

Video Games - Motives & Barriers

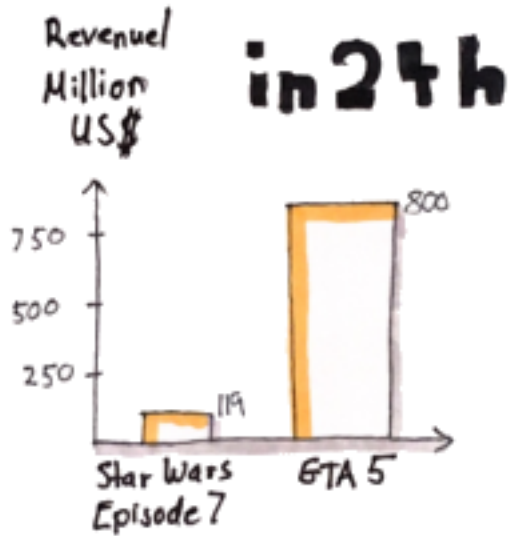
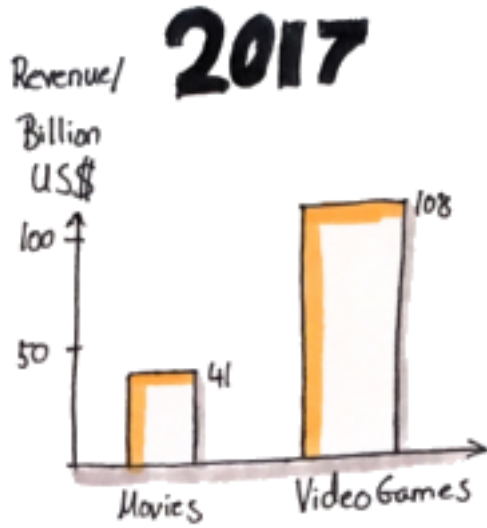


Lars Bartschat

Agenda

- Introduction
- Foundations
- Model Development
- Model Validation
- Conclusion



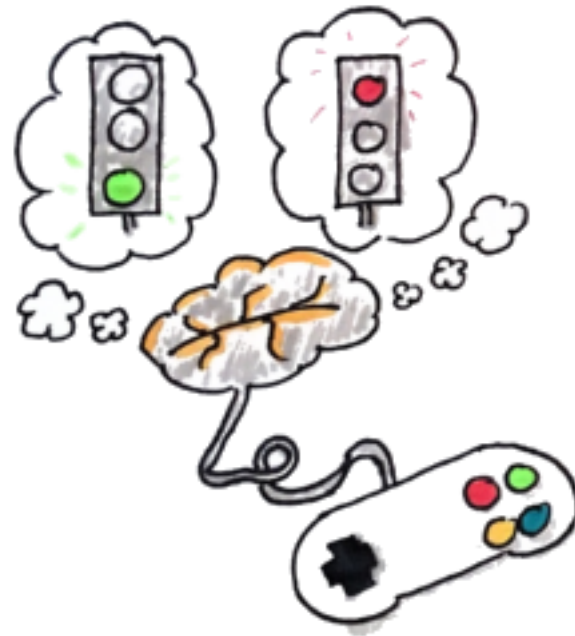


82 million Germans



34 million Gamers





Industry Foundations

1970's



1977
1983

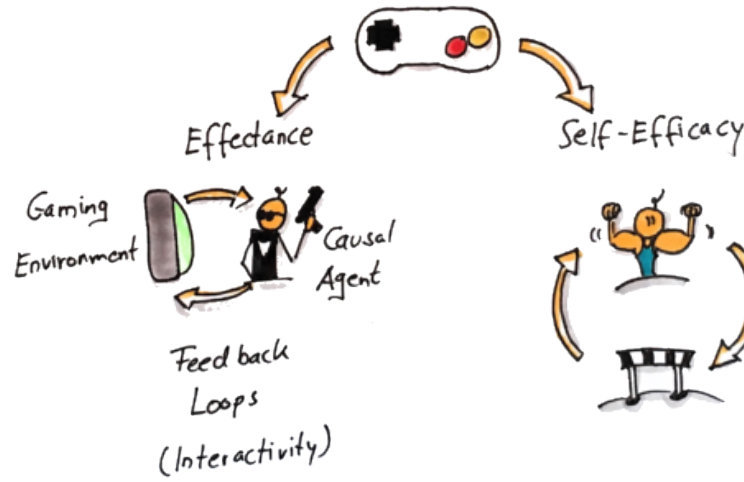
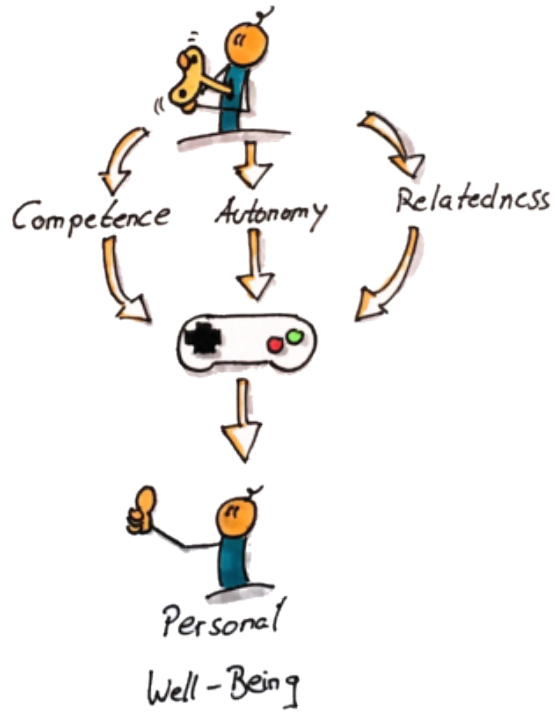


Today

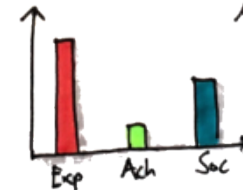


Self-Determination Theory

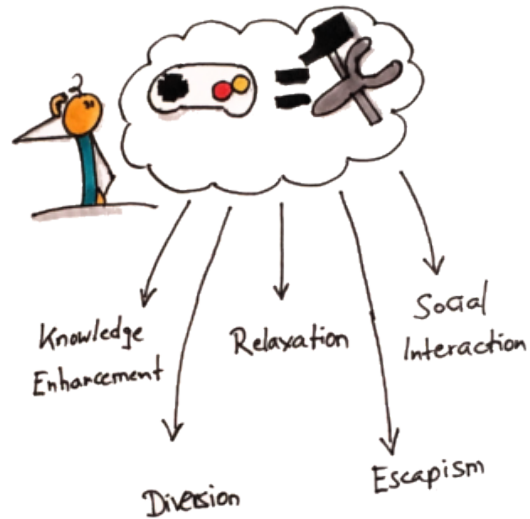
Intrinsic Motives



associated to Motives



Uses & Gratifications Theory

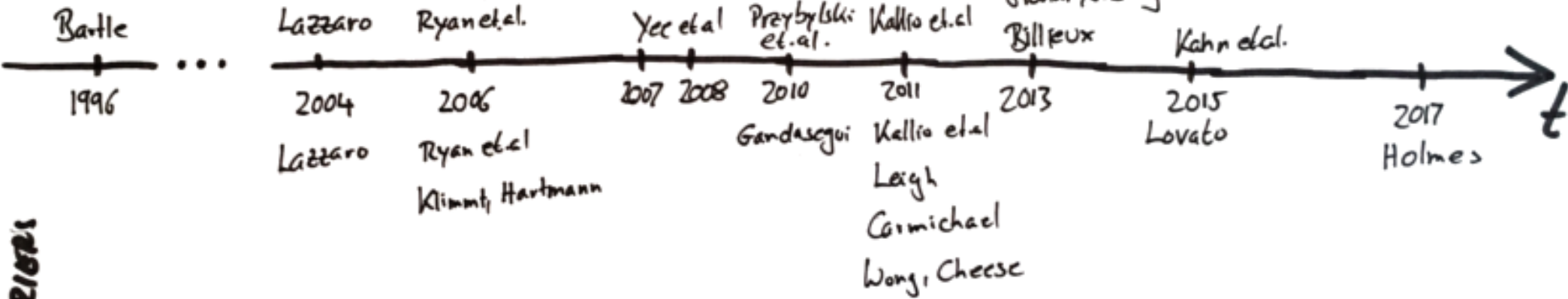


Literature Overview



MOTIVES

BARRIERS



Literature Synthesis



Motives

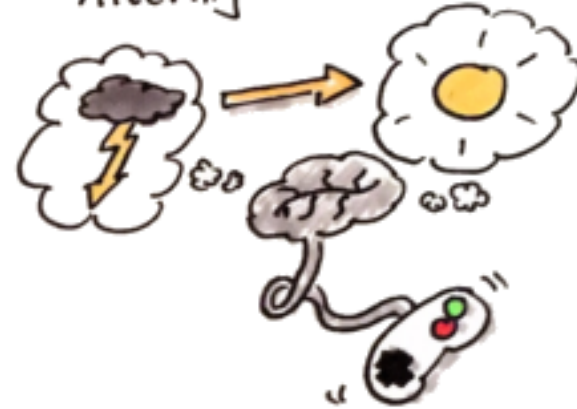
Sociability



Escapism



Altering Emotional States



Competition



Time Killing



Immersion



Achievement



Exploration



Barriers

Complexity



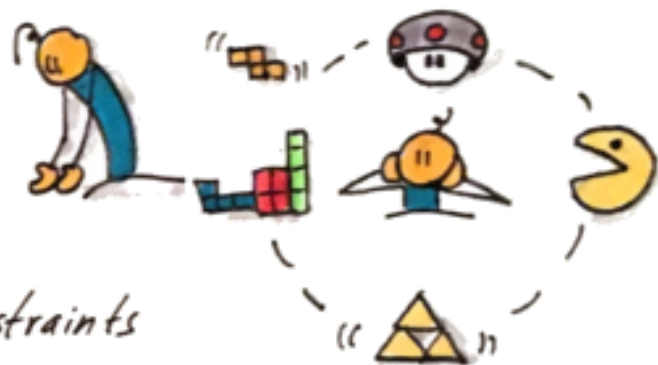
Aesthetics



Inaccessibility
of
Game Devices



Hyperchoice



Unfamiliarity



Morality



Time Constraints



Theme



Costs

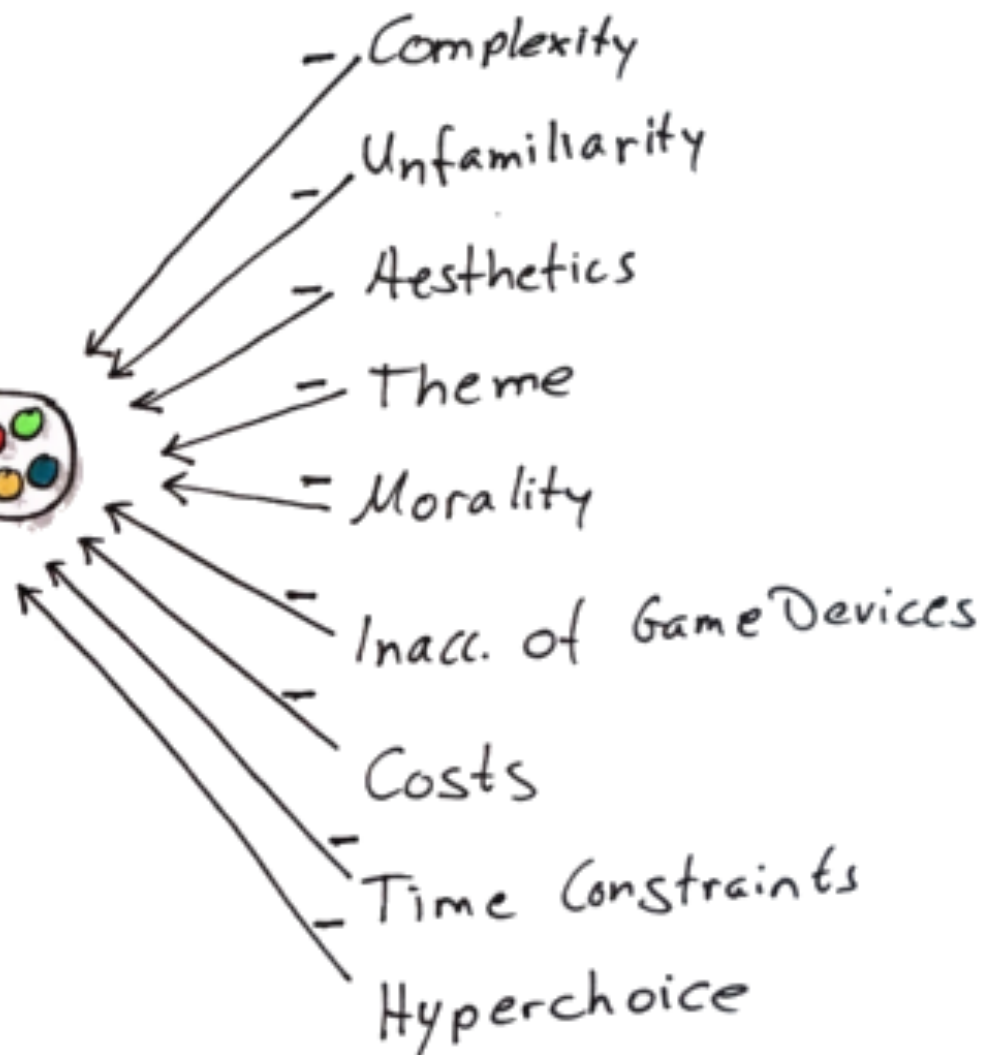


Model Overview

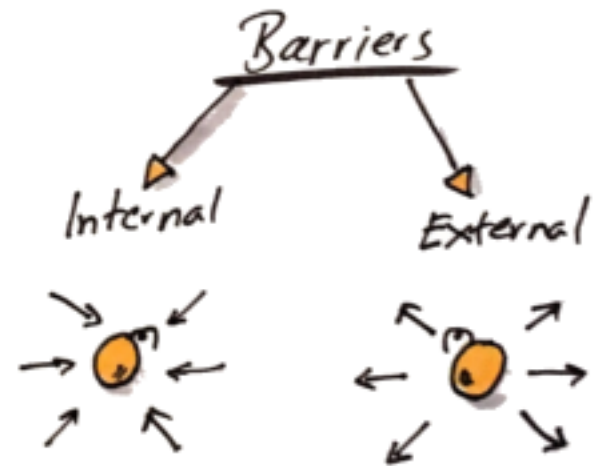
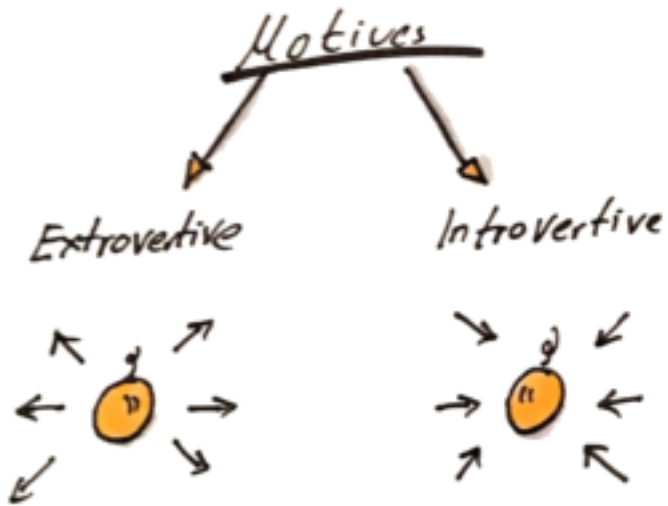
Motives



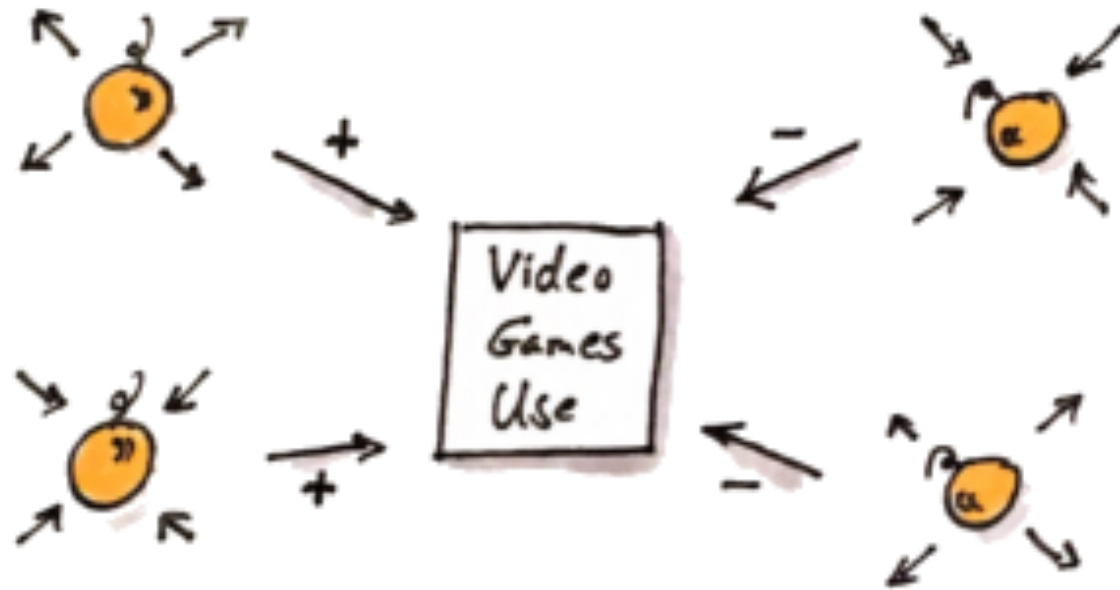
Barriers



Motives & Barriers - Direct Effects

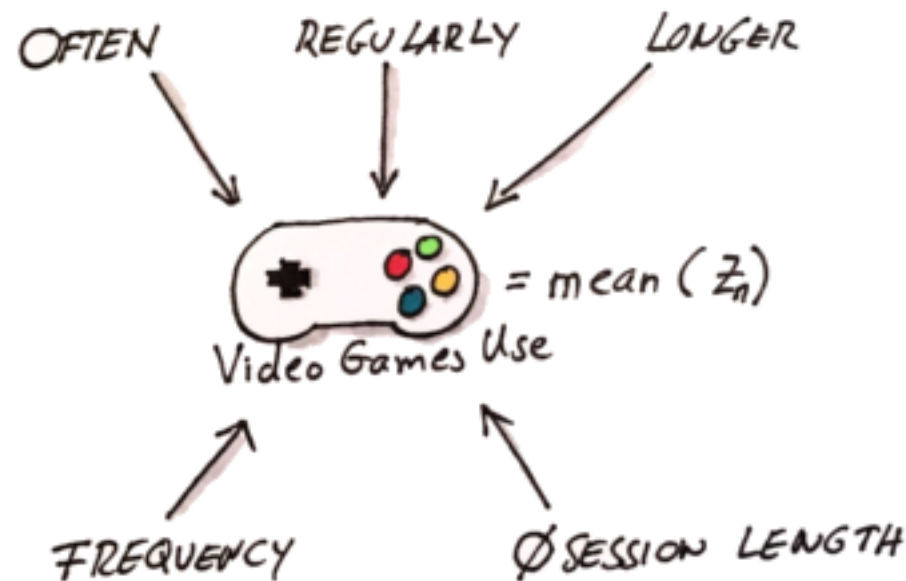


Factorized Model



Research Methodology

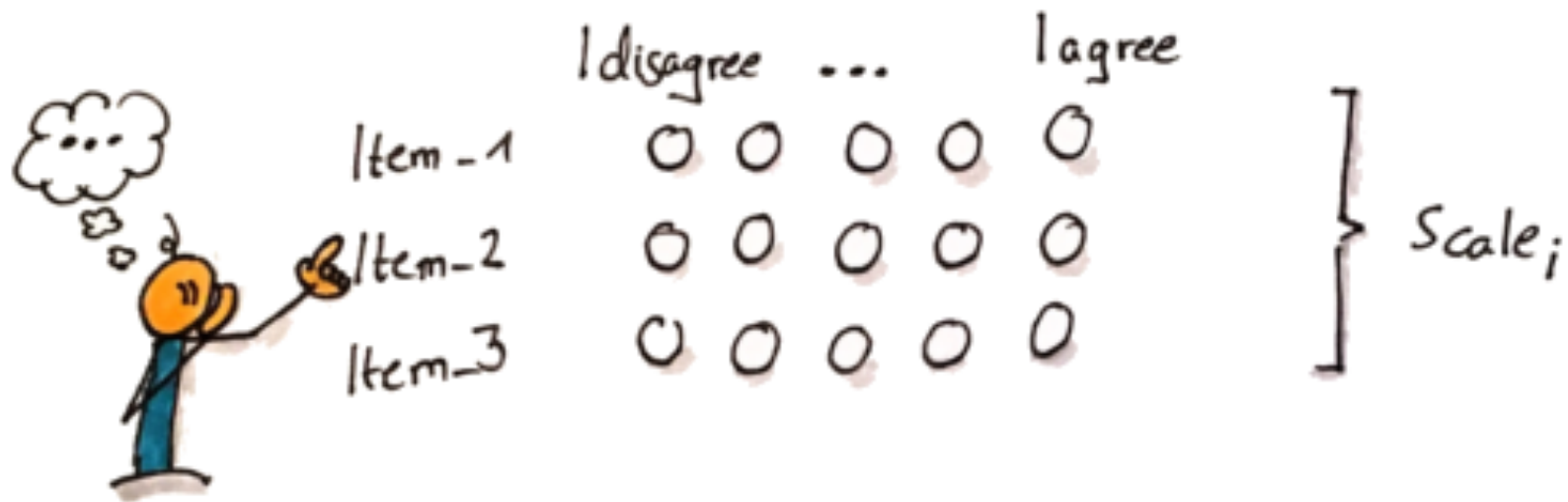
Measuring the Dependent Variable



Z-scores:

$$Z_i = \frac{X_i - \bar{X}}{s}$$

Measuring the Independent Variables

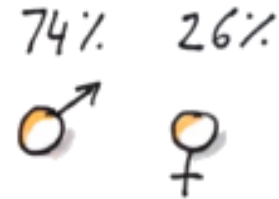


$$\text{Score} (\text{Scale}_i) = \text{mean} (\text{Item}_{1..3})$$

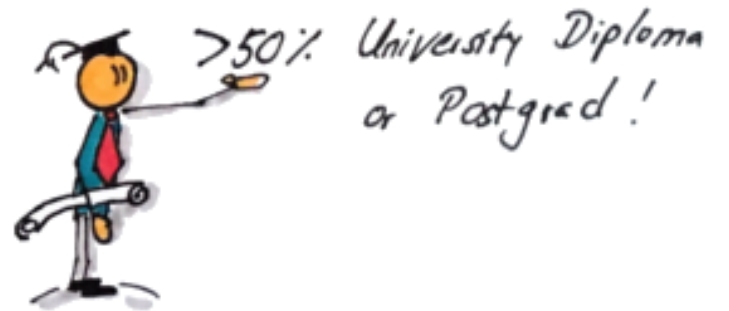
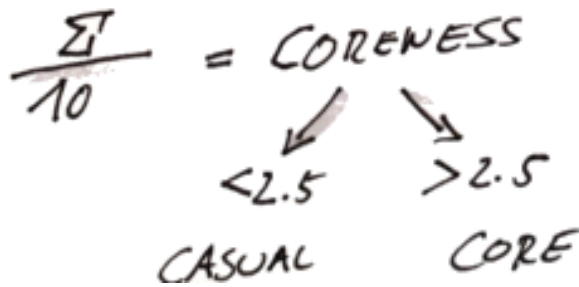
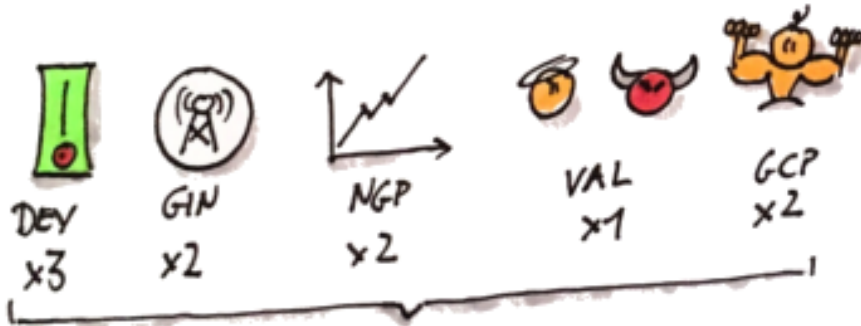
Unipark.de



Sample Description



Determine the Gamer Type:



Results

Reliability & Unidimensionality of Scales

Reliability



→ Cronbach's α

Video Game Usage $\alpha = 0.890$ ✓
Independent Variables $\alpha > 0.700$ ✓
Coreness Scale $\alpha = 0.884$ ✓

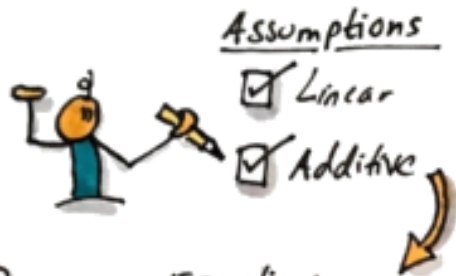
Unidimensionality



→ Principal Component Analysis

Kaiser Criterion Eigenvalue > 1





Regression Equation:

$$Usage_i = \beta_0 + \beta_1 \times Soc. + \beta_2 \times Comp. + \dots + \epsilon_i$$

Model Testing - Model 1

	β	β	tstat.	p	VIF
Intercept	-1.123		-6.020	0.000	
Competition	0.073	0.110	2.242	0.026	2.152
Alt. Erot. St.	0.088	0.120	2.095	0.037	2.917
Time Killing	0.121	0.167	3.552	0.000	1.958
Immersion	0.084	0.133	2.379	0.018	2.755
Exploration	0.170	0.245	4.393	0.000	2.772
Unfamiliarity	-0.170	-0.190	-3.270	0.001	2.978
Time Const.	-0.121	-0.180	-5.030	0.000	1.138

all VIF ≤ 3 ✓
no multicollinearity



R^2	0.714
R^2 (adj.)	0.694
F-stat.	35.227
Prob.(F-stat)	0.000
Durbin-Watson	2.065

only $p < 0.05$ shown

independency of errors ✓

DV = Video Game Use
N = 273



Model Testing - Model 2 (factorized)

	B	β	t-stat.	p	VIF
Intercept	-0.174		-2.830	0.005	
Intrav. Motives	0.560	0.672	18.816	0.000	1.055
Extrav. Motives	0.212	0.254	7.219	0.000	1.023
Intern. Barriers	-0.200	-0.240	-6.430	0.000	1.148
Extern. Barriers	-0.115	-0.138	-3.932	0.045	1.015
Gender	0.236	0.124	3.206	0.002	1.241

Adequacy of Sample?



KMO = 0.807 ✓

How many?



Parallel Analysis



4 ✓

PCA →

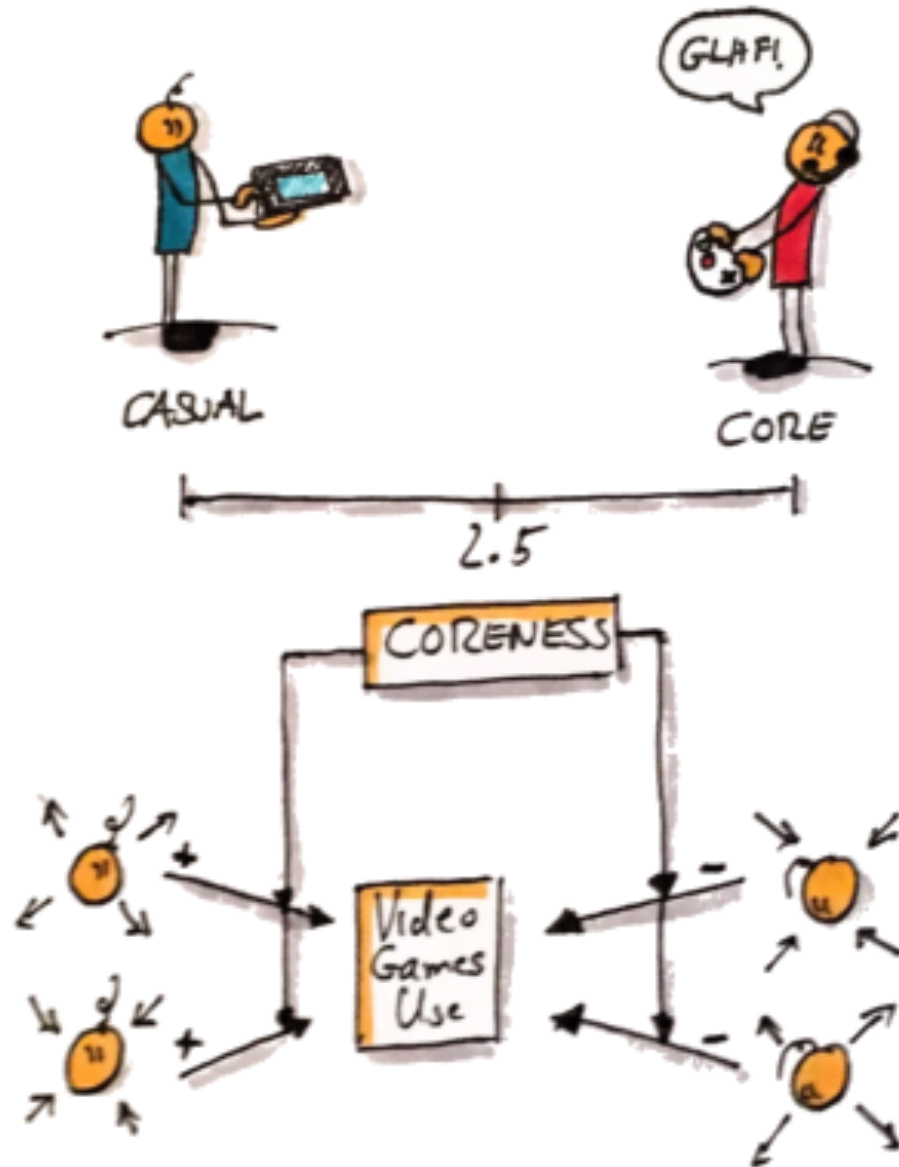
Component	Construct
1	Intrav. Motives
2	Intern. Barriers
3	Extrav. Motives
4	Extern. Barriers

✓ R² 0.677
 ✓ R²(adj.) 0.671
 Fstat. 111.761
 Prob.(F-stat.) 0.000
 Durbin-Watson 1.807 ✓
 DV = Video Games Use
 N = 273

↑ Regression Analysis (with factor scores) ✓

✓

Post-Hoc Analysis - Game Type as Moderator?



Model Testing - Model 3



	B	β	tstat.	p	VIF
Intercept	0.007		0.098	0.922	
Intriv. Motives	0.373	0.447	9.601	0.000	2.026
Extriv. Motives	0.124	0.149	4.030	0.000	1.348
Int. Barriers	-0.121	0.145	-3.465	0.000	1.763
Ext. Barriers	-0.085	0.102	-2.736	0.001	1.291
Coreness	0.298	0.357	6.477	0.000	2.584
IA Coren. x Intriv. Mot.	-0.087	0.099	-2.769	0.006	1.195
IA Coren. x Extriv. Mot	-0.015	0.018	-0.532	0.595	1.128
IA Coren. x Int. Barr.	-0.022	0.026	-0.722	0.471	1.283
IA Coren. x Ext. Barr.	-0.036	0.044	-1.268	0.206	1.217
Gender	0.044	0.023	0.551	0.551	1.217

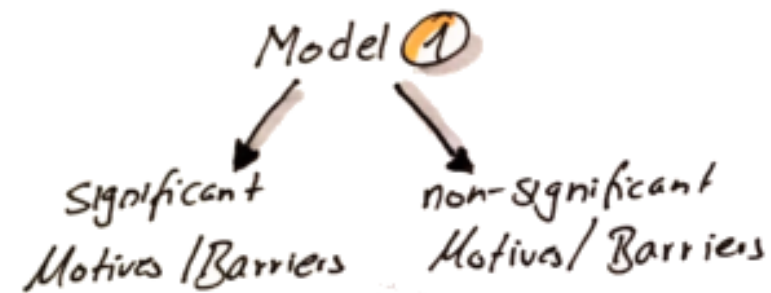
} Sign. (for rows: Intercept, Intriv. Motives, Extriv. Motives, Int. Barriers, Ext. Barriers, Coreness)
} non-sig. (for rows: IA Coren. x Intriv. Mot., IA Coren. x Extriv. Mot, IA Coren. x Int. Barr., IA Coren. x Ext. Barr., Gender)

< 3 VIF

R ²	0.734
R ² (adj)	0.724
F-Stat.	72.268
Prob (F-Stat.)	0.000
Dubin-Watson	1.962

DV: Video Games Use
 N = 273

Discussion of Results



Model ③

- Core vs Casual
- Interaction → only one
- Coreness (effect size)

→ Main Drivers for Video Gaming

- Exploration
- Time Killing
- Immersion
- Altering Emotional States
- Competition

Main Obstacles

- Unfamiliarity
- Time Constraints

Sample Composition



Implications

Limitations

Future Research





<https://github.com/bartschat>



- Thesis incl. all references
- Presentation



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DISCUSSION