların içinde hissederek cevap vermeleri istenir. Her soru için sunulan 5 cevap, cezalandırma dereceleri açısından farklılık göstermektedir. Bu ölçeğin kullanım amacı durumsal saldırganlık derecesini ölçmektir.

2.2.2.4. Algılanan Video Oyunları Özellikleri

Katılımcıların oynadıkları oyunu nasıl algıladıklarını öğrenmek amacıyla, 5 dereceli, 8 maddeden oluşan bir anket kullanılmıştır. Maddeler; oyundan alınan zevki, algılanan şiddeti, algılanan rekabeti, oyunun içinde hissetmeyi, ana karakterle ve hedefle özdeşleşmeyi, algılanan başarı düzeyini ve oyun sonrası rahatlamayı içermektedir.

2.2.2.5. Video Oyunlarına Aşinalık

Oyun tercihi ve video oyunları ile ilgili geçmişi öğrenmek amacıyla, 4 maddeden oluşan bir anket kullanılmıştır. Katılımcıların oyunlarla bir hafta içerisinde ne ölçüde ilgilendiği, birinci şahıs nişancı oyunlarla ilgili bir deneyiminin olup olmadığı, video oyunlarında tercih ettikleri türleri ve oyun içi öğeleri bu anketle sorulmuştur.

2.2.2.6. Video Oyunları

Çalışmada, şiddet içeren video oyun için, Far Cry (Crytek Studios, 2004) kullanılmıştır. Oyun 17 ve üzeri yaş kitlesi için uygun olup ("Far Cry", n.d.), birinci şahıs perspektifi ve uzun menzilli silahlarla oynanan bir oyundur. Şiddet içermeyen oyun için ise, Minecraft (Mojang, 2011) oyununun "Creative" modu kullanılmıştır. Bu mod içerisinde düşman yaratık içermemektedir ("Minecraft", n.d.). Minecraft her yaş kitlesi için uygundur ("Minecraft", n.d.) ve kullanılan modda oyuncular çantalarında bulunan materyallerle istedikleri şeyi inşa edebilirler ("Minecraft: How to play", n.d.).

2.2.2.7. Ekipman

İ7 işlemci, 2 gb grafik kartı ve Windows işletim sistemi içeren bir dizüstü bilgisayar, kablolu bir fare ve tercihe göre kullanılmak üzere kablolu bir kulaklık kullanılmıştır.

2.2.2.8. Prosedür

Katılımcılar çalışmaya gönüllü olarak katılmış ve teker teker deney seansına alınmışlardır. Anketlerin doldurulması ve video oyunu seansı bir deney odasında tamamlanmıştır. Katılımcılar izin formunu imzaladıktan sonra rastgele olarak iki deney kondisyonundan (Far Cry-deneysel, Minecraft-kontrol) birine atanmışlardır. Katılımcılar atandıkları oyunu oynamadan önce, Buss-Perry Saldırganlık Ölçeği'ni doldurmuşlardır. Katılımcılara, oyun öncesinde, alıştırma amaçlı bir pratik yaptırılmıştır. Daha sonra katılımcılar, 10-15 dk. boyunca atandıkları oyunu oynamışlar ve sonrasında sırasıyla, cezalandırma ölçeğini, demografik bilgi formunu, algılanan video oyunları özellikleri ve video oyunlarına aşinalık ölçeklerini doldurmuşlardır. Ardından, katılımcılara geri bildirim verilerek teşekkür edilmiştir.

2.2.3. Bulgular

Birinci çalışma ile şiddet içeren ve içermeyen iki oyun tipi, oyun sonrası saldırganlık davranışı açısından incelenmiştir. Dolayısıyla analizlerde; cinsiyet, yaş, eğitim düzeyi, sosyoekonomik statü ve gelir kontrol edilerek, bağımlı değişkenin oyun sonrası saldırganlık olduğu, 2 (Oyun öncesi saldırganlık: düşük/yüksek) X 2 (Oyun tipi: şiddetli/nötr) ANCOVA metodu uygulanmıştır. Cinsiyetin (F (1,32) = .438, p = .51, η^2 = .013), yaşın (F (1,32) = .323, p = .32, η^2 = .031), eğitim düzeyinin (F (1,32) = .386, p = .38, η^2 = .024), sosyoekonomik statünün (F (1,32) = .003, p = .95, η^2 = .001) ve gelirin (F (1,32) = .787, p = .38, η^2 = .024) kontrol edilmesinden sonra, oyun öncesi saldırganlığın (F (1,32) = .012, p = .91, η^2 = .001) ve oyun tipinin (F (1,32) = .901, p = .35, η^2 = .027) ana etkileri anlamlı çıkmamıştır. Oyun öncesi saldırganlık ve oyun tipi arasındaki etkileşim de anlamlı çıkmamıştır (F (1,32) = 2.478, p = .12, η^2 = .072).

Nötr oyun tipi katılımcılarının %66.7'sinin Minecraft'ın düşük seviyede şiddet içerdiğini, şiddetli oyun tipi katılımcılarının % 85'inin Far Cry'ın ortalama ve üstü seviyede şiddet içerdiğini belirtmeleri sebebiyle oyun tipi manipülasyonu denetlenmiş ve onaylanmıştır. Bunun dışında algılanan oyun özellikleri için korelasyon analizi yapılmıştır ve bu analizin en önemli sonuçları şu şekildedir: Şiddetli oyun tipi için, algılanan şiddet düzeyi ve oyundan alınan zevk arasında negatif bir anlamlı ilişki bulunmuştur (r (18) = -.45, $p<.05$). Nötr oyun tipi için, oyundan alınan zevk ve ana karakter ile özdeşleşme arasında pozitif bir ilişki bulunmuştur (r (19) = .75, $p<.01$).

2.2.4. Tartışma

Birinci çalışmanın sonuçları, Hipotez 1'i (Şiddet içerikli ve hiçbir oyun içi değişkeninin manipüle edilmediği bir video oyunu oynadıktan sonra alınan saldırganlık ölçümü tamamlayıcı sonuçlar içermeyecektir) desteklemektedir. Oyunların "saf" şiddet içermesi tartışmalı bir durumdur; şiddet içeriği başka faktörler tarafından etkilenebilir. Örneğin, video oyunlarının çevrimiçi ve çevrimdışı olması (Hollingdale & Greitemeyer, 2014), oyundaki rekabetçi içerik (Adachi & Willoughby 2011) ya da oyunun hangi araçla oynandığı (Barlett ve ark., 2007) oyun sonrası saldırganlığı etki edebilir.

Bunun dışında bulgular, şiddetli oyun tipi için algılanan şiddet arttıkça oyundan alınan zevkin azaldığını ortaya çıkarmıştır. Bu bulgu literatürle kısmen paraleldir; çünkü literatürde, şiddet içeren video oyunlarının çok tercih edilen bir tür olmasının sebeplerinden birinin bu tür oyunlardan alınan zevk olduğundan bahsedilmektedir (Sherry, 2004). Bu bağlamında insanların şiddet içeriğinden nasıl zevk alabildikleri konusundan bahsedilebilir. Klimmt ve arkadaşları (2006), bu noktayı Bandura'nın (2002) perspektifiyle şu şekilde açıklamaya çalışmışlardır: Bandura'ya (2002) göre, insanlar ahlaki açıdan yanlış bir davranışta bulunduklarında, bazı zihinsel stratejiler kullanarak kendilerini bu davranıştan uzaklaştırıp ahlaki yükten kaçınabilirler. Klimmt ve arkadaşları (2006), aynı durumun şiddet içeren video oyunu oynayan insanlar için de geçerli olabileceğini savunmuştur. Özetle, birinci çalışma, şiddet içeren video oyunları ve saldırganlık konusunda açıklayıcı

sonuçlar ortaya çıkarmamıştır. Bu sebeple birinci çalışmayı takiben ikinci bir çalışma yapılmış ve oyun sonrası saldırganlık oyun içi faktörler yardımıyla incelenmiştir.

2.3. İkinci Çalışma: Yöntem

2.3.1. Örneklem

Şiddetin meşruluğunun ve stereotipik bir hedefin bulunmasının oyun sonrası saldırganlığa etkisini ölçmek amacıyla yapılan ikinci çalışmaya 90 kişi (43 erkek, 47 kadın) katılmıştır. Örneklemde ortalama yaş 21.8 ($SS = 2.1$) olup 18 ile 29 arasındadır.

2.3.2. Ölçekler

Birinci çalışmada kullanılan ekipman, anket ve formlar ikinci çalışmada da kullanılmıştır. Bunlar: Demografik Bilgi formu, Buss-Perry saldırganlık ölçeği, cezalandırma ölçeği, algılanan video oyunları özellikleri ve video oyunlarına aşinalık ölçekleridir. Bunun dışında ikinci çalışma, şiddet içeren bir video oyununda iki oyun içi değişkeni incelediği için sadece Far Cry oyunu kullanılmıştır.

2.3.3. Prosedür

Prosedür birinci çalışma ile deney kondisyonları dışında aynı yapıyı göstermektedir. İkinci çalışmada katılımcılar, 4 farklı deneysel kondisyondan birine atanmışlardır. Bunlar şu şekildedir: 1) Meşru şiddet ve stereotipik hedef, 2) Meşru olmayan şiddet ve stereotipik hedef, 3) Meşru şiddet ve stereotipik olmayan hedef, 4) Meşru olmayan şiddet ve stereotipik olmayan hedef. Bu 4 durum, Hartmann, Toz ve Brandon (2011)'ın çalışmasından uyarlanmıştır ve hepsi kendine özgü bir senaryo içerir. Senaryolar şu şekildedir: 1. durum için katılımcılara, masum insanlara işkence edilen "Grup A" kampına adaleti sağlamak için saldıracakları, 2. durum için "Grup A" kampına masum insanları kaçırmak için saldırdıkları, 3. durum için herhangi bir kampa saldırı yapacakları ve amaçlarının adaleti sağlamak olduğu, 4. durumda ise herhangi bir kampa masum insanları kaçırmak amacıyla saldıracakları belirtilmiştir.

2.3.4. Bulgular

İkinci çalışma ile, şiddet içeren bir video oyununda, şiddetin meşruluğunun ve stereotipik bir hedefin bulunmasının oyun sonrası saldırganlığa etkisini incelemiştir. Bunun için analizlerde cinsiyet, yaş, eğitim düzeyi, sosyoekonomik statü ve gelir kontrol edilerek, bağımlı değişkenin oyun sonrası saldırganlık olduğu, 2 (*Şiddetin meşruluğu*: meşru/meşru değil) X 2 (*Stereotipik bir hedefin bulunması*: stereotipik/stereotipik değil) ANCOVA metodu uygulanmıştır. Oyun öncesi saldırganlığın ($F_{(1,79)} = 1.47$, $p = .22$, $\eta^2 = .018$), cinsiyetin ($F_{(1,79)} = 2.1$, $p = .15$, $\eta^2 = .026$), yaşın ($F_{(1,79)} = .01$, $p = .91$, $\eta^2 = .001$), eğitim düzeyinin ($F_{(1,79)} = .32$, $p = .57$, $\eta^2 = .004$), sosyoekonomik statünün ($F_{(1,79)} = .37$, $p = .54$, $\eta^2 = .005$) ve gelirin ($F_{(1,79)} = .99$, $p = .32$, $\eta^2 = .012$) etkisi kontrol edildikten sonra, şiddetin meşruluğunun ($F_{(1,79)} = 1.27$, $p = .26$, $\eta^2 = .016$) ve stereotipik bir hedef bulunmasının ($F_{(1,79)} = 1.04$, $p = .31$, $\eta^2 = .013$) ana etkileri anlamlı çıkmamıştır. Ancak, şiddetin meşruluğu ve stereotipik bir hedefin bulunması arasında anlamlı bir etkileşim bulunmuştur ($F_{(1,79)} = 4.13$, $p = .045$, $\eta^2 = .05$). Şiddet meşru ve hedef stereotipik olduğunda (adjusted $M = 1.352$, $SS = .08$), katılımcıların oyun sonrası saldırganlık skorları, şiddetin meşru olduğu ve hedefin stereotipik olmadığı duruma göre (adjusted $M = 1.29$, $SS = .08$) daha yüksek bulunmuştur. Daha önemlisi, şiddet meşru olmadığında ve hedef stereotipik olmadığında (adjusted $M = 1.354$, $SS = .08$), katılımcıların saldırganlık skorları meşru olmayan şiddet ve stereotipik hedef (adjusted $M = 1.33$, $SS = .08$) durumuna göre daha yüksek bulunmuştur.

Ayrıca, cinsiyetin etkisini incelemek amacıyla; 2 (Cinsiyet: kadın/erkek) X (*Şiddetin meşruluğu*: meşru/meşru değil) X 2 (*Stereotipik bir hedefin bulunması*: stereotipik/stereotipik değil) ANCOVA analizi yapılmıştır. Analizde bağımlı değişken oyun sonrası saldırganlıktır ve oyun öncesi saldırganlığın, yaşın, eğitim düzeyinin, sosyoekonomik statünün ve gelirin etkileri kontrol edilmiştir. Oyun öncesi saldırganlığın ($F_{(1,76)} = .98$, $p = .32$, $\eta^2 = .013$), yaşın ($F_{(1.76)} = .045$, $p = .83$, $\eta^2 = .001$), eğitim düzeyinin ($F_{(1.76)} = .33$, $p = .56$, $\eta^2 = .004$), sosyoekonomik statünün ($F_{(1,76)} = 395$, $p = .53$, $\eta^2 = .005$) ve gelirin ($F_{(1,76)} = 1.29$, $p = .25$, $\eta^2 = .017$) etkisi kontrol edildikten sonra, şiddetin meşruluğunun ($F_{(1,76)} = 1.02$, $p = .32$, $\eta^2 = .013$), stereotipik bir hedefin bulunuşunun ($F_{(1,76)} = 1.11$, $p = .29$, $\eta^2 =$

.014) ve cinsiyetin (F (1,76) = 1.99, p = .16, η^2 = .026) anlamlı ana etkileri gözlenmemiştir. Bunun dışında, cinsiyet ve şiddetin meşruluğu (F (1,76) = .58, p = .44, η^2 = .008); cinsiyet ve stereotipik bir hedefin bulunuşu (F (1,76) = .11, .p = .73 , η^2 = .002); ve cinsiyet, şiddetin meşruluğu ve stereotipik bir hedefin bulunuşu (F (1,76) = .74, p = .39, η^2 = .01) arasındaki etkileşimler anlamlı çıkmamıştır. Ancak, şiddetin meşruluğu ve stereotipik bir hedefin bulunuşu arasında tekrardan anlamlı bir etkileşim bulunmuştur (F (1,76) = 4.24, p = .043, η^2 = .053).

Bunlar dışında, katılımcıların %94'ü Far Cry'ı ortalama ve ortalama üstü seviyede şiddet içerdiğini belirtmesi ile Far Cry'ın amaca uygun bir oyun olduğu denetlenmiştir. Oyunun algılanan özellikleri için yapılan korelasyonel analizin en önemli sonuçları ise şu şekildedir: Algılanan şiddet ve rekabet arasında anlamlı bir pozitif ilişki (r (88) = .29, p<.01), oyundan alınan zevk ile oyunun içinde hissetme arasında anlamlı bir pozitif ilişki (r (88) = .67, p<.01), algılanan başarı düzeyi ile oyun sonrası hissedilen rahatlama arasında anlamlı bir pozitif ilişki (r (88) = .22, p<.05) bulunmuştur.

2.3.5. Tartışma

Öncelikle, ikinci çalışmada, cinsiyetin oyun sonrası saldırganlığa etki etmediği bulunmuştur. Ayrıca cinsiyet, şiddetin meşruluğu ve stereotipik bir hedefin bulunması arasında herhangi bir etkileşim de gözlenmediği için, Hipotez 3 (Cinsiyetin oyun sonrası saldırganlık üzerinde bir etkisi olacaktır. Şiddetin meşru olduğu ve stereotipik bir hedefin bulunduğu durum için, erkeklerin kadınlardan daha saldırgan olmaya eğilimi olacaktır. Şiddet haksız görüldüğünde ve hedef stereotipik olmadığında, kadınların saldırganlık skorları erkeklerinkine göre daha düşük olacaktır) desteklenmemiştir. Literatür, cinsiyet farklılıkları açısından karışık sonuçlar içermektedir. Örneğin, bir çalışmada erkekler kadınlara göre daha yüksek oyun sonrası saldırganlık raporlanmış (Bartholow ve Anderson, 2002) iken başka bir çalışmada, kız çocukları erkeklere göre daha yüksek oyun sonrası saldırganlığı göstermişlerdir (Cooper ve Mackie, 1986). Bu noktada gelişimsel süreçler etkili olmuş olabilir ve Archer (2004), yaşın cinsiyet farklılıklarında önemli bir faktör olduğunu vurgulamıştır. Bunun dışında, oyun sonrası saldırganlığı ölçmek için

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kullanılan cezalandırma ölçeği ile erkekler kendilerini daha ilgili hissetmiş, kadınlar erkekler kadar bağ kuramamış olabilir.

İkinci çalışmanın sonuçları şiddetin meşrluğunun ve stereotipik bir hedefin bulunmasının ana etkileri olmadığını göstermiştir. Bu yüzden Hipotez 2a (Şiddetin haklı gerekçelerinin olması, haklı gerekçelerin olmadığı duruma göre, oyun sonrası saldırganlığı artıracaktır) ve Hipotez 2b (Hedef stereotipik olduğunda, hedefin stereotipik olmadığı duruma göre, daha yüksek bir saldırganlık gözlenecektir) desteklenmemiştir. Hipotez 2a'nın desteklenmemesinin bir sebebi katılımcıların oynadıkları oyunun kurgusal olduğunu önemsemeleri olabilir. Klimmt ve arkadaşları (2006), oyuncuların video oyunlarında meşru olmayan bir şiddet uyguladıkları takdirde, oyunun somut gerçekliği yansıtmadığı bahanesine sığınabildiklerini bulmuştur. Dolayısıyla, şiddetin meşruluğunun manipüle edilmesi, oyun sonrası saldırganlık üzerinde etkisinin görülebilmesi için yeterli olmamış olabilir. Kısaca, katılımcıların oyunu ne ölçüde gerçekçi algıladıkları bu noktada önem taşımaktadır ve daha sonraki araştırmalar oyunun gerçekçiliğini ölçebilir. Bunun dışında, şiddet içeren video oyunlarında, haksız yere uygulanan şiddetin kişilerde suçluluk duygusu uyandırdığı raporlanan sonuçlar arasındadır (Hartmann ve Vorderer, 2010). Bu çalışmadan elde edilen bulgular ve bu tezin sonuçları karşılaştırıldığında, suçluluk hissinin oyun sonrası saldırganlığa etki etmeyebileceği öne sürülebilir.

Hipotez 2b'nin desteklenmemesinin bir sebebi ise yapılan ön çalışmada elde edilen bulgulardır. Ön çalışmada elde edilen "Grup A", Türkiye için temel bir önyargı hissedilen grup olmayabilir. Kısaca, "Grup A" için ikinci bir anket çalışması yapılarak grubun yeterli derecede önyargı hissedilen bir grup olduğunun doğrulanması daha yararlı olabilirdi. Ayrıca, katılımcılara verilen senaryolarda saldıracakları kamplarda stereotipik bilgiden bağımsız iyi ya da kötü insanlar bulunduğundan bahsedilmiştir. Bu iyi ve kötü karşılaştırması ile stereotipik ve stereotipik olmayan hedef karşılaştırması katılımcılar tarafından birbiri ile karıştırılmış olabilir.

Bunlar dışında, ikinci çalışma şiddetin meşruluğu ve stereotipik bir hedefin bulunmasının etkileşim içerisinde olduğunu göstermiştir. Bulgulara göre, oyun sonrası saldırganlık, hedef stereotipik olduğunda ve şiddet meşru olduğunda

artarken; hedef stereotipik olmadığında ve şiddet meşru olduğunda azalmıştır. Dolayısıyla Hipotez 2c (Stereotipik ve stereotipik olmayan hedeflerin bulunduğu her iki durum için, şiddetin haklı gerekçelerinin olması saldırganlığı artıracaktır. Stereotipik bir hedefin bulunduğu durumda saldırganlık daha da yüksek olacaktır) kısmen desteklenmiştir. Bu durum, katılımcılara kendi ahlaki değerlerini sorgulatacak bir durum olmaması ile açıklanabilir; daha önce de bahsedildiği gibi böyle bir koşulda Bandura'nın (2002) öne sürdüğü stratejileri kullanmaya gerek kalmayacaktır. Dolayısıyla da oyun sonrası saldırganlığın şiddet meşru olduğunda ve hedef stereotipik olduğunda yükselmesi mantıklıdır. İkinci çalışmada ayrıca, hedefin stereotipik olmadığı ve şiddetin meşru olmadığı koşulda en yüksek saldırganlık gözlendiğinden, Hipotez 2d (Şiddetin haklı ve haksız gerekçelerinin olduğu her iki durum için, hedef stereotipik olduğunda, stereotipik olmadığı duruma göre, saldırganlık daha yüksek olacaktır) doğrulanmamıştır. Elde edilen bulgular Festinger'in (1962) "Bilişsel Çelişki Teorisi" ile açıklanabilir. Bu teoriye göre, çelişen iki düşünce kişide bir huzursuzluk doğurur. Bu huzursuzluk çelişen iki düşünceden birini değiştirip diğeri ile paralel hale getirmekle çözülebilir. Buradan yola çıkarak, ikinci çalışmada, katılımcıların oyunda haksız yere şiddete başvuruyor olmaları kendilerinde bir rahatsızlığa yol açmış olabilir. Bu rahatsızlık haksız yere şiddete başvurmak ve kendi ahlaki değerleri arasındaki çatışmadan meydana gelebilir. Katılımcılar çatışmadan doğan huzursuzluğu azaltmak için oyun sonrasında da saldırgan davranışlar göstermeyi seçmiş olabilirler. Bu sayede oyun içindeki haksız yere olan saldırgan davranışları, kendilerinin saldırgan bir durumda olmaları sebebiyle meşrulaştırdıkları anlamına gelebilir.

3. SONUÇ

3.1. Çalışmanın Katkıları ve Gerçek Hayata Uygulanabilirliği

Bu tezde, şiddet içeren video oyunları ve saldırganlık ilişkisinin oyun içi faktörlerle incelenmesinin daha sağlıklı sonuçlar doğuracağı gösterilmiştir. İncelenen oyun içi faktörlerin (şiddetin meşruluğu ve stereotipik hedefin bulunması) etkilerinin birbirlerine bağımlı olduğu görüldüğünden insanların şiddet içeren oyunlarda kimi

öldürdüklerinin ve bunu nasıl meşrulaştırdıklarının önemli olduğu açığa çıkartılmıştır. Oyun firmaları, kendi oyunlarının sadece türüne değil, oyun içi faktörlere de önem göstermelidir. Bu tezde incelenen iki oyun içi faktöründen biri var iken diğerinin var olamaması saldırganlıkta bir düşüşe sebep olmuştur. Kısaca, oyun içi faktörler arasında görünmez bir denge olduğundan bahsedilebilir. Bu yüzden, oyun içi faktörlerin dengede olabilmesi için, içerikte negatif bir özellik varsa oyuna pozitif bir oyun içi özelliği eklenerek denge kurulabilir.

3.2. Çalışmadaki Sınırlılıklar ve Öneriler

Ön çalışmadaki en önemli sınırlılıklar; örneklemin küçük oluşu, elde edilen bulgunun ikinci bir doğrulama anketi ile kontrol edilmemesi ve kullanılan anketin yeterince açık ve anlaşılır olamamasıdır. Birinci çalışmada ise şiddetli ve nötr oyun tipleri için iki farklı video oyunu kullanılmıştır. İki durum için, hem şiddetli hem nötr olarak kullanılabilen bir oyunun kullanılması daha sağlıklı bir sonuç doğurabilir. Ayrıca oyunun hikayelerinin oyun içinde anlatılması gerçekçilik açısından daha yararlı olacaktır. Oyun sonrası saldırganlığı ölçmek için kullanılan cezalandırma anketinin, daha önce de bahsedildiği gibi, güvenirliği tartışılır derecededir. Gelecekte yürütülecek çalışmalar bu noktalara dikkat etmelidirler. Bunun dışında insanlıktan çıkarma konsepti de bu tezde incelenen faktörlerin yanı sıra ileriki çalışmalarda incelenebilir.

APPENDIX J

TEZ FOTOKOPİSİ İZİN FORMU

ENSTİTÜ

Fen Bilimleri Enstitüsü ☐

Sosyal Bilimler Enstitüsü ☐

Uygulamalı Matematik Enstitüsü ☐

Enformatik Enstitüsü ☐

Deniz Bilimleri Enstitüsü ☐

YAZARIN

Soyadı : Koçer
Adı   : Birsen
Bölümü : Psikoloji

TEZİN ADI (İngilizce) : Aggression and Video Games: The Effect of Justification of Violence and Presence of a Stereotyped Target

TEZİN TÜRÜ :   Yüksek Lisans ☐   Doktora ☐

1. Tezimin tamamından kaynak gösterilmek şartıyla fotokopi alınabilir. ☐

2. Tezimin içindekiler sayfası, özet, indeks sayfalarından ve/veya bir bölümünden kaynak gösterilmek şartıyla fotokopi alınabilir. ☐

3. Tezimden bir bir (1) yıl süreyle fotokopi alınamaz. ☐

TEZİN KÜTÜPHANEYE TESLİM TARİHİ: