

**Sexist Narratives in Video Games: Impact on Male Avatar Customization**

Ayşe Acar

Department of Psychology, University of Twente

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First supervisor: Dr. Maximilian A. Friehs

Second supervisor: Dr. Iris van Sintemaartensdijk

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### **Abstract**

This study examined how narrative framing affects video game avatar development and how sexist ideas and gender identity affect it. In this mixed-method study, 40 participants used The Sims 4 to create two avatars based on two narratives: John's subtly sexist narrative and Michael's neutral narrative. The Narrative Engagement Scale (NES) tested participants' engagement, and the Ambivalence Toward Men Inventory (AMI) measured sexist beliefs. Quantitative analysis showed that gender and AMI scores did not significantly affect avatars' masculine stereotypes. However, qualitative analysis showed distinct differences in avatar design based on the narratives. John's (sexist) avatars had traditional masculine attributes including strength, confidence, and dominance. Michael's avatars were more diverse. These showed friendliness, intellect, and a less stereotypically masculine look. These data show that narrative framing significantly affects avatar customization. It effects participants' design decisions even when explicit sexist beliefs are not present. The study emphasizes the need for game developers to create inclusive narratives that challenge gender stereotypes and advance virtual diversity.

Video games have become an essential form of amusement and engagement in the digital age of today, providing players with immersive environments that allow them to interact, express and get to know themselves. One aspect of this self-expression is the customization of avatars, which is a fundamental aspect of numerous modern video games. These avatars serve as extensions of the users and enable them to engage better with the virtual world (Liao et al., 2019). Avatar customization is not only limited to aesthetics, but it also gives players the chance to explore their identity and self-expression (Nielsen, 2015). In addition to influencing players' perceptions of their avatars, the interactions within the game world are also influenced by their choices in attire, facial features, and body types (Ruiz-Rodriguez et al., 2021).

Player behavior and decisions, including avatar design, are substantially determined by the narratives that are integrated into video games. This can be seen especially in role-playing games. These narratives are instruments that can influence the way in which players interpret and engage with game components, such as characters and settings (Goffman, 1974; Moser & Fang, 2015). Similarly, narratives in other media, such as books, films, and television, guide audiences' understanding and engagement by providing context and meaning (Cutting, 2015). For instance, a novel's depiction of a protagonist as hero can lead readers to empathize with the character and see them as "good" even though their actions are morally ambiguous. In video games, such narrative framing operates similarly, encouraging players to align their choices and creations, such as avatar design, with the themes and values presented in the story. This can perpetuate societal biases if, for example, it contains cultural norms and stereotypes (Ortega & Feagin, 2016).

Gender-related social norms impact games equally as narratives (Kaye et al., 2017). Gender identity influences players' interactions with and creation of their avatars. Research

indicates that male avatars are often designed to represent assertiveness, authority, and power, whereas female avatars emphasize attractiveness and maternal characteristics (Lim & Harrell, 2015). These trends are further reflected in the broader gaming industry, where approximately 79% of video game protagonists are male (Lin, 2021). The emphasis on traditional gender traits can be seen in games like *God of War* and *Call of Duty*, where male avatars are frequently depicted as muscular and dominant. In the contrary, female characters, such as Lara Croft in *Tomb Raider*, are portrayed with an emphasis on physical beauty. Such patterns highlight how digital representations often mirror and reinforce societal gender stereotypes, underscoring the pervasive impact of culture on video game design (Kaye et al., 2017).

These gendered design choices are not only a reflection of game narratives and industry trends but also tied to the individual attitudes and beliefs players bring into these virtual spaces. Research shows that societal norms and personal beliefs about gender roles influence how players perceive and design their avatars, often aligning with traditional stereotypes (Weststar & Legault, 2017)

Despite the growing amount of research, major gaps exist in avatar customization and gender dynamics. Contemporary research often highlights sexist attitudes towards women while overlooking toxic masculinity and benevolent sexism. Furthermore, although significant research has been conducted on the effects of narrative framing in games, there remains an incomplete understanding of how narrative settings (e.g., neutral or sexist) affect players' views and avatar customization. This study will examine the influence of sexist narratives, gender identity, and sexist attitudes on the creation of male avatars.

### **The Role of Narratives in Video Games**

Narratives are central to the gaming experience, shaping how players interpret and interact with the virtual world. According to Goffman's Framing Theory (1974), the way

information is presented influences how individuals perceive and respond to it. In video games, narratives serve as framing tools, accentuating specific values, traits, or themes that guide players' decisions and interactions (Moser & Fang, 2015). For example, a narrative emphasizing conflict or power dynamics can encourage players to design avatars that embody traits like aggression or strength (Sherrick et al., 2014).

Narratives also help create coherence in virtual environments, providing players with a context that shapes their creative decisions. Liao et al. (2019) emphasize that storylines often frame how players approach avatar customization, leading them to design characters that align with the game's central themes. For instance, in a game emphasizing heroism or survival, players might prioritize traits like resilience or physical strength.

Additionally, narratives often intersect with cultural norms, subtly influencing players' decisions. Poliakova and Lut (2023) highlight how media narratives frequently reflect broader societal values, embedding biases and stereotypes into storytelling. When these narratives include culturally ingrained ideas about gender roles, they can reinforce traditional perceptions of masculinity and femininity in avatar creation (Batool & Batool, 2017).

Despite their influence, narratives also leave room for player interpretation. Some players use customization to align with the story's context, while others deviate, intentionally resisting the traits or roles suggested by the narrative (Fox & Tang, 2014). This tension between conformity and individual expression underscores the complexity of how narratives shape player behavior and avatar design. Understanding how narratives influence avatar creation is particularly relevant for exploring how storytelling in games may reflect or challenge societal norms.

## **Gender Identity and Avatar Customization**

When players customize avatars, their gender identity often plays an important role. Eagly's Social Role Theory (1987) suggests that gender norms are shaped by the traditional roles assigned in society's division of labor. These roles influence players' perceptions of masculinity and femininity, which are frequently reflected in avatar design. For example, male avatars often emphasize traits like strength, assertiveness, and authority, whereas female avatars tend to highlight beauty, softness, and nurturing characteristics. Ratan and Sah (2015) demonstrate that virtual environments frequently reinforce these traditional gender norms, shaping how players construct and interact with their avatars.

Gender Schema Theory (Bem, 1981) also provides insight into how cognitive frameworks about gender guide individuals. These schemas act as mental shortcuts that connect masculinity with power and dominance and femininity with attractiveness and submission. Consequently, even players who are aware of and critical of these norms may unconsciously reproduce them when customizing their avatars. Nielsen (2015) highlights how these gender schemas limit the diversity of virtual representation, restricting how gender can be expressed or interpreted in online spaces.

However, not all players conform to these norms. Some use avatar customization as a way to intentionally reject traditional gender roles or experiment with different aspects of their identity. Gray (2018) found that Black lesbian gamers, for example, utilized avatar customization on Xbox Live to challenge societal expectations and assert identities that defied conventional gender norms. By designing avatars that deviate from stereotypical representations, players can explore alternate identities in a safe and creative virtual environment. This suggests that avatar customization offers opportunities for players to subvert societal pressures, providing a space for identity experimentation and resistance to rigid gender expectations.

Additionally, research indicates that these choices can vary by gender. Female players may intentionally design more stylized or exaggerated avatars as a way to navigate or challenge gender stereotypes in gaming contexts, while male players often create avatars that conform to overtly masculine traits (Lim & Harrell, 2015). These tendencies reflect the broader societal pressures that influence how gender is performed and perceived, even in digital environments.

### **Sexist Attitudes and Virtual Representation**

Sexism refers to discrimination or prejudice based on a person's sex or gender, often perpetuating societal norms and reinforcing traditional roles (Benatar, 2012). Glick and Fiske (1996) conceptualized sexism as having two forms: hostile sexism, characterized by overtly negative attitudes toward individuals who challenge traditional gender roles, and benevolent sexism, which involves seemingly positive but also patronizing views, such as perceiving men as protectors or providers. These forms of sexism influence perceptions and behaviors in various contexts, including virtual environments.

Research by Bègue et al. (2017) demonstrates how virtual environments can reinforce and amplify these sexist attitudes. For example, their study found that male participants who interacted with sexualized female avatars displayed higher levels of hostile sexism compared to those who did not. This suggests that digital spaces, including video games, often reflect and perpetuate societal biases by reinforcing real-world stereotypes

Another example is a study by Dill and Thill (2007), which analyzed the portrayal of gender in video game characters and found that female characters were often sexualized and depicted in subordinate roles, while male characters were predominantly shown as aggressive

and dominant. This reinforces societal stereotypes by embedding traditional gender norms into the gaming experience.

In avatar customization, both hostile and benevolent sexist beliefs can shape design choices (Fox & Tang, 2014). Hostile sexism might encourage avatars to embody traits like aggression and dominance, while benevolent sexism could lead to designs emphasizing traditional masculine roles. To measure such attitudes, Glick and Fiske (1996) developed the Ambivalent Sexism Inventory (ASI) and the Ambivalence Toward Men Inventory (AMI). While the ASI primarily examines sexism directed at women, the AMI offers a unique perspective on how attitudes toward men shape perceptions and interactions.

Despite its relevance, the AMI has rarely been applied in video game research, leaving a significant gap in understanding how sexist beliefs influence the design of male avatars. Exploring these dynamics provides an opportunity to better understand the impact of cultural attitudes on digital representation.

### **The gap**

While there has been growing research on gender representation in video games, important gaps remain in understanding how gender identity and narratives influence avatar creation. Much of the focus has been on sexism directed toward women, with less attention given to how ambivalent attitudes toward men affect digital representation (O'Neill, 2014). This limited focus leaves an incomplete picture of how sexism impacts the design of male avatars. Moreover, previous research rarely examines how attitudes toward men influence the ways players project masculinity onto avatars, leaving a critical gap in understanding how cultural norms shape these digital creations.



Additionally, while significant research has examined the effects of narrative framing (Moser & Fang, 2015; Naul & Liu, 2019), there is limited understanding of how different types of narratives, neutral versus sexist, impact players' perceptions and behaviors. Specifically, little is known about how these narrative settings guide avatar customization and whether these effects vary based on players' individual attitudes, such as their overall sexist beliefs. This study aims to fill this gap by comparing how neutral and sexist narratives influence the creation of male avatars and examining the role of sexist attitudes, measured through the Ambivalence Toward Men Inventory.

Understanding these dynamics is important because it reveals how digital environments can reinforce or challenge societal norms of masculinity. As video games increasingly serve as cultural tools, addressing biases in avatar creation has broader implications for promoting equity and inclusivity. This research provides practical insights for game developers and help them create more balanced narratives and fostering socially responsible gaming spaces.

### **Hypotheses and Goals**

This study investigates the influence of sexist narratives in video games on male avatar customization, focusing on how narratives, sexist beliefs, and gender identity shape player design choices. It explores whether exposure to sexist narratives reinforces traditional masculine traits in avatar creation compared to neutral narratives, emphasizing characteristics such as dominance, violence, and strength.

Additionally, the study examines how sexist beliefs, as measured by the AMI, influence avatar design. It investigates whether participants with higher AMI scores are more likely to create avatars reflecting stereotypical masculinity, regardless of the narrative.

Gender identity is also a key focus, as the study analyzes how demographic differences influence avatar customization. It assesses whether male participants are more inclined than female participants to create stereotypically masculine avatars when exposed to sexist narratives.

Using the insights from previous literature and theoretical frameworks such as Social Role Theory, Gender Schema Theory, and Framing Theory, this thesis addresses the following research questions:

**RQ1:** Does exposure to sexist narratives, as opposed to neutral narratives, lead to the creation of avatars with more traditional masculine traits?

**RQ2:** How do sexist beliefs and gender identity influence avatar customization in response to different narrative contexts?

### **Hypotheses**

**H1:** Participants exposed to sexist narratives will create avatars exhibiting more traditional masculine traits compared to those exposed to neutral narratives.

**H2:** Participants with higher scores on the AMI will design avatars that align more closely with stereotypical masculine traits, regardless of narrative context.

**H3:** Male participants will create avatars with more stereotypically masculine traits after reading sexist narratives compared to female participants.

By addressing these research questions and testing the hypotheses, this thesis aims to contribute to the understanding of how narratives and individual attitudes shape virtual representations. The findings will also inform strategies for promoting diversity and

inclusivity in game design and virtual environments, providing valuable insights for researchers, developers, and policymakers.

## **Methods**

### **Participants**

In this study, 40 participants were recruited, of which 26 identified as female and 14 as male. The age of the participants ranged from 16 to 30 years ( $M = 21.32$ ,  $SD = 2.54$ ).

Participants were recruited using opportunity sampling through university recruitment emails and social media advertisements. To participate, individuals needed to be fluent in English to fully understand the narratives. Each participant took part in both conditions of the study. An overview of the participant demographics can be found in Table 1.

A G\*Power analysis was conducted to determine the required sample size for sufficient statistical power. Assuming a medium effect size ( $d=0.5$ ), an alpha level of 0.05, and power set at 0.80 for a two-tailed paired t-test, the required sample size was calculated to be 34 participants. With 40 participants in this study, the sample size exceeded the minimum requirement. Although the primary focus of this study is qualitative, the sample size calculation ensures that the quantitative analyses are adequately powered, adding depth and complementing the qualitative findings.

Before participating, all participants provided informed consent, confirming their participation was voluntary. Participants from the University of Twente were compensated with course credits for their time. The study was approved by the Ethics Committee of the University of Twente under approval number 240763.

**Table 1***Sample Characteristics of Participants*

<b>Gender</b>	<b>Age Range</b>	<b>Gaming Experience Range</b>	<b>Completed Educational Level</b>	<b>Game Genres Played</b>
Male = 14 (35%)	16–30 ( <i>M</i> = 21.32, <i>SD</i> = 2.54)	1–5 ( <i>M</i> = 3.18, <i>SD</i> = 1.36)	High School or Equivalent = 45%	Action/Adventure = 48%
Female = 26 (65%)			Bachelor's Degree = 52.5%	RPG/MMO = 30%
			Vocational Education (MBO) = 2.5%	FP = 28%
				Simulation/Strategy = 20%
				Puzzle = 33%
				Sports/Racing = 20%
				Fighting = 18%
				Horror = 5%
				Sandbox/Open World = 20%
				MOBA = 23%

*Note.* Participants could select multiple genres they frequently play, leading to overlap. RPG = Role-Playing Games, MMO = Massively Multiplayer Online, FPS = First-Person Shooter, MOBA = Multiplayer Online Battle Arena.

**Design**

This study employed a mixed-methods approach to investigate the relationship between exposure to sexist narratives, avatar creation, and sexist beliefs. Participants read two narratives from a role-playing game and were subsequently tasked with creating a male avatar based on the narrative they had just read. The narratives differed on one key aspect: one narrative subtly incorporated sexist elements, while the other was neutral and devoid of such content. Due to the study's objective, it was not possible to fully inform participants of its purpose at the start, because this could have led to biased behaviour. Therefore, a lie of

omission was employed, withholding information about the study's focus on sexism in narratives and avatar creation.

Participants for this study were recruited using convenience sampling and participated in both conditions. A convergent mixed-methods design was adopted, integrating quantitative and qualitative data collection methods. Quantitative measures included the Narrative Engagement Scale (NES), which assessed participants' engagement with each narrative, and the Ambivalence Towards Men Inventory (AMI), which evaluated their hostile and benevolent sexist beliefs. Qualitative measures involved the think-aloud method, wherein participants verbalized their reasoning and motivations during avatar creation.

The independent variable in this study was the type of narrative (sexist vs. neutral) presented to participants. To prevent the order of the narratives from influencing results, the sequence of narrative presentation was counterbalanced, with half of the participants reading the sexist narrative first and the other half starting with the neutral narrative.

## **Materials**

The materials for this study included both digital tools and instruments designed to measure variables central to the research questions. These materials were selected to ensure both quantitative and qualitative data could be collected.

### ***Questionnaire and Surveys***

The study utilized an online questionnaire created on Qualtrics (Version 12.24; Qualtrics, Provo, UT). This questionnaire was composed of several key components:

**Narratives.** The narratives used in this study were carefully constructed to align with the research objectives while subtly incorporating sexist elements. To achieve this, items from the

Ambivalence Towards Men Inventory (Glick & Fiske, 1999) were used to embed both hostile and benevolent sexism into the storylines. These elements were introduced in a way that would not make the sexism too obvious.

The narratives for Michael and John were designed to be nearly identical in structure and content, with the key difference being the presence of subtle sexist elements in John's story. In John's narrative, benevolent sexism was subtly reflected in his natural assumption of leadership roles, with his authority often affirmed by others, implying that men were more suited for leadership. One example from the narrative is "*During physical challenges, John notices that people often look to him for leadership or support.*" Hostile sexism was also embedded, such as when a female peer's leadership suggestion was dismissed, reinforcing the stereotype that men should lead: "*When a female peer suggests leading a task, her idea is quickly set aside*". Additionally, John's selective assistance to women, motivated by their attractiveness, reflected the belief that men's actions were often driven by self-interest or sexual motives.

The narratives underwent multiple rounds of revision to ensure subtlety and clarity. The goal was to maintain Michael's narrative as a neutral baseline while subtly incorporating sexist elements into John's narrative. Revisions focused on refining language, adjusting pacing, and ensuring that the gendered dynamics aligned with the study's hypotheses. The final versions balanced these elements to effectively measure the impact of both hostile and benevolent sexism on avatar creation. Both the sexist and neutral narratives that participants got to read are fully presented in Appendix A, together with a full explanation of all the incorporated items in the sexist narrative.

**Perceived Difference Questions.** To assess participants' perceptions of the two narratives, additional custom questions were included. These asked participants to rate how different or similar the two stories appeared to them on a Likert scale. Furthermore, they were asked to explain their choices.

**Narrative Engagement Scale (NES).** This scale was used to measure participants' level of engagement with each narrative. The NES consists of four subscales: Curiosity, Emotional Engagement, Unrealism, and Presence. Example items included statements such as "I felt emotionally involved in the story." Responses were recorded on a 5-point Likert scale ranging from "strongly disagree" to "strongly agree." Although this study was designed to test specific hypotheses about the influence of sexist narratives on avatar creation, the inclusion of the NES served an exploratory purpose. This measure was used to provide additional context about participants' engagement with the narratives, offering supplementary insights rather than addressing the primary hypotheses. The findings related to the NES are thus interpreted as preliminary and may inform future studies.

The reliability of each subscale was assessed using Cronbach's alpha, with results indicating moderate to strong internal consistency across the dimensions. For Michael's subscales, the reliability values were as follows: Curiosity ( $\alpha = 0.70$ ) demonstrated moderate consistency, Emotional Engagement ( $\alpha = 0.80$ ) showed strong consistency, Unrealism ( $\alpha = 0.70$ ) reflected moderate reliability, and Presence ( $\alpha = 0.78$ ) also showed strong consistency. Similarly, for John's subscales, Curiosity ( $\alpha = 0.84$ ) demonstrated strong reliability, Emotional Engagement ( $\alpha = 0.71$ ) showed moderate consistency, Unrealism ( $\alpha = 0.65$ ) indicated moderate reliability, and Presence ( $\alpha = 0.83$ ) demonstrated strong consistency. While the Unrealism subscale for John demonstrated a slightly lower Cronbach's alpha (0.65), it was retained in the analyses due to its theoretical relevance and because Cronbach's alpha values between 0.60 and 0.70 are considered acceptable for exploratory research (Taber,

2018). Furthermore, this subscale provided unique insights into participants' perceptions of narrative believability, aligning with the exploratory nature of the NES inclusion.

These findings suggest that the scales provided reliable measures of the constructs, supporting their validity for the analyses conducted.

**Ambivalence Towards Men Inventory (AMI).** The AMI (Glick & Fiske, 1999) was included to assess participants' sexist beliefs about men, encompassing both hostile and benevolent sexism. The inventory consists of 20 Likert-scale items. Example items include: "Men are primarily useful to provide financial security" (benevolent sexism) and "Men act like children and need to be disciplined" (hostile sexism). Participants responded on a 6-point scale ranging from "strongly disagree" to "strongly agree." The Hostility subscale demonstrated strong internal consistency ( $\alpha = 0.86$ ). Similarly, the Benevolence subscale showed strong internal consistency ( $\alpha = 0.91$ ). These values suggest that both subscales provided reliable measures of hostile and benevolent attitudes towards men.

### *Sims 4 Software*

The Sims 4 (Electronic Arts, Redwood City, CA) was utilized as the platform for avatar creation. Participants were instructed to use the "Create a Sim" mode exclusively, focusing on designing male avatars in response to the narratives they read. The game was installed on either laptops or desktop computers provided to participants. Participants were given 15 minutes per avatar to complete the customization. In Figure 1, you can see the customizable features used in this experiment, including clothing style, physical attributes, and personality traits.



## Figure 1

### *Customizable features in Sims 4*



*Note.* This figure demonstrates three customizable features during the avatar creation procedure. The first feature (left) allows the participant to change facial features, including hair, skin tone, and accessories. The second feature (middle) allows the participant to change body features, clothes, and accessories. The third feature (right) allows the participant to select character traits for the avatar.

### ***Sexist Avatar Scale (SAS)***

The Sexist Avatar Scale (SAS), inspired by the work of Weegink (2024) and Falkenburg (2024), was adapted to assess the extent to which male avatars reflect traditional masculine norms and sexism towards men. Originally created for female avatars, the SAS was modified using existing literature focused on traditional masculinity and the gendered expectations of men. The scale consists of three components: Traits, Clothing, and Appearance. The Traits component includes characteristics such as ambition, confidence, and aggressiveness, which are commonly associated with traditional masculine ideals and sexism towards men, reflecting how masculinity is often culturally defined (Bem, 1974; Mahalik et al., 2003). The Clothing component includes items like suits, button shirts, and athletic wear, which are linked to masculine roles and authority (Mahalik et al., 2003). The Appearance

component includes features such as a muscular build, facial hair, and body hair, which are often perceived as markers of masculinity and dominance, contributing to societal expectations of men (Dixson & Brooks, 2013; Penton-Voak & Chang, 2001). To quantify the results of the avatar creation a point system has been chosen, based on certain traits, clothing descriptions or general appearances, an avatar will receive points. A table with an overview of which descriptions of the avatar will result in a point has been given in Table 2. A full overview of the traits with their frequencies can be found in Appendix B.

**Table 2**

*Traits considered traditionally masculine or stereotypical*

<b>Traits</b>	<b>Clothing</b>	<b>Appearance</b>
Ambitious	Suits	Muscular/athletic build
Confident	Button shirt	Facial Hair
Hot-Headed	Athletic wear	Body hair
Mean	Fitted shirt	Strong jawline
Bro	No jewelry	Tattoos
Genius/smart/rocketscience	Polo shirt	Scars
Active/sporty/fitness	Hoodies	
Handy		

*Note.* Each Avatar containing one of these descriptions received one point on the Sexist

Avatar Scale (SAS).

### ***Informed Consent***

An informed consent form, designed to meet ethical guidelines, was provided at the start of the study. This document outlined the voluntary nature of participation and the general study procedures without disclosing the specific research hypotheses to avoid bias.

### ***Recording and analysis tools***

Microsoft Teams (Version 24335.207.3345.5574; Microsoft Corporation, Redmond, WA) was used to record participants' voices during the think-aloud process and capture their screens while creating avatars in *The Sims 4*. Each device was equipped with a functional microphone for the audio. The study was conducted using laptops or desktop computers capable of running *The Sims 4* and Microsoft Teams simultaneously. Data analysis was performed using R (version 4.2.3; R Core Team, 2024). Qualitative data coding and analysis were carried out with ATLAS.ti (version 25.0.1; ATLAS.ti Scientific Software Development GmbH, 2024).

## **Procedure**

The procedure for the study is illustrated in Figure 2 providing an overview of the key steps. Upon arrival, participants were provided with a laptop or computer equipped with *The Sims 4* software and Microsoft Teams for screen and audio recording. After reviewing and signing the informed consent form, participants proceeded to the experimental tasks.

Participants were randomly assigned to read either the sexist or neutral narrative first. The narratives were presented through Qualtrics on the computer screen. After reading the first narrative, participants were instructed to create a male avatar within 15 minutes based on the narrative they had just read. During this process, they verbalized their reasoning, which was recorded via Microsoft Teams. Researchers prompted participants with follow-up questions such as, "Why did you select this outfit?" or "What led you to choose this body type?"

After completing the first avatar creation task, participants filled out the Narrative Engagement Scale (NES) for the corresponding narrative. The NES measured aspects such as emotional involvement, attentional focus, and narrative presence.

Next, participants read the second narrative (either sexist or neutral depending on the order), created the second avatar, and provided verbal explanations of their choices, again with follow-up prompts from the researcher. Following this second avatar creation, participants answered a single-item question designed to assess their perception of the differences between the two narratives.

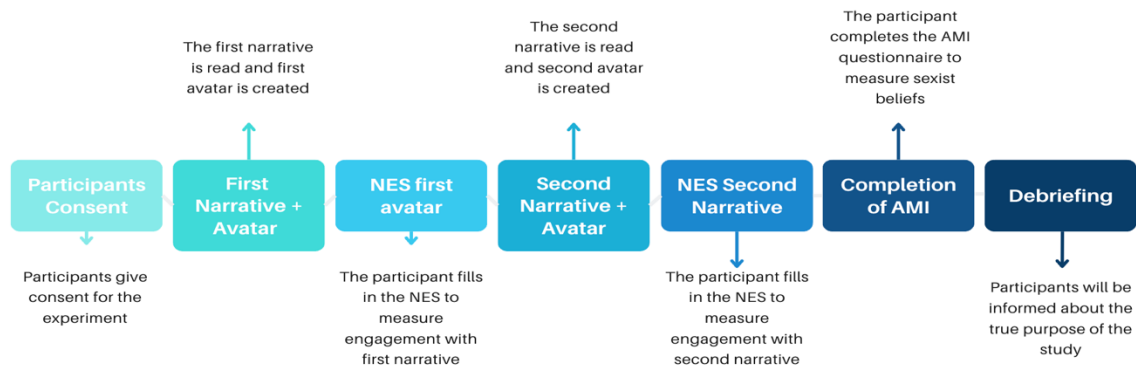
Subsequently, participants completed the second NES and filled out the AMI to assess their sexist beliefs. The AMI contained items measuring hostile and benevolent sexism, such as "Men should provide for their families" (benevolent sexism) and "Men act like children and need to be disciplined" (hostile sexism).

Finally, after all tasks were completed, participants were debriefed about the purpose of the study. Participants were informed that one of the narratives contained subtle sexist elements, while the other was neutral, but they were not told explicitly which narrative was sexist. This choice was deliberate to avoid directly influencing their reflections and to better understand their ability to recognize and respond to these elements without bias.

After the debriefing, participants completed a follow-up questionnaire designed to evaluate their perceptions of the narratives and their influence on avatar creation. The questionnaire included items such as, "Which avatar do you think contained more sexist elements?" and "How did the narratives influence your avatar creation?" Administering this questionnaire after the debriefing ensured participants could reflect on the narratives with a clearer understanding of the study's purpose, while still allowing the research to assess how obvious or subtle they found the sexist elements. This approach helped capture whether and to what extent participants were aware of the narrative differences and how these influenced their design decisions.

## Figure 2

### *Overview of the experiment procedure*



## Data Analysis

### *Quantitative Data Analysis*

The data analysis was performed using R and R Studio, along with necessary packages to conduct statistical tests. Participants who did not provide consent or complete demographic information were excluded from the analysis. Only data from participants who responded to all items in both the AMI and NES were considered for further analysis. The participants' scores on the AMI and NES were scored using a Likert scale. Descriptive statistics, including the mean and standard deviation, were first calculated for each of the questionnaires. For the first hypothesis (H1), paired-sample t-tests were used to compare the SAS scores between avatars created for John, based on the sexist narrative, and Michael, based on the neutral narrative. This analysis tested whether participants created more traditionally masculine avatars after reading the sexist narrative. The second hypothesis (H2) was tested using Pearson's correlations to examine the relationship between participants' scores on the Ambivalence Towards Men Inventory (AMI), including its Benevolence and Hostility subscales, and the SAS scores for avatars created for both John and Michael. For the third

hypothesis (H3), independent samples t-tests were conducted to compare the SAS scores of John's avatars between male and female participants.

### ***Qualitative Data Analysis***

Qualitative data were collected using the think-aloud method during avatar creation for both the sexist and neutral narratives. After transcribing all audio recordings, the researcher familiarized themselves with the data by reading through the responses. An inductive coding scheme was then developed to categorize participants' reasons for their avatar choices in relation to the narrative. Qualitative content analysis was chosen for its flexibility, as it accommodates both inductive and deductive reasoning (Mayring, 2015). The coding process began with identifying meaningful segments and categorizing the data into relevant themes. The codebook was refined through multiple revisions, with adjustments made based on expert feedback. After finalizing the codebook, the data were re-coded, and the frequency of each code was calculated.

### **Mixed Methods Data Analysis**

Quantitative results from the AMI, NES, and SAS scores were integrated with qualitative data from avatar creation. Pearson correlations were performed to assess the relationship between participants' scores on the AMI, NES, and the SAS. The avatars were analyzed based on specific traits such as clothing, body type, and personality. Based on the SAS, avatars were assigned points corresponding to masculine traits, which were then used for further analysis. This approach allowed for a deeper understanding of the connection between sexist beliefs and avatar creation, combining both qualitative and quantitative findings.

## **Results**

## Preliminary Analysis

All 40 participants were included in the analyses, and no data were excluded. Outliers were inspected using both statistical methods (z-scores for extreme values) and interquartile range (IQR) analysis across the questionnaire scores (AMI and NES). The questionnaires were also manually checked for flatlining, but no such cases were found. Task completion times and avatar designs were reviewed to ensure participant engagement and adherence to instructions. No data were deemed invalid, and all responses were retained for analysis.

To assess whether the manipulation was successful, two manipulation checks were conducted. First, participants rated the perceived difference between the two narratives on a 5-point Likert scale. A one-sample *t*-test was conducted to determine whether the mean perceived difference exceeded the midpoint value of 3 (moderate difference). Results indicated that participants perceived a subtle but significant difference between the narratives, with a mean rating of 3.5 ( $SD = 0.99$ ),  $t(39) = 3.20$ ,  $p = .001$ ,  $d = 0.51$ . This result aligns with the study's intention for the manipulation to be subtle yet noticeable enough to influence subsequent tasks.

Second, after debriefing, participants were asked to indicate which narrative they perceived as more sexist (John, Michael, both, or not sure). A chi-square goodness-of-fit test was conducted to examine whether participants disproportionately identified John as the more sexist narrative. Results revealed a significant deviation from equal proportions,  $\chi^2(2) = 57.95$ ,  $p < .001$ , with the majority of participants selecting John. Specifically, 90% of participants identified John as the more sexist narrative, 2.5% identified Michael, and 7.5% believed both narratives were equally sexist.

It is important to note that this explicit recognition occurred after participants were made aware of the study's context during debriefing, suggesting that the manipulation was not consciously obvious during the main task. For example, while creating avatars, participants attributed stereotypically masculine traits to John without explicitly identifying the narrative as sexist

### **Narrative Engagement Scale**

Since a significant part of this study relied on reading and understanding the narratives, a questionnaire was administered to measure the extent to which participants were engaged with the narratives. The Narrative Engagement Scale (NES), consisting of 12 items rated on a 1 to 7 Likert scale (where 1 represents 'Strongly Disagree' and 7 represents 'Strongly Agree'), was used to assess various aspects of narrative engagement. These items were grouped into four subscales: Propensity for Presence, Emotional Engageability, Propensity for Suspense/Curiosity, and Ease of Accepting Unrealism (Bilandzic et al., 2019). The aim of administering the NES was to ensure that the scale measured the intended constructs of narrative engagement and that participants interpreted and responded to these items in a manner consistent with the theoretical framework.

A factor analysis was conducted on the NES items for both Michael's and John's narratives. The factor analysis revealed four factors, each with a sum of squared loadings greater than 1, suggesting that all four factors should be retained. The cumulative variance explained by these four factors was 69.2% for John's NES items and 67.8% for Michael's NES items, indicating that the factors explained a significant portion of the variability in participants' NES responses. A full overview of the explained variances for each of the four factors can be seen in Table 3. The results from the chi-square test for the hypothesis that four factors are sufficient to explain the data were non-significant for both Michael's ( $p = 0.113$ )



and John's ( $p = 0.886$ ) data, confirming that the four-factor model is appropriate.

**Table 3**

*Factor Loadings and Variance Explained for Michael and John NES*

<b>Factor</b>	<b>SS Loadings (Michael)</b>	<b>SS Loadings (John)</b>	<b>Proportion Var (Michael)</b>	<b>Proportion Var (John)</b>	<b>Cumulative Var (Michael)</b>	<b>Cumulative Var (John)</b>
Propensity for suspense/curiosity	1.7754	0.7564	0.3426	0.0989	0.3426	0.0989
Emotional engageability	0.6195	0.5612	0.0790	0.0557	0.1462	0.3392
Ease of accepting unrealism	1.5493	0.8363	0.6129	0.1256	0.9929	0.1678
Propensity for presence	0.4712	0.2997	0.0762	0.0206	1.0000	1.0000

*Note.* SS Loadings = Sum of Squared Loadings; Proportion Var = Proportion of Variance Explained; Cumulative Var = Cumulative Variance Explained.

Cronbach's alpha was calculated for both Michael's and John's NES scores to assess the internal consistency of the NES items. The results indicated good internal reliability, with Cronbach's alpha of 0.88 for both Michael's and John's NES items. This suggests that the NES items consistently measure the construct of narrative engagement. The reliability remained stable when individual items were removed, with Cronbach's alpha values ranging from 0.73 to 0.79, further supporting the consistency and reliability of the NES.

To assess the normality of the average NES scores for both Michael's and John's narratives, a Shapiro-Wilk test was performed. The test revealed that Michael's average NES scores were not normally distributed ( $p = 0.042$ ), indicating that the data for Michael's NES

scores are slightly negatively skewed. Therefore, parametric tests that assume normality may not be appropriate for further analysis of Michael's data. In contrast, John's average NES scores were found to be normally distributed ( $p = 0.159$ ), suggesting that John's scores follow a normal distribution and can be analyzed using parametric tests.

Given that Michael's scores were not normally distributed, the Wilcoxon signed-rank test was employed to compare the engagement levels between Michael's and John's narratives. The results showed that there was no significant difference between Michael's and John's average NES scores ( $V = 470.5$ ,  $p = 0.149$ ). This indicates that the level of engagement with Michael's narrative was similar to that with John's, suggesting comparable engagement levels across both narratives.

Finally, descriptive statistics were calculated for the average NES scores. The mean NES score for Michael  $M = 5.01$  ( $SD = 0.94$ ), and for John, the mean score was  $M = 4.89$  ( $SD = 0.92$ ), suggesting that participants were moderately engaged with both narratives. Detailed descriptive statistics, including means, standard deviations, minimum, and maximum scores for each subscale, are presented in Table 4. Paired t-tests, summarized in Table 5, showed no significant differences between Michael and John for curiosity, emotional engagement, unrealism, or presence. A distribution of the overall NES mean scores for both narratives can be seen in Figure 3, while Figure 4 provides an overview of the distribution of mean scores for the four NES subscales across both narratives. These findings suggest that participants engaged similarly with both narratives across all measured subscales.

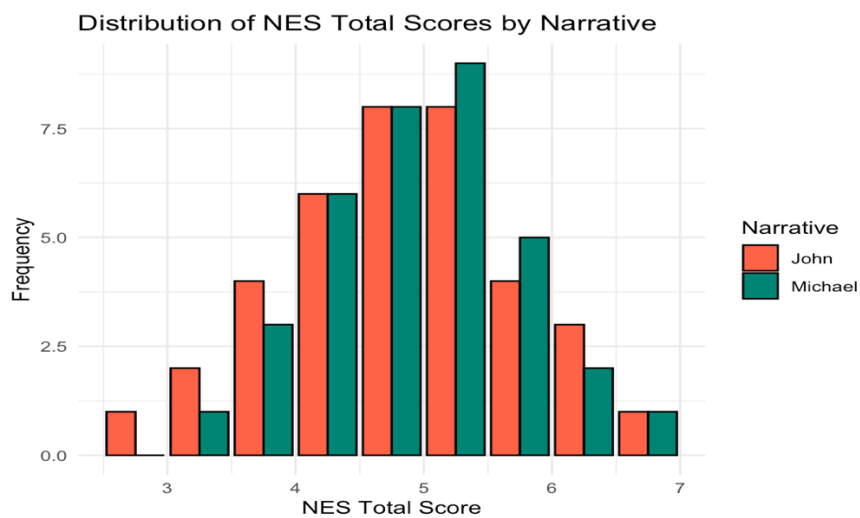
In conclusion, the analysis suggests that both narratives elicited comparable levels of engagement among participants, as indicated by the non-significant differences in NES scores and the consistency of responses across subscales.

**Table 4***Descriptive statistics of the NES*

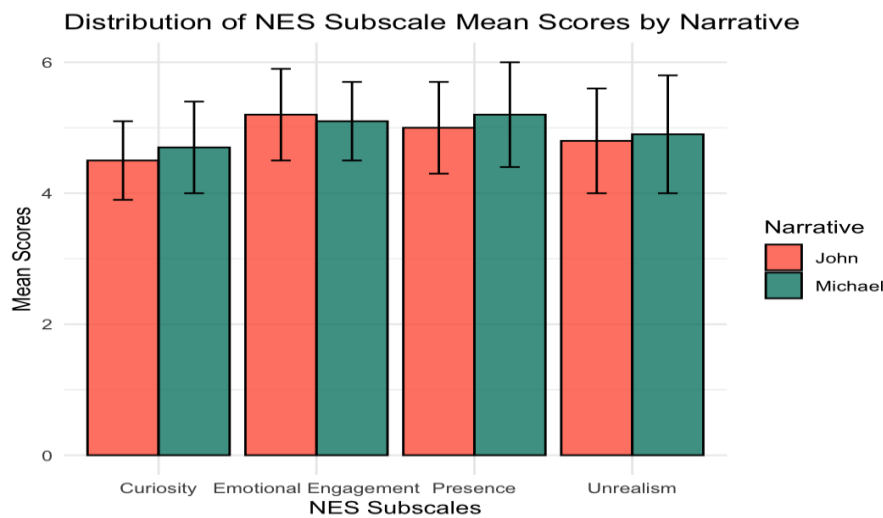
<b>Narrative</b>	<b>Mean (<i>M</i>)</b>	<b>Standard Deviation (<i>SD</i>)</b>	<b>Minimum</b>	<b>Maximum</b>
Michael	5.01	0.94	2.92	6.42
John	4.89	0.92	2.67	6.83

**Table 5***Paired t-test results comparing NES subscale scores between Michael and John*

<b>Subscale</b>	<b>Michael (<i>M, SD</i>)</b>	<b>John (<i>M, SD</i>)</b>	<b><i>t</i>-Value</b>	<b><i>p</i>-Value</b>	<b>Effect Size (<i>d</i>)</b>
Curiosity	5.10 (0.85)	4.95 (0.88)	1.82	.075	0.29
Emotional	4.95 (0.90)	5.25 (0.87)	2.45	.019	0.39
Unrealism	5.00 (0.88)	5.03 (0.85)	0.32	.748	0.05
Presence	4.92 (0.89)	4.80 (0.90)	1.12	.270	0.18

**Figure 3***Distribution of the total Narrative Engagement mean Scores***Figure 4**

*Distribution of the total Narrative Engagement subscale Mean Scores for John*



**Ambivalence towards Men Inventory**

The final part of the research involved a questionnaire designed to measure sexism in participants, specifically using the AMI. The questionnaire consisted of 20 items, answered on a Likert scale from 1 to 6. The items were split into two subscales: 10 items dealing with hostile sexism and 10 items dealing with benevolent sexism. Higher scores on this questionnaire indicate greater adherence to sexist beliefs (Glick & Fiske, 1999).

To begin, a Shapiro-Wilk normality test was conducted to assess the distribution of the data. The results indicated that the data for the total AMI score, as well as the individual subscales (hostility and benevolence), did not significantly deviate from a normal distribution, with p-values of 0.89 for the total score, 0.14 for hostility, and 0.12 for benevolence. This suggests that the data for all variables met the assumption of normality, and parametric tests could be used for subsequent analyses.

Next, a factor analysis was performed to assess whether the two subscales of the AMI: hostile sexism and benevolent sexism, were appropriately implemented and tested. The purpose of this analysis was to determine whether the AMI effectively measured the constructs of hostile and benevolent sexism as intended by its theoretical framework. Since

the data was found to be normally distributed, the results of the factor analysis were considered valid for further interpretation.

The factor analysis revealed that two factors emerged: one for hostile sexism and one for benevolent sexism. Both factors had a sum of squared loadings greater than 1, indicating that each factor explained a meaningful portion of the variance. Following Kaiser's criterion, both factors were retained for interpretation. Additionally, the cumulative variance explained by these two factors was 69.2%, suggesting that a substantial proportion of the variance in participants' responses was accounted for by the two subscales. A full overview of the explained variances can be found in Table 6. These results confirm that the AMI items are grouped according to their theoretical subscales, supporting the validity of the AMI in measuring both hostile and benevolent sexism.

**Table 6**

*Factor Loadings and Variance Explained*

<b>Factor</b>	<b>SS Loadings</b>	<b>Proportion Variance</b>	<b>Cumulative Variance</b>
Hostile Sexism	6.720	0.336	0.336
Benevolent Sexism	5.115	0.511	0.847

*Note.* SS Loadings = Sum of Squared Loadings; Proportion Variance = Proportion of Variance Explained; Cumulative Variance = Cumulative Variance Explained.

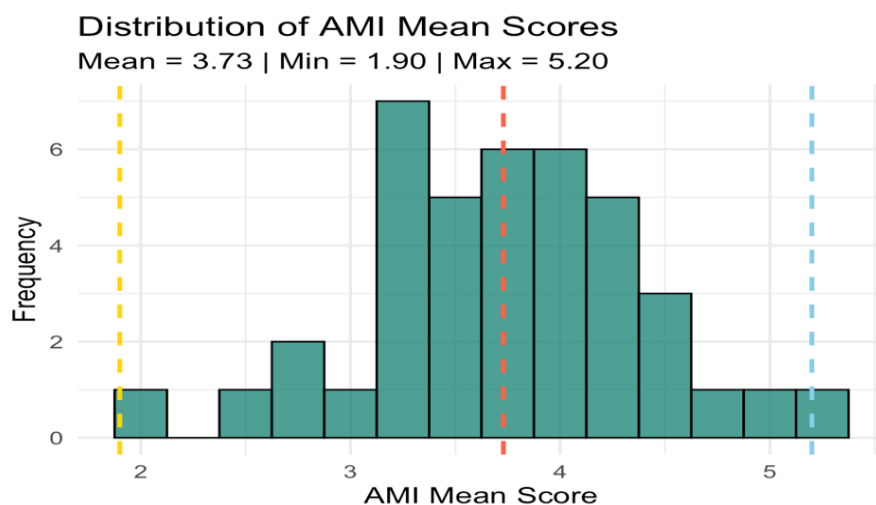
Additionally, the p-value from the hypothesis test, which tested whether the specified number of factors (in this case, two) was sufficient to capture the full dimensionality of the data, was non-significant ( $p = 0.186$ ). This suggests that the null hypothesis cannot be rejected, indicating that the two-factor model is appropriate and adequately captures the structure of the data.

Finally, the internal consistency of the AMI items was assessed using Cronbach's alpha. The Cronbach's alpha was found to be 0.91, which demonstrates excellent internal consistency. This suggests that the items of the AMI are highly interrelated and consistently measure the underlying constructs of the scale. Additionally, Cronbach's alpha remained stable when analyzing the consequences of dropping individual items, with values ranging from 0.88 to 0.91, further confirming the reliability of the scale.

The results of the study indicate that the overall mean score for the AMI across all participants was 3.73 ( $SD = 0.65$ ), suggesting that participants reported moderate levels of sexism on average. For the hostility subscale, the mean score was 4.21 ( $SD = 0.93$ ), while for the benevolence subscale, the mean score was 3.25 ( $SD = 1.21$ ). Figure 5 shows a distribution of the total AMI mean scores and figure 6 the distribution of mean scores across subscales of the AMI. Table 7 shows the overall statistics, statistics by gender, and statistics by ethnicity of the AMI mean scores.

### Figure 5

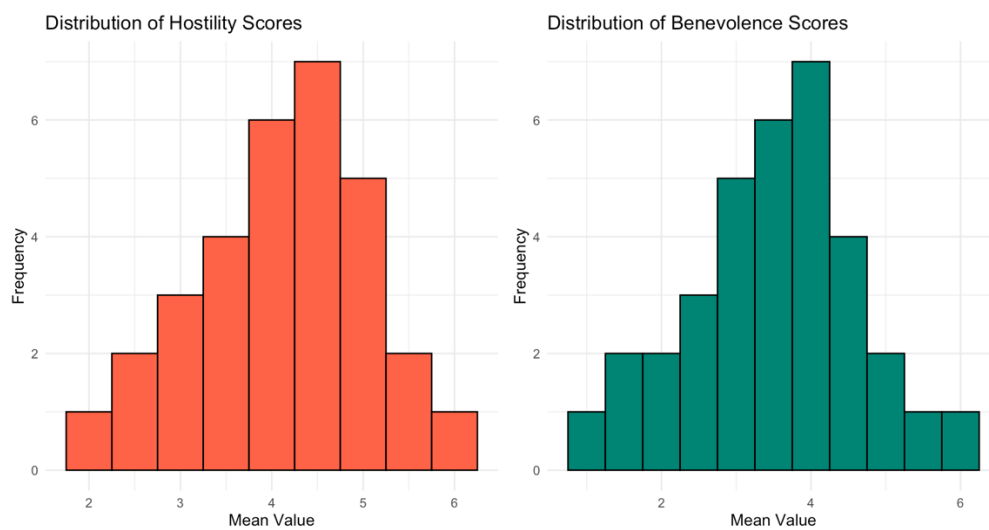
*Distribution of the Total Ambivalence Towards Men Inventory Mean Scores*



*Note.* The yellow line indicates the minimum score, the red line the overall mean and the blue line the maximum score.

**Figure 6**

*Distribution of the total Ambivalent sexism inventory subscale mean scores*



**Table 7**

*Descriptive Statistics for Ambivalence Toward Men Inventory (AMI) Overall, by Gender, and by Ethnicity*

Metric	Overall Mean (SD)	Male Mean	Female Mean	African Ethnicity Mean	Asian Ethnicity Mean	Middle Eastern Ethnicity Mean	White Ethnicity Mean
<b>AMI</b>	3.73 (0.65)	3.74	3.72	3.82	4.45	4.09	3.37
<b>Hostility</b>	4.21 (0.93)	3.59	4.54	3.95	4.50	4.18	4.24
<b>Benevolence</b>	3.25 (1.21)	3.89	2.90	3.70	4.40	4.01	2.50

*Note.* SD = Standard Deviation. AMI measures participants' ambivalence toward men on a scale from 1 (low) to 6 (high). Hostility and Benevolence are subscales of the AMI. Gender and ethnicity categories were self-reported by participants.

When examining the AMI scores by gender, an independent-samples t-test was conducted to compare the AMI total scores and subscales (hostility and benevolence) across genders. Male participants ( $n = 16$ ) had a mean total AMI score ( $M = 3.74$ ,  $SD = 0.91$ ), which was not significantly different from that of female participants ( $n = 24$ ;  $M = 3.72$ ,  $SD = 0.88$ ),  $t(28.75) = 0.10$ ,  $p = .92$ ,  $d = 0.02$ . However, for the hostility subscale, males scored significantly lower ( $M = 3.59$ ,  $SD = 0.85$ ) than females ( $M = 4.54$ ,  $SD = 0.81$ ),  $t(25.58) = -3.40$ ,  $p = .002$ ,  $d = 1.12$ . In contrast, for the benevolence subscale, males scored significantly higher ( $M = 3.89$ ,  $SD = 1.21$ ) than females ( $M = 2.90$ ,  $SD = 1.07$ ),  $t(24.12) = 2.57$ ,  $p = .017$ ,  $d = 0.87$ . These findings provide additional context regarding gender differences in sexism toward men, but they are not the focus of this study.

## **Qualitative results**

This section explains the codes used in the analysis, grouped under four themes: Appearance, Personality, Vibe, and Comparison. Each theme is discussed with illustrative quotes. A comprehensive overview of all codes, their explanations, quotes, and frequencies are available in Appendix C.

### **Appearance**

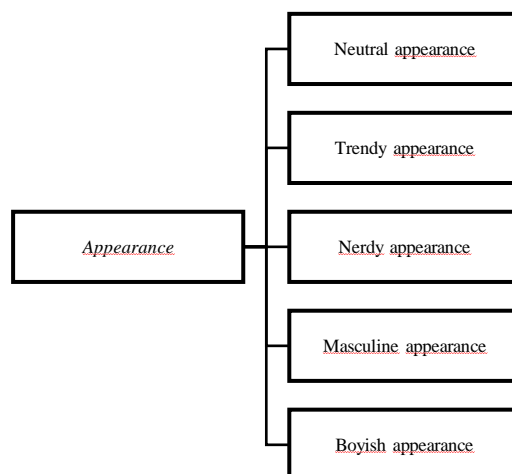
The theme of Appearance focuses on participants' descriptions of the avatars' physical features, including references to stereotypical attributes. The categories within this theme are neutral appearance, trendy appearance, nerdy appearance, masculine appearance, and boyish appearance. Neutral appearance captures avatars described as average or ordinary, without distinctive traits, such as, "Not too slim, not too bulky, just someone who looks like a regular guy." Trendy appearance refers to avatars imagined as fashionable or stylish, with participants associating them with modern trends, as reflected in the statement, "I imagine him wearing



baggy clothes, maybe something trendy, like a fashion influencer.” Nerdy appearance includes avatars linked to intellectual or introverted traits, often characterized by glasses and neat clothing. One participant remarked, “He looks like someone who spends a lot of time in the library, maybe also a bit shy and awkward.” Masculine appearance includes descriptions of muscularity and broad shoulders, reflecting traditional masculinity. For instance, one participant noted, “I think he’s very muscular, like someone who goes to the gym regularly.” Boyish appearance captures youthful traits like soft features and a lack of facial hair, as illustrated by the comment, “He has a very boyish look, like no beard and soft features, not really masculine.” Together, these categories provide insight into how participants interpreted the narratives and how these influenced their perceptions of the avatars’ physical traits. An overview of the codes in the theme appearance can be found in figure 7.

### Figure 7

*A Visualization of the Codes in the Theme Appearance*

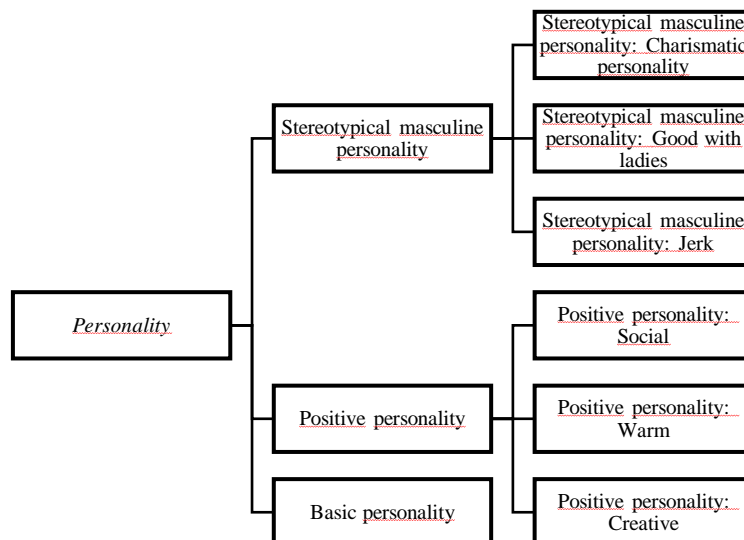


### Personality

The Personality theme captures the character traits participants attributed to the avatars, often informed by narrative cues. The categories identified within this theme are stereotypical masculine personality, positive personality, and basic personality. Stereotypical masculine personality includes traits traditionally associated with masculinity, such as charisma, confidence, and social dominance. For example, one participant described the avatar as “very confident because he knows he looks good.” Participants also described avatars as “good with ladies,” emphasizing traits like charm and flirting skills, as well as negatively, as a “jerk,” reflecting arrogance or rudeness. Positive personality encompasses traits viewed as socially or emotionally favorable, including social qualities, warmth, and creativity. One participant noted, “He seems like someone who’s always cracking jokes and making people feel comfortable,” while another commented, “He gives off a warm vibe, like he genuinely cares about people.” Creativity was also highlighted, with one participant describing an avatar as “someone who’s into art or writing.” Basic personality reflects avatars perceived as unremarkable or generic, with one participant explaining, “He’s just kind of a regular guy, nothing stands out about him in terms of personality.” These descriptions reveal how participants perceived the avatars’ personalities based on narrative framing. Figure 8 shows a visualization of the codes in the theme of Personality.

### **Figure 8**

*A Visualization of the Codes in the Theme Personality*



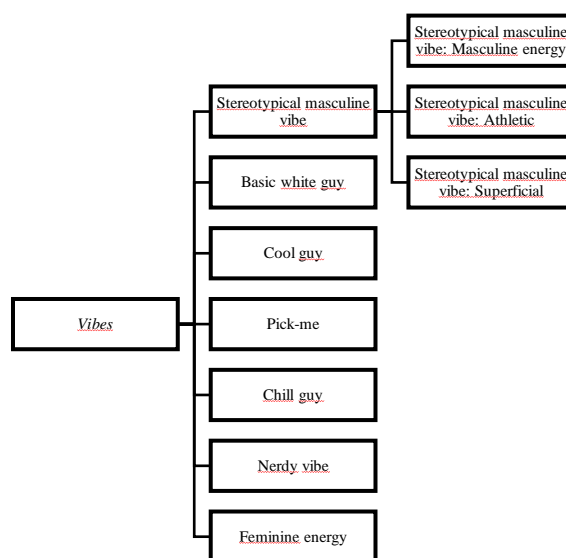
## Vibes

The Vibes theme captures participants' overall impressions of the avatars, focusing on their energy or social presence. Categories within this theme include stereotypical masculine vibe, basic white guy, cool guy, pick-me, chill guy, nerdy vibe, and feminine energy. Stereotypical masculine vibe reflects confidence and dominance, with participants describing avatars as the kind of person who “always takes charge.” Basic white guy captures avatars seen as generic or unremarkable, described as “just a regular white guy, nothing special or unique.” Cool guy refers to avatars perceived as socially appealing and admired, such as one who “gives off this vibe of being popular but not in an arrogant way.” Pick-me captures avatars perceived as seeking attention or validation, often through behaviors designed to stand out, as described by a participant who said, “He’s trying too hard to be liked.” Chill guy reflects a laid-back and easygoing demeanor, described as “really relaxed, like the kind of guy who just goes with the flow.” Nerdy vibe includes avatars associated with intellectual or introverted energy, such as one described as “the quiet guy who’s really into his hobbies.”

Finally, feminine energy reflects avatars exuding traits traditionally associated with femininity, such as gentleness and nurturing, with one participant describing an avatar as someone who “has a softer side, like someone who’s very in touch with their emotions.” In figure 9, a visualization of the codes in the theme Vibes is shown.

### Figure 9

*A Visualisation of the Codes in the Theme Vibes*



### Comparison

The Comparison theme captures how participants contextualized the avatars by drawing parallels to other characters or concepts. This includes three categories: comparison with the other avatar, reference to real life, and reference to shows, movies, or celebrities.

Participants often contrasted the avatars, highlighting differences in traits or vibe, such as, “Michael feels more approachable, while John is intimidating.” References to real life involved associations with familiar people or archetypes, such as, “He reminds me of a guy

from high school trying to act tough.” Additionally, participants linked avatars to media figures, noting similarities to characters from movies or celebrities, as in, “He’s like a popular guy from those college movies.” In figure 10, the comparison between this participant’s creation of John and a “popular college guy from movies” is displayed. Furthermore, an overview of all codes with explanations, quotes and frequencies can be found in Appendix C.

### Figure 10

*Comparison of John’s Avatar and a College Archetype from Riverdale*



*Note.* The comparison is made between the participant’s creation of John and Archie Andrews, portrayed by KJ Apa in the TV show *Riverdale*. Archie is also depicted as a college-aged character, aligning with the "popular college guy" archetype.

### Results of the Codes

This section presents the results of hypothesis-driven and exploratory analyses, examining differences in how participants applied various codes to John’s and Michael’s

avatars across the themes: Vibes, Appearance and Personality. Chi-square tests were used to determine whether these differences were statistically significant.

To explore how the narratives influenced participants during the creation of avatars, we examined several codes that highlight key differences between John's and Michael's avatars. John's narrative contained items reflecting stereotypically masculine and potentially sexist attributes, whereas Michael's narrative presented a neutral counterpart. These differences were intentionally subtle to encourage participants to interpret the stories and project their perceptions onto the avatars. Participants' interpretations revealed distinct patterns in the coding process, as summarized below.

The first category analyzed was the *Vibes* theme, which captures participants' perceptions of the avatar's general atmosphere or energy. The code *Stereotypical Masculine Vibe* includes attributes such as "masculine energy" and "athleticism," reflecting traits typically associated with traditional masculinity. This code was significantly more likely to be applied to John's avatar, as shown by the chi-square test,  $\chi^2(1, N = 100) = 18.46, p < .001$ , indicating that participants more frequently attributed stereotypical masculine traits to John. This analysis aligns with the hypothesis that participants would design avatars with more traditional masculine traits after reading the sexist narrative. Similarly, the code *Pick-Me*, representing individuals who seek validation in a performative manner, was also significantly associated with John,  $\chi^2(1, N = 100) = 9.00, p = .003$ . In contrast, Michael's avatar was more often associated with *Nerdy Vibe*, emphasizing traits like intellectual or introverted energy,  $\chi^2(1, N = 100) = 19.20, p < .001$ . Table 8 shows the frequencies and Chi-Square test results for codes in the theme of Vibes.

### **Table 8**

*Frequencies and Chi-Square Test Results for Codes in the Theme of Vibe*

<b>Code</b>	<b>John</b>	<b>Michael</b>	<b>Chi<sup>2</sup></b>	<b>p-value</b>
Stereotypical Masculine Vibe	46	13	18.46	< 0.01
Basic White Guy	0	18	18.00	< 0.01
Pick-Me	14	2	9.00	< 0.01
Nerdy Vibe	3	27	19.20	< 0.01

*Note.* All codes had the same DF of 1.

To further explore the theme of vibes, the code *Feminine Energy* was analyzed. This code represents traits typically associated with a softer, nurturing, or traditionally feminine presence. The analysis revealed that this code was exclusively applied to Michael's avatars, with no instances recorded for John. Although the chi-square test for this code indicated some association with Michael's avatar,  $\chi^2(1, N = 100) = 5.00$ ,  $p = .025$ , the result did not meet the stricter threshold for significance ( $p < .01$ ) used in this study. Nevertheless, the exclusive attribution of *Feminine Energy* to Michael underscores the distinct ways in which participants perceived and depicted the avatars, potentially reflecting the influence of the neutral narrative in shaping a less traditionally masculine portrayal.

In the *Appearance* theme, *Masculine Appearance* stood out as a code strongly linked to John. This code includes characteristics like physical robustness or features aligned with traditional male aesthetics. The chi-square test,  $\chi^2(1, N = 100) = 55.68$ ,  $p < .001$ , confirmed that John's avatar was significantly more likely to be described using this code. This supports the hypothesis that the sexist narrative encouraged participants to design avatars with more stereotypical masculine traits. Meanwhile, *Neutral Appearance*, indicating a lack of distinctive or strong features, was more frequently applied to Michael,  $\chi^2(1, N = 100) = 19.70$ ,  $p < .001$ . Table 9 shows the frequencies and Chi-Square test results for codes in the theme of

Appearance.

**Table 9**

*Frequencies and Chi-Square Test Results for Appearance Codes*

<b>Code</b>	<b>John</b>	<b>Michael</b>	<b>Chi<sup>2</sup></b>	<b>p-value</b>
Neutral Appearance	5	32	19.70	< 0.01
Boyish Appearance	5	11	2.25	0.13
Nerdy Appearance	0	17	17.00	< 0.01
Masculine Appearance	79	9	55.68	< 0.01

*Note:* All codes had the same DF of 1.

The *Personality* theme provided additional insights into how the narratives shaped avatar creation. The code *Positive Personality*, which includes traits like “social” and “warm,” was significantly more associated with Michael’s avatar than John’s,  $\chi^2(1, N = 100) = 28.48, p < .001$ . On the other hand, John was significantly more likely to be described with *Stereotypical Masculine Personality*, characterized by traits such as assertiveness, dominance, and strength,  $\chi^2(1, N = 100) = 18.46, p < .001$ . These results support the hypothesis (H1) that participants will create avatars with more traditional masculine traits after reading the sexist narrative compared to when reading the neutral narrative. Table 10 shows the frequencies and Chi-Square test results for codes in the theme of Personality.

**Table 10**

*Frequencies and Chi-Square Test Results for Personality Codes*

<b>Code</b>	<b>John</b>	<b>Michael</b>	<b>Chi<sup>2</sup></b>	<b>p-value</b>
Stereotypical Masculine Personality	105	26	18.46	< 0.01



Code	John	Michael	Chi <sup>2</sup>	p-value
Basic Personality	1	13	10.29	< 0.01
Positive Personality	55	127	28.48	< 0.01

*Note.* All codes had the same DF of 1.

These results suggest that the narrative context influenced participants' perceptions and subsequent avatar designs, with John being more aligned with stereotypical masculinity and Michael being perceived as more neutral or socially positive. This supports the hypothesis that participants will create avatars with more traditional masculine traits after reading the sexist narratives compared to when reading the neutral narrative.

### **Quantitative Results**

For this study, three hypotheses were formulated to examine how sexist narratives in video games influence players' perceptions and representations of gender, and how these perceptions impact avatar customization choices. In this section, the hypotheses will be tested.

**H1: Participants will create avatars with more traditional masculine traits after reading the sexist narratives compared to when reading the neutral narrative.**

During the creation of the avatars, participants had a wide choice of customizable clothing styles or character traits. The choices participants made in this process give a picture of how the participant formed an image of the avatar using a narrative that explains a fictional roleplaying game. By looking at the different choices made by the participants, we can gain a better understanding of how the narratives influenced the participants. A key comparison was made between the avatars created for Michael and John, allowing us to explore how the

narratives impacted their creation process. To quantify the results of avatar creation and test the first hypothesis, avatars were scored on the SAS.

The mean SAS score for Michael's avatars was recorded to be 3.4 (SD = 1.92), while the mean SAS score for John's avatars was 6.15 (SD = 1.31). A paired sample t-test was conducted to compare the SAS scores of Michael and John. The analysis revealed a significant difference between the two conditions,  $t(39) = -6.90$ ,  $p < 0.01$ . The mean difference between the SAS scores for Michael and John was -2.75, with a 95% confidence interval ranging from -3.56 to -1.94.

These results suggest that the avatars created for John were significantly more stereotypically masculine than those created for Michael, demonstrating that the narrative had a notable effect on the participants' avatar creation, thus, hypotheses 1 is supported. Figure 11 displays examples of avatar creations by participants, highlighting the notable differences between John and Michael.

### **Figure 11**

*Example Avatar Creations of John and Michael*



**H2: Participants with higher scores on the AMI will be more likely to design avatars that align with stereotypical masculine traits regardless of the narrative.**

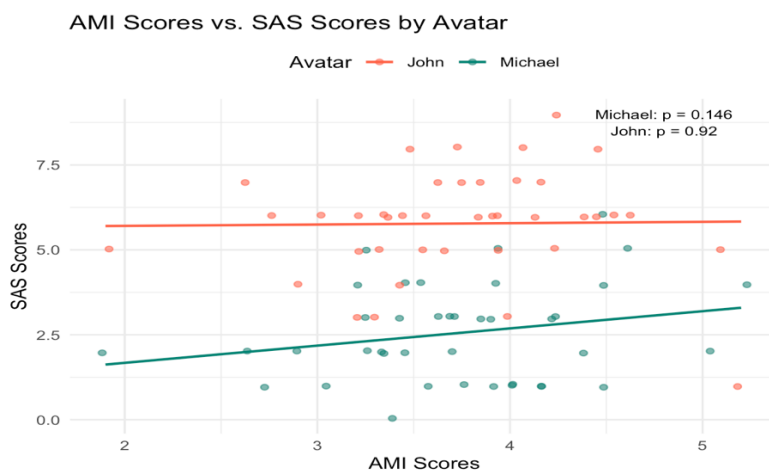
To test the second hypothesis, Pearson correlations were conducted to measure the relationship between the AMI mean scores and the SAS scores for both Michael and John. While the primary focus of this hypothesis is on the overall AMI score, it is also important to examine its subscales (Benevolence and Hostility) to understand the distinct dimensions of ambivalence towards men and their relationship with sexist adaptations in avatar creation.

For the overall AMI score, a weak positive correlation was found with Michael's SAS scores, with a correlation coefficient of  $r(39) = 0.23$ , which was not statistically significant ( $t = 1.48, p = 0.146$ ). The 95% confidence interval for the correlation coefficient ranged from -0.08 to 0.51, suggesting that there is a slight positive relationship, but it is not strong enough to be considered statistically significant. For John's SAS scores, the correlation was even

weaker ( $r(39) = 0.02$ ) and not statistically significant ( $t = 0.10$ ,  $p = 0.92$ ). The 95% confidence interval for the correlation coefficient ranged from -0.30 to 0.33, further supporting the absence of a meaningful relationship between the overall AMI scores and SAS scores for John. A scatterplot between the AMI and the SAS scores for both Michael and John can be seen in figure 12.

## Figure 12

*Scatterplot between the mean AMI and the SAS scores for both Michael and John*



*Note.* Each point represents a participant's AMI score and corresponding SAS value. The trend lines show the general direction of the relationship between AMI scores and SAS for each group.

For the Benevolence subscale of the AMI, a weak positive correlation was found with Michael's SAS scores. The correlation coefficient was  $r(39) = 0.32$ , which was statistically significant ( $t = 2.09$ ,  $p = 0.0437$ ), with a 95% confidence interval for the correlation coefficient ranging from 0.01 to 0.57. This indicates a weak but significant positive relationship between Benevolence and Michael's SAS scores. For John, however, the

correlation was very weak ( $r(39) = 0.08$ ) and not statistically significant ( $t = 0.48$ ,  $p = 0.634$ ), with a 95% confidence interval ranging from -0.24 to 0.38, suggesting no meaningful relationship between Benevolence and John's SAS scores.

For the Hostility subscale of the AMI, very weak negative correlations were found with the SAS scores for both Michael and John. For Michael, the correlation coefficient was  $r(39) = -0.09$ , which was not statistically significant ( $t = -0.54$ ,  $p = 0.595$ ), with a 95% confidence interval ranging from -0.39 to 0.23. Similarly, for John, the correlation coefficient was  $r(39) = -0.08$ , and the correlation was also not statistically significant ( $t = -0.48$ ,  $p = 0.636$ ), with a 95% confidence interval ranging from -0.38 to 0.24. These results indicate that Hostility scores were not significantly associated with SAS scores for either participant.

From these results it can be concluded that hypothesis 2 must be rejected for the overall AMI scores, as no significant correlation was found between AMI scores and the creation of avatars with stereotypical masculine traits for either narrative. Similarly, no significant correlation was observed for the Hostility subscale and SAS scores, further rejecting H2. However, a significant positive correlation was found for the Benevolence subscale and Michael's SAS scores, indicating that higher Benevolence scores were associated with more traditional masculine traits for the neutral narrative. While this finding is noteworthy, it does not fully support Hypothesis 2, as the relationship was not consistent across narratives or subscales. Therefore, H2 is rejected overall.

### **H3: Male participants will create more stereotypically masculine avatars after reading the sexist narrative than female participants.**

To test the third hypothesis that male participants would create more traditionally masculine avatars after reading the sexist narrative, an independent samples t-test was

conducted to compare the SAS (Sexist Avatar Scale) scores for John between male and female participants. The SAS scores served as the dependent variable, and gender was the grouping variable.

The results of the t-test revealed no statistically significant difference in SAS scores between male ( $M = 5.79$ ,  $SD = 1.20$ ) and female participants ( $M = 5.69$ ,  $SD = 1.35$ ) for John,  $t(18.78) = -0.15$ ,  $p = .88$ , 95% CI [-1.38, 1.19]. These findings indicate that males did not create more traditionally masculine avatars for John than females did after reading the sexist narrative. Therefore, hypothesis 3 that male participants would create more stereotypically masculine avatars for John after reading the sexist story was not supported.

Interestingly, further analysis of SAS scores for Michael, the neutral narrative character, revealed that male participants tended to create avatars with more traditionally masculine traits for Michael compared to female participants. A Welch two-sample t-test conducted for SAS scores for Michael showed a significant difference between male ( $M = 3.14$ ,  $SD = 1.27$ ) and female participants ( $M = 2.23$ ,  $SD = 1.16$ ),  $t(37.92) = -2.51$ ,  $p = .017$ , 95% CI [-1.65, -0.17]. These findings suggest that male participants applied more traditional masculine stereotypes to the neutral narrative character Michael, potentially reflecting a broader tendency to project masculine traits in the absence of overt narrative cues.

Some examples of descriptions of created avatars are shown in Tables 11 and 12. The examples chosen here for tables 11 and 12 were chosen because they give a good impression of the difference between John and Michael but also the difference between the same avatars, showing that participants also let their own preferences and perceptions influence the creation process. Furthermore, distinction and similarities between the choices of male and female participants can be seen. For a full overview of the descriptions, see Appendix D.

**Table 11***Example avatars - Michael*

<b>Michael</b>	<b>Gender Identity</b>	<b>Sex</b>	<b>AMI mean</b>	<b>NES mean</b>	<b>Traits</b>	<b>Clothing Description</b>	<b>General Appearance</b>	<b>SAS</b>
P1	Female	Female	4.20	5.67	Romantic, clown, bro	Long sleeve, blue pants, sneakers, necklace	Mid length blonde hair, goatee, white skin, skinny	1
P7	Female	Female	4.35	4.17	Worldfriend, talkative, confident, bookworm, fun	Longsleeve, blue pants, sneakers, glasses	Short brown hair, white skin, skinny	2
P26	Male	Male	3.45	5.25	Family-oriented, fun, confident, good	Sweater, blue pants, sneakers	Black short hair, beard, tan skin, skinny	3
P30	Male	Male	3.45	4.75	Smart, confident, artlover, loyal	Sweater, black trousers, casual shoes, watch	Blonde buzzcut, full beard, white skin, muscular	3

*Note.* P1, P7, P26, P30 are the participant numbers. Sexist Avatar Scale (SAS) determine the total of characteristics which were considered stereotyped or sexist.

**Table 12***Example avatars - John*

<b>John</b>	<b>Gender Identity</b>	<b>Sex</b>	<b>AMI mean</b>	<b>NES mean</b>	<b>Traits</b>	<b>Clothing Description</b>	<b>General Appearance</b>	<b>SAS</b>
P1	Female	Female	4.20	5.58	Romantic, Clown, Confident	Black blouse, red tie, black trousers, black loafers	Buzzcut, curly hair, goatee, muscular	7.00

P7	Female	Female	4.35	4.25	Worldfriend, talkative, confident, extravert, ambitious	Black hoodie, black pants, sneakers, earrings	Black curly buzzcut, goatee, brown skin, muscular	6.00
P26	Male	Male	3.45	4.33	Friendly, talkative, fun, ambitious, nerd	Checked blouse, bluejeans, sneakers	Brown short hair, white skin, muscular, body hair	6.00
P30	Male	Male	3.45	4.75	Athletic, fitness, bro, romantic, ambitious	Black shirt, black jeans, boots	Brown short hair, full beard, brown skin, muscular, body hair	7.00

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*Note.* P1, P7, P26, P30 are the participant numbers. Sexist Avatar Scale (SAS) determine the total of characteristics which were considered stereotyped or sexist.

## Discussion

This study examined the influence of narratives portraying both benevolent and hostile sexism towards men on the creation of male avatars in video games. The research topic addressed using a mixed-methods approach was: "In what ways do narratives related to avatar creation in video games affect players' perceptions and representations of masculinity, and how do these perceptions influence avatar customization decisions?" The findings indicated that the narratives significantly influenced the avatars' physical characteristics and the traits assigned to them. The avatars of the neutral narrative (Michael) displayed a broader range of characteristics, but the avatars of the sexist story (John) predominantly embodied traditional male traits. The study examined the cognitive mechanisms involved in avatar customization and the influence of narrative framing on reinforcing or challenging stereotypes.

### Theoretical implications



The narratives in this study influenced both the physical appearances and personality traits assigned to the avatars. Regarding physical appearance, avatars created for John (the sexist narrative) were more likely to embody traits associated with traditional masculinity, such as muscularity, body hair, and sharp jawline, as reflected in the SAS results. These findings highlight how John's narrative reinforced stereotypes of toxic masculinity, leading participants to design avatars that aligned with these biases. In contrast, Michael's avatars, created from the neutral narrative, often displayed more neutral or less traditionally masculine traits, reflecting the narrative's lack of directive cues. This demonstrates the critical role that narrative framing plays in shaping participant perceptions and decisions, guiding them to adopt design elements that align with the cues embedded in the stories. Regarding the personality traits, avatars created for John were more frequently associated with negative traits, such as aggression and arrogance, reflecting stereotypes of toxic masculinity. This aligns with existing literature highlighting how hypermasculine portrayals in video games often emphasize dominance, aggression, and detachment as central traits for male characters (Weststar & Legault, 2017). John's narrative reinforced these traditional expectations, guiding participants to design avatars that reflect societal norms of male strength and authority, which aligns with the Social Role Theory (Eagly, 1978). In contrast, avatars for Michael were assigned more positive traits, such as kindness and approachability. The lack of prescriptive cues in Michael's neutral narrative may have allowed participants to assign traits that diverge from traditional masculine stereotypes, suggesting how narrative framing can influence both the appearance and personality traits of avatars.

One possible explanation of why Michael is portrayed more positively is the contrast with John's narrative, which reinforces traditional masculine traits like aggression and dominance. These traits are often tied to toxic masculinity, a cultural framework that promotes harmful ideals of manhood by glorifying dominance, emotional repression, and

control (Connell, 2005). The emotionally charged nature of John's narrative, filled with these traits, may have amplified the perceived positivity of Michael's neutral portrayal, especially when participants encountered the narratives in sequence. This aligns with the psychological principle of the contrast effect, which suggests that exposure to a negative or extreme stimulus can make subsequent neutral stimuli appear more favorable by comparison (Moser & Fang, 2015). However, it is the narrative framing itself that lays the groundwork for these differences (Goffman, 1974). John's narrative explicitly directs participants toward a stereotypical depiction of masculinity, shaping their design choices accordingly. In contrast, Michael's neutral narrative, by avoiding prescriptive cues, allows for a broader interpretation of masculinity. This highlights how narrative cues act as a framework that guides participants' creativity and interpretation and demonstrates the significant influence of narrative framing in shaping both physical and personality traits in avatar creation, which aligns with the Framing Theory (Goffman, 1974).

While the contrast effect provides an explanation for why Michael's avatar was perceived more positively when his narrative followed John's, it does not fully account for the instances when participants read Michael's story first. In such cases, a possible explanation could be the positivity offset, which is a psychological tendency for individuals to interpret neutral or ambiguous stimuli in a slightly positive manner when no negative cues are present (Norris et al., 2011). Since Michael's narrative lacked the emotionally charged or negative elements present in John's story, participants may have naturally attributed more favorable traits to Michael's avatar. This inclination toward positivity helps to explain why Michael consistently received positive personality traits, regardless of the narrative order.

Additionally, Michael's neutral narrative provided more interpretive flexibility, lacking the directive cues present in John's story. This openness allowed participants to

project their ideals or preferences. Conversely, John's narrative constrained creativity, reinforcing toxic masculine stereotypes. Participants often did not realize how much the narratives influenced their designs until they were prompted to reflect on their choices. This highlights an important phenomenon: what we read influences what we imagine, perceive, and create, even when we are not consciously aware of it (Entman, 2007). For example, during debriefing, some participants expressed surprise at how closely their avatars aligned with narrative cues they had not consciously noticed. This supports existing research showing that implicit narrative framing can shape perceptions and behaviors without conscious awareness (Goffman, 1974). While this phenomenon is not a new finding, it underscores the subtle and often unconscious power of storytelling to guide imagination and creativity, even in tasks where participants perceive themselves as having full creative freedom.

The think-aloud data further support these findings. Participants frequently described John's avatars with terms like "jerk" or "rude" while Michael's avatars were associated with "friendly", "cheerful" and "approachable". This suggests that narrative framing significantly shaped participants' perceptions and creative decisions. Together, these results underscore the powerful role of narratives in shaping not only visual representations but also personality traits, offering insights into how biased or neutral narratives can influence broader perceptions of gender.

Interestingly, while this study found that narratives influenced the creation of male avatars, similar research conducted on female avatars (Weegink, 2024; Falkenberg, 2024), revealed a comparable impact, particularly in the reinforcement of gender stereotypes. In their study, sexist narratives led participants to assign negative personality traits to female avatars, such as emotional instability or irrationality. This aligns with the present findings, suggesting

that narratives consistently reinforce traditional gender stereotypes, regardless of the avatar's gender.

Findings revealed that AMI scores did not significantly impact the creation of avatars for John, suggesting that explicit attitudes toward men may not fully account for participants' behavior. Cognitive dissonance (Festinger, 1957) provides a potential explanation: participants with low sexist beliefs may have experienced internal conflict when their avatar designs aligned with the cues from the sexist narrative. Such dissonance can lead individuals to unconsciously adjust their behavior or perceptions to reduce psychological discomfort (Harmon-Jones & Mills, 2019).

Additionally, narratives like John's may activate implicit biases and stereotypes, which influence behavior even when explicit beliefs contradict them (Greenwald & Banaji, 1995). For example, one participant remarked, "This narrative is definitely very sexist; I don't support it, but it reminds me of these movies with high school jocks in college vests and athletic bodies." This suggests that the narrative reinforced culturally embedded schemas about masculinity (Dozois & Beck, 2008; Goffman, 1974), guiding participants' choices despite their personal values. Gender Schema Theory (Bem, 1981) provides further insight, as it explains how deeply ingrained cognitive frameworks about gender unconsciously shape perceptions and behaviors. Even participants with low AMI scores may have defaulted to traditional masculine traits for John's avatar because the narrative activated schemas linking masculinity with dominance, strength, and assertiveness.

Interestingly, while AMI scores did not significantly impact the creation of John's avatars, participants with higher benevolence scores (a subscale of AMI) were more likely to create traditionally masculine avatars overall, including for Michael, the neutral narrative character. This suggests that benevolent sexism, which idealizes men in protective and

leadership roles, may unconsciously shape participants' perceptions of what a male avatar 'should' represent, even in the absence of explicit narrative cues (Glick & Fiske, 1999). These participants appeared to internalize societal ideals of masculinity, favoring traits like strength and assertiveness when designing avatars, regardless of the narrative's neutrality.

The Narrative Engagement Scale was included in the experiment to measure participants' immersion in the narratives, and while it was not directly tied to the hypotheses, it is noteworthy to discuss its findings. The NES scores showed no significant differences between the sexist and neutral narratives, suggesting that participants were equally engaged with both stories. This indicates that the differences in avatar traits were likely influenced by the content and framing of the narratives rather than by how immersed participants were in the stories

While the third hypothesis that male participants would create more traditional masculine avatars after reading the sexist narrative was rejected, an interesting significant finding was that male participants designed Michael, the neutral narrative character, to be more traditionally masculine than female participants. One possible explanation is that male participants may have viewed Michael as an extension or reflection of their own identities (Ratan & Sah, 2015). Without the sexist elements present in John's narrative, Michael likely served as a neutral and relatable character, allowing male participants to project their idealized version of masculinity onto him. This projection may be tied to how male participants view their own gender identity; by designing Michael as more masculine, they could be affirming their self-perception as masculine individuals or expressing cultural ideals of what masculinity should represent (Ratan & Sah, 2015; Nielsen, 2015).

Furthermore, identification and wishful identification (Hoffner & Buchanan, 2005) provide additional theoretical explanations for this finding. Players may see themselves in

Michael, a university student, and relate to his neutral and academic traits, especially given that most participants were university students themselves. This relatability could foster a sense of identification, as participants may project aspects of their own academic and masculine identity onto Michael. At the same time, wishful identification might occur if participants viewed Michael as embodying traits they aspire to, such as intellectualism, confidence, or academic success (Lim et al., 2020). These aspirations might align with culturally valued masculine traits like authority, decisiveness, or independence, further explaining the tendency to design Michael as more traditionally masculine (Li et al., 2013). In this context, Michael becomes not just a character but a representation of what participants see in themselves or strive to become, which influences their design choices.

Taken together, the findings indicate that narratives play a crucial role in shaping the physical and personality traits of male avatars, reinforcing or challenging traditional masculine stereotypes. However, to fully understand the implications of these results, it is essential to acknowledge the limitations of this study and consider how future research might address them.

### **Practical implications**

This study underscores the importance for game developers to be mindful of how narrative framing influences the creation of avatars and the reinforcement of gender stereotypes. The results show that narratives containing sexist elements, such as the one in John's story, tend to guide players towards designing avatars that conform to traditional, often harmful, portrayals of masculinity, such as muscularity and dominance. If left unchecked, these repeated portrayals can reinforce narrow definitions of masculinity both within the game and in real-world perceptions (Ratan & Sah, 2015). Game developers should therefore aim to create narratives that allow for more diverse and positive representations of masculinity,

encouraging players to explore a wider range of traits in their avatars, like empathy and intelligence, to promote a more inclusive and socially responsible gaming environment

An interesting finding from the study is that even the neutral narrative can evoke certain stereotypes. While avatars created for Michael, the neutral character, displayed more variation compared to John, specific codes such as "nerdy vibe" or "nerdy appearance" were significantly more common for Michael. These traits like intellectualism, introversion, and a reserved demeanor, align with characteristics associated with the university setting central to Michael's narrative. This suggests that participants actively engaged with and interpreted the narrative, tailoring their avatar designs to align with the story context (Moser & Fang, 2015). Such engagement not only underscores the influence of narrative framing but also validates the effectiveness of the narratives in guiding participants' perceptions and design choices (Fox & Bailenson, 2009). These findings highlight how even "neutral" narratives are not entirely free of stereotypes, as they subtly shape perceptions and avatar design in ways that reflect the framing of their stories

For example, the code "nerdy vibe" may appear neutral or even positive, but it can frame Michael as primarily intellectual, potentially overshadowing other personality traits or characteristics. This could limit the depth and diversity of avatars designed based on the neutral narrative. Similarly, the code "academic," while not inherently negative, may inadvertently narrow the representation of Michael to a single archetype, focusing heavily on traits related to academic success and reducing the opportunity for more varied interpretations.

Moreover, although cognitive dissonance sheds light on why players might design stereotypical avatars even when they believe in equality, this inconsistency between what they think and how they act can lead to subtle, lasting effects. When players are repeatedly

exposed to sexist narratives and create avatars that align with these narratives, it can normalize these stereotypes, leading to their reinforcement in future games or media consumption. This process may unconsciously contribute to sustaining harmful gender norms, even when players are not overtly endorsing them. By offering more neutral or empowering narrative choices, developers can help players reflect on and challenge these stereotypes, encouraging more thoughtful and critical engagement with gender roles (Harmon-Jones & Mills, 2019).

Lastly, diversifying avatar customization options can help players break free from the constraints of traditional gender roles, providing them with the agency to create characters that reflect a fuller spectrum of human qualities. This can help create not only a more dynamic gaming experience but also a broader cultural shift towards more equal portrayals of gender in the digital world.

### **Limitations and future research**

While the sample size of 40 participants was sufficient for qualitative analysis, a limitation of this study is the relatively homogenous cultural backgrounds of the sample. The majority of participants were either of Middle Eastern ( $n=17$ ) or White backgrounds ( $n=20$ ), with only 3 participants from other cultural backgrounds. This limited diversity may have restricted the range of findings. A difference in Benevolence scores was already observed between Middle Eastern and White participants, with Middle Eastern participants reporting higher levels of benevolent sexism. Given that cultural values can shape perceptions of masculinity and sexism (Cuddy et al., 2015), a more diverse sample could potentially uncover more cultural differences.



When considering cultural and ethnic backgrounds, it is also important to note another possible future research. One potential avenue for future research lies in exploring the cultural and ethnic influences on avatar creation. Cultural values and norms play a significant role in shaping perceptions of gender, masculinity, and social constructs, which may subsequently impact avatar design choices (Cuddy et al., 2015; Sherrick et al., 2014). A more diverse sample could provide greater insight into how these cultural dynamics interact with narrative framing, offering a richer understanding of how individuals from different backgrounds internalize and project social norms into digital avatars.

An interesting observation from the current study, although not formally analyzed, hints at the potential impact of cultural background on avatar creation. Participants of Middle Eastern backgrounds appeared to design Michael, the neutral narrative character, as a white avatar more frequently, whereas participants of White ethnic backgrounds showed greater variation in racial and ethnic characteristics for Michael. While no formal analysis was conducted to substantiate these observations, they point to the possibility that cultural expectations around masculinity and identity may influence such decisions. For example, Middle Eastern participants might have felt less connected to Michael's non-traditional masculine traits, such as collaboration with females and a less assertive demeanor (Cuddy et al., 2015). Future research could investigate these preliminary observations more rigorously, examining how cultural and ethnic identities intersect with narrative contexts to shape avatar design. By incorporating diverse participant samples and explicitly analyzing factors such as racial and ethnic attributes of avatars, researchers could gain valuable insights into the nuanced ways cultural values inform representation in digital environments. Such investigations could also inform the development of more inclusive gaming experiences that better reflect the diversity of player perspectives (Bulut, 2020).

The most significant limitation is the inherently subjective nature of the avatar creation process. Participants' designs were heavily influenced by their personal interpretations of the narratives and their individual associations with certain traits. For instance, some participants associated John with high school "popular boys," whom they perceived as highly masculine, even when they did not give him stereotypically masculine features like a beard. Conversely, some participants added a beard to Michael, the neutral character, to suggest traits such as being unkempt or less hygienic. These varied and personal interpretations highlight the challenge of drawing objective conclusions from inherently subjective processes. While the qualitative data provided rich insights, the variability in participant interpretations underscores the need for caution when generalizing findings from such tasks.

The think-aloud method used in this study provided valuable insights into participants' reasoning and motivations, but it may have influenced their decision-making processes. Being aware that their verbalizations were being recorded and analyzed could have led participants to modify their behavior or offer socially desirable explanations for their choices. For instance, they might have downplayed stereotypical decisions or adjusted their reasoning to align with perceived expectations. Additionally, verbalizing their thoughts while engaging in the creative task of avatar design may have impacted the natural flow of their decisions, potentially influencing the authenticity of their responses. The researcher's gender might also have played a role in how participants approached the task. As the researcher is female, it is possible that participants, particularly males, adjusted their responses to appear more socially acceptable, especially if they were concerned about their answers reflecting sexist beliefs. This effect may have been particularly noticeable among those with higher benevolent or hostile sexist beliefs. These factors suggest that future research could explore methods to reduce the influence of these variables, such as through anonymous data collection or using a more diverse team of researchers.

## **Conclusion**

This study shows that narratives in video games have a strong impact on how players create male avatars, affecting their physical features and personality characteristics. Stories like John's influences participants to design avatars that reflected traditional masculine stereotypes, incorporating characteristics linked to toxic masculinity. In contrast, neutral narratives, such as Michael's, provided a wider array of attributes and more favorable personality traits, unbound by the limitations of stereotypical expectations. The findings highlight how crucial narrative framing is in video games and suggest that game developers have a responsibility to steer clear of reinforcing harmful gender stereotypes. Video games can promote a wider range of gender representations by including more inclusive and balanced narratives. This study enhances our understanding of how media narratives influence perceptions of gender norms and lays the groundwork for further investigation into the psychological and societal effects of avatar customization in digital environments.

### **AI Statement**

During the preparation of this work, the author used ChatGPT to brainstorm ideas, improve the structure and flow of the text, provide minor revisions for conciseness and clarity, assist in data analysis, and generate APA-style references. Grammarly was used to enhance grammar, spelling, and sentence clarity, and Microsoft Word was used for additional spelling and grammar checks. Microsoft Teams was used to transcribe discussions and meetings. After using these tools, the author reviewed and edited the content as needed and takes full responsibility for the final content of this work.

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## Appendix A

### Narratives used in the experiment

#### Neutral Story

**Below you will find a description of a narrative from an unnamed roleplaying videogame.**

In this roleplaying game, you play as Michael, a young man from a small town, excited to begin his studies at Westbridge University. The campus is full of energy, and Michael is eager to get involved in student life. He joins the Pinebrook student association, a group active in campus events and with plenty of opportunities to meet new people.

As Michael goes through the initiation, he notices that the group dynamics shift depending on the task at hand. Some challenges play to his strengths, and he steps in to lead when it feels natural. At other times, he's more comfortable letting someone else take the reins. When a female peer offers to lead, the group acknowledges her idea, and she takes charge without hesitation.

Throughout the initiation, the tasks become more demanding, but Michael adapts to the increased workload. His peers are focused on their own performance, and collaboration happens when necessary. No single member is expected to take on more responsibility than others, and leadership roles rotate based on who's best suited for the task.

Michael builds friendships gradually, based on shared experiences and teamwork during events. When some of his peers struggle with tasks, he steps in without hesitation, wanting to help out and make sure things go smoothly. He finds that supporting his peers brings them

closer as a group, and over time, these moments of teamwork create strong bonds. Whether it's lending a hand during a tough project or simply being there when someone needs help, Michael starts to feel more connected to the student association and its members.

As the semester progresses, Michael enjoys the balance between independent work and collaboration within the group. Whether it's working on events or hanging out between classes, his experience in the student association feels inclusive, with no pressure to conform to a specific role.

How will Michael continue to navigate his experience at Westbridge?

### **Sexist Story**

**Below you will find a description of a narrative from an unnamed roleplaying videogame.**

In this roleplaying game, you play as John, a young man from a small town who has just arrived at Greenford University, eager to prove himself. The campus is vibrant, and the university's prestigious Redwood student association is well-known for shaping some of the most successful students.

When John applies for membership, the student association members, both male and female, are friendly, but as the initiation progresses, subtle expectations emerge. During physical challenges, John notices that people often look to him for leadership or support. When a difficult task arises, John volunteers to lead—not because he's asked, but because it feels like the natural thing to do. While when a female peer suggests leading a task, her idea is quickly set aside, and John steps in without hesitation.

As the challenges become more demanding, John feels comfortable in the role. Remarks like, "You always manage so well" or "I knew you'd take care of it" give him confidence in his abilities. The trust his peers place in him reinforces his belief that he is fulfilling an important role in the group.

Though John sometimes notices the weight of expectations, he doesn't dwell on it for long. When he mentions this to a close friend, the response is simple: "That's just how things are, bro. It's what's expected." As time goes on, John naturally steps into the lead, with the group often turning to him when decisions need to be made. Even when others suggest taking charge, the group tends to look to John to guide them.

John notices that when he speaks, his ideas tend to get picked up quickly by the group, while his female friends are often interrupted or their suggestions go unnoticed. It's not something that anyone directly acknowledges, but it becomes clear to him over time. He finds himself stepping into the role more naturally, because it seems like the group is looking to him for direction.

Occasionally, John helps female friends during tasks, especially if he finds them attractive. It feels good to be seen as strong and capable, and he enjoys the admiration it brings.

How will John continue to take the lead in his role as time goes on?

## **Table A1**

*Narrative Items Explanations*

Questionnaire Item	Narrative Reference	Explanation
Men will always fight for greater control in society.	"John notices that people often look to him for leadership or support. When a difficult task arises, John volunteers to lead—not because he's asked, but because it feels like the natural thing to do."	The narrative portrays John naturally stepping into leadership roles, reinforcing the perception that men strive to assert control and authority within group settings.
Men usually try to dominate conversations with women.	"John notices that when he speaks, his ideas tend to get picked up quickly by the group, while his female friends are often interrupted or their suggestions go unnoticed."	This scene reflects the idea that male contributions are valued more than women's, with John's suggestions gaining traction while female voices are dismissed.
Men are more willing to take risks than women.	"During physical challenges, John notices that people often look to him for leadership or support."	The narrative highlights John's willingness to take on physical challenges, portraying him as someone who takes risks and embraces leadership responsibilities.
Men are less likely to fall apart in emergencies.	"Remarks like, 'You always manage so well' or 'I knew you'd take care of it' give him confidence in his abilities."	The remarks from John's peers reinforce the belief that he is dependable and composed in challenging situations, emphasizing his perceived emotional and situational stability.
When men "help" women it is to prove they are better.	"Occasionally, John helps female friends during tasks, especially if he finds them attractive. It feels good to be seen as strong and capable, and he enjoys the admiration it brings."	This reflects how John's assistance is motivated by the desire for admiration and validation, which aligns with the belief that male help is often self-serving or superiority-driven.
Men are less likely to fall apart in emergencies.	"Though John sometimes notices the weight of expectations, he doesn't dwell on it for long. When he mentions this to a close friend, the response is simple: 'That's just how things are, bro. It's what's expected.'"	This reflects the stereotype that men are emotionally resilient, suppressing their feelings to conform to societal expectations of masculinity and strength, aligning with the item about men not falling apart in emergencies.

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Questionnaire Item	Narrative Reference	Explanation
Men have no morals in what they will do to get sex.	"Occasionally, John helps female friends during tasks, especially if he finds them attractive."	This portrays John selectively helping women he finds attractive, reflecting the stereotype that men's actions are driven by ulterior motives tied to sexual interest, as suggested in the item.

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## Appendix B

### Traits assigned to the avatars in The Sims 4

**Table B1**

*Frequencies of Traits*

<b>Trait</b>	<b>Frequency_John</b>	<b>Frequency_Michael</b>
Active	11	4
Ambitious	17	9
Art Lover	0	1
Athletic	8	2
Bookworm	3	7
Bro	7	10
Childish	2	0
Clown	4	7
Comedian	0	1
Computer Nerd	2	0
Confident	18	10
Cooking	0	1
Creative	4	8
Extravert	14	7
Family-Oriented	3	4
Fitness	8	2
Food Lover	0	2
Friendly	3	0
Fun	3	8
Funny	1	0
Genius	3	2
Good	0	9
Hates Children	1	1
Hotheaded	0	1
Jealous	2	1
Loner	1	0
Loves Children	0	1
Loyal	4	9
Materialistic	3	1
Mean	3	0
Mood Swings	0	1
Music Lover	1	2
Nature Lover	1	4
Neat	1	1
Nerd	5	4
Party Person	1	0
Perfectionist	5	2
Rich	5	0
Romantic	7	4

Sad	0	1
Slob	1	1
Smart	3	11
Snob	2	1
Talkative	12	11
Vegan	0	2
Worldfriend	7	5
Writer	1	5

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## Appendix C

### Themes, categories and codes from the interviews

#### Table C1

*Explanation of the themes and codes*



Theme	Category	Name	Explanation	Quotes	John	Micheal	Total
Personality	Stereotypical Masculine	Jerk	Describes the avatar as arrogant or rude, often dismissive of others.	“I just think John is a bit cocky. A bit arrogant”	10	1	11
				“he has a lot of charisma, so. That's why he's not afraid to take the role of leader.”	90	23	113
		Charismatic Personality	Reflects the avatar's charm, confidence, and social dominance.				
		Good with Ladies	Indicates the avatar's perceived ability to attract or impress women.	“He's good with ladies, girls like funny boys.”	5	2	7
		Positive Personality Social	Depicts the avatar as friendly, outgoing, or approachable.	“I think he's good at socializing and talking with strangers and that's how he gets to know other people.”	21	62	83
				Warm	Highlights traits such as kindness, care, and empathy.	“Michael is a person that really wants to help other people and wants to work with people.”	31

Vibes	Basic Personality	Creative	Shows the avatar as imaginative or innovative.	“ I feel like the most laid back people are the ones that like play instruments and I feel like he's a very creative person as well.”	3	13	16
		Basic Personality	Describes the avatar as lacking distinctive or noteworthy traits.	“He seems like a like a normal person you know?”	1	13	14
		Masculine Energy	Reflects traditional masculine energy, words such as “ manly” “real man” etc..	“He's not liking a child, but more a man”	11	0	11
	Stereotypical Masculine	Athletic	Indicates physical fitness or sporty traits.	“because I feel like gives also kind of like a sporty vibe”	23	13	36
		Superficial	Highlights an excessive concern with appearance or image.	“He seems more like a superficial. Like, not that there's not much going on with him. Kind of.”	12	0	12

			“He sounds just like an average white person	0	18	18
Basic White Guy	Basic White Guy	Describes the avatar as ordinary or unremarkable, fitting a cultural stereotype.	yeah, he just sounds like a white person.”			
Cool Guy	Cool Guy	Shows the avatar as relaxed, confident, and admired socially.	“ he is coming from a small town so he seems cool.”	6	5	11
Pick-Me	Pick-Me	Reflects behaviors aimed at seeking attention or validation.	“He tries to show off, like he’s the best at everything, but it feels more like an act.”	14	2	16
Chill Guy	Chill Guy	Highlights traits of being laid-back or easygoing.	“John quite laid-back”	2	13	15
Nerdy Vibe	Nerdy Vibe	Indicates traits such as intellectualism or introversion.	“maybe he's some kind of a nerd ,maybe playing a lot of video games, watching TV all the time.”	3	27	30
Feminine Energy	Feminine Energy	Reflects traditionally feminine	“Also I think he did lip filler,	0	5	5

			qualities, such as gentleness and sensitivity.	because he has feminine energy”			
Appearance	Neutral Appearance	Neutral Appearance	Describes the avatar as ordinary or lacking distinctive physical features.	“He’s neutral, like not overweight, not very underweight”	5	23	28
	Trendy Appearance	Trendy Appearance	Shows the avatar as fashionable or stylish.	“Because I think he's someone who's following the trend.”	0	6	6
	Nerdy Appearance	Nerdy Appearance	Highlights intellectual or non-dominant physical traits.	“I gave him glasses to make him look smart”	0	17	17
Masculine Appearance		Masculine Appearance	Reflects traditionally masculine traits such as muscularity and physical strength.	“John is physically big, muscular”	79	9	88
	Boyish Appearance	Boyish Appearance	Depicts the avatar with youthful or less mature traits.	“Yeah, didn't really have a beard because I feel like he had like this kind of	5	11	16

				more boyish look.”			
Comparison	Reference to Real Life	Real-Life Reference	Refers to		1	5	6
			comparisons made to real-life individuals or general observations.	“Michael reminds me of a colleague of mine, he is also white”			
				“I have this stereotype in my mind of like these. Very outgoing guys in American high school films”	4	3	7
	Celebrity/Character	Celebrity Reference	Compares the avatar to well- known figures from popular culture or media.				
				I think I want him to look a little bit more soft, a little bit more approachable than the John.”	4	6	10
Comparison to Other Avatar	Avatar Comparison		Highlights direct comparisons between John’s and Michael’s avatars.				

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**Appendix D**  
**Participant**

**Table D1**

*Description table of each participant for John and Michael*

<b>John</b>	<b>Gender Identity</b>	<b>Sex</b>	<b>Overall AMI mean</b>	<b>AMI Hostility mean</b>	<b>AMI Benevolence mean</b>	<b>NES mean</b>	<b>Traits</b>	<b>Clothing Description</b>	<b>General Appearance</b>	<b>SAS</b>
P1	Female	Female	4.20	4.60	3.80	5.58	Romantic, Clown, Confident	Black blouse, red tie, black trousers, black loafers	Buzzcut, curly hair, goatee, muscular	7.00
P2	Female	Female	4.05	4.70	3.40	4.25	Romantic, Funny, Confident	Black polo, Black pants, black loafers	Black full hair, Full beard, tan skin, blue eyes, fit body	8.00
P3	Female	Female	4.45	4.50	4.40	5.00	Worldfriend, talkative, ambitious, active	Black polo, Black pants, sneakers	Mid length black hair, light beard, tan skin, muscular, body hair	6.00
P4	Male	Male	3.70	2.40	5.0	5.25	Athletic, fitness, confident, bro, active, mood	White fitted shirt, blue jeans, white sneakers	Brown short hair, beard, tan skin, muscular	8.00
P5	Female	Female	3.90	3.90	3.90	5.67	Friendly, talkative, snob, active, confident	Black fitted long sleeve, black pants, black loafers	Brown hair, goatee, tan skin, muscular	6.00
P6	Female	Female	4.50	4.90	4.10	3.75	Athletic, fitness, ambitious, neat, bro	Grey hoodie, oversized sweatpants, sneakers	Brown hair, white skin, muscular	8.00
P7	Female	Female	4.35	4.90	3.80	4.25	Worldfriend, talkative, confident,	Black hoodie, black pants,	Black curly buzzcut, goatee,	6.00

P8	Female	Female	3.95	5.70	2.20	5.50	extravert, ambitious Family-oriented, childish, nerd, bookworm	sneakers, earrings Grey suit, black loafers	brown skin, muscular Brown hair, beard, white skin, muscular	3.00
P9	Male	Male	3.85	3.60	4.10	5.25	Family-oriented, ambitious, confident, active	White v-neck, shorts, sneakers, watch	Blonde hair, white skin, fit	6.00
P10	Male	Male	3.05	3.40	2.70	4.42	Romantic, creative, loyal, perfectionist	Checked blouse, bluejeans, sneakers, watch, glasses	Black short hair, white skin, muscular	3.00
P11	Female	Female	3.35	4.60	2.10	5.67	Worldfriend, talkative, ambitious, extravert, perfectionist	Checked blouse, black jeans, sneakers, bracelet	Black mid length hair, goatee, tan skin, muscular	5.00
P12	Male	Male	4.20	3.90	4.50	6.00	Creative, confident, nature lover, ambitious	Armour, boots, sword	Long ginger braids, full beard, scar, white skin, muscular	9.00
P13	Female	Female	4.50	4.30	4.70	5.83	Friendly, talkative, romantic, ambitious, extravert	White Blouse, black jeans, sneakers	Long brown hair, goatee, tan skin, muscular	6.00
P14	Male	Male	3.65	2.70	4.60	4.17	Writer, ambitious, clown, creative	Brown blouse, blue	Short Brown hair, full beard, tan	7.00



P15	Male	Male	3.55	3.30	3.80	3.58	Computernerd, genius, nerd, perfectionist	pants, green loafers Blouse and vest, tie, green pants, sneakers, glasses	skin, muscular, body hair Black short hair, light beard, brown skin, skinny	5.00
P16	Female	Female	3.25	5.00	1.50	5.08	Worldfriend, talkative, ambitious, confident, bro	college vest, black jeans, sneakers, bracelet, sunglasses	Blond mid hair, white skin, muscular, body hair	7.00
P17	Female	Female	3.80	4.50	3.10	2.67	Athletic, fitness, confident, slob, extravert	White fitted shirt, black sweatpants, sneakers	Long brown hair, goatee, tan skin, muscular	7.00
P18	Male	Male	3.90	2.50	5.30	4.58	Genius, creative, bro, musiclover	Tanktop with rainbow print, pyjama pants, sneakers	Brown mid length hair, light beard, , tan skin, fit	5.00
P19	Female	Female	5.05	5.20	4.90	4.92	Bookworm, genius, fun, perfectionist	Blazer, back trousers, loafers	Brown mid length hair, mustache, white skin, muscular	5.00
P20	Male	Male	4.65	4.70	4.60	5.25	Athletic, fitness, confident, loyal, romantic	Black blouse, black tie, black jeans, black sneakers	Black short hair, beard, tan skin, muscular	6.00
P21	Female	Female	4.15	4.70	4.60	3.83	Athletic, fitness, confident, extravert, clown	College vest, bluejeans,	Brown short hair, light beard, white	6.00

P22	Male	Male	5.20	4.50	5.90	5.75	Computernerd, nerd, einzelganger, fun	sneakers, watch Long sleeve, bluejeans, boots, glasses	skin, muscular, body hair Black short hair, tan skin, skinny	1.00
P23	Female	Female	3.25	3.70	2.80	4.50	Family-oriented, confident, extravert, perfectionist	Long sleeve, bluejeans, boots	Short blonde hair, white skin, muscular	5.00
P24	Female	Female	2.60	3.50	1.70	4.75	Athletic, fitness, confident, active, romantic	Tanktop, cargo pants, sneakers, cap	Blonde short hair, full beard, white skin, muscular, body hair	7.00
P25	Female	Female	3.55	5.40	1.70	5.92	Smart, ambitious, bookworm, extravert	College vest, shorts, sneakers, watch, sunglasses	Short blonde hair, light beard, white skin, muscular	6.00
P26	Male	Male	3.45	2.60	4.30	4.33	Friendly, talkative, fun, ambitious, nerd	Checked blouse, bluejeans, sneakers	Brown short hair, white skin, muscular, body hair	6.00
P27	Female	Female	3.95	5.50	2.40	5.67	Smart, ambitious, extravert, loyal	Long sleeve, bluejeans, loafers	Brown short hair, light beard, pale skin, muscular	6.00
P28	Male	Male	3.30	4.20	2.40	5.33	Materialistic, rich, ambitious, mean	Knitted sweater, bluejeans, boots	Blonde short hair, white skin, muscular	5.00
P29	Male	Male	3.70	5.00	2.40	5.17	Materialistic, extravert, active, confident	Long sleeve, brown pants, loafers	Black buzzcut, light beard, white	8.00

P30	Male	Male	3.45	4.20	2.40	4.75	Athletic, fitness, bro, romantic, ambitious	Black shirt, black jeans, boots	skin, muscular, body hair Brown short hair, full beard, brown skin, muscular, body hair	7.00
P31	Female	Female	4.00	5.40	2.60	5.83	Worldfriend, talkative, hates children, extravert, mean	Blue polo, blue jeans, sneakers	Brown midlength hair, white skin, fit	6.00
P32	Female	Female	3.20	4.40	2.00	5.25	Worldfriend, talkative, confident, active, bro	Polo, blue jeans, sneakers	Short blonde hair, light beard, white skin, muscular	6.00
P33	Female	Female	3.35	5.40	1.30	5.83	Loyal, talkative, ambitious, active, bro	College vest, cargo pants, sneakers	Long ginger hair, white skin, muscular, body	6.00
P34	Female	Female	2.85	3.90	1.80	4.83	Smart, rich, ambitious, nerd	Blouse with vest, bluejeans, sneakers, ring	Blonde short hair, goatee, pale skin, skinny	3.00
P35	Female	Female	3.70	5.30	2.10	6.83	Party person, talkative, extravert, active, snob	Blazer, beige trousers, loafers, bracelet, ring, necklace	Blonde mid length hair, white skin, muscular, bodyhair	4.00
P36	Female	Female	3.25	4.10	2.40	5.08	Rich, confident, jealous, extravert	Checked blouse, brown pants, casual shoes	Short blonde hair, white skin, muscular	6.00

P37	Female	Prefer not to say	1.90	2.0	1.80	5.33	Rich, active, ambitious, jealous	Leather jacket, ripped jeans, sneakers, gold watch	Short black hair, white skin, muscular	4.00
P38	Male	Male	2.75	3.30	2.20	2.75	Atheltic, fitness, active, confident, mean	White trendy jacket, black pants, sneakers, watch, ring, necklace	Blonde short hair, white skin, muscular	5.00
P39	Female	Female	3.45	3.50	3.40	4.00	Worldfriend, talkative, extravert, confident, cown	Black fitted shirt, grey jeans, sneakers, bracelet, ring, necklace	Black midlength hair, beard, white skin, muscular	5.00
P40	Female	Female	4.20	4.40	4.00	3.17	Materialistic, rich, childish, extravert	Longsleeve, black jeans, sneakers	Long black hair, goatee, tan skin, skinny	4.00

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<b>Micheal</b>	<b>Gender Identity</b>	<b>Sex</b>	<b>Overall AMI mean</b>	<b>AMI Hostility mean</b>	<b>AMI Benevolence mean</b>	<b>NES mean</b>	<b>Traits</b>	<b>Clothing Description</b>	<b>General Appearance</b>	<b>SAS</b>
P1	Female	Female	4.20	4.60	3.80	5.67	Romantic, clown, bro	Long sleeve, blue pants, sneakers, necklace	Mid length blonde hair, goatee, white skin, skinny	1.00
P2	Female	Female	4.05	4.70	3.40	5.83	Extravert, creative, clown	Sweater, brown pants, loafers	Brown short hair, tan skin, skinny-fat	1.00
P3	Female	Female	4.45	4.50	4.40	5.33	Loyal, talkative, active, bro, confident	White shirt, shorts, sneakers	Short blonde hair, white skin, skinny	4.00
P4	Male	Male	3.70	2.40	5.0	4.83	Smart, hates children, ambitious, bro	Long sleeve, blue jeans, sneakers	Short blonde hair, white skin, skinny	3.00
P5	Female	Female	3.90	3.90	3.90	5.25	Worldfriend, talkative, nerd, slob, bro	Denim jacket, black jeans, boots, glasses, watch	Brown short hair, pale skin, skinny	1.00
P6	Female	Female	4.50	4.90	4.10	4.25	Materialistic, confident, snob, foodlover	Button up, shirt, scarf, bluejeans, casual shoes, watch	Short blonde hair, white skin, fit	1.00
P7	Female	Female	4.35	4.90	3.80	4.17	Worldfriend, talkative, confident, bookworm, fun	Longsleeve, blue pants, sneakers, glasses	Short brown hair, white skin, skinny	2.00

P8	Female	Female	3.95	5.70	2.20	5.41	Smart, ambitious, hotheaded, nerd	Black blouse, black trousers, loafers, earphones	Brown short hair, beard, tattoo, white skin, muscular, body hair	5.00
P9	Male	Male	3.85	3.60	4.10	6.25	Family-oriented, fun, ambitious	Football shirt, bluejeans, sneakers, watch	Brown midlength hair, white skin, fit	3.00
P10	Male	Male	3.05	3.40	2.70	3.67	Smart, bookworm, bro, genius	T shirt, bluejeans, sneakers, glasses	Short brown hair, tan skin, skinny	3.00
P11	Female	Female	3.35	4.60	2.10	6.42	Writer, fun, extravert, bookworm	Longsleeve, blue pants, sneakers, bracelet, rings	Long blonde hair, white skin, fit	0.00
P12	Male	Male	4.20	3.90	4.50	5.42	Smart, ambitious, genius, creative	Black hoodie, black ripped jeans, sneakers	Braided black hair, light mustache, tan skin, skinny, body hair	3.00
P13	Female	Female	4.50	4.30	4.70	4.92	creative, writer, extravert, clown, confident	Black fitted shirt, yellow pants, boots, yellow cap	Short curly black hair, goatee, mustache, dark skin, muscular	6.00
P14	Male	Male	3.65	2.70	4.60	3.92	Worldfriend, talkative, clown, romantic, jealous	Checked blouse, blue pants, sneakers, rings	Blonde mid length hair, goatee, white skin, high fat percentage	3.00

P15	Male	Male	3.55	3.30	3.80	3.75	Worldfriend, talkative, active, clown, confident	College vest, blue jeans, sneakers	Brown afro hair, dark skin, muscular	4.00
P16	Female	Female	3.25	5.00	1.50	5.25	Loyal, talkative, musiclover, fun	Long sleeve, bluejeans, sneakers, earrings	Brown short hair, light beard, makeup, skinny-fat, body hair	2.00
P17	Female	Female	3.80	4.50	3.10	2.92	Nature lover, good, nerd, fun	Denim jacket, black shirt, black trousers, boots	Midlength brown hair, light beard, white skin, skinny	1.00
P18	Male	Male	3.90	2.50	5.30	3.67	Romantic, extravert, good	Long sleeve, black jeans, boots	Curly brown buzzcut, goatee, tan skin, fit	3.00
P19	Female	Female	5.05	5.20	4.90	5.58	Smart, creative, confident, fun	Button shirt, black jeans, sneakers	Short brown hair, tan skin, fit	2.00
P20	Male	Male	4.65	4.70	4.60	3.25	Athletic, fitness, loyal, moodswings, good	Grey hoodie, grey oversized sweatpants, sneakers	Black curly hair, goatee, white skin, muscular	5.00
P21	Female	Female	4.15	4.70	4.60	4.17	Loyal, talkative, bookworm, perfectionist	Longsleeve, bluejeans, sneakers	Black curly buzzcut, dark skin, fit	1.00
P22	Male	Male	5.20	4.50	5.90	5.92	comedian, talkative,	Blazer, black pants, sneakers	Black short curly hair,	4.00

P23	Female	Female	3.25	3.70	2.80	4.67	ambitious, nature lover, romantic Cooking, confident, foodlover, active	Brown blouse, grey trousers, sneakers	white skin, muscular, body hair Brown curly midlength hair, beard, tan skin, fit	5.00
P24	Female	Female	2.60	3.50	1.70	5.50	Loyal, talkative, good	Grey hoodie, bluejeans, sneakers, beanie	Brown midlength hair, tan skin, fit	2.00
P25	Female	Female	3.55	5.40	1.70	6.33	Smart, creative, bro, good	Blazer, shirt, blue pants, sneakers, watch	Brown midlength hair, white skin, fit, body hair	1.00
P26	Male	Male	3.45	2.60	4.30	5.25	Family- oriented, fun, confident, good	Sweater, blue pants, sneakers	Black short hair, beard, tan skin, skinny	3.00
P27	Female	Female	3.95	5.50	2.40	6.17	Writer, neat, good	Longsleeve, beige pants, sneakers	Brown midlength hair, mustache, brown skin, muscular	4.00
P28	Male	Male	3.30	4.20	2.40	5.42	Nature lover, vegan, sad	Cropped tanktop, tight jeans, cowboy boots, bracelets, ring	Short ginger hair, full mustache, white skin, skinny fit, body hair	2.00



P29	Male	Male	3.70	5.00	2.40	6.08	Family-oriented, creative, bro, loyal	Grey hoodie, blue jeans, sneakers	Black midlength hair, brown skin, fit	2.00
P30	Male	Male	3.45	4.20	2.40	4.75	Smart, confident, artlover, loyal	Sweater, black trousers, casual shoes, watch	Blonde buzzcut, full beard, white skin, muscular	3.00
P31	Female	Female	4.00	5.40	2.60	5.50	Smart, ambitious, confident, extravert	Longsleeve, bluejeans, sneakers, bracelets, watch, rings	Brown midlength hair, white skin, skinny	2.00
P32	Female	Female	3.20	4.40	2.00	4.00	Smart, bro, bookworm, clown	Longsleeve, black jeans, sneakers	Black short hair, tan skin, high fat percentage	2.00
P33	Female	Female	3.35	5.40	1.30	5.83	Smart, ambitious, nature lover, extravert	Longsleeve, brown pants, sneakers, watch, bracelets, ring, earring	Long black hair, white skin, muscular	2.00
P34	Female	Female	2.85	3.90	1.80	5.58	Worldfriend, talkative, good, loves children, active	Button shirt, blue pants, sneakers	Black midlength hair, brown skin, muscular	2.00
P35	Female	Female	3.70	5.30	2.10	6.17	Athletic, fitness, creative,	Checked blouse, blue jeans, sneakers, necklace, beanie	Black buzzcut, light beard, white skin, skinny	2.00

P36	Female	Female	3.25	4.10	2.40	5.42	musiclover, bro Family- oriented, clown, loyal, nerd	Long sleeve, black jeans, sneakers	Brown short hair, tan skin, fit	1.00
P37	Female	Prefer not to say	1.90	2.0	1.80	5.75	Writer, creative, bro, vegan	Button up shirt, scarf, blue pants, sneakers, glasses	Black short hair, full beard, white skin, fit, bodyhair	4.00
P38	Male	Male	2.75	3.30	2.20	4.00	Smart, extravert, good, fun	Grey hoodie, cargo pants, sneakers	Brown short hair, goatee, brown skin, muscular	3.00
P39	Female	Female	3.45	3.50	3.40	4.58	Loyal, talkative, bookworm, ambitious	Longsleeve, grey jeans, sneakers, glasses	Brown short hair, white skin, muscular	3.00
P40	Female	Female	4.20	4.40	4.00	3.67	Writer, ambitious, bookworm, perfectionist	Zipper vest, blue jeans, sneakers, glasses	Short blonde hair, white skin, skinny	1.00

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