

Online Supplemental Material

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Demographic Information of the Five (Sub)samples

	All Gamers	Female Gamers	Male Gamers	Non-gamers	Total Sample
Sample Size	648	318	330	618	1266
Gender (% of female)	49.01%	100%	0%	64.24%	56.48%
Age	33.09(8.54)	33.67(8.83)	32.54(8.24)	35.43(10.85)	34.24(9.80)
Race					
White/Caucation	510	231	279	475	985
Black/African American	84	58	26	66	150
Asian/Pacific Islander	33	17	16	39	72
Arab/Middle Eastern	1	1	0	6	7
Native American/Alaskan	9	5	4	12	21
Native Others	10	6	4	16	26

Note: Information reported under Age: *Mean(SD)*

Descriptive Statistics of the VGSS across Five (Sub)samples

	All Gamers	Female Gamers	Male Gamers	Non-gamers	Total Sample
Mean	3.06	3.60	2.52	2.96	3.00
SD	3.14	3.59	2.50	2.65	2.86
Cronbach's α	.98	.99	.97	.98	.98

Note: VGSS = The Video Game Sexism Scale (Fox & Tang, 2014).

Descriptive Statistics of the ESS across Five (Sub)samples

	All Gamers	Female Gamers	Male Gamers	Non-gamers	Total Sample
Mean	2.55	3.08	2.03	2.28	2.42
SD	3.13	3.57	2.54	2.80	2.97
Cronbach's α	.97	.98	.95	.95	.96

Note: ESS = The Employment Skepticism Subscale (Valentine, 2011).

Model Fit of the ESS across Five (Sub)samples

	All Gamers	Female Gamers	Male Gamers	Non-gamers	Total Sample
χ^2	53.13*	29.06*	65.33*	27.43*	60.44*
CFI	.99	.99	.97	.99	.99
TLI	.98	.98	.94	.99	.99
RMSEA	.12	.12	.19	.09	.09
90% CI	[.09, .15]	[.08, .17]	[.15, .24]	[.06, .12]	[.07, .12]
SRMR	.01	.01	.02	.01	.01

Note: ESS = The Employment Skepticism Subscale (Valentine, 2011). 90% CI = 90% confidence interval of RMSEA. * $p < .01$

Model Fit of the VGSS across Five (Sub)samples

	All Gamers (<i>n</i> = 648)	Female Gamers (<i>n</i> = 318)	Male Gamers (<i>n</i> = 330)	Non-Gamers (<i>n</i> = 618)	Total Sample (<i>n</i> = 1266)
VGSS					
χ^2	1166.72*	693.85*	749.05*	784.63*	1636.98*
CFI	.93	.93	.89	.94	.94
TLI	.92	.92	.87	.93	.93
RMSEA	.13	.13	.14	.10	.11
90% CI	[.12, .13]	[.12, .14]	[.13, .15]	[.10, .11]	[.10, .11]
SRMR	.03	.02	.04	.03	.03

Correlation Matrix of the Gamer Sample

Variable	1	2	3	4	5	6	7	8
1. Lack of femininity								
2. Lack of sociability	.83							
3. Gaming competence	.84	.72						
4. Reliance on men	.87	.72	.91					
6. Gaming preference	.61	.56	.68	.66				
6. VGSS	.88	.73	.92	.96	.63			
7. ESS	.87	.73	.84	.89	.61	.93		
8. Age	-.08	-.09	-.15	-.07	-.07	-.06	-.13	

Note: VGSS = The Video Game Sexism Scale (Fox & Tang, 2014). ESS = The Employment Skepticism Subscale (Valentine, 2011).

Correlation Matrix of the Female Gamer Subsample

Variable	1	2	3	4	5	6	7	8
1. Lack of femininity								
2. Lack of sociability	.87							
3. Gaming competence	.91	.82						
4. Reliance on men	.93	.80	.94					
5. Gaming preference	.68	.64	.72	.71				
6. VGSS	.91	.78	.95	.97	.68			
7. ESS	.91	.79	.93	.94	.71	.96		
8. Age	-.10	-.10	-.14	-.11	-.09	-.08	-.12	

Note: VGSS = The Video Game Sexism Scale (Fox & Tang, 2014). ESS = The Employment Skepticism Subscale (Valentine, 2011).

Correlation Matrix of the Male Gamer Subsample

Variable	1	2	3	4	5	6	7	8
1. Lack of femininity								
2. Lack of sociability	.75							
3. Gaming competence	.72	.58						
4. Reliance on men	.76	.58	.86					
5. Gaming preference	.47	.42	.60	.57				
6. VGSS	.80	.62	.87	.94	.53			
7. ESS	.78	.61	.71	.79	.42	.86		
8. Age	-.08	-.10	-.18	-.16	-.07	-.09	-.16	

Note: VGSS = The Video Game Sexism Scale (Fox & Tang, 2014). ESS = The Employment Skepticism Subscale (Valentine, 2011).

Correlation Matrix of the Non-gamer Sample

Variable	1	2	3	4	5	6	7	8
1. Lack of femininity								
2. Lack of sociability	.76							
3. Gaming competence	.76	.55						
4. Reliance on men	.77	.54	.88					
5. Gaming preference	.51	.47	.54	.53				
6. VGSS	.75	.53	.90	.93	.55			
7. ESS	.66	.44	.76	.80	.41	.85		
8. Age	-.13	-.07	-.24	-.24	-.03	-.25	-.27	

Note: VGSS = The Video Game Sexism Scale (Fox & Tang, 2014). ESS = The Employment Skepticism Subscale (Valentine, 2011).

Correlation Matrix of the Total Sample

Variable	1	2	3	4	5	6	7	8
1. Lack of femininity								
2. Lack of sociability	.80							
3. Gaming competence	.80	.65						
4. Reliance on men	.82	.64	.89					
5. Gaming preference	.56	.52	.62	.60				
6. VGSS	.81	.62	.91	.94	.59			
7. ESS	.77	.59	.80	.85	.52	.89		
8. Age	-.09	-.06	-.19	-.18	-.05	-.17	-.20	

Note: VGSS = The Video Game Sexism Scale (Fox & Tang, 2014). ESS = The Employment Skepticism Subscale (Valentine, 2011).

Construct Validity: Correlations Corrected for Attenuation Due to Error of Measurement

	Lack of Femininity	Lack of Sociability	Lack of Competence	Reliance on Men	Gaming Preference
	r'	r'	r'	r'	r'
The ESS					
All Gamers	1.00	.83	.96	1.02	.69
Female Gamers	1.07	.92	1.08	1.10	.81
Male Gamers	1.00	.76	.90	1.01	.52
Non-Gamers	.86	.56	.98	1.04	.52
Total Sample	.95	.72	.99	1.05	.63
Age					
All Gamers	-.09	-.09	-.17	-.13	-.08
Female Gamers	-.11	-.11	-.16	-.12	-.10
Male Gamers	-.10	-.11	-.21	-.19	-.08
Non-Gamers	-.15	-.08	-.29	-.29	-.04
Total Sample	-.10	-.07	-.22	-.20	-.05

Items (41) from Initial Stereotype Generation

1. Female gamers do *not* like cooking.
2. Female gamers lack the skills for maintaining a tidy household.
3. Female gamers lack the skills for maintaining a romantic relationship.
4. Female gamers tend to be aggressive.
5. Female gamers are *not* in serious romantic relationships or married.
6. Female gamers do *not* party a lot.
7. Female gamers are socially awkward.
8. Female gamers have an introverted personality.
9. Female gamers have *no* social life.
10. Female gamers are socially incompetent.
11. Female gamers have difficulties fitting into normal social circles.
12. Female gamers need help from male gamers when they play video games.
13. Female gamers do *not* perform as good as male gamers in playing video games.
14. Female gamers learn how to play a video game slower than male gamers.
15. Female gamers get to be good at gaming slower than male gamers.
16. Female gamers are *not* as good at shooter games as male gamers.
17. Female gamers play video games to feel more masculine.
18. Female gamers are *not* motivated to understand the lore of a video game.
19. Female gamers are less motivated than male gamers to improve their gaming skills.
20. Female gamers play video games to impress men.
21. Female gamers play video games to spend time with their friends.
22. While gaming, female gamers lack motivation for achievement.
23. Female gamers perform substantially worse at competitive video games than male gamers.
24. Female gamers often fail at making reasonable in-game decisions.
25. Female gamers start playing video games because their romantic partners are gamers.
26. While playing video games, female gamers tend to make decisions based on their emotions and feelings.
27. Female gamers tend to have soft voice.
28. Female gamers enjoy cooperation more than competition in games.
29. Female gamers are less assertive in gaming than male gamers.
30. Female gamers start playing video games because men they know introduce them to games.
31. Female gamers are not likely to harass another player in online games.
32. Female gamers like to communicate with other players while playing games.
33. Female gamers prefer a video game in which they can customize how they look.
34. Female gamers play on consoles more than on computers.
35. Female gamers like casual games.
36. Female gamers play a lot simulation video games, such as the SIMS.
37. In role-playing games, female gamers prefer supportive roles.
38. Female gamers like socially-oriented games.
39. Female gamers do *not* like to use the microphone while playing games.
40. Female gamers do *not* like competitive games.
41. Female gamers take gaming less seriously than male gamers.

Study 2 Survey Items

1. Female gamers do *not* like cooking.
2. Female gamers lack the skills for maintaining a tidy household.
3. Female gamers lack the skills for maintaining a romantic relationship.
4. Female gamers tend to be aggressive.
5. Female gamers are *not* in serious romantic relationships or married.
6. Female gamers do *not* party a lot.
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8. Female gamers have an introverted personality.
9. Female gamers have *no* social life.
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12. Female gamers need help from male gamers when they play video games.
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36. Female gamers play a lot simulation video games, such as the SIMS.
37. In role-playing games, female gamers prefer supportive roles.
38. Female gamers like socially-oriented games.
39. Female gamers do *not* like to use the microphone while playing games.
40. Female gamers do *not* like competitive games.
41. Female gamers take gaming less seriously than male gamers.
42. Female gamers care a lot about their avatar's appearance.

- 43. Female gamers' appearance is untidy.
- 44. Female gamers play video games for enjoyment.

An Example of EFA Misclassified Items When There is a Gradient

EFA may misclassify an item when there is a gradient (items have different factor loadings) in the factor structure. Consider the following example. Suppose that some factor T has four indicators, X1-X4, and that a different factor U has four indicators, Y1-Y4, and that this model fits the data perfectly. Furthermore, suppose that the factor loadings were as follows: $X1=.9$, $X2=.7$, $X3=.6$, $X4=.5$, $Y1=.9$, $Y2=.7$, $Y3=.6$, and $Y4=.5$. Finally, suppose that the correlation between the factors T and U is .8. Then we can use the internal consistency theory, that the correlation between any two indicators of the same factor is the product of their factor loadings (e.g., $r_{X1X2} = r_{X1T} * r_{X2T}$) and the parallelism theorem, that the correlation between any two indicators of different factors is the triple product of their factor loadings and the correlation between the factors (e.g., $r_{X1Y1} = r_{X1T} * r_{Y1U} * r_{TU}$), to reproduce the correlation matrix. That correlation matrix would be as follows.

	X1	X2	X3	X4	Y1	Y2	Y3	Y4	F1	F2
X1									.9	
X2	.63								.7	
X3	.54	.42							.6	
X4	.45	.35	.30						.5	
Y1	.65	.50	.43	.36						.9
Y2	.50	.39	.34	.28	.63					.7
Y3	.43	.34	.29	.24	.54	.42				.6
Y4	.36	.28	.24	.20	.45	.35	.30			.5
F1									1.0	.8
F2									.8	1.0

As can be seen here, the largest correlation in the matrix is between two items which measure different factors, X1 and Y1. EFA will certainly put them in the same factor. Moreover, the weakest items, X4 and Y4, will be classified as indicators of some other factor. Therefore, EFA would not be an appropriate method to determine dimensionality for our study, as our data indeed have gradients.

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