

## **Study on the Influence of the Fourth Wall on the Player's Gaming Experience in Side-Scrolling Games**

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### **Abstract**

*With the continuous development of emerging technologies represented by VR technology, many game developers are declaring that they are constantly trying to break the "fourth wall" and break the boundaries between virtual and reality to create game immersion for players. new game. But for many gamers, a strong sense of immersion is not the focus of their pursuit. The sense of control and safe exploration during the game is also the game experience that many gamers are pursuing. Moreover, there is ambiguity in the definition of the concept of breaking the fourth wall in the field of academic theory. The purpose of breaking the fourth wall was to separate the real world from the virtual world, to remind the audience that the actors and the audience are in two different worlds, and to trigger the audience's thinking about drama and deeper philosophy. But in the current game, it has become a blurring of the boundary between virtual and reality, pulling players into the virtual world, and focusing on the immersive experience. In this paper, we will first sort out the concept of "breaking the fourth wall", and then conduct a comparative analysis of horizontal scroll games and VR games, and conclude that the "fourth wall" has an impact on players Great conclusion.*

**Keywords:** *The fourth Wall, Player Experience, Side-scrolling Game, Sense of Control, alienation effect*

## **1. INTRODUCTION**

The fourth wall was originally a concept in the field of theater. It was originally said that there are walls behind and on both sides of the stage, but there is no wall on the side facing the audience. The real world and the world on stage are two completely different worlds, as if there is an invisible wall, this invisible wall is called the fourth wall. With the continuous development of science and technology, especially the rapid development of VR technology, the application of this concept in the field of games is also increasing. More and more game designers are trying to break the fourth wall and bring players into a more realistic game world. In games, breaking the "fourth wall" means blurring the boundary between the real world and the virtual world, allowing players to gain more immersion and thus immerse themselves deeper into the game. However, with

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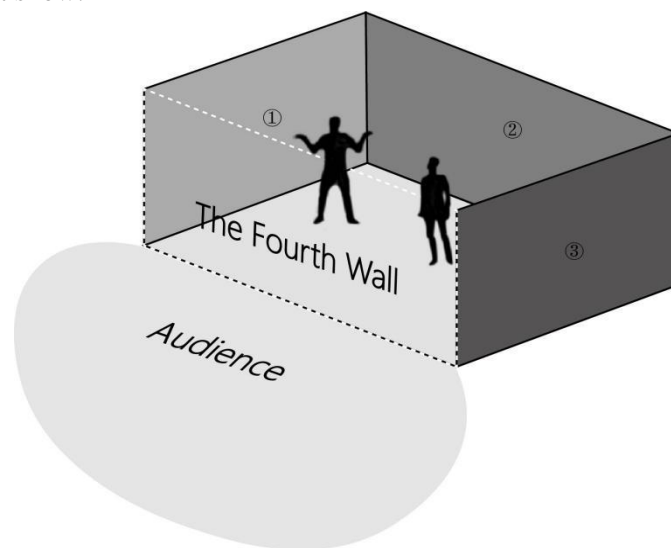
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the breaking of the "fourth wall", many problems have emerged. The following will focus on the breaking and building of the "fourth wall" for specific analysis.

## 2. THE FOURTH WALL

The concept of the fourth wall originated in theater. In ancient Greek drama, there was no separation between the audience and the actors, the actors performed directly in front of the audience, and the audience participated in the emotions of the characters. As shown in Figure 1, with the development of the play, the stage design gradually separated the actors and the audience, which is the beginning of the fourth wall. In the 18th century, the playwright Diderot wrote in "On the History of Drama", "Whether you are writing or performing, don't think about the audience and pretend that they don't exist." In 1887, Andre, the founder of "Freedom Theater", Anthony systematically presents and explains the concept. Now, the fourth wall can be a computer screen or a mobile phone screen when playing games, or a movie screen in a cinema when watching a movie, or even a fabric for a shadow puppet show.



**Figure 1. The Fourth Wall**

Brecht in Germany proposed the concept of breaking the fourth wall. But the concept and reasons he proposed to break the fourth wall are completely different from the concepts stated in many movie and game theories now, or even the opposite. Brecht believed that the "fourth wall" on the stage should be dismantled and the illusion of the stage should be broken. Audiences should be aware that they are sitting in a theater watching a play, not watching actual events take place. The audience should not be drawn into the world of performance, so he tries to break the fourth wall through various means, such as taking the actors off the stage to interact with the audience, destroying the linear structure of the plot, etc., aiming to bring the audience back to the real world, and arouse the audience's thinking about drama and performance and philosophy. With the rise of mediums such as movies and TV shows, the concept of the fourth wall has also been introduced into these art forms. In movies, the distance between the audience and the actors is greater, but film directors can use montage editing techniques to break the fourth wall, such as communicating with the audience by looking directly at the camera. As shown in Figure 2, in the movie "Deadpool", the protagonist will suddenly face the camera and complain to the audience.



**Figure 2. Deadpool actor breaks fourth wall by talking to viewers**

This is completely opposite to the purpose of breaking the fourth wall and blurring the boundary between virtuality and reality advocated by many games, especially VR games that emphasize experience, so that audiences or players can get a stronger sense of immersion.

In Brecht's theory, he did not break the fourth wall to blur the boundary between virtual and reality, trying to pull the audience into the virtual world in the play, but broke the fourth wall and pulled the audience out of the immersive world. Let the audience realize that there is a fourth wall between themselves and the characters, and they are in two different worlds with the characters. I hope that the audience can maintain a relatively rational state when watching the drama, so as to have a certain aesthetic criticism and philosophical thinking about the drama itself. When the audience no longer empathizes with the characters played by the actors, and the audience thinks rationally about the play, Brecht called this alienation effect. There are three main ways to achieve the alienation effect, namely third-person narrative, using past tense and emphasizing the presence of the stage. Through these three ways, the audience can realize the existence of the fourth wall.

However, whether it is based on Brecht's theory or not, tell the audience and players by breaking the fourth wall: you and the character are in two worlds. Still in the current industrial context, it is argued that the fourth wall that separates the virtual world from the real world needs to be broken. What is certain is that whether the audience is aware of the existence of the fourth wall will affect their subsequent aesthetic activities, resulting in a completely different experience.

### 3. SIDE-SCROLLING GAME

Side-scrolling games are a classic game genre. The characteristic of the game is that the character usually moves from left to right in the game, and the camera (that is, the screen picture that the player sees) faces the side of the character and follows the character to move left and right. Such as Super Mario, in this type of game, the player's game perspective is fixed, and only the side of the game character can be seen. When playing this type of game, the player seems to be sitting under the stage and watching the characters on the screen perform a drama, and the fourth wall is the mobile phone screen, TV screen or computer screen.

Since horizontal scrolling games are third-person games, compared with first-person games and VR games that focus on experience, the third-person perspective can create a sense of alienation, allowing players to feel the existence of the fourth wall. Secondly, since first-person games and VR games are experiential games, even if they are games in the past tense, players can easily fall into the game experience and fail to achieve the

effect of isolation. Finally, the side-view perspective of side-scrolling games can emphasize the existence of the stage, while first-person games and VR games let players become the game characters themselves. Players are no longer as simple as empathizing with characters. During the game, players become characters in the game and interpret the stories in the game.

#### **4. THE FOURTH WALL'S INFLUENCE**

The game experience obtained when the player is aware of the existence of the fourth wall is completely different from the game experience obtained when the player is not aware of the existence of the fourth wall. When the player is unaware of the existence of the fourth wall, the player will enter a state of empathy and gain a high sense of immersion, and the original process of playing the game becomes a process of experiencing the game. And when the player realizes the existence of the fourth wall, the player is not experiencing the game but playing the game. In addition, players can maintain relative rationality to analyze and judge the story of the game rationally, so as to understand the deep-seated ideas that the game wants to convey to players. The following will compare and analyze the difference between the side-scrolling scrolling game in which the player can realize the existence of the fourth wall and the VR game in which the player is hardly aware of the existence of the fourth wall.

##### **4.1 Sense of Control**

The sense of control is a game experience that many players pursue when playing games. This sense of manipulation can satisfy the player's desire to control. But this sense of control can only exist if the player is aware of the existence of the "fourth wall".

When playing a game, the player generally plays two roles, one is the controller of the game character, and the player can control the game character to perform various activities. Another role is the audience of the game, players watch the characters they control perform various performances on the screen. The characters in these two game experiences are based on the premise that players need to clearly know that they are in two different worlds from the virtual world of the game, which requires the help of the fourth wall. If the player is not aware of the existence of the fourth wall, then the player will change from the identity of the manipulator with the game character to the identity of the performer of the game character, and the player will lose the sense of control.

In the side-scrolling scrolling game, due to the characteristics of the side view, the game perspective of the horizontal version of the game is third-person, and it also enhances the sense of the stage, so that the player can clearly realize the existence of the fourth wall of the game. But the biggest feature of VR games is the sense of immersion, which allows players to feel like they are on the scene. It is difficult for players to realize the existence of the fourth wall. At this time, when the player is playing the game, the role played by the player in the game is no longer the identity of the manipulator of the game character, but the identity of the experiencer and performer of the game. At this point, the sense of dominance gained by the player has almost disappeared, leaving only the sense of immersion.

##### **4.2 Safe Exploration**

Because of the existence of 'the fourth wall', the boundary between the real world and the virtual world is very clear, so when the player is playing a side-scrolling game, the player knows that he is in an absolutely

safe state, so they can manipulate the character and make various attempts. Even for horror games, the negative impact on players is relatively small. In addition, since the game perspective of the side-scrolling game is a fixed perspective of the side view, the player will play the game with a mentality of watching tragedy, even if the character suffers a very cruel encounter, the player will not immersively feel the suffering and be overly frightened. At this time, the player's feeling is similar to watching a tragic horror drama in the audience. Although the content of the drama is horrific, the audience is not frightened (Figure 3. right).



**Figure 3. VR horror game 'Affected'(left) and Side-scrolling horror Game 'Limbo'(right)**

In VR games, this wall is completely broken, the player is no longer the controller of the game character (Figure 3. left), but the character in the game itself, no longer the audience sitting in the auditorium, but the stage On the performer, at this time, the player will experience everything that the game character suffers to the greatest extent.

#### **4.3 Criticism and Reflection on the Game**

The purpose of Brecht's alienation effect theory is actually to allow the audience to maintain objectivity and rationality while watching the play, and to deeply criticize and reflect on the content of the play and the story content of the play. Therefore, when the fourth wall exists, players will not be affected by empathy for the characters, so they can deeply analyze the stories in the game, discover the deep meaning that the game author wants to express, and gain more ideological experience. And not just a sensory experience. This is difficult for VR games that focus on experience. For example, the hidden ending in the game 'inside'. In the game 'inside', there is a control helmet connected to a cable. When the player manipulates the character to wear the helmet, he can control many other game characters, or make many other game characters Help the player to go on a game adventure. In the final hidden ending, when the player controls the character and unplugs the cable connected to the control helmet, the character enters dormancy like a robot, and at the same time the player loses control of the character. At this time, the player will conduct in-depth criticism and reflection on the game, and find that he is the big BOOS behind the game who controls everything. Only at this time, the game character escapes from the inside in the true sense. When players conduct such reflection and criticism, they can get more pleasure and think about some philosophical things subtly. This is something that experience-focused VR games cannot bring to players, because one of the keys to experience is continuity. If it is very complex and deep-level things outside the game that require players to think, it will destroy the continuity of the overall experience. In this way, the player is aware of the existence of the fourth wall, and then escapes from the state of immersion and empathy.

## 5. CONCLUSION

There cannot be only one direction for the existence or destruction of the fourth wall. As the "ninth art", the game creators should not only focus on the development direction of immersion, but should look for possibilities from all directions. Compared with VR games, side-scrolling games that emphasize the existence of the fourth wall can better satisfy users' desire for safe exploration and game content control, artistic criticism and reflection in the game, which VR games cannot do. This paper believes that research in different directions can help the industry and game developers develop games suitable for different groups of people, so that everyone can find games that suit them, feel the charm of games, and promote the development of game research and the game industry.

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