Behavioural realism and the activation of aggressive concepts in violent video games

Il faut trouver les phrases qui résument et ne pas se perdre dans les explications plus complexes (c'est surtout vrai pour la partie 'results'). Ne pas utiliser d'outils pour traduire le text dans son intégralité, car l'exercice perd son intérêt.

Introduction:

What is the big question:
Does improved behavioural realism in violent video games make players more aggressive?

What work has been done before in this field to answer the big question:
Previous research into the effect of violent video games (VVG) has looked at whether they promote aggressive behaviour. Many experiments have produced inconclusive results. Academics disagree whether violence in video games can lead to antisocial behaviour. Some believe that the General Aggression Model (GAM) shows how violent video activate aggression in a player's brain and this leads to players being more likely to commit acts of violence.
Some studies have established this link, for example, one study found that players who played a violent video gave more aggression-related words in a word completion task than those players who played a non-violent game.
Supposedly a "priming effect" would activate agression concept in players' memories, which would then lead to players being more likely to temporarily commit acts of violence. This effect may, according to the same model, occur over a longer period of time and become part of the personality of the players.

What are the limitations of that work:
The authors of this study argue that confounding variables (competitiveness, difficulty…) may have led to false positives because the games used were two completely different commercial-off-the-shelf games. This was an issue for most experiments investigating violent video games (experiments with 'Zombie Raid' and 'The House of the Dead 2', or with 'Doom' and 'Doom 3'). Players may have become more agressive because the game they played was more difficult, more competitive…, and not because it was more realistic.
There may also be other things at work, for example, important and relevant results being left out, or issues with the GAM itself (critics of the GAM say that human brains are not so easily fooled and that people are able to distinguish virtual violence from real violence).

What, according to the authors, needs to be done next?:
Behavioural realism is equally as important as graphical realism to provide a gaming experience as close to reality as possible to the gamer. So research needs to look into the effect of both.
The authors also point out that a study needs to use bespoke games specifically made for the experiment to avoid the problems mentioned above (confounding variables).

What exactly are the authors trying to answer with their research?:
According to the author the link between VVGs and real aggressive behaviour has not been definitely proven. They want to investigate the effect of behavioural realism with 2 types of behavioural realism: ragdoll physics and non-player character (NPC) tactics.

Methods:

What are the authors going to do to answer the specific question(s)?:
They carried out 2 experiments: experiment 1: Ragdoll physics and experiment 2: NPC tactics.
For both experiments they created a bespoke game, so that they could use exactly the same game and only change the variable mentioned above (ragdoll physics and NPC tactics). They wanted to remove any potential confounding variables.

In experiment 1 players were randomly assigned to one of two groups, one group was given a version of a bespoke first person shooter game with ragdoll physics (when NPCs were killed the animation mimicked the movement of real bodies based on elements in the game environment), while another group was given another version of the bespoke game without ragdoll physics (when NPCs were killed the game would show a predefined animation, the same animation was used each time an NPC was killed).

The experiment was done online and 898 participants took part. The vast majority (642) were aged between 18 and 24 years old and frequent gamers (444 played at least once a day)

The Anderson word fragment completion task was used to measure aggression in players. Players were given 98 word fragments (e.g. K I _ _) after playing the game in their assigned condition for 4 minutes.

In experiment 2 players were randomly assigned to one of two groups, one group was given a version of the same bespoke game with AI-controlled soldiers who did not behave like 'real' soldiers (they did not use realistic tactic when attacking), while another group was given another version of the bespoke game with AI-controlled soldiers who used real squad-based strategies (distracting the enemy and attacking him from the sides, which is called flanking).

The experiment was done online and 1880 participant took part. The vast majority (1497) were aged between 18 and 24 years old and frequent gamers (747 played at least once a day)

The Anderson word fragment completion task was used to measure aggression in players. Players were given 98 word fragments (e.g. K I _ _) after playing the game in their assigned condition for 3 minutes.
Because the factor of competence (which was not an issue in experiment 1) may have an impact on the results, it is measured in order to rule out its impact (after the game, players filled in a Player Experience of Need Satisfaction questionnaire). This is important because frustration and feelings of incompetence have been linked to aggression-related effects.

Results:

Write one or more paragraphs to summarise the results:
Both experiments did not produce results that would indicate that realism (behavioural realism) leads to more aggression-related behaviour.

Interestingly, experiment 2 even showed that less realism led to an increased feeling of competence in the players, which then led to more aggression-related behaviour (more aggressive words completed).

In experiment 1, there was no significant effect. This type of behavioural realism (ragdoll physics) appears to have no effect on players' aggressive behaviour.

In experiment 2, it was found that greater realism (better NPC tactics) led to a feeling of incompetence, which is to be expected, but it did not increase aggressiveness.
Interestingly, greater feeling of competence (from the group who played the game without realistic NPC tactics) led to greater activation of aggressive concepts (more words completed with aggression-related meaning), which is more surprising. The results would appear counter-intuitive, i.e. absence of NPC tactics resulted in more aggressiveness from players. Regardless, greater realism in NPC tactics did not lead to more aggression-related behaviour from the player.

Discussion:

What do the authors think the results mean?
Both experiments appear to show that increase in behavioural realism does not lead to increase in aggression-related behaviour. This is important and their results can be trusted because this study is the first to include such a large pool of participants (2778) when looking at the impact of violence in video games on the behaviour of players. Moreover, those participants are frequent gamers making them more relevant for this type of study.

Do the authors identify any weakness in their own study?
This study 'only' tested two types of behavioural realism in a game, namely ragdoll physics and NPC tactics. The authors explain that more and different types of behavioural realisms could be studied, e.g. bystander characters, how bullets affect different internal organs, the use of VR…

What do they propose to do as a next step?
They think it would be interesting to study a variety of elements that are linked to realism, as mentioned above.