

Player Identification in Online Games

Validation of a Scale for Measuring Identification in MMORPGs



Van Looy, Jan

Courtois, Cédric

De Vocht, Melanie

IBBT-MICT-Ghent University

<http://www.mict.be>

Massively Multiplayer Online Games (MMORPGs)

Popular! WoW = 11.5 paying subscribers

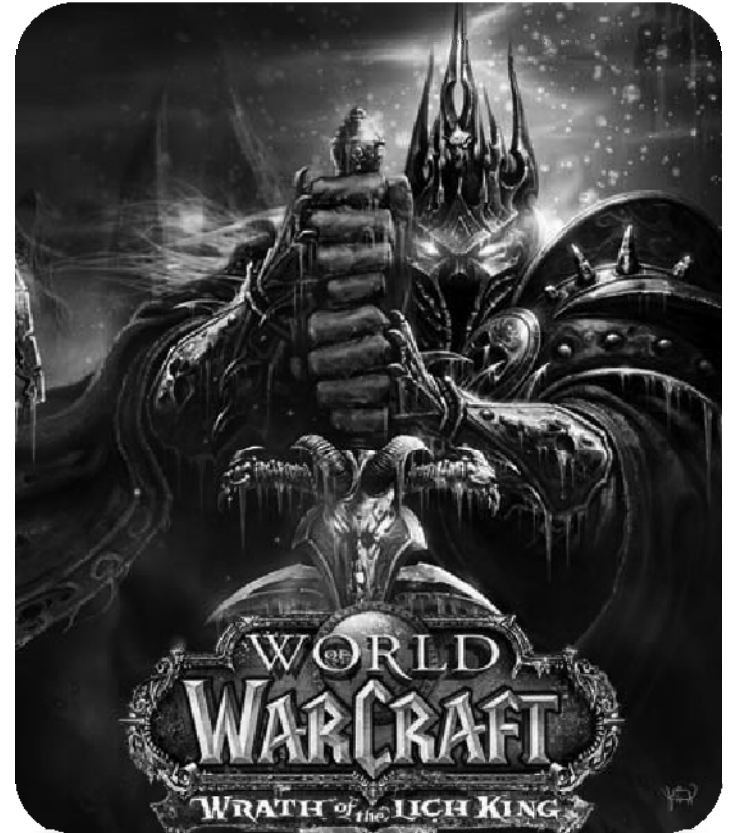
Persistent environment

Social (challenge, immersion)

Tolkienesque fantasy setting

Main goal: character growth (levelling) for personal satisfaction or social prestige

→ Relation player / fantasy character is important, but in what way?



Identification with fictional characters

Mental association between self and character (often main protagonist)

Books, film, television, theatre etc.

Experience 'from the inside'

Identification ↔ spectatorship (more distanced mode of reception)

Evokes absorption in plot, emotional involvement with events



Factors that increase identification

- Specific character types
- Structural features
- Fondness of a character
- Similarity between a character and a viewer
- Quality of narrative

(Nathanson, 2003)

Dimensions of identification

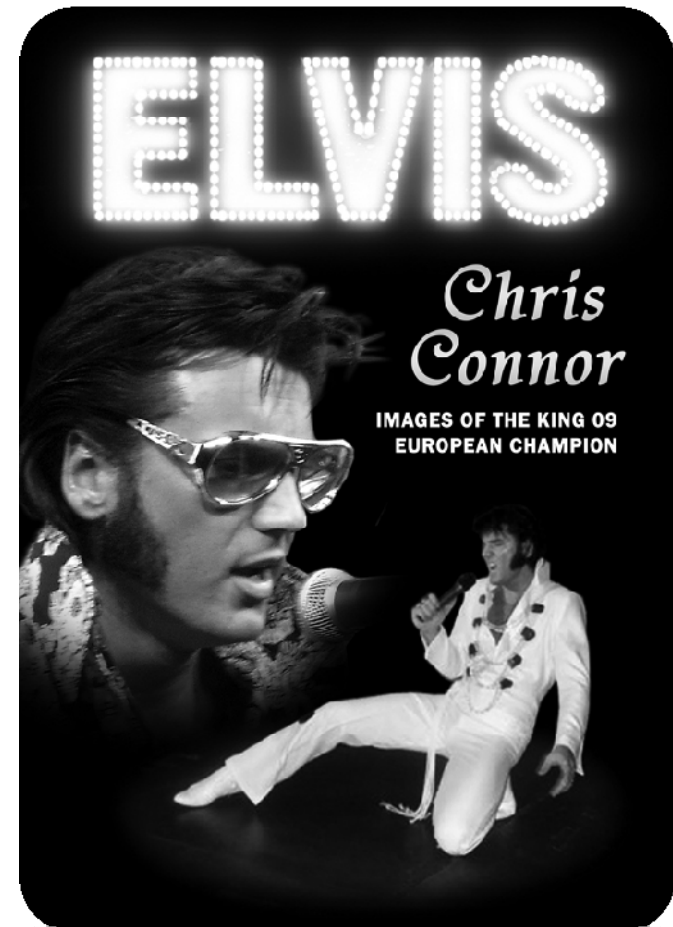
Perceived Similarity

between self and
subject of identification

Wishful identification:

desire to be more like
subject of identification

(Feilitzen & Linné, 1975)



Effects of identification

- Empathy towards character
- Increase in learning of aggressive behavior
- Stronger impact of health messages by celebrities with whom children identify
- Better retention of actions and speech of characters with whom children identify

(Cohen, 2001)

Function of Identification (1/2)

Vicarious experience (Nl. gedelegeerde, plaatsvervangende beleving)

→ Experience from a safe distance events that are...

- socially unacceptable (e.g. violence, adultery)
- out of reach (e.g. space travel)
- undesirable in reality (e.g. loss, escape)

... but attractive to explore cognitively and/or emotionally

Function of Identification (2/2)

Experimentation with one's identity, trying out challenging or otherwise unreachable roles (superhero, sportsman, gangster, supermodel...)

Theory of Self Discrepancy (Higgins 1987)

→ Reduction of discrepancy between actual and ideal self for time of media exposure

→ Consolation, more positive feeling about oneself

→ Enjoyment

Identification and play

Traditional media: 'passive' identification, emotional bond but no active decision making or role-play

Play: 'active' self role, emotional bond + role-play, decision making (children's play, computer-, tabletop- and other games)

→ Type of relation player/role = one of distinctive characteristics of play/games



Identification and computer gaming

Little research to date

- Hefner et al. (pilot study, shooter Battlefield 2)
 - Correlation between avatar identification and game enjoyment
 - ad hoc, unidimensional, non-validated measurement tool
 - Ducheneaut et al.: effect of psychological distance between self and avatar on player satisfaction and time spent online (cross-sectional though)
- Need for adequate device for measuring player identification

Player Identification Scale: Overview

Avatar Identification, 3 first-order constructs

- Perceived Similarity, 6 items
- Wishful Identification, 5 items
- Embodied Presence, 6 items
- **Group Identification**, 6 items
- **Game Identification**, 5 items

Player Identification: dimension (1)

Avatar Identification, 3 first-order constructs

- Perceived Similarity between self and avatar
- Wishful Identification with avatar
- Embodied Presence
 - feeling of being inside the game (avatar)
 - accounts for medium-specific self-role, cf. '*I am going in*', '*come over here*'

Player Identification: dimension (1)

Avatar Identification / **Perceived Similarity**, 6 items

- My character is like me in many ways
- My character resembles me
- I identify with my character
- My character is an extension of myself
- My character is similar to me
- I resemble my character

Player Identification: dimension (1)

Avatar Identification / **Wishful Identification**, 5 items

- In the game, it is as if I act directly through my character
- If I could become like my character, I would
- I would like to be more like my character
- My character is an example to me
- My character is a better me
- My character has characteristics that I would like to have

Player Identification: dimension (1)

Avatar Identification / **Embodied Presence**, 6 items

- When I am playing, it feels as if I am my character
- I feel like I am inside my character when playing
- In the game, it is as if I become one with my character
- When I am playing I am transported into my character
- When playing, it feels as if my character's body becomes my own
- In the game, it is as if I act directly through my character

Player Identification: dimension (2)

Group Identification, 6 items

- I feel connected with the members of my guild
- The members of my guild are important to me
- I regularly go online to meet with others from my guild
- My guild can count on me
- I have a lot in common with the members of my guild
- I find it important how the members of my guild see me

Player Identification: dimension (3)

Game Identification, 5 items

- World of Warcraft means a lot to me
- World of Warcraft is more than a game
- World of Warcraft is more than a hobby to me
- World of Warcraft is a way of life
- World of Warcraft is a part of who I am

Research

- Online questionnaire:
 - Player identification scale (29 items)
 - Yee's motivations for playing MMORPG
 - Proteus effect
 - Empathy
- $N = 544$, split up over two samples: $N = 232$ and $N = 221$

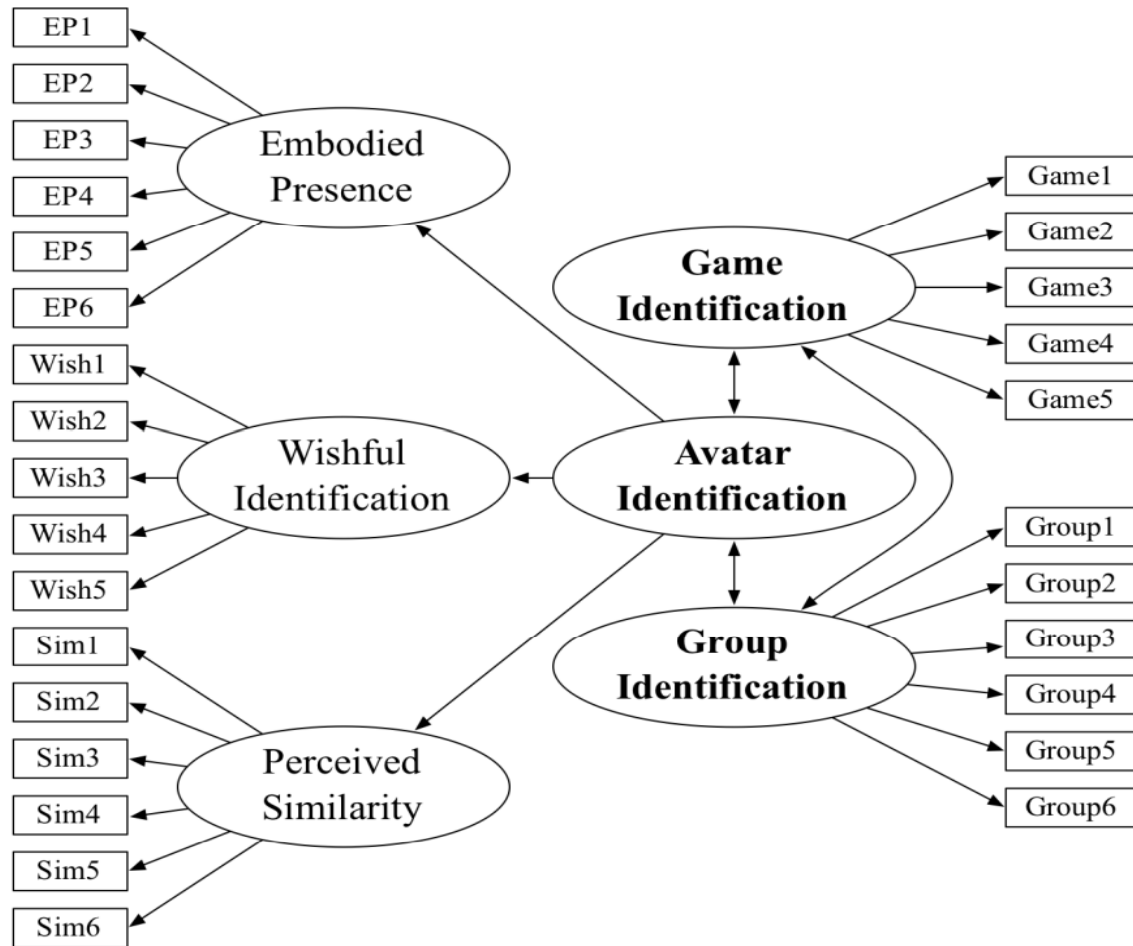
Analysis

- Explorative factor analysis on data sample 1 ($N = 323$)
 - Yields five factors, as proposed by literature
 - One item is dropped (loading $< .60$)
- Confirmatory factor analysis, implementing second-order construct
 - Yields acceptable fit on both samples
 - Multigroup analysis indicates scale invariance across both samples

$N = 323, \chi^2/df = 2.06, CFI = .94, TLI = .94, RMSEA = .057, CI_{90} = .051, .063$

$N = 212, \chi^2/df = 1.97, CFI = .92, TLI = .91, RMSEA = .066, CI_{90} = .059, .074$

$\Delta\chi^2 = 21.77, p > .05$



Validity

A thermometer is useless when it does not measure temperature:

→ need for validity testing

- Convergent validity: items of a construct measure same thing
- Discriminant validity: constructs are different from each other
- Nomological validity: constructs are related to constructs in a shared theoretical model

Validity

- Convergent validity:
 - Variance Extracted $> .50$: construct items share more than 50% variance
 - Alpha coefficients $> .70$: reliability criterion is met

- Discriminant validity:

Variance Extracted $>$ Variance explained by other constructs:
indicating a conceptual dissimilarity between all three
identification constructs.

Validity

- Nomological validity: relation with Yee's Motivations, Empathy and Proteus
- H1: **Avatar Identification** positively predicts **role-play**
- H2: **Avatar Identification** positively predicts **customization**
- H3: **Avatar Identification** positively predicts **escapism**
- H4: **Avatar Identification** positively predicts **Empathy** towards the avatar
- H5: **Avatar Identification** positively predicts **Proteus Effect**

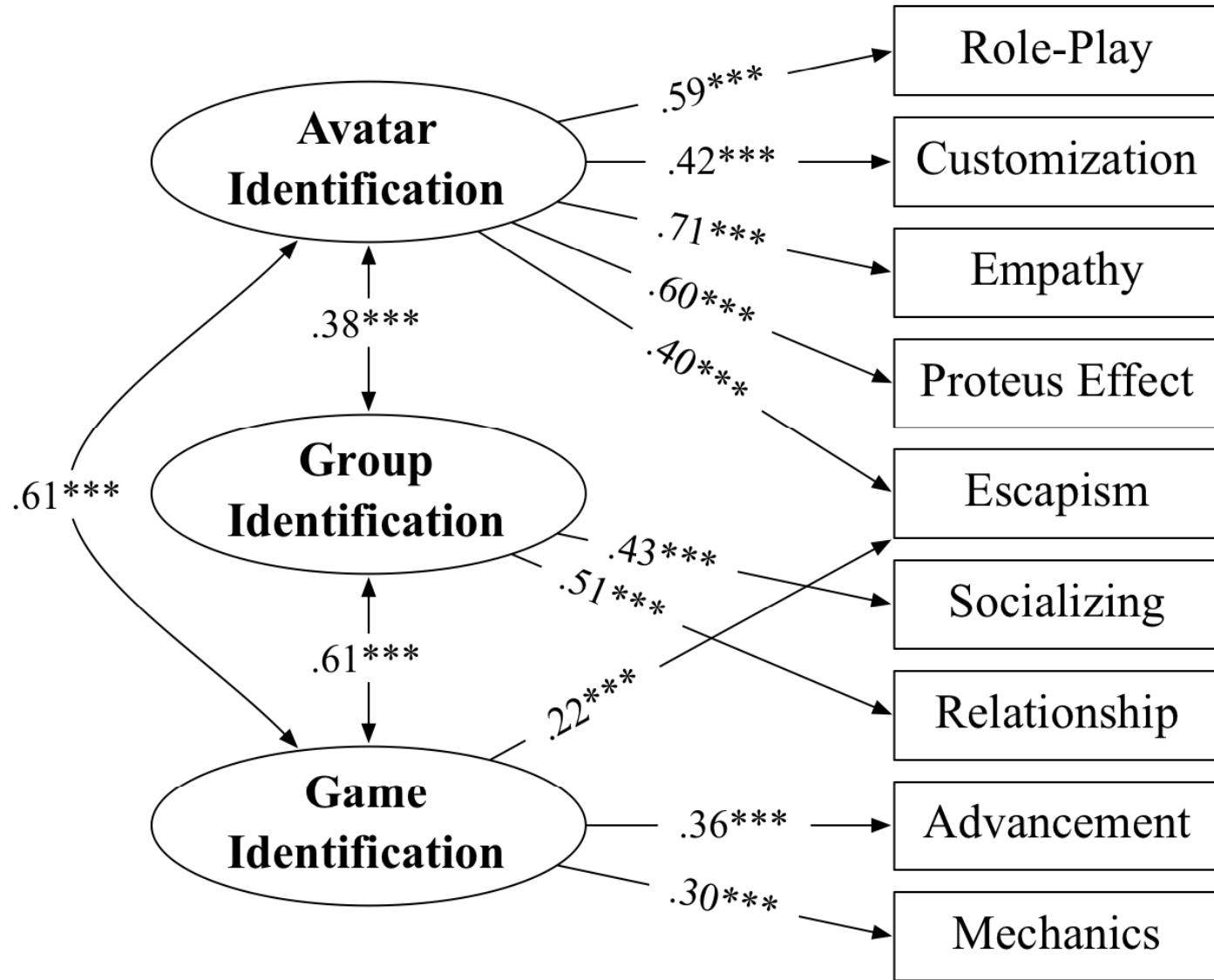
Validity

- Nomological validity: relation with Yee's Motivations, Empathy and Proteus
- H6: **Group Identification** positively predicts **socializing**
- H7: **Group Identification** positively predicts **relationship**
- H8: **Game Identification** positively predicts **escapism**
- H9: **Game Identification** positively predicts **advancement**
- H10: **Game Identification** positively predicts **mechanics**

Validity

- Nomological validity: relation with Yee's Motivations, Empathy and Proteus Effect

	Avatar Identification	Group Identification	Game Identification
RolePlaying	.52	.15	.28
Customization	.35	.17	.22
Empathy	.63	.32	.47
Proteus	.51	.25	.38
Escapism	.49	.23	.44
Socializing	.13	.43	.13
Relationship	.18	.49	.32
Advancement	.20	.31	.33
Mechanics	.18	.27	.26



Avatar Identification & Empathy

“[W]e assume that identification processes within an interactive medium as video games differ from the empathy-driven kind of identification that is observable while watching a movie” (Hefner et al., 2007)

- Empathy: $M = 2.12$, $CI_{95} 2.02, 2.22$; $SD = .91$
(e.g. Proteus: $M = 2.73$, $CI_{95} 2.62, 2.84$; $SD = 1.01$)
→ relatively low score
- But Avatar Identification → Empathy = strongest predictive value: $\gamma = .71$, $CI_{95} .63, .78$, $p < .001$
→ Hefner hypothesis partially confirmed, but comparative media research needed

Avatar Identification & Escapism

“It is plausible that the desire to temporarily forget (or ‘leave’) one’s real-life problems would be fulfilled more effectively if a viewer would not only enjoy the observation of media characters, but if s/he would experience to actually become a different person for the moment” (Hefner et al., 2007)

Avatar Identification predicts:

- Proteus Effect ($\gamma = .60$, $CI_{95} .50, .69$, $p < .001$): behave and experience game differently when playing with different character
 - Role-Play ($\gamma = .59$, $CI_{95} .49, .67$, $p < .005$): invent background stories about avatars
 - Escapism ($\gamma = .22$, $CI_{95} .06, .38$, $p < .001$): play to avoid having to think about real-life problems
- Confirmed

Construct validation: further research

Construct validity cannot be established in a single study
→ further research needed

- Need for testing relations with other theoretically relatable constructs, e.g. (personality, addiction), enjoyment, flow, learning, sociability...
- Need for testing with other demographics, other MMORPGs, other game genres (possibly partial use)
- Experimental validation by manipulating conditions, e.g. manipulate appearance avatar, background story (wishfulness)...

Conclusions

- We found empirical evidence for a theoretically grounded measurement instrument: a three-factorial structure holds up
- The instrument passed a first test of construct validity
- Need for future research: various contexts (e.g. shooter games), various methodologies (e.g. experimental settings)

Questions?

Jan Van Looy
j.vanlooy@ugent.be

Cédric Courtois
cedric.courtois@ugent.be

Melanie De Vocht
melanie.devocht@ugent.be

IBBT-MICT-UGent
www.mict.be

