The Impact of Neutral Gender Characters in Electronic Games on Adolescents' Gender Cognition and Strategies for Improvement

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Abstract: This study aims to explore the influence of neutral gender characters in electronic games on adolescents' gender cognition and proposes potential improvement strategies for the current situation. The research employs an interview-based approach to investigate the gender-related confusion encountered by adolescents during their developmental stages and examines the current status of neutral gender characters in the contemporary electronic game market, tracing their origins. As adolescents are in a stage of developing gender identity, the introduction of neutral gender characters in electronic games may contribute to fostering positive gender identity and exploration. Consequently, the goal of this study is to better understand the shaping role of electronic games on adolescents' gender perceptions, promote the gaming industry toward more diverse and inclusive gender expressions, advance societal gender equality perspectives, stimulate adolescents' creative expression, and cultivate a broader societal attitude of openness and respect towards diverse genders.

Keywords: electronic games, neutral-gender, gender variation, gender education

1. Introduction

Since the birth of the world's first electronic game, electronic games and their industry, as products of a new era of technology, have rapidly spread worldwide and quickly evolved from simplicity to complexity. Due to the comprehensiveness of electronic games [1] and their entirely artificial nature, every detail in this "microcosmic world" reflects the values of the creators and the current society. Simultaneously, as the majority of the audience for electronic games belongs to the younger generation of society, these games can more concentratedly embody the latest trends in young people's thinking. Existing research papers on electronic game characters mostly focus on changes in the portrayal of female characters, with a small number discussing the connection between male character images and violence. However, discussions on neutral-gender characters have received little attention. In reality, many game developers intentionally downplay specific male or female traits in character design or blur gender expressions to create more neutral images. Many game developers also make efforts towards gender diversity, moving beyond traditional binary gender roles. As the audience for electronic games consists mostly of adolescents undergoing crucial psychological and physical development, their ideologies not only influence electronic games but are also subtly shaped

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by the games, impacting aspects such as social value orientation and trust in cooperative behavior. [2] The innovation and changes in these electronic game character images undoubtedly provide new and broader possibilities for adolescents' gender cognition during their growth process. This paper will focus on neutral character images in electronic games and their impact on adolescents' gender cognition. Building on this understanding, the strengths and weaknesses of the current situation will be explored, aiming to identify corresponding strategies for continuous improvement.

2. Neutral Character Images

2.1. Definition of Neutrality

The term "neutral" refers to a departure from the traditional binary understanding of gender identity or gender expression, not falling into the categories of conventional male or female. [3] Sometimes, it encompasses concepts such as "genderqueer," "non-binary," "genderfluid," "agender," or, less radically, individuals who simply deviate from stereotypical male or female characteristics. Individuals with neutral gender traits may exhibit a blend of traditional male and female traits in their appearance or personality (or both), or they may display characteristics that are gender neutral.

2.2. Current Status of Neutral Characters in Games

In recent years, a new trend of "neutralization" in the design of game characters has gradually become widespread and naturally accepted. The presence of these "neutral" characters is increasingly prominent in popular games and their respective roles, drawing more players and consumers with their unique charm distinct from traditional gender traits. Consequently, game developers invest considerable effort in researching and designing game characters that align with consumer preferences to enhance the popularity of their games. These neutral character images, rooted in real-world society and influenced by market demands, have evolved with diverse features and possibilities.

2.3. Expression of Neutral Characters

The predominant ways in which neutral characters express gender can be categorized as follows: (1) The character's appearance reflects neutral or "anti-gender" features, while their gender cognition and gender expression remain binary. An example is Alucard from "Castlevania: Symphony of the Night". [4] (2) Both appearance and gender expression manifest neutral or "anti-gender" features, while the character's gender cognition is binary. This often combines with themes of cross-dressing, as seen in "male dressing as female" or "female dressing as male." (3) Gender cognition and gender expression both exhibit neutral or "anti-gender" features, while the character's appearance is binary. This is commonly found in characters where the author intends to portray queer images and their internal struggles and growth. (4) Complete Gender Neutrality or Agender: This is prevalent in nonrealistic or fantasy genres, as seen in the player characters of the "Splatoon" series. [5] (5) Characters possess binary gender traits but defy stereotypical norms, such as strong and muscular female characters. An example is Lara Croft, the protagonist of the "Tomb Raider" series. [6] (6) Apart from inherent character traits, elements like the character's profession, available clothing types, selectable hairstyles, and makeup options in the game, especially for player-controlled characters, contribute significantly to expressing various gender traits. Neutral game characters typically have greater flexibility in their choices regarding profession, attire, and appearance.

3. Research Design and Presentation of Results

3.1. Research Design

To investigate the actual impact of these neutral characters on players, seven individuals with varying degrees of exposure to different types of electronic games were selected, all of whom have encountered and experienced neutral characters in games. The seven interviewees are as follows: Cheng, from China, graduated from university one year ago, currently working part-time in design in China; Jellyfish, from China, currently a fourth-year student at a university in China; Chun, from China, currently a fourth-year student at a university in China; Rong, from China, currently a first-year student at a university in China; Lucy, moved to the United States from high school, currently a third-year student at a university in the United States; Anne, moved to the United States from middle school, currently a fourth-year student at a university in Canada; Qing, from China, currently working in the gaming industry in China. Each participant underwent a 40-60 minute interview, resulting in a comprehensive interview transcript comprising a total of 10,910 words.

3.2. Presentation of Research Results

3.2.1. Stereotypes Resulting in Confusion in Defining Gender Traits during the Growth Process

In the process of exploring and establishing gender cognition, beyond the commonly mentioned influences of family and school education, as well as media and literary works, the presence of neutral characters in games plays an undeniable role in breaking down cognitive barriers associated with gender stereotypes for players.

Among the interviewees, there were individuals identifying with the conventional gender binary as well as non-binary and genderqueer individuals. Despite varying self-defined genders, they unanimously mentioned experiencing confusion and perplexity regarding the definition of gender traits influenced by gender stereotypes during their growth. Conventional gender individuals experienced comparatively less and milder confusion, while non-binary individuals encountered more intense conflicts between stereotypes and their self-perception.

Anne stated, "Most of the time I feel myself neither feminine nor masculine, perhaps because my physical gender tends to be female, but I feel very vague about what is 'like a woman' or 'like a man.' So, I just feel not related to traditional gender judgments."

In addition, many individuals felt a "distance" between themselves and gender traits depicted in stereotypes. The representation of neutral figures in games to some extent helped them discover gender traits beyond traditional stereotypes. Jellyfish mentioned, "When I was a child, my perception of girls was based on stereotypes like having long hair, but after playing games, I saw characters with different physical features... This also broke the stereotype that society holds about women being less capable than men at work." Notably, she considered electronic games and their associated communities as sources of information on various gender-related knowledge. Without exposure to this community, she would have had little chance to learn about the existence of non-binary genders.

It is evident that adolescents commonly experience confusion and perplexity in defining gender traits and self-awareness during the growth process. Due to limited channels for obtaining information in real life, these challenges are often not easily resolved. The emergence of non-stereotypical character images in electronic games not only provides them with a new way to contemplate themselves but also catalyzes further exploration and discovery of diverse gender traits.

3.2.2. Differences in Expression Due to Market Demand and Cultural Background

The expression and degree of neutral characters vary significantly in games from different countries, and respondents living in diverse cultural backgrounds also have distinct perceptions of neutral game characters. Among seven interviewees, five grew up and live in China, while the other two reside in the United States and spent their adolescence there. Additionally, they have encountered games from both East Asia and the West (mostly from Europe and America). Regarding the expression of neutral characters, they agreed that East Asian games tend to focus more on external features such as hairstyles, facial characteristics, and makeup to convey neutral traits, while European and American games emphasize internal character traits, and their definition of neutrality is more diverse compared to East Asian games.

Interestingly, two interviewees pointed out that East Asia and Europe/America have different standards for perceiving neutral images, which are influenced by distinct aesthetics and historical-cultural backgrounds. Qing raised the point that some Asians believe features considered neutral may not be perceived as such by Caucasians. As an example, they mentioned the male character design in the Persona series, which often features long eyelashes. Due to differences in racial characteristics, Asians tend to associate long eyelashes, fair skin, pointed chins, and other facial features more with femininity, whereas this may not always be the case for Caucasians. On the other hand, Jellyfish proposed from a historical and cultural perspective that long hair on male characters is often considered a typical sign of neutrality. However, in many games set in ancient Asian backgrounds, male characters with long hair may not necessarily be perceived as neutral.

Regarding the level of acceptance, respondents living in the United States perceived a higher general acceptance of neutral images in their surroundings. In contrast, those living in China believed that the acceptance of neutral images varies significantly across different regions and economic backgrounds. People growing up in more economically developed areas generally display higher levels of inclusivity compared to those in less developed regions.

3.2.3. Gender Binary Opposition in an Inclusive Context

Beyond the game itself, the derived online communities have a more substantial and lasting impact on players, a sentiment unanimously affirmed by each interviewee. As Chun explicitly stated during the interview, "The game itself has less influence on my perception, and online discussions, including comments from fellow gamers, play a major role in shaping values."

After engaging in a game, players deliberately or inadvertently seek information related to the game in various online communities. This could be game strategies, evaluations, or reflections from other players, or fan creations such as fanfiction or fan art. These interactions foster communication among game players. Given that the active players in these communities are mostly adolescents, interactions occur predominantly among peers. Games, as a common topic, provide many teenagers with more opportunities to communicate about shared interests, expanding their circles of friends beyond the real world. As peers, they often gain more understanding and respect from each other, creating avenues for expression that might not be accessible in the real world. Jellyfish expressed, "Compared to real life, I can find more people with similar thoughts in online communities, and my ideas receive more affirmation." Simultaneously, as they encounter more people, their perspectives and inclusivity naturally broaden. This individual inclusivity contributes to an overall higher inclusivity in the online world than in the real world.

On the flip side, in the context of increased overall inclusivity, the development of various game communities and platforms has led to the segregation of communication between male and female players. Respondents noted that in the game-related online communities they participate in, interactions primarily occur within the same gender, and the presence of players of the opposite

gender is often overlooked or even met with exclusion. Whether it is a female player appearing in a male-dominated game community, labeled as "mindlessly following trends," or a male player entering a female-centric game community, deemed "disgusting," these occurrences undeniably contribute to the reinforcement of gender binary opposition. Cheng succinctly expressed this phenomenon, saying, "It feels like everyone's tolerance for the opposite gender is decreasing."

4. Research Results Analysis and Traceability

After understanding the current status of neutral character representations in electronic games in real life, and before seeking ways for improvement, it is crucial to explore the reasons and origins that led to these situations.

4.1. The Subversion of Traditional Gender Awareness by a New Generation of Social Cognition

Consequently, with the increasing prevalence of electronic games in our daily lives, many people's perspectives have shifted from the negative views of the older generation, associating gaming with internet addiction, to the new generation's perception of gaming as "normal entertainment." They now have more opportunities to engage with electronic games and can embrace and accept the various impacts that gaming brings to life with a more casual mindset. The confusion among adolescents regarding the definition of gender traits undoubtedly illustrates that the popular traditional stereotypes are gradually becoming irrelevant to the new generation's standards of gender cognition. Over the years, with the rise of global movements advocating women's liberation, gender equality, and sexual minority rights, gender stereotypes have begun to crumble in the awareness of the new generation, even if this process is largely unconscious.

In the past, the mainstream aesthetic of the older generation leaned towards gender binarism, singularly emphasizing the masculine qualities of men and the feminine qualities of women. Neutral traits displayed by individuals in real life were mostly met with rejection. Derogatory terms such as "effeminate" or "tomboy" were applied, causing derogation and defamation for those with non-traditional gender traits, effectively excluding them from the category of "normal people." However, among today's younger generation, as aesthetic diversity has developed, neutral traits that were once rejected and considered "abnormal" are now widely accepted as one of the numerous expressions of beauty.

These two almost conflicting sets of values collide, leaving adolescents in the process of growth trapped between the traditional gender education of the older generation and the new trends in gender cognition developing in society. In such a scenario, the appearance of neutral figures in games that break free from stereotypes provides perplexed adolescents with new solutions and different ways of thinking about their concerns.

4.2. National Market Demands and Diverse Cultural Backgrounds Determine Differences in the Form of Electronic Games as Commodities

As an integral part of the modern entertainment industry, electronic games, each being a commodity, are inevitably significantly influenced by market demands in their creation. To attract diverse target audiences, the design of game characters exhibits distinct features. The substantial differences in the representation of neutral characters in various countries, as mentioned in the interviews, largely stem from this reason. In East Asia, where the understanding of gender diversity is not as profound and comprehensive, people tend to judge the neutral traits of a character or an individual based on appearance. In contrast, in Europe and America, within a highly diverse gender society, people

intentionally adopt the habit of inquiring about pronouns before communication to avoid offending others and to circumvent making assumptions about someone's gender based solely on appearance. [8] These social customs led European and American games to steer away from using mere external appearance to portray neutral traits and instead favor depicting internal personality traits as neutral, thus diverging from neutral game characters in East Asia.

Differences in racial characteristics (such as skin color, facial and hair features, as mentioned in the interview content) and cultural backgrounds also contribute to variations in aesthetic standards between different countries. Consequently, distinct judgment criteria may render the same character neutral in the eyes of some people and binary in the eyes of others. In games set against different historical or geographical backdrops, the same type of character may elicit different interpretations. For instance, in many East Asian games, due to artistic style preferences, characters are often designed to look appealing without a deliberate intention to create a neutral character. However, some players perceive neutral traits in the appearance of such characters. Take Goro Akechi from "Persona 5" [9] as an example; his illustration style led many to believe he embodies neutral traits, while others may disagree.

4.3. The Dual-Edged Impact of the Online Environment on Gender Diversity Communication

Online platforms have played a crucial role in the establishment and development of electronic games and their communities, especially with the widespread and rapid growth of the internet in recent years. Online games that rely on the internet have gradually become the preferred choice for the majority of mainstream players. [10] According to the 2021 American Community Survey (ACS), approximately 97% of youths aged 3-18 have internet access at home. [11] On the internet, individuals can directly communicate with people they wouldn't encounter in their real lives, exchanging a variety of ideas. Many individuals outside the binary gender spectrum have the opportunity to voice their lives and perspectives on online platforms, allowing their experiences and viewpoints to be seen and understood by a broader audience. With an expanded perspective, increased exposure to information, and a broader understanding of various matters, people's receptiveness to new perspectives is significantly heightened. The widespread use of the internet and electronic devices, coupled with the broadening platforms for electronic games, has led to youths engaging with electronic games at increasingly younger ages, enhancing the educational impact of electronic games on the growth of the new generation.

However, despite the convenience brought by the internet, big data invisibly divides the gaming market. The segregation of communication between male and female gaming communities is largely a result of targeted advertising by game manufacturers toward their distinct consumer groups. Initially, so-called "male-oriented" and "female-oriented" games are marketed separately to male and female players, capturing their interests. Once players engage with a particular type of game, subsequent big data pushes are more likely to present content related to similar games. This seems analogous to parents giving boys toy cars and girls dolls. When players join communities derived from the games they often play, they encounter individuals who have undergone similar experiences—mostly individuals of the same gender. In this scenario, the distinction between male and female is emphasized, and communication between different genders is subtly restricted, leading to the emergence of binary gender opposition.

5. Strategies for Improvement

5.1. Actively Understand and Embrace Diverse Aesthetics

In real life, educators, as the most crucial influencers on youths, provide the most direct feedback to learners through their attitudes towards diverse genders and aesthetics. Therefore, as role models, educators should not avoid or impose their biases on these topics but rather embrace diverse aesthetics with an open attitude. They should face the problems and concerns that youths encounter during their growth with appropriate guidance.

In the realm of electronic games, game designers should consistently examine whether they maintain an impartial stance when crafting game content. They should avoid intentionally or unintentionally presenting content that reinforces biases and stereotypes in the game. In the section where players create the main control characters, efforts can be made to eliminate some of the restrictions associated with binary gender choices and incorporate more diverse elements and options in character clothing and hairstyles. This approach would appropriately reduce the connection between character appearance and gender, minimizing stereotypes and providing more open and liberated space for gender cognition. In character design, emphasis should be placed on the independence and completeness of personality rather than highlighting different characteristics associated with different genders. Beyond electronic games, youths should actively seek to understand knowledge related to diverse genders. True understanding can only be achieved on the foundation of knowledge.

5.2. Recognition and Respect for Niche Demands

Creators can integrate innovation with market demands, taking into account cultural and social backgrounds. Starting with character types that are more widely accepted, they can gradually attempt changes that not only benefit the influence of the game itself but also facilitate a gentler acceptance of new concepts and aesthetic trends by the public. However, while catering to the preferences of mainstream players, it is also essential to understand and express the needs of different communities. This will contribute to increasing societal awareness of niche groups, thereby reducing biases resulting from a lack of understanding in real life. Niche communities can gain a sense of recognition, allowing ordinary players to easily see more possibilities in gender cognition.

During market research, game companies can conduct surveys targeting niche groups. When hiring employees, they should also ensure gender diversity. This approach not only allows for an external perspective but also facilitates the creation of game content that is more closely aligned with the real experiences of niche groups. In everyday life, when encountering non-binary individuals, people should always prioritize a respectful attitude.

5.3. Breaking the Division in Online Environments

To make efforts to break communication barriers and promote interaction between male and female players, businesses in their game promotions can reduce the binary labeling of games as "male-oriented" or "female-oriented." Providing equal exposure to different types of games for both male and female players is crucial. Only when the audience for games becomes more diverse in terms of gender can the voices of players from various genders enrich the communication community. In gaming-related online communities, players themselves should actively create and maintain a harmonious online environment. The fundamental approach is to abandon biases, maintain an open and respectful attitude, and consistently engage with players of different genders on an equal footing. Additionally, in terms of online supervision and management, major social media platforms should

focus on refining censorship mechanisms to reduce the dissemination of inappropriate comments with negative and hateful sentiments.

6. Conclusion

In conclusion, this study highlights the significant influence of neutral gender characters in electronic games on adolescents' gender cognition. By first identifying the different types of gender-neutral characters in electronic games, then exploring gender-related confusion during adolescence and analyzing the status of these characters in the gaming market, the research underscores the potential for positive impacts on gender identity and exploration. Electronic games, through the inclusion of neutral gender characters, can serve as a platform for adolescents' creative expression, contributing to self-discovery and acceptance. The multifaceted benefits extend beyond the individual, fostering a broader societal attitude of openness and respect towards diverse genders. To capitalize on these opportunities, educators and stakeholders in the gaming industry are encouraged to engage in initiatives that prioritize diversity and inclusivity. By committing to authentic portrayals of gender and promoting positive perceptions, the gaming industry can play a pivotal role in advancing societal goals of celebrating and respecting diverse gender identities.

However, the study was limited by its small sample size, the similarity in the backgrounds of the interviewees, and the lack of a wide age span. The results of the interview cannot fully reflect the problems and current situation faced by adolescents from different cultural and social backgrounds at different ages. Future research, if possible, might conduct a more extensive survey, covering the influence of video games on gender cognition among adolescents of different growing backgrounds, different age stages, and different genders, to obtain a more detailed and comprehensive understanding of the topic.

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