How male young adults construe their playing style in violent videogames

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Abstract
This study explores the various ways in which male young adults engage with violence in videogames. Based on an ethnographic study (N=26) with triangulation of diary reports, focus group interviews and a video commentary model, three conceptual axes are distinguished along which players differ in their enactment of videogame violence: narration vs. action, discovery vs. mission-based play and reaction vs. strategic play. The results suggest that individual playing styles result in exposure to different quantities and a different quality of virtual violence.

Keywords
Videogames, violence, videogame effects, videogame analysis, interactivity, playing style
Introduction

The popularity of violent entertainment has recently attracted considerable amounts of scholarly attention. There exist a number of competing paradigms that each provide a different explanation of whether and how exposure to violent media can change a person’s attitudes and moral evaluation standards (e.g. Bushman and Huesmann, 2006; Ferguson, et al., 2009; Valkenburg & Peter, 2013). One recurrent point of discussion concerns the role of the user in the media effect model. Research indicates that the attractions and experiences of mediated violence can strongly differ between users (Goldstein, 1998; Jansz, 2005). As a result several moderators and mediators of the connection between violent entertainment and aggressive outcomes have been forwarded, including such variables as perceived realism (Da Mota Matos, et al., 2012) and character identification (Huesmann, et al., 2003).

The degree to which a user can participate in a fictional world has been brought to a new level in contemporary videogames. Because players make personal decisions, the message of a videogame can strongly differ over the course of two playing sessions (Aarseth, 2003). A videogame cannot be described in terms of one single, consistent text, but should be investigated as a virtual ‘space of possibilities’ (Juul, 2005), enabling players to construct an individual trajectory and become, at least partially, a co-author (Kücklich, 2003). Because playing a game is conceptualized as a negotiation process
between the player and the game, meaning does not reside in the formal properties of a game, but is appropriated by the player during the performative, expressive act of game play (Sicart, 2011, Against Procedurality, para. 11).

Although most videogame effects research has attributed a strong theoretical importance to the interactive nature of game play, empirical research on player participation is scarce. Few investigations have addressed the fact that individual players adopt a specific playing style and are therefore exposed to varying degrees of violence, even while engaging with the same game (Peng, et al., 2009; Weber, et al., 2009). As a result, effect researchers have argued that there is a need for a framework allowing to assess in-game behavior and use it as a variable in experimental or survey research (Klimmt, et al., 2006; Weber, et al., 2009).

This study aims to map the various ways in which young male adults participate in and ascribe meaning to virtual violence, and to make a first step towards operationalizing in-game behavior. In order to understand the act of co-creation the player engages in, we draw on videogame theory to identify different layers of game play, and link these to various types of virtual activity. First, a theoretical overview is provided of the characteristics that have been forwarded as essential to understand playing styles and in-game behavior. Second, the results of a mixed-methods ethnographic study with young male adults (N=26) are presented, whereby three categories are identified that
are essential to understand playing styles in shooting games. Finally, the implications of these results are discussed with respect to future research.

**Taxonomies of Playing Styles**

One of the first and most influential examinations of in-game behavior was Richard Bartle’s prescient analysis of playing styles in the first Multi-User Dungeon, MUD. Bartle (1996) distinguished between four types of players: achievers, socializers, explorers and killers. Bartle’s taxonomy has been criticized on methodological grounds, which has limited its applicability to other genres or as a tool for systematic player classification (Yee, 2007). Nevertheless, his insights have been mirrored in later research addressing the same issue by applying a more rigid analysis framework. Yee (2006, 2007) identified ten modes of in-game agency: relationship, teamwork, advancement, competition, mechanics, discovery, escapism, customization, socializing and role playing. Yee (2006, 2007) emphasized that a playing style cannot be exclusively described in terms of one mode, but is always a combination of varying degrees of engagement along several modes. Although a player can have a primary orientation towards competition or discovery, this does not rule out that other elements are to a lesser degree characteristic of his in-game behavior. An individual playing style is considered a temporary and volatile construct that varies according to
parameters such as game type, context, personality and socio-cultural background. The same idea is reflected in the research of Calleja (2007) who highlights that players’ involvement continuously shifts during game play, and Steinkuehler (2005) who points out that playing styles can only be described as ‘complicated messiness’ (p.77). Following a similar rationale, Bateman, et al. (2011) identify four player archetypes: logistical, tactical, strategic and diplomatic players. De Schutter (2011) divides a sample of elderly players in five categories (time wasters, freedom fighters, compensators, value seekers and ludophiles), and posits that these prototypes are reminiscent of the patterns observed among younger audiences.

The above mentioned taxonomies demonstrate that, based upon the requirements of specific inquiries, several types of in-game behavior can be identified, and that it is difficult to develop one taxonomy that is useful over multiple research contexts. Nevertheless, each classification mentioned has been constructed according to a similar underlying logic. One’s behavior towards other players is advanced by all authors as essential to distinguish between various playing styles. In addition, one’s orientation towards the game narrative, virtual world, and competition are considered relevant in every taxonomy mentioned, and all authors make extensive references to videogame theory to relate their observations to the formal and/or structural properties of games. In the upcoming section, we use videogame theory to explain the
most important characteristics that have been applied to explain the role of the player in the process of videogame message creation. Three characteristics of the videogame medium are debated: 1) narration; 2) game rules; 3) relationships with other players.

Layers of In-game Agency

Orientation towards Narration

Both the taxonomies of Yee (2006) and Bartle (1996) use the degree of narrative engagement to delineate different player types. While some players focus their attention on completing a story or mission, others prefer to skip linear sequences so that they can explore the game world or engage in direct action. This can result in exposure to specific types of in-game information. DeVane and Squire (2008) found that players of a different racial background uncovered different elements of the narration of the sandbox game Grand Theft Auto IV (GTA IV) and interpreted the central message of the game as altogether different. Malliet, et al. (2011) found that, while some players had noticed several references to international politics in GTA IV, others had mainly noticed the game’s racing and fighting options, and had not participated in any type of political content at all.

The distinction between narration-driven and interaction-driven playing styles reflects the fact that various mechanisms of meaning creation operate simultaneously during
game play (Ang, 2007). On the one hand, videogame play has been described as a new form of storytelling whereby narratological principles are redefined in a virtual, object-oriented context (Murray, 1997). On the other hand, videogame play has been described in terms of rule-based simulation (Frasca, 2003), as a medium that is essentially incapable of telling stories (Eskelinen, 2001). Accordingly, different types of relationships between players and game characters have been observed (Klimmt, et al., 2009).

Applied to game violence, this entails that different players are not only exposed to different quantities of violence, but that there also is a different quality to the acts of violence one performs. Especially in games that feature a role-playing mechanic, some players choose to assume the role of a perpetrator (e.g. sniper or assassin) while others choose to take a healing or supportive role (e.g. medic or builder) (Yee, et al., 2011). Similarly, in many contemporary games players can decide to act out varying degrees of violence. For example, one can choose to kill an opponent either painlessly or extremely cruelly in the urban stealth game Manhunt (Zagal, 2009) or to participate in varying acts of sexual perversity in the Japanese game RapeLay (Young and Whitty, 2011).

**Orientation towards Game Rules**
Even those players who adopt a narration-oriented playing style, cannot escape the fact that every game consists of non-narrative sequences where they have to engage in direct interaction with rules (Frasca, 2003). While ludus rules are very strict and encourage the player to make rational decisions, paidea rules are open and encourage creative or unpredictable decision-making (Ang, 2007). In the taxonomies of both Bartle (1996) and Yee (2007) one’s orientation towards either ludus or paidea rules is used to discriminate between various playing styles. While Bartle’s killers and achievers aim to master ludus rules and become an expert at achieving the game goals, explorers and socializers are oriented towards the open possibilities of the game world and develop a less goal-driven playing style. In Yee’s classification, players who are oriented towards advancement and competition are primarily interested in the interaction with ludus rules, whereas players who are oriented towards discovery and customization are primarily interested in the interaction with paidea rules.

According to Aarseth (2003), players’ skill and expertise, ranging from superficial play to innovative play, influence the game play dynamic. Applied to in-game violence the argument has been forwarded that players of different skill will proceed through a game at a slower or faster pace and therefore are exposed to varying degrees of aggression (Peng, et al., 2009).
Tactics vs. strategy.

An additional distinction can be made based upon the level of abstraction at which one experiences virtual activity. While some players adopt a holistic perspective and predominantly interact with the underlying system of programmed procedures, others interact with the immediate audio-visual stimuli featured in specific scenes or missions. Bateman, et al. (2011) use this difference to distinguish between strategic playing styles (a player thinks ahead and acts logically) and tactical playing styles (a player thinks on the spot and acts impulsively). In Bartle’s taxonomy this criterion is applied to identify killers and socializers on the one hand (who adopt a situation-based, tactical playing style) and explorers on the other hand (who adopt an abstract, strategic playing style).

While tactical players interact with objects and characters based upon their direct affordances and representational properties, strategic players interact with objects and characters based upon their logic in the underlying system. According to Juul (2007), this has a profound influence on the decisions one makes during game play. Strategic players are unlikely to engage in task-redundant activity, as they are proficient in distinguishing between actions that are useful and obsolete in the further course of a game. Applied to violent activity, this entails that tactical players make choices based upon their immediate impact. Schott (2009), for example, reports a
player using a spade to injure an opponent in Postal, purely for the joy of performing an act of pointless violence. Strategic players on the other hand make choices based on their long-term impact. Malliet (2006), for example, cites a player who had robbed a defenseless woman in Knights of the Old Republic because in time this would gain him the magic points needed to master a certain spell.

**Orientation towards Others**

As an increasing amount of action games are nowadays played on the Internet, social motivations become very important aspects of one’s in-game behavior (Jansz and Tanis, 2007; Yee, 2006). While there are indications that various types of social relationships can be established through game play (Yee, 2006), research aiming to explain differences in playing styles has mainly identified three types of social orientations. First, there are players who consider it important that they can establish meaningful social contacts by engaging with others (e.g. Bartle’s socializers or Yee’s relationship-seekers). Second, there are players who consider it important to be able to collaborate with other humans, not necessarily to build social relationships, but because they consider cooperation as essential to good game play (e.g. Yee’s team players). Third, there are players who enjoy competing against human players because this is more challenging than fighting a computer-generated persona (e.g. Bartle’s
achievers and Yee’s competitors). One’s orientation towards other players appears an important factor in explaining how a positive or negative social outcome is effectuated. Some authors, for instance, have suggested that a competitive frame of mind is positively associated with aggression-related outcomes, while a cooperative frame of mind is believed to reduce aggressive tendencies (e.g. Adachi and Willoughby, 2011).

**Current Study**

**Research Questions**

The current study aims to investigate whether the insights provided by game theory can explain how players engage with virtual violence. As pointed out, the adoption of a playing style can result in a player being exposed to varying quantities of violence (e.g. playing at a faster pace results in exposure to more acts of violence in a shorter amount of time), but also a varying quality of violence (e.g. one can either support or challenge others, or take the role of perpetrator or healer). The following research questions were formulated:

RQ1. To what degree does a player’s orientation towards narration result in exposure to different quantities and a different quality of violent videogame content?
RQ2. To what degree does a player’s orientation towards rules result in exposure to different quantities and a different quality of violent videogame content?

RQ3. To what degree does a player’s orientation towards other players result in exposure to different quantities and a different quality of violent videogame content?

In imitation of Clarke and Duimering (2006) we aim to examine how players of shooting games construe their playing style and how the expressive act of game play is related to violent activity. As meaning is created through the interpretative process of interacting with the narrative and rule-based layer of the game and with significant others (Sicart, 2011), the adoption of a playing style can be studied, from a social constructivist perspective, as an active and conscious process (Steinkuehler, 2005).

One of the most influential research traditions that applies the principles of social constructivism to the social sciences is symbolic interactionism. The perspective outlined by Blumer (1969) places the individual, as an autonomous entity, at the centre of the researchers’ attention, and posits that the individual’s meaningful actions should be the social scientist’s main units of analysis. Because symbolic interactionism aligns to several of the underlying assumptions of videogame studies, it has recently been forwarded as a valuable perspective to investigate processes of meaning creation.
during game play, using qualitative methods of data collection and analysis (De Schutter, 2011; De Schutter and Malliet, 2014). One of the central ideas of symbolic interactionism is that conceptual and statistical representations of the empirical reality should not be considered as definite, and that the researcher should aim at refining and complementing the theories that guide data collection and analysis (Blumer, 1969). Accordingly the validity and generalizability of a qualitative study should be measured in terms of theoretical relevance rather than representativeness of the sample or replicability of protocols (Blumer, 1969).

Although a person’s playing style has been related to such characteristics as age (De Schutter, 2011), ethnicity (DeVane and Squire, 2008) or gender (Yee, 2007) it is largely determined by the choices a player makes in interaction with game content and other players. While this study accounts for background variables such as genre, our attention is mainly directed towards the individual construction of a playing style through engagement with violent videogame content, as suggested in the symbolic interactionist approach on game research (De Schutter, 2011; De Schutter and Malliet, 2014).

**Participants and Material**

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The study took place in the context of a methodological seminar course for bachelor-level students in communication studies, which had a focus on game analysis and player-game interactions. In total 73 students participated between September 2008 and December 2009, of whom 26 male students agreed to play a shooting game for a period of at least 12 hours and to participate in several iterations of data collection.

At the start of the seminar participants filled in a questionnaire, providing information about their favourite videogames, gaming experience and demographics. Based on this, a selection was made of seven shooting games to be examined. Two criteria were used to include a game in this selection: diversity and familiarity. As for diversity, a variety of game mechanics was accounted for. For example, titles from the third person sandbox series Grand Theft Auto were included next to titles from the narrative first-person series Call of Duty and the online first-person shooting series Counter-Strike. Another criterion for selecting game titles was familiarity. Players needed to have prior experience with, and a preference for shooting games in order to avoid boredom or frustration while playing. During the course of the investigation all participants reached the phase of total completion, repeated play or expert play (Aarseth, 2003). Participants were divided into groups according to the videogame they had chosen to play. An overview of the participants (age, selected videogame, gaming experience, participation in data collection (cfr. Infra)) can be found in table 1.
Analysis Scheme

Participants used an analysis scheme that would guide them in the process of making field notes during a playing session. The analysis scheme probed into the interaction between player and game on several planes: 1. Orientation towards narration (RQ1); 2. Orientation towards game rules (RQ2); and 3. (in case a multiplayer game was selected) orientation towards other players (RQ3). Within several fields of research, including Human-Computer Interaction (Fabricatore, et al., 2002), game studies (Malliet, 2007) and semiotics (Kücklich, 2003), researchers have constructed toolkits for the investigation of game content. Based on these studies the analysis scheme was organised in six categories. These categories, their definition as presented and explained to the participants, and their relation to the research questions, can be found in table 2.

Research Phases and Methods

Data collection progressed through three phases in which the participants’ playing style was studied in context (diary), through game play activity (Video Commentary Model (VCM)) and by interaction with other players (Focus Group Interview (FGI)). An
investigation into the merits of these methods based upon participants’ evaluations revealed that each method substantially contributed to the participants’ account of their player experience (Ribbens and Poels, 2009).

Step 1: Familiarizing with the analysis scheme.
The respondents were familiarized with the analysis scheme in one session of two hours, in which they were encouraged to pose questions.

Step 2: Play the game and keep a diary.
The participants were asked to play the game that was assigned to their group for 12 hours or more at home. During this initial stage they did not receive many instructions so that they would follow their own motivations, intuitions and preferred playing style. Participants were asked to write down their experiences in a game diary (approximately every 45 minutes with minor variations possible depending on the gaming situation) which, based upon the analysis scheme, provided structured noting space to facilitate the registration of player-game interactions and details on how players use this information to construe their playing style. The time interval of 45 minutes was tested beforehand. Less than 45 minutes of gaming could break the flow
of the game, but more than one hour without taking notes had a negative influence on
the quality of notes taken.

Qualitative diary studies are conducted to provide detailed reports on people’s
experiences in daily lives (Bolger, et al., 2003). Players could spend their gaming time
at home, in a familiar and safe environment and it was expected that the diaries would
provide elaborate information about player-game interactions. An important
advantage constituted the possibility to analyse gaming behaviour over time.

Step 3: Additional data collection: Video commentary model and focus group
interviews

Based upon the principle that people come to identify meaning based upon a process
of interaction (Blumer, 1969), we decided to complement the diary method with VCMs
and/or FGIs (for an overview, see table 1). The former allowed participants to
articulate meaning based on specific player-game interactions, while meaning in the
latter arose from the social interactions the participant had with fellow respondents
that had played the same game. Moreover, the application of various methods of data
collection made it possible to verify and complement the diary data. Due to time
constraints and limited availability of the game lab, not all respondents participated in
the VCM. One group consisted of only two players (GTA IV) who both participated in the VCM. This group was therefore not invited to participate in a FGI.

With regard to the VCM, students were invited to an immersive game lab that resembled a living room. Here they played the game that was assigned to their group for approximately 30 minutes, while being observed by unobtrusive cameras, a fellow group member taking notes and through a one-way mirror by the first author of this article. The game itself was recorded audio-visually using screen capture hardware. After a play session was finished, the participant discussed his playing style with the fellow group member based on the recording, the notes the fellow group member made and the six categories of the analysis scheme.

All groups, with the exception of the students who had played GTA IV, joined a FGI with the other students that had been playing the same game. With consent of the participants, the FGI was recorded audio-visually. The FGIs were mainly used to confront respondents with possible varying player experiences, thereby encouraging respondents to reflect on their own playing style through comparison with other gamers.

**Analysis**

In accordance with the research goals, the principles of grounded theory were followed (Bowen, 2006), which finds its origin in symbolic interactionism and
constructivism (Straus and Corbin, 1994, p.273). Data were recorded, transcribed verbatim and entered in Nvivo, a qualitative data analysis software package. During the first phase of analysis all material that related to one sensitizing concept was put into one analytical category, enabling data to be coded and analyzed. Subsequently, selective coding was used to compare the material over different concepts, in order to examine variations and nuances in meaning. Finally, the data were compared across the categories to discover possible connections between concepts and themes in order to facilitate the integration of findings.

**Results**

Three central themes were withheld to describe the differences between respondents regarding their engagement with virtual violence: 1. Narration vs. action; 2. Discovery vs. mission-based play; 3. Reactive play vs. strategic play. These themes represent continuums or axes of play, because a great deal of variability was observed between players and sometimes within a player. The results are therefore in line with previous research that described playing patterns as complicated (Yee, 2006) or even messy (Steinkuehler, 2005) and proposed a configural approach to describe player experiences.
It must be noted that little information arose on the social aspects of game play, mostly due to the fact that our participants preferred playing offline shooting games over online shooting games. Based on the respondents that chose to play Counter-Strike (the only multiplayer game in the sample), we could not identify social contact as a criterion to delineate player variation, compared to for example the importance of this to understand MMORPG play (see Yee, 2006), because participants in this study preferred a lonely wolf approach. We can state, with caution, that taking a supportive role is linked to a more careful playing style, whereas taking on a competitive role is linked to a faster or arousal-drive playing style.

**Narration vs. Action**

Substantial differences were observed in terms of the attention participants devoted to game narrative. For most respondents the story was a necessary condition for immersion to occur, while a minority derived enjoyment primarily from interactive sequences. Not surprisingly, players of the online multiplayer shooter Counter-Strike claimed that the narrative was unimportant to explain their playing behaviour. A few players of story-driven titles such as Medal of Honor or Half-Life 2 also claimed to largely ignore narrative elements. The main reason for this resided in a preference for action-orientated play and for making progress.
I love action, so for me the cut-scenes and the story are an unnecessary part of the game.

(MoH_2, diary)

Others stated that they forgot about the narrative as soon as the interactive part of the game would start.

While playing the missions, I completely forget about the context or how the story goes.

(GTA: SA_1, FGI)

Nonetheless a majority of respondents referred to elements such as cut-scenes or dialogues to illustrate the importance they attached to story and character development. Three gradations were observed, ranging from a very strong to a moderately light orientation towards narration. First, many respondents enjoyed being submerged in the storyline. These players engaged with as many immersive game content elements as possible. Second, participants pointed at the importance of a narration to contextualize the protagonist’s actions. Some players were not interested in the story as such, but appreciated that violent actions were justified. Third, a strategic reason to engage with narrative elements was found in the valuable information presented in cut-scenes to complete the game goals.
In general, the adoption of a narration-oriented playing style concurred with exposure to lower quantities of violence, as this often fostered participants to avoid combat. More specific, the presence of a storyline added emotional realism, as a consequence of which the impact of violence became more tangible.

I play defensively. I never proceed too fast, I look for shelter wherever possible, I never move to the middle of the map, I always make sure I have cover. This is because of the story: I pretend I am in a real war, that I am a real soldier.

(CoD_4, diary)

In a minority of cases the emotional realism stemming from narrative elements led to an intensification of violent behaviour. A few respondents reported that the storyline had an impact on their desire to adopt a hostile, vengeance-driven playing style.

The context of the missions I have to complete is one of vengeance. I therefore developed a playing style that is based on vindictiveness. Playing aggressively is justified.

(GTA: SA_2, diary)

**Discovery vs. Mission-based Play**

Only a minority of participants identified interaction with paidea rules as a determinant of their playing style. This should not be surprising, because most
shooting games have strict ludus rules and are oriented towards aesthetics of arousal and competition (Jansz and Tanis, 2007). Nonetheless, even in games that feature large virtual worlds and possibilities for free play (most notably GTA: San Andreas and GTA IV), the respondents were only mildly interested in discovery. A few stated being strongly interested in uncovering new elements of the virtual world, mainly in order to satisfy curiosity.

I found the game world very important in this session. I explored it thoroughly, which led to new discoveries and things I hadn’t seen before. That made me more curious and encouraged me to explore further.

(GTA: SA_8, diary)

Others highlighted that discovery occurred mainly in function of the game missions, as a means to find information that can be useful further on.

One of the most important aspects of Counter-Strike is knowing the map. (...) I know several maps by heart and you can use this knowledge to your advantage.

(CS_2, diary)

It was difficult to relate explorative play to higher or lower quantities, or to a specific quality of exposure to violent videogame content. Some participants noted that a primary orientation towards discovery made them behave less aggressively:

I don’t want to rush through the level, complete the mission as fast as possible
and leave everything as it is. I try to explore the game world during the missions, to finish the game completely, actually.

(MoH_3, VCM)

Others pointed out that exploration stimulated them to try out new types of violent behaviour:

I am constantly looking out for cool places in this town. One time, while I was on a mission, I discovered a ladder that led to a bridge across a big road. I stayed there for a while, putting my mission on a hold, and explored the area. If, at a later time, I want to do some camping, shoot some cars, I know I can always go there.

(GTA IV_2, diary)

In general, mission-based players demonstrated a stronger mastery of the game rules than explorers, as a result of which they engaged more often in aggressive behaviour. An illustration of this is provided by HL2_1, who during the first days of the investigation wrote in his diary that he played cautiously, with a focus on discovery, and in a later stage noted that, as he had become more skilful, he had adopted a more offensive playing style.

At the moment I am playing very hesitantly, because my opponents are a lot stronger than I am.
I am becoming better at this game. Therefore I play faster and more recklessly.

The fact that more skilful players did not only engage in larger amounts of violent activity, but also derived a stronger sense of control from this, is demonstrated in the following quote:

It is incredibly cool to be able to shoot somebody from a distance of a few hundred metres. You almost feel like an executioner. You like to extend the duration of your opponent’s agony. First you shoot him in the leg, then the shoulder. Funny!

Reactive vs. Strategic Play

In line with research on the attractions of game violence (Jansz, 2005; Jansz and Tanis, 2007) a combination of competition, challenge and arousal was identified as typical of the participants’ in-game behaviour. This can explain why, as mentioned above, mission-based play was very popular among almost all respondents:

By engaging in missions, you get action. Each time I play I deliberately search for missions.
In some cases this resulted in a careful, defensive playing style, because this was considered a good strategy for success.

I have a quiet, goal-driven playing style. I will rather wait and observe than behave aggressively. During this playing session I have often avoided the enemy instead of eliminating him. I have mainly focused my attention on the missions and did not take any unnecessary risks.

On the other hand, two players mentioned not being interested in strategic challenges, and preferred to think as little as possible while playing. These players’ main motivation was escapism, or ‘brainless entertainment’ as one respondent (CS_1, diary) described it.

I play intuitively. I only rarely think about tactics and only when I feel like it. Usually, I just want to shoot everybody as quickly as possible. Reflecting on what to do when and how is not my cup of tea.

Most participants were located in between both extremes, and incorporated strategic and reactive elements in their playing style, depending on which strategy they believed would be more successful. It became clear that differences between players in terms
of the importance attached to action, led to differences in the experienced pace of the
game. Those who preferred action seemed to enjoy fast movement.

I enjoyed attacking my enemies in ‘Rambo style’. I prefer a frontal attack and I
try to avoid bullets by strafing quickly from left to right or right to left.

(CoD_2, diary)

For players who were more interested in cognitive challenge, games were played at a
less frantic pace.

I’m a tactical and steady player. I take cover a lot, always take my time and will
wait until I get a chance. It doesn’t matter to me that the game takes longer to
finish. I enjoy this style more.

(MoH_1, diary)

Very often the distinction between strategic and reactive play could be used to
describe not only differences between players but also differences over time within
players. Respondent MoH_1 illustrates this as follows:

Based upon your choice of weapon you choose a totally different playing style.

If you choose to use a sniper gun or a handgun, you choose a quiet, well-
considered playing style. If you use a grenade or a machine gun you go for an
aggressive, offensive playing style. You need to master both playing styles,
because dependent on your situation you need both.
A shift from strategic play to reactive play can be effectuated by several factors, of which the emotional state of the player and the internal state of the game were the most frequently mentioned. Regarding the players’ emotional state, a shift towards feelings of frustration (first example below) or humor (second example below) could cause players to behave more aggressively.

I intend to progress as fast as possible. If that is not possible for one reason or another, I get fed up with the game and get frustrated. I then run into the city to kill innocent citizens. It may sound gross but it does bring relief.

(GTA: SA_6, diary)

I usually play pretty aggressively, impulsively, and that is what makes GTA so much fun. You can engage in so many cases of hilarious cartoonish slapstick violence!

(GTAIV_1, diary)

Regarding changes in the internal state of the game, several occurrences could cause a shift towards a different playing style. When one’s character is in a comfortable position, one is generally stimulated to act more offensively:

Usually I play more recklessly when I have a lot of health, because I will die less easily.
Conversely, when one’s character is under threat, one can be prompted to act more carefully:

I try to rush as much as possible, play offensively, aggressively. But at the same time you always have to be careful, and wait for the right moment. It is the only way to last a long while in Counter-Strike.

Discussion

This study demonstrates that a symbolic interactionist approach on game studies, as proposed by De Schutter (2011), can be helpful in providing a structured account of the ‘complicated messiness’ described by Steinkuehler (2005). While the participants’ responses suggest that elements such as genre (e.g. players of the online FPS Counter-Strike were generally more action-oriented than players of the offline titles) and player characteristics (e.g. skill and frustration were related to assertive playing styles) are antecedents of a playing style, further research should pursue this line of thought. In particular it appears that motivation and playing style are related. In line with this observation Calleja (2007) distinguishes between two interdependent temporal phases of game involvement. Macro-involvement refers to motivational attractors to games that influence sustained engagement and can be related to the motivations that are
found in Uses and Gratifications research. Micro-involvement refers to the players’ direct engagement with the game’s content at the moment of playing during which players can, depending on their preferences (which often run parallel with the motivational attractors) and in-game situations, shift between different types of involvement in order to accomplish personal or game goals. This study mirrored these findings. Participants for instance noted that challenge often lead to a cautious playing style, but that frustration could cause them to behave more aggressively.

The current results have implications for the social cognitive paradigm in game effects research, in which player control is often only implicitly accounted for (for a similar observation see Klimmt, et al. 2006; Weber, et al., 2009). The way in which information is processed is a crucial theoretical component of almost all social cognitive theories on the effects of virtual violence (cfr. Anderson and Dill, 2000; Valkenburg and Peter, 2013), but is only rarely accounted for in empirical enquiry. Game effect research, which usually applies a longitudinal or experimental design, can benefit from the application of ethnographic methods, which can be useful to map the diversity in player behaviours and experiences, and to identify intervening variables that may reconcile competing paradigms (e.g. Malliet, 2007). In particular, we believe that the meanings arising from the negotiation process between game design and player, as described by amongst others Sicart (2011) should occupy a central place. Although
quantitative research methods are vital to further conceptualize and operationalize player activity, qualitative methods are invaluable because these are more attuned to capture the dynamic attribution of meaning on the part of the player (Jansz, et al., 2009, p. 247).

Based on the current findings, we forward pace, strategy and narrative orientation as constructs that require formal conceptualization and operationalization, both in research on positive and negative effects of game play.

Players who perform at a high pace are likely to be confronted with more acts of violence in a given time span, which may intensify the effects of game play (Willoughby, et al., 2012). Additionally, these results suggest that players who perform at a high pace may have fewer resources available to spend on strategy or narrative justification of the violence, and may predominantly act upon the direct affordances of the representation of violence. A higher pace may also be associated with a more competitive frame of mind, and thus foster aggression (Adachi and Willoughby, 2011).

In the literature on digital-game based learning, pace and learner control over the environment have been identified as important attributes that support learning outcomes (Yusoff, et al., 2009).

The findings of this study underline that differences can be found in how players justify their actions. Some respondents are not interested in the story line or the reasons why
their character engages in violent actions. Others state that without the narrative, they would consider their actions as psychopathic or immoral. Future research should examine whether strategies to downplay violence in a game and ethical considerations (see also moral disengagement theory (Hartmann and Vorderer, 2010)) are associated with aggression-related outcomes.

Finally, while some respondents enjoy shooting games for reasons of escapism, others prefer making strategic decisions, thereby changing the nature and meaning of the violent activity. Some authors have argued that making strategic decisions requires considerable cognitive effort, as a result of which other functions, such as the processing of aggression-related stimuli, may be reduced or even disabled (Weber, et al., 2011; see also Lang (2000)’s limited capacity model of mediated message processing). From the perspective of positive learning outcomes, it has been argued that a strategic playing style is associated to real life problem solving skills (Adachi and Willoughby, 2013).

Conclusion

The results of this study confirm the theoretical observation that players construe a personal playing style, and that this impacts the degree to which they encounter and give meaning to violent videogame content, even while engaging with the same title.
First, narrative players generally tend to proceed at a slower pace than mission-based players, albeit that certain narrative elements (such as revenge) can instigate a frantic playing style for shorter moments of time. Second, skilled players usually feel more comfortable, as a consequence of which they fight more recklessly, engage in more acts of violence and experience a stronger sense of control while acting violently. Third, during strategic moments one tends to be more cautious than during reactive moments, which again leads to a calmer, less arousal-driven playing style. Based on these findings we highlight the importance of studying playing style and the meaning that is ascribed to violent video game content in game effects research, because it is likely to moderate or mediate the effect of violent videogame content on real-life cognitions and attitudes towards violence.
References


(accessed 1 Mai 2013)

http://www.cs.uu.nl/docs/vakken/vw/literature/02.GameApproaches2.pdf


Table 1. Overview of the participants, the games that were played, and the methods used in this study.

<table>
<thead>
<tr>
<th>Player</th>
<th>Age</th>
<th>Game</th>
<th>Gaming experience (in years)</th>
<th>Gaming hours per week</th>
<th>Diary</th>
<th>VCM</th>
<th>FGI</th>
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Table 2. Overview of the categories of the analysis scheme and their relation to the layers of in-game agency

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Research questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fictional worlds</td>
<td>Any world imagined by the player, based upon representational aspects, including the story, cut-scenes, characters, graphics, dialogues, back cover etc.</td>
<td>RQ1</td>
</tr>
<tr>
<td>Goals</td>
<td>Objectives that the player must meet in order to succeed in the game or to attain a personal goal.</td>
<td>RQ1, RQ2</td>
</tr>
<tr>
<td>Game world</td>
<td>The organization and structure of the game space.</td>
<td>RQ1, RQ2, RQ3</td>
</tr>
<tr>
<td>Entities</td>
<td>The action potential, the object structure, and the available equipment of the player controlled character, and the non-playable characters.</td>
<td>RQ2, RQ3</td>
</tr>
<tr>
<td>Interface</td>
<td>Any on-screen or auditory information concerning the life, health, location or status of the character(s), as well as menus or additional screens that enable the player to exercise control.</td>
<td>RQ2</td>
</tr>
</tbody>
</table>
Controls The use of the controller, including the mental and physical effort the player exhibits to learn the controls.