‘I Am Not a Gamer’

An Empirical Study on Women as Self-Identified Digital Gamers

Abstract

Women often deem to be outside game culture resulting in a low gamer identity profile. A nuanced and detailed examination of how gender identity and threatening experiences tap into their play practices has hitherto been lacking however. The present study fills this gap by examining how female players express a gamer identity and how this relates to perceptions of threat and stigmatization. Based on a large-scale survey directed at female players, a statistical model is specified taking into account how respondents attribute a gamer label to their self-concept. Results suggest that the cognitive, evaluative, and affective dimensions of female identity predict gamer identification in distinct ways. Moreover, rather surprising, perceptions of stereotype threat and stigma consciousness are positively related to women’s gamer identification. An opposite relation is however observed for women’s awareness of being stigmatized by male players.

*Keywords:* Digital games, gamer identity, gender, social constructionism, social identity, women

**Introduction**

Digital games have a long history of being constructed as a male medium ([Fron, Fullerton, Morie, & Pearce, 2007](#_ENREF_21)). This has led to the cultural belief that gamer identity is intrinsically tied to masculinity creating a relatively intimidating environment for players who do not meet this criterion ([Scharkow, Festl, Vogelgesang, & Quandt, 2015](#_ENREF_40)). The recent gamergate controversy, for example, is a clear utterance of a conservative game culture trying to reestablish a male-dominated gamer identity through the exclusion of non-traditional players. The increasing presence of female players and feminist critics is in particular met with resistance pushing femininity outside digital gaming ([O'Rourke, 2014](#_ENREF_36)). Accordingly, it is likely that such threatening and stigmatizing experiences are causing female players to reject labeling themselves as gamers (e.g., [Cote, 2015](#_ENREF_12); [Taylor, 2008](#_ENREF_54)). This disavowal of a gamer identity can have serious implications as digital games are important tools in attaining computer literacy and thus in pursuing a potential career in high-tech computer based industries ([Cooper, 2006](#_ENREF_11)).

However, to our knowledge, no study has empirically investigated why women do or do not attribute a gamer identity to their selves and how this relates to their experiences with threat and stigma. The present study aims to fill this gap by focusing on two potential important mechanisms underlying women’s gamer identification. Firstly, attention is given to how women’s gamer identity is intertwined with their gender identity. In doing so, female players’ gender is not approached as a binary construct referring to either being man or woman (i.e., sex), but is defined as a multidimensional construct based on a social identity perspective ([Cameron, 2004](#_ENREF_6); [H. Tajfel & Turner, 1986](#_ENREF_52)). This multidimensionality consists of cognitive, evaluative, and affective components of womanhood, allowing us to inquire into their distinct effects on gamer identity. Secondly, perception of stereotype threat and stigma consciousness are taken into account as essential determinants of women’s gamer identity. Although previous studies have indicated that threatening situations can affect skill perception, well-being [names removed for review integrity] and performance [names removed for review integrity] of female players, little is known about how this affects women’s inclination to identify as a gamer. Moreover, most empirical studies approach threat in experimental settings with domain identity (i.e., identification with the studied domain) as a moderating or control variable ([Steele, Spencer, & Aronson, 2002](#_ENREF_50)). This large-scale survey study, however, explores the relative importance of threat perception and gender identity as determinants for gamer identification1 with an exclusive focus on female playing audiences.

**The Relation Between Female and Gamer Identities**

**‘Being’ Female and Gamer**

To better understand women’s low identity profile as a gamer, it is important to perceive both gamer and gender identities as social constructs, implying that they are defined and (re)articulated within interpersonal and cultural contexts ([Moghaddas, Persson, Hvidt, Christensen, & Hansen, 2012](#_ENREF_34)). We are constantly ‘doing’ identity since it is formed in continuous interaction and recurrently used to reinforce the ‘essentialness’ or ‘naturalness’ of a particular identity ([West & Fenstermaker, 1995](#_ENREF_61)). In the case of gamer and gender identities, this means that they become so incorporated through repetition that an individual will feel she ‘is’ a woman and/or gamer instead of acknowledging the underlying social practices ([Brickell, 2006](#_ENREF_4)). Important hereby is that these social practices draw deeply upon cultural coding and modalities of power suggesting what is appropriate for members ([Hall, 1996](#_ENREF_23)). In this rationale, it is argued that gamer identity is intrinsically connected to gender in that masculinity, together with whiteness and heterosexuality, is seen as characterizing for being (or, rather: ‘doing’) a gamer ([Fox & Tang, 2014](#_ENREF_20)). The gaming industry played an important part in this process by creating, marketing and thus reproducing its products in light of a predominantly male audience ([Shaw, 2013](#_ENREF_47)). According to Schut ([2006](#_ENREF_44)), games remain fertile symbolic resources for men to construct gendered identities indicating that the discourse surrounding digital game culture is stereotypically masculine.

This male supremacy in digital game culture makes it difficult for women who are interested in games to simultaneously integrate their membership as both woman *and* gamer into their self-concept. Although each of us have multiple identities, it seems that the identity structure of female players is little overlapping forcing them to negotiate complex subject positions ([Roccas & Brewer, 2002](#_ENREF_39); [Yates & Littleton, 2001](#_ENREF_62)). Yet, few studies have empirically investigated how exactly women’s gender identity is associated with their gamer identity. Additionally, the majority of quantitative studies uses sex solely as a demographical variable in order to denote general differences between male and female players (e.g., [De Grove, Courtois, & Van Looy, 2015](#_ENREF_15); [Neys, Jansz, & Tan, 2014](#_ENREF_35)). This study focuses exclusively on female players deploying a quantitative approach which is particularly suited for assessing the endorsement of gender norms within and between social groups such as game players ([Luyt, 2015](#_ENREF_30)). In doing so, female identity is considered a multidimensional construct based on a social identity perspective.

**A Multidimensional Approach to Female Identity**

To empirically investigate the relationship between gamer and female identity, we draw on a social identity approach. This perspective on group behavior comprises two different, yet related, theoretical developments: social identity theory (e.g., Tajfel, 1978; Tajfel & Turner, 1979) and self-categorization theory ([Turner, 1985](#_ENREF_57)), which is an extension of the former. Whereas the activation of a social identity is highly context-dependent, both gamer and female identities can be considered as relatively stable categories stemming from predefined cultural beliefs ([De Grove et al., 2015](#_ENREF_15); [Tropp & Wright, 2001](#_ENREF_56)). This is similar to the idea that gamer and gender identities are social constructs based on the reproduction of dominant principles in situated interaction. Similarly to social constructs, the social identity perspective talks about prototypes referring to the defining attributes or practices of a certain social category ([Hornsey, 2008](#_ENREF_24)). For digital gamers, it has been argued that masculinity is strongly tied to gaming technology ([Carr, 2005](#_ENREF_8)), making gender a prototypical attribute for assuming gamer identity. When someone is seen as ‘non-prototypical’, such as female players, the positive distinctiveness and homogeneity of ‘being a gamer’ could become threatened. On the other hand, highly prototypical group members will contribute to in-group favoritism ([Schmitt & Branscombe, 2001](#_ENREF_42)). Prototypicality, thus, helps to see both themselves and others in distinct ways and to form positive feelings about oneself as a result of this social comparison ([Abdelal, Herrera, Johnston, & (Eds.), 2009](#_ENREF_1); [H. Tajfel & Turner, 1986](#_ENREF_52)). This denotes that identification with a social identity does not solely rely on a categorization of oneself in the in- or out-group but also entails affective components.

In defining social identities, it is imperative to differentiate between their cognitive and affective dimensions. Tajfel’s ([1978](#_ENREF_53)) original description of a social category seems to pinpoint this division as it states that a social identity is ‘that part of an individual’s self-concept which derives from his *knowledge* of his membership of a social group (or groups) together with the *value* and *emotional significance* attached to that membership’ (p. 63). The definition provides a theoretical basis for the multidimensionality of social identities consisting of a cognitive component (i.e., *knowledge*) and two affective facets which are related to an evaluative (i.e., *value*) and emotional dimension (i.e., *emotional significance*) ([Cameron, 2004](#_ENREF_6)). Many empirical studies have supported this tripartite structure of social identities; however, variously termed and slightly differing in their interpretation of the three components ([Cameron, 2004](#_ENREF_6); [Ellemers, Kortekaas, & Ouwerkerk, 1999](#_ENREF_17); [Jackson, 2002](#_ENREF_25); [Obst & White, 2005](#_ENREF_37)). Given our study’s focus on relatively stable gamer and gender identities, we particularly draw on Cameron’s (2004) three-factor model in which chronic accessibility is acknowledged of real life groups including large social categories such as gender.

The cognitive component (i.e., *cognitive centrality*) in Cameron’s model (2004) refers to a structural prominence of a social identity in an individual’s self-concept. It is the ability to categorize oneself into a social group together with the extent to which one is aware that one belongs to that certain group. Typical of cognitive centrality is that it does not necessarily mean that people feel committed to that group or act in accordance with group prototypicality ([Ellemers et al., 1999](#_ENREF_17)). As such, when a woman categorizes herself as female, it is possible that she does not feel connected to other women or essentially values her in-group. The latter implies more affective dimensions of identification comprising an emotional or evaluative component. An emotional component of identity (i.e., *in-group ties*)is mainly reflected in the extent to which one feels bonded with other group members. This can also be seen as a perception of similarity and emotional closeness with others of the in-group ([Cameron, 2004](#_ENREF_6); [Obst & White, 2005](#_ENREF_37)). This sense of group cohesiveness tends to be stronger in positively evaluated groups but both components do not necessarily always co-vary or can be employed interchangeably ([Ellemers, Spears, & Doosje, 2002](#_ENREF_18)). In case of digital games, for example, self-identified gamers who show great affinity with their in-group can simultaneously be percipient of the medium’s low pop culture status compared to other mainstream media ([Gyongran, 2008](#_ENREF_22)). The third evaluative component of identification (i.e., *in-group affect*) thus concerns the appraisal of membership in the group.

Although a negative relation has been assumed between gender and gamer identity ([Shaw, 2012](#_ENREF_46)), when it comes to differences between the components of female identity, we anticipate that female players identify in distinct ways as gamer. For the cognitive centrality of womanhood, it is expected that this dimension of identification holds no relationship with assuming a gamer identity. This is plausible because being a woman does not necessarily lead to rejecting a gamer label. The purely cognitive function of categorizing oneself as ‘woman’ stands apart from the emotional significance that women attach to their gender identity, emphasizing a difference between *acknowledging* group membership as a woman and *acting* in accordance with group membership ([Ellemers et al., 2002](#_ENREF_18)). Moreover, given women’s relative inability to leave their gender group ([Obst & White, 2005](#_ENREF_37)), it seems unlikely that the cognitive centrality of being a woman is responsible for women’s low identity profile as a gamer. Hence, our first prediction is:

**H1**: Female players’ gamer identity is unrelated to the cognitive centrality of being a woman.

Conversely, it can be expected for in-group affect and in-group ties that female players who attach great emotional significance to their gender identity and feel close with other in-group members are most likely to reject a gamer label. This is probably the case because affective dimensions of identification are closely connected to in-group favoritism motivating group members to perform ‘prototypical’ group behavior ([Abdelal et al., 2009](#_ENREF_1)). As such, when female players attach importance to their female identity and feel strong bonds with other women it is more likely that they comply with gender norms and thus discard a masculine gamer label. The following hypotheses are:

**H2:** Female players’ gamer identity is negatively associated with in-group ties with other women.

**H3:** Female players’ gamer identity is negatively associated with in-group affect of being a woman.

However, it has been suggested that in-group affect and in-group ties differ in terms of strength. Past studies on the three-dimensional strength of identification have shown that mainly in-group ties with other group members play a crucial role in ‘sticking with the group’ regardless of their evaluation ([Cameron, Duck, Terry, & Lalonde, 2005](#_ENREF_7)) and thus in performing prototypical group behavior ([Ellemers et al., 1999](#_ENREF_17); [Jackson, 2002](#_ENREF_25)). In this vein, women who feel strongly connected with other in-group associates tend to act more in conformity with stereotypical gender norms. It is therefore reasonable to assume that these women are the least likely to identify as a gamer. This allows us to formulate a fourth hypothesis:

**H4:** Female players’ gamer identity is most negatively related to in-group ties with other women compared to in-group affect and cognitive centrality of being a woman.

**The Relation Between Stereotype Threat/Stigma Consciousness and Gamer Identity**

Whereas gamer identity can be considered a self-selected label, it is not necessarily a ‘consequence-free’ label for women ([Shaw, 2013, p. p. 1](#_ENREF_47)). Many studies have indicated that women crossing gendered playing lines are frequently receiving discrimination in terms of misogyny or marginalization ([Bertozzi, 2008](#_ENREF_3); [Consalvo, 2012](#_ENREF_10); [Jenson & de Castell, 2013](#_ENREF_26); [Kuznekoff & Rose, 2013](#_ENREF_28)). From a social identity perspective, this kind of out-group derogation serves to maintain culturally defined boundaries of gamer identity as prototypically masculine ([Scheepers & Ellemers, 2005](#_ENREF_41)). Consequently, it is likely that female players experience threat in game contexts in which their gender identity is activated and judged against male norms. The present study is interested in how recurrent experiences of threat are affecting woman players’ tendency to attribute a gamer label to their self-concept. However, given that perceptions of threat can differ in meaning, we restrict our investigation to two well-known types of threat in social psychology conceptualized as (1) stereotype threat ([Steele & Aronson, 1995](#_ENREF_49)), and (2) stigma consciousness ([Pinel, 1999](#_ENREF_38)). Whereas both concepts can be situationally induced, we argue that women’s recurrent experiences of threat could be reflective of a systematic feeling of discrimination and devaluation by a dominant game culture ([Schmitt, Branscombe, Kobrynowicz, & Owen, 2002](#_ENREF_43)).

First, the mechanism of stereotype threat refers to a concern or anxiety that one’s performance will be judged and treated in accordance with a stereotypically negative stereotype about the in-group ([Shapiro & Williams, 2012](#_ENREF_45); [Steele, 1997](#_ENREF_48)). There is abundant evidence that this kind of fear ironically undermines the performance of stigmatized individuals such as women in math ([Cadinu, Maass, Rosabianca, & Kiesner, 2005](#_ENREF_5)) or women giving leadership ([Davies, Spencer, & Steele, 2005](#_ENREF_14)). In case of female players, recent research [authors deleted for review purposes] pointed out that stereotype threat impairs women’s game play and play experience in terms of heightened emotional strain and troubled skill perception. To reduce such effects of stereotype threat, subjects who enact counter-stereotypical behavior (e.g., ‘atypical’ female players) are likely to adopt several coping strategies for preserving a positive self-concept. One short-term coping strategy consists of ‘disengagement’ in which people temporally disconnect themselves from a domain wherein stereotype threat is felt ([Major & Schmader, 1998](#_ENREF_32)). Disengagement is very context-specific as it disappears once the threatening situation is averted. Yet, when stereotype threat is experienced on a recurring and systematic basis, individuals may feel forced to deploy a more long-term based solution. Disengagement can then lead to ‘disidentification’ referring to the detachment of one’s social identity from a particular domain ([Steele et al., 2002](#_ENREF_50)). If, over time, female players accumulate a fear for competence-based negative stereotypes, it is likely that they cease to think of themselves as a gamer protecting the self against a social identity threat. However, to our knowledge, no previous study has demonstrated this relation in which chronically stereotype threat-associated concerns cause women to avoid self-attributing a gamer label. Hence, the fifth hypothesis is:

**H5:** Stereotype threat-associated concerns about female players’ performance will be negatively associated with gamer identity

Next to stereotype threat, another type of threat that is likely affecting women’s gamer identification is stigma consciousness. This concept generally refers to ‘the extent to which they [targets of stereotypes] expect to be stereotyped by others’ ([Pinel, 1999 p. 115](#_ENREF_38)). It entails the amount of discrimination that negatively stereotyped individuals encounter and how they are affected by it ([Steele et al., 2002](#_ENREF_50)). Although this construct is closely related to stereotype threat, it differs because its focus goes beyond concerns about performing in a stereotype-relevant domain but assesses one’s general sensitivity to negative stereotypes about the in-group. Or put differently, people with high levels of stigma consciousness anticipate heavily on being stereotyped, independently from their actual behavior ([Pinel, 1999](#_ENREF_38)). Given that female players have a history of being stereotyped and discriminated ([Summers & Miller, 2014](#_ENREF_51)), it is plausible that they suffer from a strong sense of stigma consciousness. This in turn is likely to affect their inclination to identify as a gamer. Women highly sensitive to stigma consciousness are more vigilant for stigma-related threats in digital gaming and thus are more prone to protect their self-concept as a woman in terms of a lowered gamer profile ([Major & O'Brien, 2005](#_ENREF_31)). The sixth hypothesis therefore states:

**H6:** Stigma consciousness of female players will be negatively related to gamer identity

**Method**

**Sample and Participant Selection**

The present study drew on a sample of game players using an online self-report questionnaire. Respondents were recruited through our department’s gamer panel2, the [name removed for review integrity] panel, a gaming website and online social network sites. Male respondents (*n* = 151) were removed from the sample since this study exclusively focused on female playing audiences. Women (*n* = 2) who indicated to have never played digital games (i.e., ‘any type of game that can be played on all kinds of digital platforms’) were also deleted. After data cleaning, a total of 464 female players were maintained with a mean age of 28.85 years old (*SD* = 9.52) broadly ranging from 17 to 73 years. Sixty-four percent of the subjects indicated to play on a daily basis, 22% at least once a week, 11% at least once a month, and 3% at least once a year. This allowed us to take into account a whole spectrum of game players. Most women were servants (35.30%), had a university diploma (32.90%), were married/living together without children (26.80%), and had a [removed for review purpose] nationality (91.6%).

**Measures**

**Gamer Identity and Female Identity**

It was assumed that social identity is a multidimensional construct consisting of three distinct, yet related, dimensions ([Obst & White, 2005](#_ENREF_37); [H. E. Tajfel, 1978](#_ENREF_53)). In this rationale, gamer identity and female identity can be similarly distinguished into a cognitive (i.e., *centrality* – the enduring psychological salience of one’s group membership), an evaluative (i.e., *in-group affect* - a value connotation attached to one’s group membership), and an affective (i.e., *in-group ties* – the subjective bond with other group members) component of identification ([Cameron, 2004](#_ENREF_6); [Ellemers et al., 1999](#_ENREF_17)). Both social identities were measured repeatedly using the 12-item Three-Factor Model as proposed by Cameron ([2004](#_ENREF_6)) with Likert-scale items ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Examples ofitems were: ‘I often think about being a woman [gamer]’ (i.e., centrality), ‘In general I am glad to be a woman [gamer]’ (i.e., in-group affect), or ‘I feel strong ties to other women [gamers]’ (i.e., female in-group ties). Previous studies have confirmed the scale’s effectiveness for measuring social identities ([e.g., Obst & White, 2005](#_ENREF_37)).

**Stereotype Threat and Stigma Consciousness**

Stereotype threat-associated concerns were measured using a 7-point Likert scale (*strongly disagree* to *strongly agree*) adopted from Lee and Nass ([2012](#_ENREF_29)). Although this scale was originally used for measuring direct evaluation after performance in an experimental setting, items were subtly reworded in order to assess a more enduring state of stereotype threat-associated concern about one’s performance. An example item was ‘If I don’t do well in a game, it might be viewed as stereotypic of my gender’. The stigma consciousness questionnaire (SCQ) of Pinel ([1999](#_ENREF_38)) was utilized for detecting how chronically self-conscious female players are of their stigmatized status. This 7-point Likert scale (*strongly disagree* to *strongly agree*) consists of ten items such as ‘I worry about being judged as a female gamer’ or ‘Most male players do not judge female players on the basis of their gender’ (reversed).

**Control Variables**

To complement our statistical model, it was crucial to consider previously defined prototypical characteristics of gamer identity. This study included three main determinants for which we controlled the effects in our empirical model. Firstly, it was self-evident to account for women’s play frequency as highly invested players are more devoted to their pastime ([De Grove et al., 2015](#_ENREF_15)). Play frequency was accordingly measured using a 5-point scale ranging from (*Almost*) *Never* to (*Almost*) *Daily.* The second control variable referred to players’ age because gamers are often stereotypically seen as younger individuals ([Fisher, 2014](#_ENREF_19)). Respondents were therefore asked to indicate their age in years. A final, and third, control variable that we took into account was genre play. Past studies (e.g., [Neys et al., 2014](#_ENREF_35); [Shaw, 2013](#_ENREF_47)) denoted that particularly ‘hardcore’ players express a gamer identity as part of their selves. As digital game genres are typically gendered with masculinity closely tied to hardcore genres and femininity to casual genres ([Vanderhoef, 2013](#_ENREF_59)), it was genuinely important to investigate how genre play is articulated in the self-concept of woman players. Hence, respondents were asked to what extent they played thirteen game genres based on 5-point scale items ranging from 1 ([*Almost*] *Never*) to 5 ([*Almost*] *Daily*).

**Results**

**Preliminary Results**

**Construct validity.**It is important to evaluate instruments’ content and construct validity among the tested population ([Luyt, 2015](#_ENREF_30)). The factor structure of gamer identity, female identity, stereotype threat-associated concerns, and stigma consciousness was assessed through exploratory factor analysis (EFA) and subsequently confirmatory factor analysis (CFA). EFA was carried out using principal axis factoring with promax rotation for all constructs (see Table 1). For female identity, Cameron’s ([2004](#_ENREF_6)) three-dimensional structure of identification was confirmed with a total variance explained of 65.60%. All items loaded highly (> .58) and distinctively on their factor. Similarly, a three-factor structure of identification was revealed for gamer identity with a total variance explained of 69.31%. However, it was decided to remove one item from the analysis due to a low factor loading (<.50). All other items had factor loadings higher than .53. Another EFA was run for the construct stereotype threat-associated concerns showing a total variance explained of 69.54% and factor loadings all exceeding .70. A final EFA was executed for stigma consciousness resulting in a total variance explained of 63.51%. Although the SCQ originally represents a single factor of stigma consciousness, EFA indicated the existence of two distinct components of which one stressing the awareness of being negatively judged as a female gamer (i.e., ‘stigma consciousness as deviant’) and another one the awareness of being stigmatized by male players in particular (i.e., ‘male stigma consciousness’). Four items, however, were removed due to low factor loadings (<.50). This resulted in three items for each self-defined subscale of stigma consciousness. CFA was further performed using AMOS version 22 ([Arbuckle, 2006](#_ENREF_2)). Based on the modification indices, it was decided to remove one item of the subscale ‘gamer in-group affect’. Moreover, there was empirical evidence for assuming an overall second-order construct of ‘gamer identity’ with significant high correlations (*r* > .60, *p* < .05) between gamer centrality, gamer in-group affect, and gamer in-group ties. The latter components regressed significantly (*p* < .05) on ‘gamer identity’ with beta weights exceeding .76. The final specified measurement model yielded an acceptable fit (*χ*² (410) = 853.24, TLI = .91, CFI = .92, RMSEA = .048).

[Table 1 goes here]

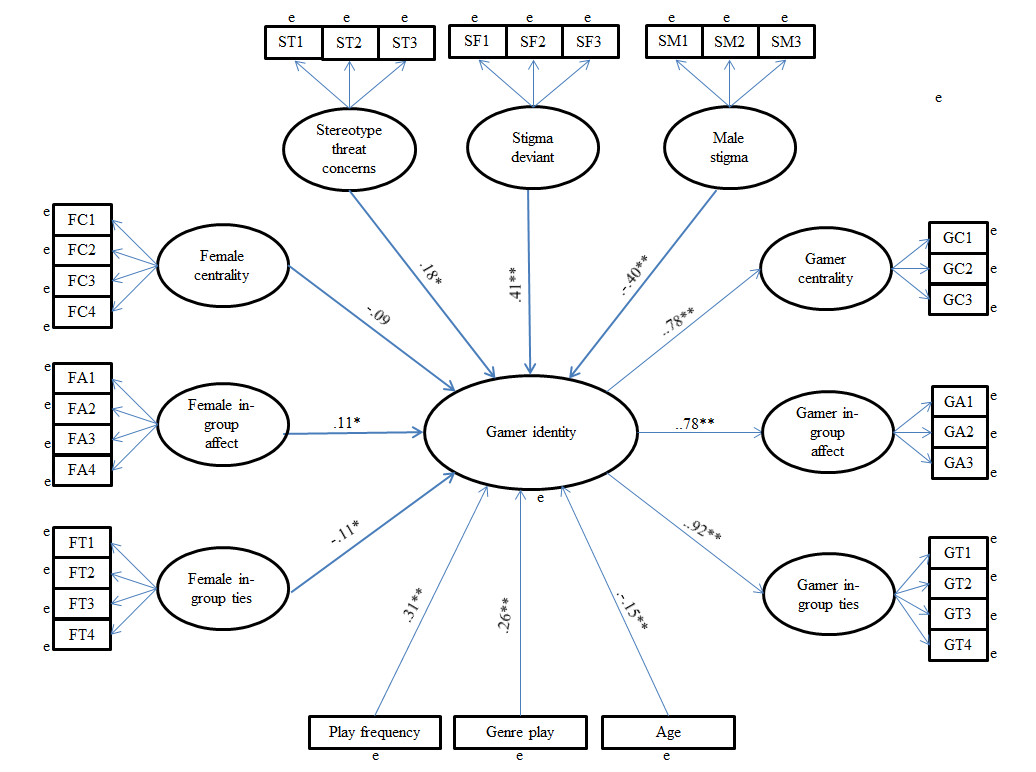
**Latent class clustering.** A latent class analysis ([Vermunt & Magidson, 2005](#_ENREF_60)) was executed to extract two groups of game genre players: non-core genre players vs. core genre players. Table 2 reports the probabilities of both groups to play each genre. The main difference between both groups is that the first group (= coded 0) is less likely to play core genre while the second group (= coded 1) is the most avid player’s group of core genres such as action-adventure games, fighting games, or shooters. A similar division was proposed and operationalized by De Grove at al. ([2015](#_ENREF_15)).

[Table 2 goes here]

**Main Results**

A structural equation model was constructed for answering our hypotheses using Amos version 22 ([Arbuckle, 2006](#_ENREF_2)). Figure 1 represents this statistical model with standardized regression coefficients and Table 3 summarizes the correlations between all exogenous variables of the model, including means and standard deviations.

Fit indices revealed a good fit for our statistical model (*χ*² (482) = 962.27, TLI = .91, CFI = .92, RMSEA = .046). Inspecting the coefficients, it indeed seemed that female centrality does not account for women’s gamer identification (**H1 - supported**). Whereas support was found that the dimension of female in-group ties is negatively related to gamer identity (**H2 – supported**), this negative effect was not found for female in-group affect on gamer identity (**H3 – rejected**). On the contrary, the model suggested that female in-group affect is positively related to assigning a gamer label to the self. The above results thus indicate that female in-group ties is most negatively related to gamer identity compared to female in-group affect and female centrality (**H4 – supported**). Furthermore, although stereotype threat-associated concerns are statistically associated with gamer identity, the model indicated a positive relation between both variables (**H5 - rejected**). A similar positive pattern was found for the association between women’s awareness of being stigmatized as a female gamer and their inclination to identify as gamer. Women’s awareness of being stigmatized by male gamers, however, showed a negative relationship with gamer identity (**H6 – partly supported**).



**Figure 1.** Specified structural equation model with standardized regression coefficients.

\**p* < .05; \*\**p* < .01

[Table 3 goes here]

**Discussion**

The current study set out to explore how female players assign a gamer label to their selves based on two important mechanisms underlying this process of social identification. A first mechanism that was taken into account considered the relationship between women’s female identity and their disposition to identify (or not) as a gamer. Specifically, it was expected that female identity comprises a three-dimensional structure of which each dimension contributes in a unique fashion to women’s gamer identification. This relatively comprehensive vision on female identity is different from previous empirical studies assuming a more unidimensional perspective on gender in relation to gamer identification ([e.g., De Grove et al., 2015](#_ENREF_15)). Indeed, even when controlling for age, genre play and play frequency, results confirmed differential responses of female players identifying as gamer depending on their degree of female centrality, in-group affect and in-group ties. It was revealed that the mere cognitive process of categorizing as a woman (i.e., female centrality) is unrelated to the social identification process of being a gamer (**H1**). In other words, while past studies presumed a negative relation between gender and gamer identities ([Shaw, 2012](#_ENREF_46); [Taylor, 2008](#_ENREF_54)), this study pointed out that women’s plain awareness of group membership is insufficient for endorsing cultural beliefs about gaming being a masculine pastime. As previously stated, to act or behave ‘prototypically’ as a female in-group member requires a motivational aspect in which women *want* to differentiate between themselves and out-group members ([McDermott, 2009](#_ENREF_33)). Motivation is thus mainly managed through the emotional significance attached to that group membership. Indeed, this study showed that female players who feel more strongly connected to other women (i.e., in-group ties) are less inclined to self-identify as gamer (**H2**). This is unsurprising given that emotional closeness with other in-group members summons a stronger conformity to dominant group norms ([Cameron, 2004](#_ENREF_6)). It entails a greater propensity for adopting uniform group action or behavior among women. Moreover, given that female identity is constructed through social interaction ([West & Fenstermaker, 1995](#_ENREF_61)), strong social bonds with other women are a particularly important ground for embodying group stereotypes. Group cohesiveness of women was thus most predictive for rejecting a gamer identity (**H4**), which is in line with past studies that emphasized in-group ties as the key aspect of social identity ([Ellemers et al., 1999](#_ENREF_17); [Obst & White, 2005](#_ENREF_37)). However, no evidence was found that female in-group affect was similarly negatively related to gamer identification (**H3**). On the contrary, it was found that the more value was ascribed to group membership as a woman, the more likely one was to assign a gamer identity to the self-concept. This finding points out that highly self-identified female gamers feel heartily satisfied for being a woman thereby refuting claims that femininity does not go together with being a gamer ([e.g., Shaw, 2012](#_ENREF_46)). A possible explanation could be that gender is just one part of a multisided conception of the self just as gaming is likely to be in the lives of women enjoying this pastime. Refusing one of these constructs due to their opposing ‘nature’ would then mean denying an integral part of their selves. Moreover, given that gender boundaries are often seen as impermeable ([Obst & White, 2005](#_ENREF_37)), self-identified gamers are obliged to negotiate the position of both social categories in their identity structure. A strategy for dealing with this paradox may translate itself in a sort of ‘emphasized femininity’ ([Connell, 2014](#_ENREF_9)) reflected in female players’ high appraisal of womanhood. This allows female players to protect their status as a woman while simultaneously performing a gamer identity. A similar example of this ‘emphasized femininity’ is the effort that female athletes often make to dress up ‘girly’ as a clear symbol for their femaleness ([Krane, Choi, Baird, Aimar, & Kauer, 2004](#_ENREF_27)). Whereas some might perceive this as a downgrading movement, we argue that this coping action is a signal of resistance and subversion of disciplinary power discourses in a game culture that is still favoring masculinity. It allows these women to traverse exiting power relations without renouncing the social identities that define their inner selves.

A second mechanism that was taken into account as important determinant of women’s gamer identity was threat perception. Accordingly, it was inspected to what extent female players are generally concerned about their game performance being negatively evaluated (i.e., stereotype threat concerns) as well as the degree to which they expect to be stigmatized by others (i.e., stigma consciousness). Notably, this study designated two distinct concepts of stigma consciousness: a chronic awareness of being an anomaly as female gamer (i.e., stigma consciousness as deviant) and a notion of being stigmatized by male players (i.e., male stigma consciousness). The current study did not find a negative effect of women’s stereotype threat concerns on gamer identification (**H5**) hereby contradicting previous studies that stated stereotype threat can lead to disidentification with the domain under scrutiny ([e.g., Steele et al., 2002](#_ENREF_50)). It should be noted, however, that disidentification is a long-term process which makes it reasonable to assume that our respondents did not (yet) reach this desertion phase and thus that disidentifiers were not recorded in our sample ([Thoman, Smith, Brown, Chase, & Lee, 2013](#_ENREF_55)). Notwithstanding, a positive relationship was found between the extent to which female players defined stereotype threat-associated concerns and their gamer identification. This rather surprising result could be understood through the process linked to the ‘discounting perspective’. The perspective denotes that perceiving discrimination can be beneficial because it discharges the causal role of the self in producing negative outcomes ([Crocker & Major, 1989](#_ENREF_13); [Schmitt et al., 2002](#_ENREF_43)). In case of female players, this self-protective mechanism makes it likely that highly self-identified female gamers attribute negative outcomes to external prejudice and stereotypes thereby preserving their self-esteem as a gamer. A similar reasoning could be applied to the strong positive relationship found between stigma consciousness of female players as deviant and their inclination to identify as a gamer (**H6**). An alternative explanation could be that women who are highly committed to gaming and aware of their unconventional position within this pastime attempt to emphasize their inclusion, for example, through a more positive appraisal of gamer membership. Ellemers et al. ([2002](#_ENREF_18)) asserted that this is a typical defensive response of individuals valuing a certain domain albeit being threatened with exclusion or acceptance from the dominant group. However, it should be noted that this claim did not apply to women’s awareness of being stigmatized by male players. It was found that a high sensitivity of discrimination by men will cause women to reject a gamer identity profile. This is similar to previous studies indicating that group withdrawal is a means to protect one’s self-esteem ([Major & O'Brien, 2005](#_ENREF_31)). The opposing effect of both types of stigma consciousness on gamer identification is remarkable, however. While female players may be motivated to disprove their atypical position in gaming, sexism in game culture appears an oppressive force preventing women to self-identify as gamer. It shows that, regardless of age, genre play and play frequency, female players avoid gamer identification due to their perception of male discrimination. This could then (partly) explain why women tend to conceal their gamer identity ([Taylor, 2008](#_ENREF_54)), restrain their identification ([De Grove et al., 2015](#_ENREF_15)) or reject this label altogether ([Shaw, 2012](#_ENREF_46)). Future studies should shed more light on this issue including constructive suggestions for developers, marketers, journalists, and players themselves.

Some limitations of the present study should be mentioned, however. The main limitation concerns the cross-sectional design of this study making it impossible to discern causal relationships. Further studies could try to set up a longitudinal design to explore whether our results remain consistent over a longer time period. It could be interesting, for example, to see which players remain attached to a gamer identity and who abandoned this label. Moreover, some research traditions in social sciences have criticized the measurement of gender and other identities as being artificial and uninformative about the signification of individuals ([Deacon, 2008](#_ENREF_16)). However, focusing on social constructionism and social identity theory, quantitative analysis allows us to understand identities as a social or group level phenomenon. When our respondents were completing the survey items, they were indeed ‘doing’ identity as informed by a normative environment. They drew on their specific sociocultural context in which group membership is perceived, contributing to our knowledge about dominant gender representations and variations therein ([Luyt, 2015](#_ENREF_30)). More micro-level research such as the usage of qualitative techniques is advisable, however. Methods such as in-depth interviews or focus groups could complement our large-scale data focusing on the particularities of female players in today’s game culture.

Regardless of these limitations, the present study enabled an enhanced understanding of how female players ascribe (or not) a gamer identity to their selves. A common thread throughout this study was the dominance of social relationships. In this vein, female players complied with gender norms in terms of rejecting a gamer label when they held close relations with other women (whether or not players) or had experienced repercussions of male players due to their unconventional position in digital gaming. These findings stress the importance of social control mechanisms in order to maintain gender boundaries and thus restrictions in a male-dominated game culture. Notwithstanding, there was also evidence that women are currently negotiating their relation with gaming in complex and contradictory ways, which goes beyond a straightforward notion of male ownership. Furthermore, it is imperative to situate this discussion on digital games within the larger conservation about gender identity and technology in general. While there is the widely held conviction that technology is aligned with masculinity leading to male technological dominance, it should be noted that this alignment remains a social construction and thus prone to change and reformation ([Van Zoonen, 2002](#_ENREF_58)). Indeed, supporting this claim, there is evidence of a progressive shift in game culture undermining the dominant principles on which gamer identity is built ([Fox & Tang, 2014](#_ENREF_20)). Further academic research should pay more attention to such evolutions and especially to how these developments redefine the social structure surrounding gamer identification processes of women.

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Footnotes

Although identity, identification, or group membership can denote very different things depending on the epistemological paradigm, the present study uses these terms interchangeably for indicating the degree to which the in-group is included in the self and the significance attached to that membership (Tropp and Wright, 2001; Tajfel, 1978).

2Our gamer panel consists of game players who have participated in previous studies of our research group and indicated that they would like to be informed about future gaming studies. An opt-out option is foreseen for each invitation sent out to potential participants or respondents.

Table 1

*Factor loadings Exploratory Factor Analysis*

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Item** | **Factor** | | | | | | | |  |
|  | Female centrality | Female affect | Female ties | Gamer centrality | Gamer affect | Gamer ties | Stereotype threat | Stigma deviant | Stigma male |
| FC1 | -.619 |  |  |  |  |  |  |  |  |
| FC2 | .618 |  |  |  |  |  |  |  |  |
| FC3 | -.593 |  |  |  |  |  |  |  |  |
| FC4 | .578 |  |  |  |  |  |  |  |  |
| FA1 |  | .836 |  |  |  |  |  |  |  |
| FA2 |  | -.816 |  |  |  |  |  |  |  |
| FA3 |  | .774 |  |  |  |  |  |  |  |
| FA4 |  | -.713 |  |  |  |  |  |  |  |
| FT1 |  |  | .860 |  |  |  |  |  |  |
| FT2 |  |  | -.772 |  |  |  |  |  |  |
| FT3 |  |  | .742 |  |  |  |  |  |  |
| FT4 |  |  | -.726 |  |  |  |  |  |  |
| GC1 |  |  |  | .790 |  |  |  |  |  |
| GC2 |  |  |  | .786 |  |  |  |  |  |
| GC3 |  |  |  | -.529 |  |  |  |  |  |
| GA1 |  |  |  |  | -.752 |  |  |  |  |
| GA2 |  |  |  |  | -.749 |  |  |  |  |
| GA3 |  |  |  |  | .747 |  |  |  |  |
| GA4 |  |  |  |  | .744 |  |  |  |  |
| GT1 |  |  |  |  |  | -.897 |  |  |  |
| GT2 |  |  |  |  |  | -.747 |  |  |  |
| GT3 |  |  |  |  |  | -.684 |  |  |  |
| GT4 |  |  |  |  |  | .660 |  |  |  |
| ST1 |  |  |  |  |  |  | .754 |  |  |
| ST2 |  |  |  |  |  |  | .732 |  |  |
| ST3 |  |  |  |  |  |  | .725 |  |  |
| SD1 |  |  |  |  |  |  |  | .736 |  |
| SD2 |  |  |  |  |  |  |  | .678 |  |
| SD3 |  |  |  |  |  |  |  | -.602 |  |
| SM1 |  |  |  |  |  |  |  |  | .798 |
| SM2 |  |  |  |  |  |  |  |  | -.660 |
| SM3 |  |  |  |  |  |  |  |  | .556 |

*Note*. Principal axis factoring using promax rotation.

Table 2

*Latent class analysis: player groups with genre probabilities, Wald statistics and R2 -values*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Genre | Non-core genre players | Core genre players | Wald | R² |
|  | (*n* = 385) | (*n* = 79) |  |  |
| Action-adventure | .07 | .57 | 61.45 | **.27** |
| Strategy – MOBA | .10 | .35 | 21.29 | **.07** |
| MMORPGs | .16 | .38 | 15.11 | **.05** |
| RPGs | .11 | .62 | 60.16 | **.24** |
| Casual – social network games | .54 | .52 | .13 | <.01 |
| Music – movement games | .04 | .11 | 4.63 | **.01** |
| Sport games | <.01 | .11 | 11.55 | **.08** |
| Fighting games | <.01 | .18 | 1.14 | .15 |
| Platform games | .03 | .60 | 69.53 | **.41** |
| Race games | .01 | .36 | 37.73 | **.26** |
| Shooters | .04 | .41 | 47.43 | **.22** |
| Simulators | .02 | .09 | 8.37 | **.03** |
| Building – resource games | .14 | .37 | 18.23 | **.06** |

*Note.* Numbers in bold denote R2 -values that are statistical significant at the .05 level.

Table 3

*Correlation coefficients with means and standard deviations*

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1. Female centrality | 1 | .11 | **.30** | .07 | **.22** | **.13** | **.15** | .02 | **-.19** |
| 2. Female in-group affect |  | 1 | **.33** | **-.14** | **-.17** | **-.13** | .08 | -.06 | .04 |
| 3. Female in-group ties |  |  | 1 | **-.19** | **-.18** | -.07 | **.19** | **-.15** | .08 |
| 4. Stereotype threat concerns |  |  |  | 1 | **.67** | **.62** | -.03 | .08 | **-.36** |
| 5. Stigma consciousness female gamer |  |  |  |  | 1 | **.53** | -.01 | **.17** | **-.30** |
| 6. Stigma consciousness by male gamers |  |  |  |  |  | 1 | .02 | .02 | **-.11** |
| 7. Play frequency |  |  |  |  |  |  | 1 | **-.21** | -.05 |
| 8. Genre play |  |  |  |  |  |  |  | 1 | **-.15** |
| 9. Age |  |  |  |  |  |  |  |  | 1 |
| Mean  SD | 4.30  1.17 | 5.27  .85 | 4.50  1.30 | 4.12  1.56 | 2.81  1.26 | 4.20  1.12 | 4.48  .79 | .17  .38 | 28.85  9.52 |

*Note.* Numbers in bold denote correlations that are statistical significant at the .05 level.