Online Identity Construction and Expectation of Future Interaction

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Abstract

While the growing popularity of social network sites (SNSs) reflects a desire for individuals to move their offline networks to an online space, there are a number of organizational and social settings in which online interactions precede offline meetings. When this happens, interactants may only have limited information about their partners on which to make judgments. Avatars can provide important cues to a person's identity, such as likes, appearance, or personality. The present study tests whether the type of anticipated future interaction (i.e., online or face-to-face) moderates the avatar creation process. Findings from an experiment indicate that any expectation of future interaction impacts attractiveness and similarity ratings of an avatar in comparison to the self, while text-based avatar descriptions vary according to the modality of expected future interaction. Results are discussed as they apply to hyperpersonal model of computer-mediated communication [3].

1. Introduction

When two people meet face-to-face, they make assessments about their interaction partner based on a number of verbal and non-verbal cues, ranging from style of dress to physical appearance and speech. People who initially meet and interact through computer-mediated communication (CMC) have far fewer cues on which to make assessments. While early research suggested that this reduction of cues would act as a barrier to interpersonal relationship formation [1], subsequent research by Walther [2] has shown that interpersonal relationships can and do form over CMC, albeit at a slower rate than comparable face-to-face relationships.

The hyperpersonal model of CMC [3] suggests that not only do interpersonal relationships form online, but the unique features of CMC—specifically the reduced cues environment and the asynchronous format of most message exchanges—enables the formation of hyperpersonal relationships. With this model, Walther [3] posited that online, people have the ability to develop relationships that are "more socially desirable than we tend to experience in parallel face-to-face interaction" [p. 17] due to selective self-presentation and the subsequent highlighting of certain characteristics while masking others. Recipients of these tailored messages, in turn, may engage make over-attributions, or fill in the blanks, by perceiving their partner's attributes even more positively than presented [4].

Expectation of future offline interaction plays an important role in how individuals self-present over CMC. For example, research within online dating has shown that when individuals have an expectation of future offline interaction—and especially when they want the future offline interaction to be ongoing—their self-presentation tends to be a more honest depiction of themselves [5, 6, 7], most likely because they know they would be "called out" if significant differences exist between their online self-presentation and reality. Likewise, when interaction partners form online-only relationships, research has found that people often experiment with or try out alternative identities [8, 9].

When interacting in many online spaces—and especially within virtual worlds and in online games—users have the option of creating an avatar, which is an online representation of the individual. Depending on the individual site, avatars can be highly customizable, including a variety of clothing options (e.g., Yahoo! Avatars), non-human races (e.g., *World of Warcraft),* and other physical appearance manipulations (e.g., Second Life). Research has found that the relationship between an avatar's creator and the avatar varies across a number of dimensions, including the intended use of the avatar [10] and psychological variables [8]. However, no research to date has considered how individuals self-present through their avatars when expecting different modalities of future interaction.

The present study attempts to bridge this gap by applying the hyperpersonal model to the avatar creation process to ascertain the role that anticipation of future interaction plays when creating an avatar. Following a review of related literature, we describe the results of an experiment in which participants were instructed to create an avatar, with some participants expecting that their avatar would be shared with another participant prior to an online interaction occurring over an instant messaging program while other participants expected a face-to-face interaction would follow the creation and sharing of their avatar with a partner.

2. Background

2.1. Selective Self-Presentation Overview

Selective self-presentation refers to the process through which an individual evaluates a given context and makes decisions regarding which identity-related information to share with another person or group of people to convey a specific set of traits. Research on selective self-presentation was popularized within the field of sociology during the mid-20th century. Goffman's [11] seminal research on self-presentation compared an individual's interactions to a performance before an audience (i.e., the dramaturgical perspective), suggesting that the actor attempts to create a sense of affinity between himself and his audience:

> "… a performer tends to conceal or underplay those activities, facts, and motives which are incompatible with an idealized version of himself… [he] engenders in his audience the belief that he is related *to them* in a more ideal way than is always the case" [p. 48].

Subsequent research by Schlenker [12] on individuals' presentation of a desirable self suggested that context, audience, and environment are key factors driving a specific self-presentation. Leary [13] posited that individuals will self-present in ways that conform to their audience's values or evoke a desired response. Such self-presentations will generally enhance their own images, unless their audience already has contradictory information.

Goffman [11] further distinguished the self into two components: the outer self (i.e., the front stage performance) or that which we want others to see, and the inner self, that which only we see. Individuals will convey an idealized outer self by presenting aspects tailored to the target audience and environment in order to create the most positive impression possible [11, 14]. This process of "packaging and editing the self" is a creative process, essential for social interactions, and involves choices about what information to include, what to leave out, and whether to engage in deception or remain honest with one's audience [15, p. 1024].

2.2. The Hyperpersonal Model

Walther's [3] hyperpersonal model evolved, in part, from the observation that CMC contained a number of features that enabled individuals to engage in selective self-presentation, which Walther and Burgoon [16] had previously noted was an important factor for online relationship development. Specifically, he noted that the asynchronous nature of CMC at the time—which often occurred through email and discussion forums—allowed for extensive editing of messages to occur, thus enabling individuals to spend a significant amount of time carefully crafting messages and editing them before sending [17]. Furthermore, the reduced-cues environment, consisting of text-only interactions, was beneficial to those individuals who wanted to engage in self-presentational enhancements that may not have been possible through more traditional communication channels.

Since Walther's original model, a number of technological innovations have expanded both the synchrony of message exchanges as well as the number of cues that people can exchange. For example, while the original model focused on selective self-presentation occurring within textual messages, recent research has found evidence that online daters engaged in selective self-presentation when choosing a picture for their profile [18]. Other research has shown that hyperpersonal effects occur through more synchronous forms of interaction, such as instant messaging [4].

Most relevant to the present study is the impact of modality switching (i.e., when online relationships move offline) on hyperpersonal processes. For example, when looking at online dating research—where anticipation of future offline interaction is common—individuals acknowledge that too large of a mismatch between their online self-presentation and reality may lead to negative outcomes [7, 19]. While some degree of strategic misrepresentation is accepted and even expected [15, 19], online interactants expecting offline interaction must be careful to temper these exaggerated representations of self. Reality can rarely compete with an idealized version of the self created online, and these

exaggerated claims may damage the relationship as it moves off the computer screen to face-to-face [20].

2.3. Self-Presentation Through Avatars

An avatar is a computer-generated visual representation of a user [21, 22]. It may be as simple as a two-dimensional, flat character or as complex as a three-dimensional character in a video game [23]. Research shows that avatars and their creators are related across a number of psychological factors. For instance, Yee and Bailenson [25] suggested that the graphical nature of an avatar creates a deeper bond with its creator than a text-only description could. Other research has found evidence that people embody their avatars with qualities of their idealized selves. One study of *World of Warcraft* (*WoW*) players found that across all participants, players rated their avatar as possessing more favorable characteristics than their real-life selves; this idealization was intensified for those participants with lower self-esteem [8]. A separate study found that in Second Life, individuals ranked their avatars as similar, but more attractive and outgoing, than their actual selves [30].

Beyond the connection between avatars and their creators, research suggests that people develop impressions about others through their avatars, much in the same way that they would in a face-to-face interaction, based on available visual characteristics, [22]. Even more significantly, Nowak [21] suggested that certain styles of avatars may create higher expectations of the real world creator; if these expectations are not met, a person may feel increased disappointment, lower social attraction, and have lower perceptions of the credibility of the creator.

Because people are aware that avatars are highly adaptable, the information a person chooses to convey through an avatar is given particular attention [21, 22, 24, 26]. Looking at the avatar creation process across a variety of relational goals, Vasalou and Joinson [10] and Joinson [26] found that participants assigned specific characteristics to their avatars based on the situational context: those creating an avatar for dating purposes stressed physical attractiveness while gaming avatars reflected intelligence and blogging avatars closely reflected their creators' physical appearance.

Furthermore, Yee and Bailenson [24] found that not only do people choose avatars to convey certain characteristics such as beauty or intelligence, but avatar characteristics impact subsequent behavior. Specifically, people assigned attractive avatars were friendlier with a confederate than those assigned to unattractive avatars. Yee and colleagues [27] also found that, in general, avatar height and attractiveness predicted performance such that tall, attractive avatars outperformed short, unattractive avatars within *WoW*.

3. Hypotheses

The preceding synopsis of literature on selective self-presentation and the use of avatars as a means of conveying identity information to an audience led us to a number of hypotheses related to the role that context may play in online self-presentational strategies. While individuals who create an avatar simply for themselves may choose to experiment with various identities ranging from real to fantasy (as was often observed in multi-user dungeons (MUDs) in the 1990s) [9, 28], the anticipation of future interaction has been shown to impact both the self-presentational strategies that an individual employs [6] and individuals' perceptions of similarity, affection, and trust toward their partner [29]. Furthermore, research has established that individuals make assessments of interaction partners based on whatever visual cues are available, be they avatar-based or physical [22].

Research examining the avatar creation process has found that the specific goal of a given avatar influences the characteristics imbued in that avatar by its creator [10]. Furthermore, the online dating literature provides evidence that, under certain conditions, the anticipation of future offline interaction leads individuals to present themselves more honestly [6], perhaps because they want to build trust with their partner and because many online misrepresentations, such as lying about one's height or weight, become immediately apparent upon meeting face-to-face. Therefore, we posit that individuals who anticipate a future offline interaction will create an avatar (that will be shared with their partner before meeting) that more closely resembles their actual physical self, whereas individuals anticipating a future online interaction will create an avatar less closely resembling their actual self. Furthermore, we expect that individuals who are creating an avatar without any anticipation of future interaction or sharing of their avatar with another person will create avatars that are least like their actual selves.

> H1: Individuals who anticipate future offline interaction with a communication partner will create avatars more similar to their physical actual selves than individuals who anticipate future online interaction.

H2: Individuals who anticipate any future interaction with a communication partner will create avatars more similar to their physical actual selves than individuals who have no anticipation of future interaction.

Research examining the creation of avatars in *WoW* found that players rated their *WoW* characters as more similar to their ideal selves than their ratings of themselves for three of the Big Five personality traits: conscientiousness, extraversion, and neuroticism [8]. In WoW, most players have no expectation of future offline interaction, but often form long-standing online relationships with other players within the game [8]. Therefore, we would expect that when there is an expectation of future online interaction, people will tend to rate their avatar as closer to their ideal selves than when they expect future offline interaction.

H3: Individuals who anticipate future online interaction with a communication partner will create avatars more similar to their ideal personality than individuals who anticipate future offline interaction.

Finally, research by Messinger and colleagues [30] found that Second Life avatars tended to be more attractive than their actual selves. Furthermore, as posited by the hyperpersonal model, people engaged in online-only interaction are more likely to engage in selective self-presentation than those who interact in-person, which would most likely include a more positively skewed presentation of their physical selves [17]. Therefore,

H4: Individuals who anticipate future online interaction with a communication partner will create avatars that are more attractive than individuals who expect future face-to-face interaction.

4. Methodology

To test the proposed hypotheses in this study, a 3 condition (no future interaction, future online interaction, future offline interaction) experimental design was utilized. A manipulation check was included to ensure that the expected future interaction manipulation was successful. When making comparisons across all three conditions, participants who failed the manipulation check were eliminated from analysis regarding the effects of type of future interaction on avatar similarity, attractiveness, etc. These subjects were included, however, for more general statistical tests and for analyses comparing the control group with those expecting any form of future interaction.

4.1. Participants and Setting

Participants were recruited via email from two introductory-level classes in the College of Communication Arts and Sciences of a large, Midwestern university in exchange for extra credit in their classes. Due to the complexity of the experiment, it was conducted in a lab setting. Moderators were present at each session to answer any questions regarding the process, the avatar creation program, and any technical issues.

After cleaning the data and removing cases in which instructions were not followed, there were 95 usable cases: 35 in the control condition, 29 in the anticipated online interaction condition, and 30 in the anticipated face-to-face condition. The average participant was male (53%), 20.5 years old, and Caucasian (66%). See Table 1 for full demographic information.

Because this experiment involved creating a Mii™ avatar, which many students have done before using the Nintendo Wii gaming console, a question was included which asked participants if they had created a Mii before. Fifty-seven percent of participants had created a Mii previously and among

Table 1. Sample demographics

	Mean / % (N)	S.D.
Gender		
Male	53% (50)	
Female	47% (45)	
Age	20.53	3.51
Year in school[1]	2.09	.952
Ethnicity		
White	66% (63)	
Asian	21% (20)	
Black	7% (7)	
Other	5% (5)	
Enrollment		
In-state	76% (73)	
Out of state	10% (10)	
International	14% (13)	

Note: (1) Year in school was coded as follows: 1=freshman, 2=sophomore, 3=junior, 4=senior

those who had, reports indicate that the Mii they created for the experiment was only somewhat similar to a previous Mii ($M = 4.53$, $SD = 1.8$ on a 7-point scale ranging from 1 = "not at all alike" to 7 = "exactly the same" as a previous Mii). These results suggest that, in general, participants were not merely recreating a previously used Mii, which would have brought into question any findings. Rather, these Miis were at least somewhat unique.

4.2. Avatar Creation Process

During the lab session, participants created their Nintendo Mi avatar on the website myavatareditor.com, which allowed the full range of body modifications as can be found on the Wii, including facial features, skin tone, height, weight, hair color and style, and face shape. The interface was easy to use and required very little practice to master. This site also allowed moderators to save the information about what features each individual had changed, giving the researchers more information on the specific avatar characteristics chosen by each participant.

4.3. Procedure

Participants first completed a screener survey hosted on the Survey Gizmo website that included demographic information, a 10-item self-esteem measure, and a rank ordering of potential lab session times. Participants were then scheduled for one of 12 lab sessions over three days in April 2010 and emailed a confirmation of their time.

Upon arriving for their lab session, participants signed a consent form and were given a set of verbal instructions regarding what would be expected of them in the study. They were then told to locate the computer to which they had been assigned and read the instructions on the screen carefully before continuing. Each computer employed a randomizer script to randomly assign participants to one of the three conditions. The instructions on the main page gave details regarding the condition to which they had been assigned (e.g., "As a part of this study, you are going to be asked to create an avatar that will be shared with another participant, who you will meet in person at your second lab session. The avatar you create today, along with a brief 'About Me' form you complete, will be shared with your partner before you meet in-person.").

Participants in the two experimental conditions were reminded throughout the survey of the channel through which they would be interacting with their partners in the future, so as to reinforce the manipulation. The instructions also directed participants to the avatar creation website. They were instructed to create an avatar and then go back to the original page within the browser and complete the survey, which included writing an "About Me" section about themselves or their avatar, a number of measures of avatar similarity and attractiveness, and personality measures for the individual (actual self and ideal self) and the avatar. Participants were instructed to keep all pages open so that moderators could save the avatars created.

Once all participants had completed the experiment, a debriefing email was sent to them informing them the true purpose of the study and that no further participation was necessary.

4.4. Measures

4.4.1. Avatar similarity to self. Several items regarding avatar similarity to the participant were adapted from previous research [30]. These items asked participants to rate the avatar's similarity to the self both overall and across 12 features (age, height, weight, face shape, hair color, hair style, eye color, eye shape, eyebrows, nose, mouth, skin color, and overall) on a 7-point scale ranging from very different to very similar. To compute mean similarity scores, responses for each of the items were added together and then averaged.

4.4.2. Avatar attractiveness. Several items regarding how much more or less attractive the avatar was in comparison to the avatar creator were adapted from previous research [30]. These items asked participants to rate the avatar's attractiveness for seven features (hair, eyes, weight, height, nose,

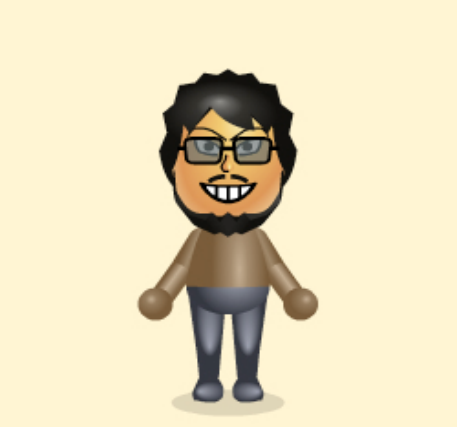

Figure 1. Example of Mii created during the experiment

mouth, and overall) on a 7-point scale ranging from less attractive to more attractive. To compute mean attractiveness scores, responses for each of the items were added together and then averaged.

4.4.3. Personality. Personality was measured in order to determine if avatar personality was similar to or different from the participants' own. Thus, personality was measured for the avatar, the participant's own perceived personality, and the participant's perceived ideal personality. Personality was measured utilizing the "Ten-Item Personality Inventory" (TIPI) [31], which measures the same dimensions as the Big Five but is much shorter than the full inventory. It includes 10 Likert-type scale items, with two items measuring each of the five personality dimensions, with response options ranging from 1 (Strongly Disagree) to 7 (Strongly Agree).

4.4.4. Manipulation check. The manipulation check involved one question, which asked those in the experimental conditions to select the option that best described how they would be interacting with their partners in the future. Options included online via instant messenger, email, or a discussion forum; face-to-face; over the phone; and "I don't know" A manipulation check was employed to ensure that the experimental manipulation (i.e., online vs. offline future interaction) was successful.

5. Findings

5.1. Manipulation Check

A single-item manipulation check was utilized in order to ensure that the experimental manipulation was successful. Results indicated that only 46% of those in one of the experimental conditions picked the correct venue (online vs. offline) for their future interaction and 42% selected "I don't know." Therefore, for all analyses comparing results between the two experimental conditions, only cases that correctly answered the manipulation check were included. For analyses comparing the expectation of any future interaction (i.e., the two experimental groups) with the control group, all cases were included.

5.2. Avatar Similarity

To test H1 and H2, a series of one-way ANOVAs were run in order to compare respondents' perceived similarity to the avatar they had created across conditions. When comparing the three conditions, results were non-significant (F (2,59) = .631, p = .536). A second ANOVA only using the overall similarity question (rather than the index of all similarity questions) improved the model's significance (F(2,60) = 1.62, p = .207), but results remained non-significant. Therefore, hypothesis 1 is not supported. Adding attractiveness as a covariate led to a significant model (F (3,59) = 6.173, p = 0.001), but a post hoc test revealed that the difference existed between the control group and experimental groups, and there was no significant difference between the two experimental groups. Thus, further analysis was conducted utilizing the collapsed experimental conditions to compare them with the control group.

After collapsing the experimental conditions to create one category of expected future interaction, a one-way ANOVA was conducted. This analysis yielded significant results, (F(1,92) = 5.330, p = .023), and as with the earlier analysis, the addition of attractiveness as a covariate increased the model's significance (F(2,86) = 15.41, p < .001). However, the directionality of results was opposite to what was predicted. The mean similarity ratings revealed that those who expected future interaction of any kind (M = 4.22, SD = 1.21) reported less similarity to their avatar than those who expected no future interaction (M = 4.82, SD = 1.21). A final test comparing conditions across the "overall similarity" item was conducted to ascertain if individual features caused the difference, and similar results were found: participants in the control condition rated their avatar as more similar overall (M = 4.89, SD = 1.53) to their actual self than participants expecting future interaction of any kind (M = 3.70, SD = 1.94), t(94) = 3.09, p < .01. Thus, hypothesis 2 is not supported.

5.3. Avatar Personality

To address H3, a series of independent sample t-tests measured differences in personality traits between the two experimental conditions. Participants' ideal-self ratings for each of the Big Five personality traits were subtracted from their avatar's personality ratings and the results were squared. The scores for the two experimental conditions were compared, with results indicating no significant differences for any of the personality traits. Thus, H3 was not supported.

To determine if any differences existed between the control and combined experimental conditions, as was the case with similarity ratings, a second set of independent t-tests were run comparing the control

group with any anticipated future interaction, but none of the Big Five were significantly different.

5.4. Avatar Attractiveness

Finally, to test H4, an independent sample t-test compared attractiveness scores from the online condition to the face-to-face condition. Only cases with a correct response on the manipulation check were included. Findings reveal a significant difference between the online (M = 4.05, SD = .714) and face-to-face (M = 3.40, SD = .92) conditions, $t(25) = -2.05$, $p = .05$, supporting H4. In other words, participants anticipating future online interaction created avatars that were more attractive than participants anticipating future offline interaction. However it is important to note that on the attractiveness scale, the midpoint (4) denoted that the avatar was about as attractive as the individual. Therefore, these findings suggest that participants expecting face-to-face interaction rated their avatars as *less* attractive than themselves, while participants expecting a future online interaction rated their avatars about as attractive as themselves.

6. Discussion

The purpose of this study was to expand on previous research examining the avatar creation process by incorporating concepts from the hyperpersonal model. According to Walther [3], the unique features that characterize CMC—most notably the reduced cues environment—may lead individuals to engage in selective self-presentation, such that they present themselves to their interaction partner as different (i.e., more positively) than their actual selves. Based on this model, we predicted that avatar creation would serve as a proxy for self-presentation such that participants who anticipated future offline interaction would create avatars that more closely resembled their real selves.

Our results suggest that, contrary to our predictions, it was those participants with *no* anticipation of future interaction who created avatars most similar to their actual selves. We suggest a number of reasons for this finding. First, drawing on literature related to the avatar creation process, we know that when participants are assigned to create an avatar for a specific purpose (e.g., blogging, dating), creators tend to imbue their avatars with specific characteristics that relate to their purpose [10]. However, in our study, the control group was not given any specific instructions when creating their avatar, so they may have chosen to merely endow it with their own features because that requires the least amount of cognitive processing. For example, one participant in the control group wrote in his "About Me" section:

> *I have a Wii in my house at home and all my little brothers enjoy spending hours making different characters and themselves. While I would love to make the most accurate portrayal of Predator, Darth Vader or even Larry King, I just took a quick moment and made myself as simple as I could, using a hat to not have to deal with the lack of expressive hair styles.*

This comment suggests that the lack of more goal-driven instructions may have led this participant to create an avatar that required little time or effort. It should also be noted that 15 of the 35 participants in the control condition specifically noted in the "About Me" section that they created their avatar to resemble their actual-self appearance.

Conversely, the simple act of providing a goal (i.e., future interaction with a partner) may have led participants in the experimental conditions to make their avatars less similar to themselves because they believed the avatars should convey goal-specific features that were not necessarily a perfect match to their actual selves. When looking at what information participants in the experimental conditions included in their "About Me" sections (which they were told would be shared with their partner), only one person referenced a similarity between himself and his avatar—the avatar was wearing a blue shirt, which the participant said was his favorite color. Instead, these participants tended to focus on descriptive information, such as their major and hobbies.

Alternatively, research in online dating has found that daters with the goal of finding a long-term partner were more honest in their self-disclosures than daters for whom a long-term relationship was not a goal [6]. As this study was being completed for extra credit and participants were told there would be only one interaction with their partner, those in the experimental conditions may have had little concern for accurate self-presentation. That said, when looking at the "About Me" sections for the experimental condition responses (and filtering for those for whom the manipulation check was significant), an interesting trend emerges. While only two of the 17 participants in the online interaction condition provided a name (and only their first name), six of the 10 participants in the face-to-face interaction condition provided a name, and five of them provided their full name. This finding suggests

that condition did have an effect on at least one aspect of self-presentation: perhaps because those participants in the face-to-face condition knew they would not be able to mask their identity once they met their partner, they decided to provide important identifying information before meeting. On the other hand, participants in the online condition may have realized they controlled how much information their partner would receive and therefore chose to err on the side of less identifying information.

An additional question asked participants to choose the description that best fit the relationship between themselves and their avatar (see Table 2 for the response breakdown across condition). The results support the findings of the ANOVAs and indicate that, in general, people were most likely to create avatars that were similar to their real selves. Very few participants chose to make avatars that were close to their ideal selves or that were far from their actual physical self. This is possibly because of the reduced cognitive effort involved, since it is easiest to create an avatar that is similar to oneself. Very little identity exploration was undertaken by this group of participants.

Related to our third hypothesis, we found no significant findings when examining personality ratings for individuals' avatars and their ideal self-ratings. The hyperpersonal model [3] suggests that when individuals are interacting in an online setting, they will engage in selective self-presentation in order to create an idealized version of themselves. Most college students have extensive experience in creating an online persona thanks to the popularity of SNSs such as Facebook. In addition, because SNSs connect existing friends, these self-presentations tend more toward accuracy than idealization [32]. Participants may have merely assigned their avatar the same characteristics they present on Facebook, which would explain the non-significant findings across conditions. Although it is beyond the scope of this research, future studies should consider how social media—and particularly the creation of a stable online persona on SNSs—impacts self-presentation in other arenas with no expectation of offline interaction, such as in distance learning.

Table 2. Ideal / Actual Self Ratings

	Control	Online	FtF
Close to my ideal self	1	1	2
As close to my real self as can be made	14	4	3
Generally recognizable as my real self	12	5	1
A mix of similar and unrecognizable features to my real self	6	6	4
Mostly not recognizable as my real self	1	0	1
As far from my real self as can be made	1	1	0
Total	**35**	**17**	**11**

Note: Results are reported only for those participants who accurately identified the experimental condition they had been assigned to.

A major part of selective self-presentation relates to portrayals of physical appearance. For example, research looking at profile creation on SNSs [10] and online dating sites [6, 7, 18, 19] suggests that selecting a picture is one of the most important self-presentational tools online. Therefore, we were especially interested in our findings related to avatar attractiveness. This variable played two important roles in our analyses. First, we found that avatar attractiveness was significantly higher in the online interaction condition than the offline interaction condition, providing support for the hyperpersonal model (although the mean was 3.68 on a 4-point scale, possibly due to the cartoon-like nature of Mii avatars).

Second, we found that adding attractiveness in as a covariate in our ANOVA examining similarity between the control and combined experimental conditions yielded significant results, such that the more similar one's avatar was to the actual self, the more attractive the avatar was rated in comparison to oneself. One explanation for this finding can again be found within the online dating literature, which stresses that some degree of strategic misrepresentation in online self-presentation is expected. In other words, even when participants expected to meet their interaction partner in person, they may have created avatars that were slightly more attractive than they viewed themselves to be, but were still reasonably similar to the avatar creator (as shown in the positive relationship to similarity). Alternatively, it could be as simple an explanation as people are unwilling to imply that an unattractive avatar is a close representation of their actual selves. This merits further exploration in future studies.

7. Limitations

The primary limitation of this research relates to the low success rate of the experimental manipulation, which led to very small Ns for some of the analyses. Future research should consider

manipulations that do not involve extensive text-based instructions. As the experimental conditions were reinforced multiple times over the course of the experiment (via instructions on their computer) and still had a low success rate (46%), an alternative method for conveying condition-specific information to participants could involve random assignment to different rooms for each condition and verbal instructions to all participants at once. In addition, presenting participants with more meaningful goals may increase engagement with stimuli.

A second limitation relates to our choice of the Mii avatar. This program was utilized because of its depth of customizability, familiarity to participants, and simplicity; however, the cartoon-like nature of the avatars may have impacted participants' assessments of attractiveness and similarity. Future studies should employ more realistic avatars, such as those used in Second Life, to determine if the realism of the avatar leads to different outcomes.

8. Conclusion

Within a wide variety of social and organizational settings, individuals create online profiles that are used to provide a description of the individual. Depending on the specific context, that information may be closer or further from one's actual self. For example, one would expect that self-presentation on a company website such as IBM's internal social network site Beehive would closely mirror actual traits, while a persona within the multi-user dungeon LambdaMOO would be more likely to deviate from a "true" representation of one's offline identity. However, many other environments for online self-presentation fall somewhere in between these extremes. Depending on their motivations and expectations, users' self-presentational strategies are likely to fall somewhere along this continuum.

The present study focused on the role that expectation of future interaction had on the avatar creation process. More broadly, the goal of this study was to take a first step in addressing how different expectations impact the formation of relationships within an online community. The hyperpersonal model [3] posits that in online-only relationships, interactants tend to take advantage of the reduced cues environment by engaging in selective self-presentation. However, when they expect to meet an online partner offline, their self-presentation tends to be closer to reality [5, 6, 7, 18, 19].

Findings from this study reveal that, in general, the expectation of *any* future interaction—rather than interaction in a specific modality—impacts the avatar creation process. However, an examination of the textual descriptions included with the avatar indicate that some differences do exist based on the type of interaction expected, but these differences were not captured in the measures employed for this study. These findings should be pursued in future studies, as well as a deeper examination of the interaction between avatar similarity and avatar attractiveness, to better understand our findings that avatars used for future interaction tended to be more attractive, particularly for those expecting interaction to occur online.

Avatars are but one way through which individuals create and engage in impression management online. This study provides a first attempt at determining how these self-presentational tools may function across a wide variety of settings and user expectations. Whether in a distance learning class, on a web support forum for cancer patients, or on an employer's internal website, the ability to correctly interpret available identity cues can be extremely beneficial in forming strong, positive, and mutually beneficial relationships.

9. References

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