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Playing for Love in a Romantic Video Game: Avatar Identification, Parasocial Relationships, and Chinese Women’s Romantic Beliefs

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Abstract

Previous studies have identified relationships between romantic media consumption and users’ romantic beliefs, but romantic video games (i.e., games in which players attempt to foster a romantic relationship with a chosen game character, also called dating games or dating simulators) remain understudied. Using a cultivation framework, we conducted an online survey of female Chinese players to determine their consumption of the romantic video game genre, identification with their avatars, and parasocial relationships with the romantic targets they pursue in the game, as well as their beliefs about romantic relationships. Although the amount of time spent playing romantic video games did not directly predict idealized beliefs about romantic
relationships, the hypothesized mediation model revealed it indirectly predicted romantic beliefs through identification with avatars and parasocial relationships with video game characters. We discuss the implications for studying romantic media, dating simulations, interactive narratives, and other video game genres.

**Keywords**: avatars, cultivation, identification, parasocial relationships, romantic media, romantic relationships, video games

Romantic media often depict love as powerful, unwavering, and able to overcome all obstacles. Once a person has found “the one,” they fall in love quickly, and “the one” is a perfect match on all levels, from deep understanding to sexual compatibility (Galician, 2004). Although these myths are common, such unrealistic beliefs about the nature of romantic relationships can be detrimental to relationship maintenance and satisfaction (Demo & Ganong, 1994; Epstein & Eidelson, 1981). Media portrayals are a key contributor to individuals’ enactment and understanding of romantic relationships; several studies have demonstrated an association between television viewing and viewers’ relational beliefs and attitudes (e.g., Bond & Drogos, 2014; Hefner & Wilson, 2013; Jin & Jeong, 2010; Osborn, 2012; Segrin & Nabi, 2002; Vu & Lee, 2013; Zurbriggen & Morgan, 2006). Specifically, romantic-themed television has been associated with unrealistic beliefs about relationships, such as idealized expectations for intimacy in marriage.

Previous research has focused on traditional media, but little is known whether this relationship holds true in interactive media such as video games. Also, previous studies on cultivation and particularly the relationship between media consumption and romantic idealism have been mostly limited to U.S. samples (Vu & Lee, 2013). The current study addresses these
gaps by investigating the relationship between Chinese women’s romantic video game play and their romantic beliefs.

Video games are the fastest growing media market across the globe, and Asia remains the dominant market (Ong, 2013). Despite the massive Asian market, most video game effects research has been conducted in Western countries. Additionally, much of the literature has focused on violent video games; limited attention has been devoted to other game content (Behm-Morawitz & Mastro, 2009). Romantic video games (RVGs) constitute a genre in which players control a character whose primary goal is to identify a mate and pursue a romantic relationship. This genre has enjoyed significant popularity in Japan, China, Korea, and Singapore (Pettman, 2009; Taylor, 2007).

Another understudied aspect of video games is the women who play them. The Entertainment Software Association (2014) reports that 48% of game players are women. Despite the prevalence of gaming among women and their distinctive experiences (e.g., Fox & Tang, 2014; Holz Ivory, Fox, Waddell, & Ivory, 2014; Yee, 2014), limited research has focused on female players, particularly outside of Western countries.

Thus, this study addresses multiple gaps in existing research. Furthermore, it explores the viability of the cultivation framework in a new genre of video game (i.e., romantic video games) and investigates new constructs (e.g., avatar identification) relevant to a potential relationship between romantic video gameplay and Chinese female players’ romantic beliefs. It also seeks to test whether predictions and findings from previous studies on romantic media and beliefs are supported in the context of romantic video games.

**ROMANTIC VIDEO GAMES**
Romantic video games (*ren’ai* games or 恋愛ゲーム in Japanese), also known as dating simulators, refer to video games with dating or romance as the major theme. These games are marketed as an opportunity for players to vicariously experience and fulfill romantic fantasies (Taylor, 2007). RVGs typically feature static, anime-style graphics and branching storylines. The player experiences the romantic narrative through an avatar that is typically a young adult in high school or college, interacting with computer-controlled characters by selecting their avatar’s dialogue or actions from a selection of responses.

The goal of the game is to pursue and achieve romantic success with another character that is often selected from a pool of potential mates (Kim, 2007). When interacting with other characters in the game, successful action or dialogue choices will cause the target character’s interest in the player’s avatar (often measured by a “love meter”) to rise. After completing the game, players can replay the game and pursue different characters and narratives. Subcategories of RVGs include *bishōjo gēmu* (meaning “beautiful girl games” in Japanese) that are designed for male consumers and feature heterosexual relationships, and *otome games* or *jyoseimuke gēmu* (“female-oriented games”) that are designed for female consumers and feature heterosexual relationships. Given our goal was to examine potential effects of romantic media (as opposed to pornographic content, which prevails in male-oriented games; Galbraith, 2011; Taylor, 2007), we focused on female-oriented games.

Several features of this genre are relevant to understanding how RVGs may influence players’ romantic beliefs. Similar to television and movie portrayals (Eyal & Finnerty, 2009; Galician, 2004; Hefner & Wilson, 2013), romantic video games provide highly stereotypical and distorted representations of romantic relationships (Kim, 2007, 2009). These games feature highly romanticized scenes, emotionally provocative interactions with pursuable characters, and
unrealistic love stories. For example, *Tokimeki Memorial*, one of the most popular romantic game series in Asia (Pettman, 2009), includes a story in which the female protagonist and the male protagonist meet on the first day of high school. Over the course of the game, it is revealed that they were childhood sweethearts who had made a promise to be together forever but lost contact. The characters fall back in love and the game ends with the happy, reunited couple. Exposure to such idealized portrayals may influence consumers’ beliefs about romantic relationships outside the mediated context (Hefner & Wilson, 2013; Osborn, 2012; Segrin & Nabi, 2002). To test this possibility, this study adopted a cultivation framework to examine the link between RVGs and romantic beliefs.

**CULTIVATION**

Cultivation posits that habitual exposure to television shapes people’s beliefs about social reality (Gerbner & Gross, 1976). Heavy viewers of television are more likely than moderate or light viewers of television to develop perceptions that are consistent with those portrayed on television (Gerbner, Gross, Morgan, Signorielli, & Shanahan, 2002). This perspective has been employed to investigate effects of television viewing on topics such as perceptions of crime, gender and racial stereotypes, political opinions, and health beliefs (Gerbner et al., 2002). These studies have generally found significant, although small in terms of effect sizes, associations between television exposure and perceptions (Morgan & Shanahan, 1997).

Although cultivation was originally intended to account for effects of overall television viewing on viewers’ beliefs and attitudes (Gerbner et al., 2002), later studies have discovered genre-specific cultivation effects of viewing of specific television genres or programs (e.g., Cohen & Weimann, 2000; Potter & Chang, 1990). Several studies have found relationships
between the consumption of romantic programming (e.g., romantic dramas, soap operas, and reality dating shows) and romantic beliefs.

For example, Segrin and Nabi (2002) found that overall television viewing was not a good predictor of idealized expectations of marriage, whereas consumption of romantic programs was significantly related to idealized expectations of marriage and the intention to marry. Zurbriggen and Morgan (2006) found that reality dating show consumption was related to negative sexual beliefs and stereotyped beliefs about men, women, and relationships. Osborn (2012) found that married individuals who are heavy viewers of romantic programs reported lower commitment and higher expected costs of marriage. Results of these studies consistently demonstrate a relationship between the viewing of romance-themed television and romantic beliefs.

Although these studies contributed to the understanding of the impact of consuming romantic media on people’s romantic beliefs, these studies only focused on television programming. Research on the effects of romantic video games is scarce. Given the significant popularity of romantic video games in Asia (Pettman, 2009; Taylor, 2007), it is also important to understand the role these games play in people’s beliefs about relationships

**CULTIVATION AND VIDEO GAMES**

Applied to video games, the cultivation perspective suggests that repeated exposure would cause players to form perceptions and beliefs of social reality consistent with what is depicted in the game world (Chong, Teng, Siew, & Skoric, 2012). The limited studies on cultivation effects of video games have found some evidence supporting this prediction (e.g., Anderson & Dill, 2000; Behm-Morawitz & Ta, 2014; Chong et al., 2012; Poels, Ijsselsteijn, &
de Kort, 2014; Williams, 2006). For example, Williams (2006) conducted a longitudinal study and found that people who played a video game over the course of 1 month changed their perceptions of physical world dangers to match what was portrayed in the game world. Poels et al. (2014) surveyed habitual game players and found that increased playing time predicted greater incorporation of game experiences (such as game-specific language) into offline life.

Most of these past studies focused on cultivation effects of exposure to violent video games. It is necessary to examine whether the relationship between genre consumption and beliefs holds in terms of romantic video games. Similarly to the way violence is overrepresented and normalized in violent video games, romantic relationships are typically idealized and distorted in romantic video games (Kim, 2007, 2009). According to cultivation, exposure to these idealized portrayals of romantic relationships over time may lead an individual to form expectations of real life relationships consistent with these portrayals. Therefore, we expect that:

**H1**: Women who spend more time playing romantic video games will express greater endorsement of idealized romantic beliefs.

One interesting aspect is that most of these studies found only limited evidence for first-order cultivation effects (i.e., estimations of probability and prevalence of situations verifiable in the real world), but no evidence for second-order cultivation effects (e.g., beliefs, attitudes, and opinions; see Shrum, 1995). Van Mierlo and Van den Bulck (2004) found a significant relationship between playing violent video games and two game-related first-order judgments (i.e., estimates of violent crime and the number of police officers in the workforce), but no significant relationship between playing violent video games and second-order judgments such as beliefs and attitudes about law and order. Similarly, Chong et al. (2012) conducted a
longitudinal study of repeated exposure to a violent video game and found support for first-order cultivation effects, but only minimal support for second-order effects.

Two possible explanations for the inconsistent findings on second-order effects include the complex underlying process of cultivation effects and the interactive nature of the video game environment. According to Shrum’s (1995) social cognitive approach, it is not merely the sheer amount of time of message exposure, but also factors such as involvement that play important roles in shaping the effects of a message on a person’s beliefs and attitudes (Shrum, 2004).

Another explanation is that the video game world is highly interactive compared with television viewing. When watching romantic television, a person can only observe romantic partners interacting with each other; when playing romantic video games, a person can not only interact directly with romantic targets in the games through the eyes of the avatar, but also influence what happens to the relationship between the avatar and romantic targets. This interactivity and high involvement in game narratives may further complicate the cultivation effects of video games, rendering them more inconsistent than cultivation effects commonly found in television viewing.

Indeed, Chong et al. (2012) argued that active involvement during the course of playing video games may mediate the effects of video games on players’ beliefs and attitudes. When studying romantic video games using the cultivation perspective, it is important to look at relevant types of involvement. Thus, we examined two concepts reflecting involvement in romantic video gameplay: identification with one’s avatar and parasocial relationships with the characters one pursues.
IDENTIFICATION

Identification refers to the extent to which an individual relates to a media character and feels that s/he is similar to the character (Bandura, 1977; Cohen, 2001). Observers may then adopt the character’s perspective and experience the mediated environment as the character (Cohen, 2001). Specific to video games, the experience of identification has been described as “a temporal shift of players’ self-perception through adoption of valued properties of the game character” (Klimmt, Hefner, & Vorderer, 2009, p. 351). Identification with one’s character is often an outcome of extended play in virtual spaces, and people can develop deep relationships with their avatars over time (Boellstorff, 2008; Taylor, 2002). Higher levels of identification with mediated characters leads to greater shifts in beliefs, attitudes, and behaviors in accordance with the characters’ experiences (e.g., Bond & Drogos, 2014; Fox & Bailenson, 2009; Klimmt et al., 2009).

Klimmt et al. (2009) distinguish avatars’ capacity to promote identification from characters in books or on television. Due to avatars’ interactivity and the user’s control over the avatar, video games create a monadic relationship wherein “players do not perceive the game (main) character as a social entity distinct from themselves, but experience a merging of their own self and the game protagonist” (p. 354). Indeed, considerable research has found that game players identify with their avatars (Boellstorff, 2008; Taylor, 2002; Van Looy, Courtois, de Vocht, & de Marez, 2012). Further, the amount of time spent playing the game is associated with higher levels of identification (Lewis, Weber, & Bowman, 2008). Thus, we hypothesized that:

H2: Women who spend more time playing romantic video games will have higher identification with their avatars.
Identification has often been examined as a mechanism explaining the outcomes of game play. Previous studies have found that identification with characters influences outcomes both inside and outside the virtual environment, such as aggression (Konijn, Bijvank, & Bushman, 2007), self-efficacy (Peng, 2008), and physical activity (Fox & Bailenson, 2009). Thus, identification with avatars can be a powerful experience that carries over into the physical world after gameplay. In romantic video games, the player’s avatar is on a quest to identify, romance, and secure a romantic partner. As such, we would expect that:

**H3**: Women who have higher identification with their avatars will have greater endorsement of idealized romantic beliefs.

**PARASOCIAL RELATIONSHIPS**

Another important concept related to RVGs is the parasocial relationship (PSR). PSRs were originally described by Horton and Wohl (1956) as the “simulacrum of conversational give and take” that characterized the “seeming face-to-face relationship between spectator and performer” (p. 215). Rather than treating a media figure as a distant or fictional entity, observers perceive the figure socially, in the same manner that they perceive a friend (Giles, 2002; Klimmt, Hartmann, & Schramm, 2006; Perse & Rubin, 1989; Tukachinsky & Tokunaga, 2013).

Although some scholars have applied the concept of PSRs to video games (e.g., Hartmann, 2008; Klimmt et al., 2006), few studies have elaborated its role in the gaming experience. Some that have examined parasocial processes confound them with identification. Cohen (2001) distinguished these concepts, noting that “when identifying, one lacks an awareness of the self, and, therefore, the distinction between self and other—necessary for interaction—is missing” (p. 253). As Klimmt et al. (2009) note, in video games, identification is experienced as a merging of the self with the playable avatar, thus meeting Cohen’s conditions.
for identification. Thus, players experience identification with their own avatars, but experience parasocial relationships with other characters in the game (Tukachinsky & Tokunaga, 2013).

Because these parasocial relationships with game characters resemble interpersonal relationships, they are likely to be fostered the same way: liking and intimacy increase through ongoing disclosure and interactions (Giles, 2002; Rubin & McHugh, 1987). Thus, we expect:

**H4:** Women who spend more time playing will experience stronger parasocial relationships with romantic targets.

Because identification predicts perspective-taking and empathy (Cohen, 2001; Klimmt et al., 2009; Van Looy et al., 2012), it is likely that players who identify strongly with their avatar would be more likely to adopt the feelings of their avatar toward other game characters. In RVGs, we would expect that higher levels of identification with one’s avatar would be associated with forming a stronger parasocial relationship with the avatar’s romantic target:

**H5:** Women who have higher identification with their avatars will report stronger parasocial relationships with romantic targets.

Because they are perceived similarly to interpersonal relationships, parasocial relationships with media characters can become intense (Perse & Rubin, 1989). In an RVG, the player also has the ability to make choices about the course of the PSR, much in the way they would make decisions about their actions in a relationship with another person. Thus, PSRs in gaming environments may be more influential than those with characters in traditional media because they maximize the individual’s opportunities for social interaction with the characters (Hartmann, 2008; Klimmt et al., 2006). Previous research in traditional media environments has
demonstrated that the stronger the PSR, the greater the influence on the consumer’s attitudes and behaviors (Bond & Drogos, 2014; Giles, 2002). Thus, we anticipate that:

**H6:** Women who have stronger parasocial relationships with romantic targets will have greater endorsement of idealized romantic beliefs.

Summarizing the above hypotheses, a mediated model of cultivation effects of video games is proposed. See Figure 1. Similar to Bond and Drogos (2014), we anticipate that identification and parasocial relationships will mediate the relationship between exposure and cognitive outcomes. In our model, the time spent playing romantic video games not only directly predicts endorsement of idealized romantic beliefs (H1), but also indirectly predicts endorsement of idealized romantic beliefs through identification with the avatar (H2, H3), the strength of the parasocial relationship with the romantic target (H4, H6), and through identification with avatar and parasocial relationship with romantic targets sequentially (H2, H5, H6).

**METHOD**

**Sample and Procedure**

Approval was obtained from The Ohio State University IRB. A recruitment ad and survey link were posted on the Otomedream online forum (“翼之梦论坛”) (http://www.otomedream.com/forum.php), one of the most popular online forums specifically dedicated to discussions about female-oriented games in China. Each participant received 30 virtual forum tokens (worth approximately $.50 U.S.) as compensation. A total of 535 participants initiated the online survey; 317 met criteria for inclusion, but 143 were excluded due to missing data on the variables of interest. Participants who did not identify as female or were
under 18 were also excluded. The final sample included 174 Chinese female players of female-oriented romantic video games ranging in age from 18 to 31 ($M = 20.97$, $SD = 2.61$).

**Measures**

**Consumption of Romantic Video Games**

Participants’ consumption of romantic video games was measured by an open-ended question asking participants how many hours of RVGs they played in an average week ($M = 10.67$, $SD = 9.60$).

**Identification with Avatar**

Cohen’s (2001) media character identification scale was adapted to measure identification with avatars. Participants were asked to name one of their favorite RVGs and rate on a 5-point Likert scale (1 = *Strongly disagree*; 5 = *Strongly agree*) the degree to which they identified with the avatar in this game. Sample items include “I tend to understand the reasons why the avatar does what she does” and “While I was playing the game, I wanted the avatar to succeed in achieving her goals.” A Cronbach’s $\alpha$ of .89 was achieved.

**Parasocial Relationship with Romantic Target**

Participants responded to a 10-item 5-point Likert scale (1 = *Strongly disagree*; 5 = *Strongly agree*) to indicate their parasocial relationship with their favorite romantic target. Items were based on Perse and Rubin (1989) but reflected the nature of interaction with romantic targets in RVGs. These included “I felt I was in a relationship with him when I was playing the game,” and “I continued to think about him even when I was not playing the game.” Reliability for this measure was $\alpha = .86$. 

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Romantic Beliefs

Sprecher and Metts’s (1989) 15-item Romantic Beliefs Scale was used to measure participants’ idealized romantic beliefs. Sample items include “I believe that to be truly in love is to be in love forever,” and “There will be only one real love for me.” Participants indicated their agreement on a 5-point scale (1 = Strongly disagree; 5 = Strongly agree) with each statement. Reliability for this measure was $\alpha = .82$.

Covariates

According to the literature, factors such as age, consumption of romantic-specific media genres, and general media consumption may also be related to a person’s romantic beliefs (Osborn, 2012; Segrin & Nabi, 2002; Zurbriggen & Morgan, 2006). Therefore, these factors were treated as covariates in this study.

Mass media consumption was assessed by providing participants a list of media channels (e.g., television, movies, video games) and asking them to indicate the number of hours they spend on each of the media channel in an average week. The measure of total mass media consumption was constructed by summing the number of hours for all of the media channels reported by each participant ($M = 57.67$, $SD = 36.14$).

To measure romantic media consumption, participants were presented a list of romance-specific media genres and were asked to report the number of hours they spent consuming each (e.g., romantic reality shows, romantic manga, and romance novels) in an average week. The measure of total romantic media consumption was constructed by summing the number of hours for all of the romantic media genres reported by each participant ($M = 9.13$, $SD = 12.91$).

RESULTS
Correlations

Bivariate correlation analysis and serial mediation model testing were used to test the hypotheses. Table 1 shows the bivariate correlations among the variables as well as their means and standard deviations. Consistent with past research (e.g., Segrin & Nabi, 2002), overall consumption of mass media was not significantly related to romantic beliefs ($r = .02, p = .79$), whereas the consumption of romantic genre media was significantly related to romantic beliefs ($r = .15, p = .046$). Time spent playing romantic video games was not significantly associated with romantic beliefs, however ($r = .09, p = .24$); H1 was unsupported. Avatar identification and parasocial interaction with romantic targets were significantly associated with romantic beliefs, such that the stronger the identification with the avatar ($r = .32, p < .001$) and the stronger the parasocial interaction with game character ($r = .48, p < .001$), the more idealized the participant’s romantic beliefs were, providing some preliminary support for H3 and H6.

Main Analysis

Collectively, Hypotheses 1–6 suggest a serial mediated relationship (see Figure 1), in which RVG consumption not only directly predicts endorsement of idealized romantic beliefs (H1), but also indirectly predicts endorsement of idealized romantic beliefs through identification with avatars (H2, H3), parasocial relationships with romantic targets (H4, H6), and through identification with avatars and parasocial relationships with romantic targets sequentially (H2, H5, H6). We employed the PROCESS macro developed by Hayes (2013) to test this serial mediation model (Model 6), in which RVG consumption was entered as predictor variable, romantic beliefs as dependent variable, identification with avatars as the first mediator, and parasocial relationship with romantic targets as the second mediator (i.e., playing of
RVGs → identification with avatars → parasocial relationship with romantic targets → idealized romantic beliefs). In this analysis, participants’ age, consumption of romantic-specific media genres, and general media consumption were entered as covariates. All paths for the statistical model are illustrated in Figure 1 and their corresponding coefficients are provided in Table 2. Variance inflation factors (VIFs) for all predictor variables in the model were tested. None exceeded 1.60, suggesting no problem with multicollinearity in this analysis (Tabachnick & Fidell, 1996).

H1 was tested by assessing the direct relationship between RVG consumption and endorsement of idealized romantic beliefs. Similar to the correlation analysis, results produced by PROCESS indicated that there was no significant direct relationship between RVG consumption and romantic beliefs ($p = .97$). Thus, H1 was not supported.

H2 predicted that RVG consumption is related to higher identification with the avatar. For this to be true, RVG play would need to be positively related to identification with the avatar ($a_1$ path). As can be seen in Table 2, playing RVGs was positively related to identification with the avatar ($p = .03$), suggesting that women who spent more time playing RVGs experienced higher levels of identification. H2 was supported.

H3 predicted that women who have higher identification with their avatars will have greater endorsement of idealized romantic beliefs. As shown in Table 2, identification with their avatars was not significantly related to idealized romantic beliefs ($p = .52$). Therefore, H3 was unsupported. Although the relationship between identification with avatars and romantic beliefs was significant on the bivariate level ($r = .32, p < .001$), the relationship became nonsignificant when parasocial relationship with romantic targets was added to the model as a mediator,
suggesting that the association between identification with avatars and romantic beliefs may be mediated by parasocial relationships with romantic targets.

H4 suggested that women who spend more time playing RVGs will experience higher levels of parasocial relationships with romantic targets. As can be seen in Table 2, there was no significant relationship between the playing of RVGs and parasocial relationships with romantic targets ($p = .60$) (path $a_2$), disconfirming H4. The relationship between the playing of RVGs and parasocial relationship with romantic targets was significant on the bivariate level ($r = .17$, $p = .03$), but the relationship became non-significant when identification with avatars was added to the model as a mediator, indicating that the relationship between playing of RVGs and parasocial relationship with romantic targets may be mediated by identification with avatars.

H5 suggested that women who have higher identification with their avatars will have stronger parasocial relationships with romantic targets. As can be seen in Table 2, identification was positively related to parasocial relationships with romantic targets ($p < .001$) (path $d_1$), suggesting that women who had higher identification with their avatars had stronger parasocial relationships with romantic targets. Thus, H5 was supported.

H6 predicted that women who have higher levels of parasocial relationships with romantic targets will have greater endorsement of idealized romantic beliefs (path $b_2$). Results showed that the level of parasocial relationships with romantic targets was positively related to the level of endorsement of idealized romantic beliefs ($p < .001$), suggesting that women who had higher levels of parasocial relationships with romantic targets had greater endorsement of idealized romantic beliefs. Therefore, H6 was supported.
Hypothesis testing for H2, H5, and H6 collectively showed that playing RVGs was significantly positively related to identification with avatars (path a₁), which was positively related to parasocial relationships with romantic targets (path d₁), which was positively related to idealized romantic beliefs (path b₂). Furthermore, bootstrapping revealed that the path of playing RVGs to identification with avatars to parasocial relationships with romantic targets to idealized romantic beliefs (path a₁d₁b₂) was significant, suggesting that identification with avatars and parasocial relationships with romantic targets sequentially mediate the relationship between playing RVGs and idealized romantic beliefs.

Finally, because our data were collected at a single time point, we investigated alternative models, including single mediator models and one in which beliefs predicted consumption. Alternative models were not significant (95% CIs overlapped with zero) and not supported.

**DISCUSSION**

Past research investigating the association between romantic media consumption and users’ idealized romantic beliefs primarily focused on romantic television. The goal of this study was to extend this research to the realm of romantic video games. Contrary to previous findings on romantic media consumption, our study indicated that solely the time spent consuming romantic games is not significantly associated with idealized romantic beliefs for these women. Instead of a direct cultivation effect, our findings support a mediated relationship between exposure to RVGs and idealized romantic beliefs. Women spending a large amount of time playing RVGs indicated higher levels of identification with their avatars; this identification predicted stronger parasocial relationships with the male characters who were their romantic targets in the game. PSRs in turn predicted players’ endorsement of idealized romantic beliefs.
Our findings are consistent with Osborn’s (2012) conclusion that the nature of viewing, rather than sheer amount, is a better predictor of relationship-related attitudes.

Theoretically, our findings lend support to Shrum’s (2004) social cognitive view of cultivation effects, which argues that the cognitive processes related to exposure play an important role in shaping a person’s beliefs and attitudes. Furthermore, this study supports emerging research focusing on the importance of identification and parasocial relationships with characters in predicting media consumers’ beliefs and attitudes (e.g., Bond & Drogos, 2014). This coincides with the notion advanced by the extended elaboration likelihood model (E-ELM) and the entertainment overcoming resistance model (EORM) that narrative-related factors such as identification and parasocial interaction with media characters may reduce resistance to persuasion and enhance persuasive outcomes (Moyer-Gusé, 2008; Slater & Rouner, 2002).

Although causality cannot be established in a single survey, these results provide evidence of a relationship between playing romantic video games and the endorsement of idealized romantic beliefs. It should be noted that the observed relationships could also be reversed in that people who hold idealized romantic beliefs are likely to spend more time playing RVGs, thus having stronger identification with avatars, and stronger parasocial relationships with romantic targets (although alternative testing of our data did not support this model). Experimental research is necessary to clarify causality.

Despite contributing to a deeper understanding of the application and the underlying mechanism of cultivation, results of this study also have practical implications. On one hand, this study indicates that playing RVGs may indirectly influence players’ idealized romantic beliefs. Because maintaining unrealistic expectations for romantic relationships may lead to disappointment, tension between partners, and eventual dissolution (Epstein & Eidelson, 1981;
Galician, 2004), those who are heavy consumers of RVGs may experience more relationship difficulties than those who are light consumers. Education on realistic relationship beliefs and expectations may help buffer the negative influence of RVGs on these individuals. On the other hand, because RVG consumption does not directly predict romantic beliefs, effective interventions to buffer the negative consequences of playing RVGs may focus on factors affecting the exposure-identification link or the identification-parasocial relationship link. For example, priming players to focus on the differences between themselves and their avatars may decrease identification, thus reducing the chances of cultivating idealized romantic beliefs.

This study also enriches the literature on video game effects research by exploring a new genre of video games. Although romantic video games are more prevalent in Asian countries than in Western societies (Taylor, 2007), other popular genres in Western societies (e.g., online role-playing games) often contain substantive romantic elements or enable game-based romantic relationships with other players (Yee, 2014) and should be studied. Also, we focused on one subgenre of RVGs, female-oriented games; other subgenres merit further research, particularly those aimed at men.

It is important to note that this study focused on Chinese RVG players, who may conceptualize romantic relationship differently and have a different set of idealized romantic beliefs from players with other cultural backgrounds. Weaver and Ganong (2004), for example, found that romantic beliefs varied between African Americans and European Americans in a U.S. sample. Future studies should examine this relationship among other cultural groups. It would also be interesting to explore whether other relevant cultural aspects, such as sex role stereotypes or marital norms, play a role in the consumption of RVGs and idealized romantic beliefs.
In conclusion, our study provides further support to findings on the association between consumption of romantic media and romantic beliefs and extends this work into a new medium. Additionally, this study identified experiences specific to video game play (e.g., identification with one’s avatar and parasocial relationships with game characters) that are key to understanding the link between play in the virtual world and beliefs in the physical world. These findings indicate that video games have implications for interpersonal relationships and wellbeing, and consumers should be mindful of the permeable boundaries of play.

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Authors’ Note

Both authors contributed equally to this manuscript.

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**Table 1.** Means, standard deviations, and intercorrelations among variables

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*p < .05, **p < .01, ***p < .001.*
Table 2. Path coefficients from the serial mediation model estimated using PROCESS

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Direct path

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<th>SE</th>
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<th>p</th>
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Indirect paths

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Note: N = 174 participants (only cases with no missing values across variables were included in the analysis). 10,000 bootstrap samples with 95% CI. Direct path: Playing of RVGs → Idealized romantic beliefs. Indirect paths: Playing of RVGs → Identification with avatars → Idealized romantic beliefs (Path1); Playing of RVGs → Identification with avatars → Parasocial relationship with romantic targets → Idealized romantic beliefs (Path2); Playing of RVGs → Parasocial relationship with romantic targets → Idealized romantic beliefs (Path3).
Figure 1. Serial mediated model of the playing of RVGs’ direct and indirect influence on endorsement of idealized romantic beliefs through identification with avatars and parasocial relationships with romantic targets (PSR).