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Game identity-based motivations of playing World of Warcraft and their psychological outcomes

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Keywords: Motivation, Identity-based motivation, World of Warcraft, Sense of community

Abstract

Previous studies have found that playing massively multiplayer online games (MMOG) such as World of Warcraft (WoW) can lead to socialising and enhanced connectedness as well as negative wellbeing outcomes. Motivations for achievement and socialising play central roles in playing MMOGs. Using data from a survey of 181 WoW players, this study examined the relationship among game identities, motivations for playing WoW, and psychological outcomes. Results from analyses of path models suggested that motivations for achievement and socialising were influenced by game identities. While these motivations substantially explained the variance in players' sense of WoW community, these factors only explained a small portion of negative psychological well-being. This study attests to the possibility of utilising identity-based motivations in online game studies to understand psychological outcomes for players.

Keywords: Motivation, Identity-based motivation, World of Warcraft, Sense of community

Introduction

Playing Massively Multiplayer Online Games (MMOG) such as World of Warcraft (WoW) has been associated with both negative and positive psychological consequences. While there is research, which has shown that highly involved players of World of Warcraft (WoW), can experience negative psychological symptoms such as depression, stress and decision making difficulties¹⁻³, other research has shown that WoW-based social interactions can also provide positive psychological experiences for game players. Connectedness to other players and in-game and offline support (e.g., trust, advice, and grading help) have been reported in other studies⁴, as teamwork and collaboration are facilitated by the in-game mechanisms of WoW.^{5,6} Because of these socialising functions, MMOGs such as WoW have been proposed as a potential environment for family therapies such as relational healing.⁷ Thus, although lacking a concrete environment, the community available through playing WoW can be regarded as a social structure where players socially interact (via both in-game and off-game activities). As such, the feeling that one is a part of this social structure (i.e., sense of community) is likely to be shared by players⁴.

Several studies have investigated motivations for playing MMOGs, suggesting that motivation is a predictor of both actual playing behaviours and addiction.^{2,8} Using factor analysis, pioneering work categorised motivations for playing online games into achievement, social, and immersion components.⁹ Later studies specifically examining the WoW context found that in-game activities, such as teamwork and competitions, accurately predicted actual playing behaviour (e.g., quest achievements, player vs. player achievements), highlighting the importance of motivations for achievement and socialisation in the WoW environment.^{5,8} While immersion motivations have been examined in previous research⁹, the present study focused on socialised motivations in the game. Thus, broader factors were outside the scope of the current study.

Although there appears to be an association between motivations and problematic internet game playing, previous studies overlooked the factors underlying motivations. According to the theory of

identity-based motivation, any behaviour is identity-infused rather than merely following personal choices.¹⁰ A previous study revealed that the identity of a WoW player, especially one's guild member identity, generated a strong in-group trust online and offline.⁶ A qualitative study among WoW players indicated that in-game socialisations are influenced by player's WoW player identity (one's perceived uniqueness of playing WoW as opposed to other online games) and the guild member identity (one's perceived pride and honour of belonging to a particular WoW guild).⁴ Thus, gamers' motivations of playing WoW are likely driven, at least partly, by their identities in the WoW context.

The current study aimed to examine the relationships among motivations for achievement and socialising and their psychological outcomes by regarding the WoW context as a social environment (Figure 1). As the theory of identity-based motivation has never been applied in WoW studies, this study aimed to test its application to the WoW context. We hypothesised that two game identities (WoW identity, guild identity) affect the major socialisation-related motivations (achievement and socialising) for playing. Given the dominant function of WoW's in-game mechanisms, which encourage players to work collectively^{5,6}, we hypothesised that players' motivations for socialisation partially explain their motivations for achievement (e.g., grading and other collective in-game activities). Consistent with previous findings, we hypothesised that negative psychological symptoms and game over involvement (addiction) relate to motivations for achievement^{1,2}, whereas sense of WoW community (one perceives oneself as a part of the WoW community) is influenced by motivations for socialising^{4,6}.

Method

Participants

181 participants (128 males, 53 females) completed an online survey. Their ages ranged between 18 and 64 years ($M=25.07$, $SD=7.62$).

Measures

Demographics, playing history, and playing habits. Demographic information included sex, age, and country of residence. Participants also reported how many months they had played WoW, as well as how many hours they approximately spent playing WoW each week.

Details of the following measures are listed in the Appendix.

WoW identity and Guild identity. Adapted from Brown et al's, social identification measure¹¹ for the guild and game context. We used a 7-point Likert scale with 3 questions (Cronbach's $\alpha=.84$) to assess the WoW identity (e.g., How much do you see yourself being a WoW player?); with an 8-point Likert scale, 3 items (Cronbach's $\alpha=.90$) were used to test Guild identity (e.g., How much do you see yourself as a member of your guild?).

Motivation for achievement and socialising. Drawn from previous research findings⁹, we used a 5-point Likert scale with 3 and 4 questions to measure motivation for achievement (e.g., How important is levelling, acquiring great items and gear, and becoming powerful? ; Cronbach's $\alpha=.66$) and socialising (e.g., How important is chatting with other players? ; Cronbach's $\alpha=.84$), respectively.

Negative psychological symptoms. The Depression Anxiety Stress Scales (DASS)-21¹², with a 4-point Likert scale, was used to test symptoms of depression, stress and anxiety during the last week.

WoW addiction. Young's diagnostic questionnaire for Internet addiction (YDQ) was used with a 4-point Likert scale. Eight questions (Cronbach's $\alpha=.87$) were asked with wording adapted to the WoW context. (e.g., Do you play WoW longer than originally intended?)

Sense of WoW community. With a 5-point Likert scale, 8 questions (Cronbach's $\alpha=.89$) were used to assess the sense of community (e.g., I can get what I need through the WoW community). The sense of community scale is based on the Brief Sense of Community Scale¹³, adapted to fit the context of WoW, to measure participants' WoW-based psychological sense of community.

Procedure

Participants were recruited through text based online announcements on websites catering to players of WoW (e.g., Rock Paper Shotgun) after permission was granted by website operators. Participants provide informed consent by being taken to an electronic informed consent form after clicking the link on the advertisement and indicating their consent ticking a box and proceeding with the survey. No incentives were offered directly to participants; however, participants were informed that, for each participant who completes the online survey, \$1 AUD would be donated to the charity Child's Play, <http://www.childsplaycharity.org/>, up to a pre-determined limit of \$300 AUD.

Results

Demographics and WoW playing status

Most participants resided in Australia (77.9%) and other English-speaking Western countries such as United States (8.8%) and Canada (2.8%). Participants had been WoW players for an average of 37.35 months (i.e., just over 3 years) in total (SD=23.56). They spent an average of 16.83 hours (SD=12.87) per week playing WoW.

Correlational analysis

As shown in Table 1, Pearson's correlation tests showed that all variables were significantly associated with motivations for achievement (all $ps < 0.05$). Both game identities were correlated with the two motivations investigated (motivations for achievement and socialising). However, WoW addiction and DASS were related only to motivations for achievement but not socialising. Although sense of community was associated with motivations, it had no relation to addiction or DASS.

Model test and modification

Based on the hypothesised model (see Figure 1), a path model was first identified and tested. However, the fit statistics were poor: $\chi^2(20)=141.898$, $p<.001$; RMSEA=.14, CFI/TLI=.74/.54, SRMR=.09. Modification indices were examined and used to refine the model to enhance model fit

and parsimony¹⁴. As shown in Figure 2, the final model was constructed and generated good fit: $\chi^2(21)=166.50, p<.001$; RMSEA=.07, CFI/TLI=.95/.91, SRMR=.07.

In the modified model, except for the paths from motivations to DASS and the path from motivations for achievement to sense of WoW community, all other paths had significant coefficients. In line with hypothesised relationships, motivations for socialising had a medium and significant correlation with sense of WoW community. Interestingly, a small but near significant ($p=.085$) association between motivation for achievement and sense of WoW community emerged. As for the relationship among motivations for achievement and the negative psychological outcomes, although the direct relationship from motivations for achievement to DASS is non-significant, the motivation for achievement affected addiction, and addiction showed a significant relationship with DASS. Clearly, a sizable amount of variation (39.22%) of WoW Sense of Community was explained; the amounts for DASS and addiction were comparatively smaller.

For the game identity-based motivation section, the final model showed that motivations were influenced by game identities. However, inconsistent with our hypotheses, WoW identity only affected motivations for achievement and guild identity only for motivations for socialisation; guild identity did not affect motivations for achievement but only motivations for socialising. A significant path from WoW identity to sense of WoW community was also identified. While the motivations for socialising were largely explained ($R^2=21.83\%$), only 3.58% of achievement motivations were explained.

Discussion

Examining a model incorporating game identities, motivations, and psychological outcomes, our study comprises a new perspective for WoW research. Importantly, our model suggests that the identity-based motivation theory is potentially a direction to reduce online game addictive tendencies by developing identity-tailored interventions. Sense of WoW community was well

explained by the identity-based motivations in our study. Given the little existing research on sense of community in internet games⁴, our study adds empirical knowledge to this field.

The model could not substantially explain the variance in negative psychological outcomes (DASS, WoW addiction), indicating that identity-based motivations may not be directly related to negative psychological outcomes. However, consistent with previous research, WoW addiction was found to be associated with DASS.² Since the motivations for achievement had a significant correlation with addiction, internet game interventions may effectively improve players' psychological wellbeing by reducing their motivations for achievement alone.

The identity-motivation system indicated that motivations for playing online games are heterogeneous⁹ and affected by different types of identities. Given the game's mechanics, motivations for achievement played a salient role in the model but only a small portion (3.58%) of variance was explained by identity factors. Because our research only targeted identities in WoW contexts, it is likely that off-game identities are also contributing to the motivations for achievement. Taking into account social and cultural factors, research has found that normative understanding of success is influencing the achievement motivations in WoW¹⁵. Moreover, ludic languages used in the WOW are found to be gender stereotyped¹⁶ and avatars are believed to be the ideal selves of players¹⁷; these findings suggest that identities such as gender and self-image might also impact players' interactions in games. Thus, it is important to include identities beyond game contexts for future studies to better understand the underlying determinants of motivations for playing WoW.

The moderate sample size and cross-sectional design are the main limitations of this study. The study can only conclude correlational, not causal relationships between motivations and psychological outcomes. Future research with longitudinal and experimental designs can probe the directions of the multivariate relationships identified in this study so as to establish causal relations. Nevertheless, the present study comprises important initial findings applying identity-based

motivation theory to the online game field, providing a new lens for future studies and online game interventions.

Disclosure Statement

No competing financial interests exist.

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