

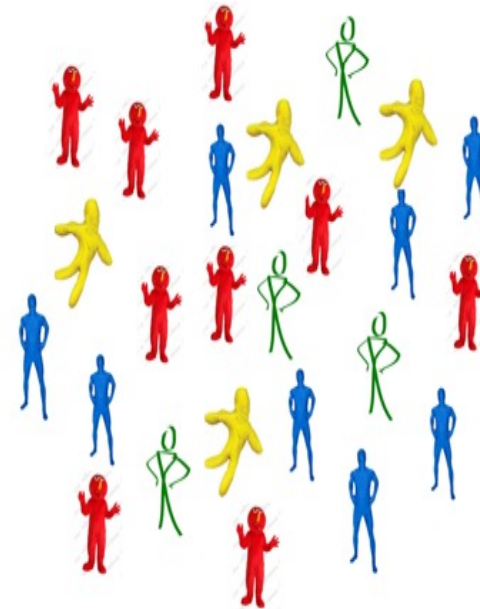
# PORN AND DATING APPS, WHAT ELSE?

Yasser Khazaal<sup>1,2,3,4</sup>

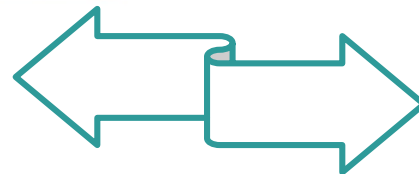
1. Université de Lausanne, Faculté de biologie et de médecine, Lausanne, Suisse
2. Service de médecine des addictions, Département de psychiatrie, CHUV, Lausanne, Suisse
3. Centre de recherche de l'institut universitaire en santé mentale de Montréal, Canada
4. Département de Psychiatrie et d'Addictologie, Université de Montréal, Canada

Pas de conflits  
d'intérêts

Image: Joelle Cababanne



DESIGN  
specific digital  
services



Person/ Society





# Époque d'Edo 江戸時代

1603-1868

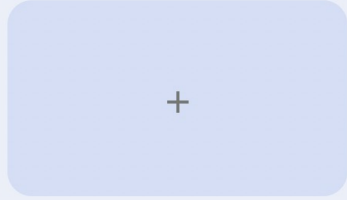


Estampe de Hiroshige

<https://www.connaissancedesarts.com/arts-expositions/lerotisme-au-japon-a-lepoque-dedo-115047/>

● porno  
Terme de recherche

● porno  
Terme de recherche

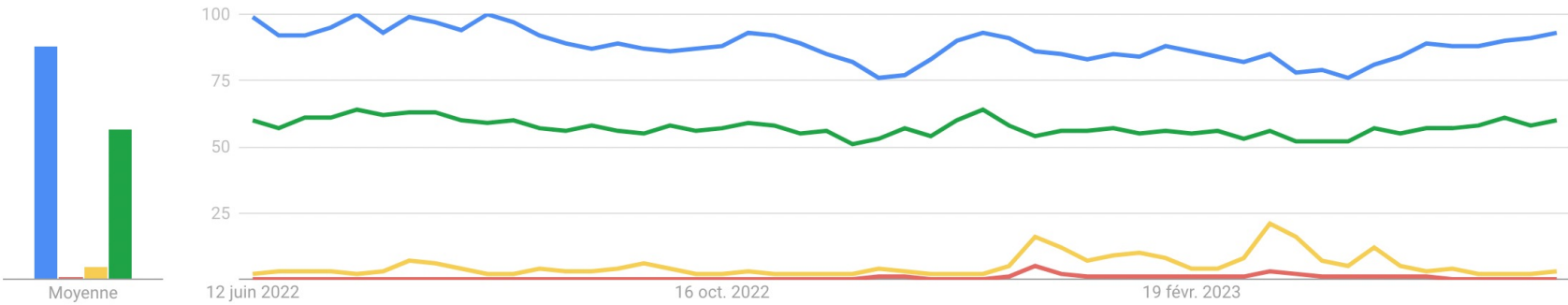


- France ▾
- 12 derniers mois ▾
- Toutes catégories ▾
- Recherche sur le Web ▾

! **Remarque** : Cette comparaison contient à la fois des termes de recherche et des sujets, qui sont calculés différemment.

[EN SAVOIR PLUS](#)

### Évolution de l'intérêt pour cette recherche ?



# PORN S

YOU♥PORN

Search, discover and more!

★ Upgrade

Videos

Categories

Live Sex

ECHTE HUREN

Live Cams

Pornstars

amateur couple

homemade

cock sucking

big boobs

blonde

doggystyle

point of view

creampie

big ass

brunette

deepthroat

amateur

big tits

blowjob

butt

ass fuck

big cock

cumshot

big natural tits

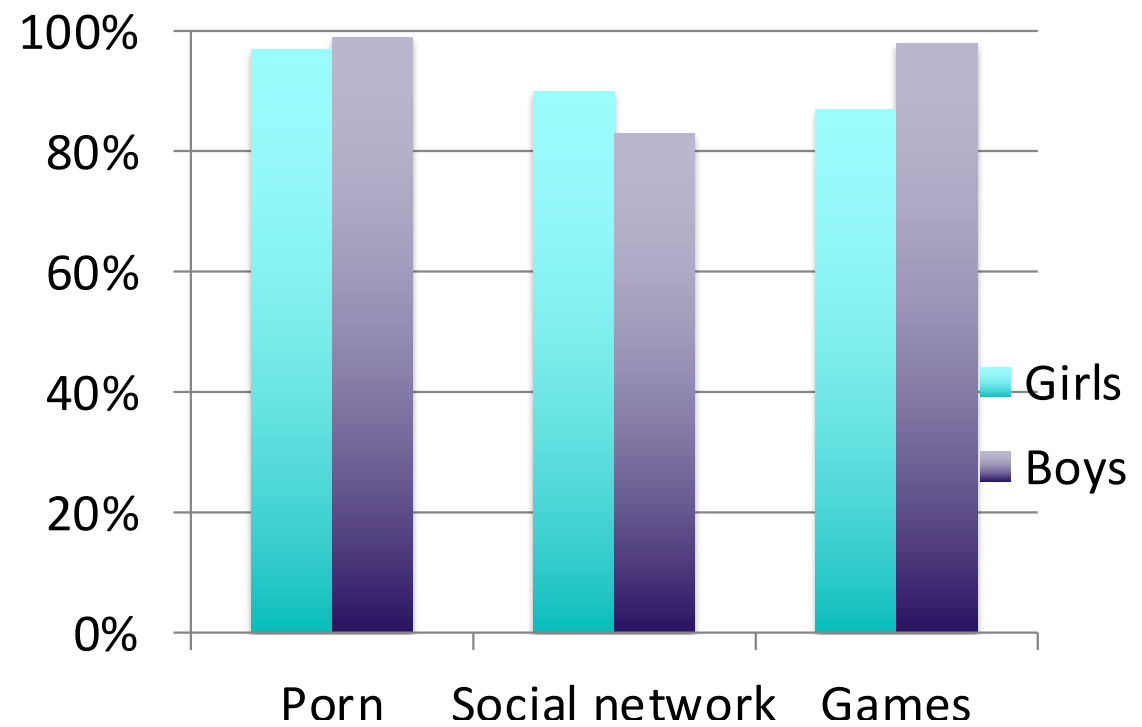
pov

- stories and dialogues.

«I believe that pornography use is morally wrong»

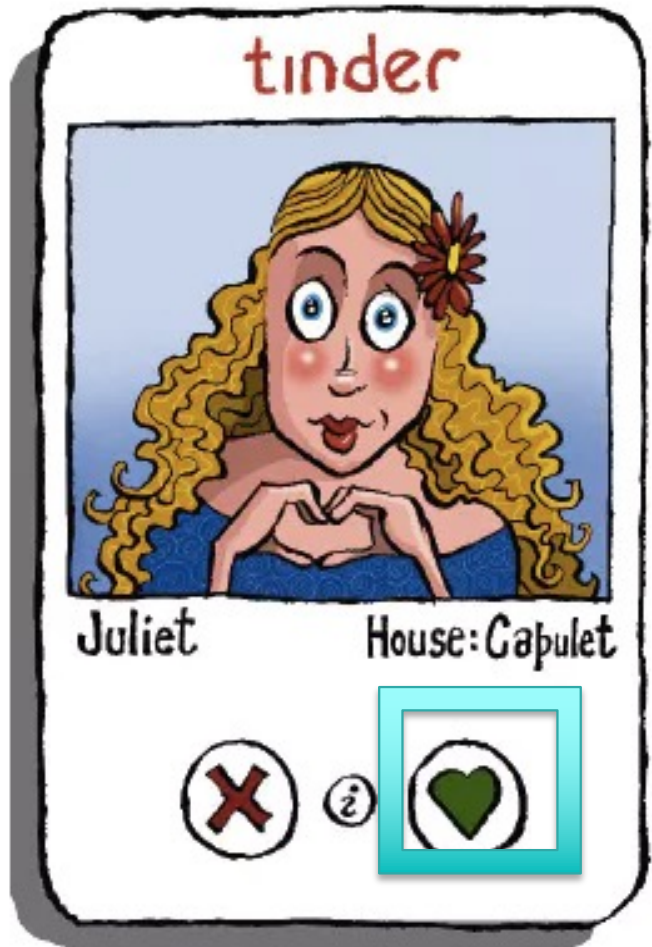
Ben-Brahim, Courtois, Khazaal et al. In preparation

Montreal  
N = 3938  
**High school students**  
56.3% Girls  
Age range: 14-21



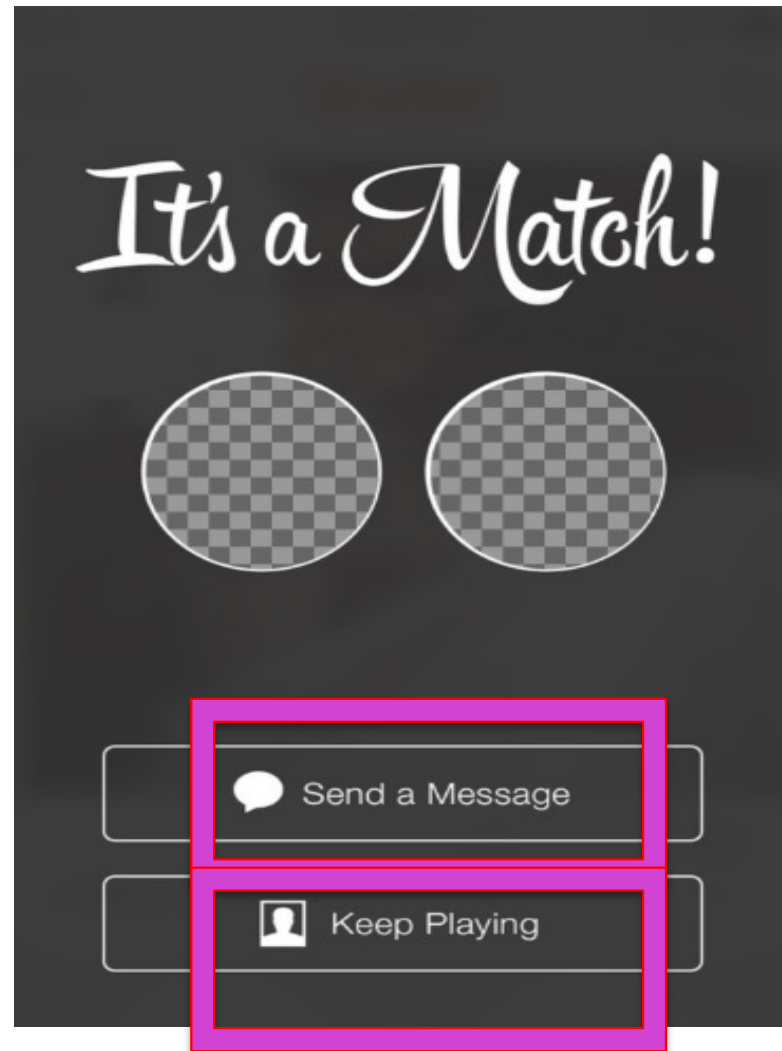


Lost in translation



Theo Hobson, The Spectator

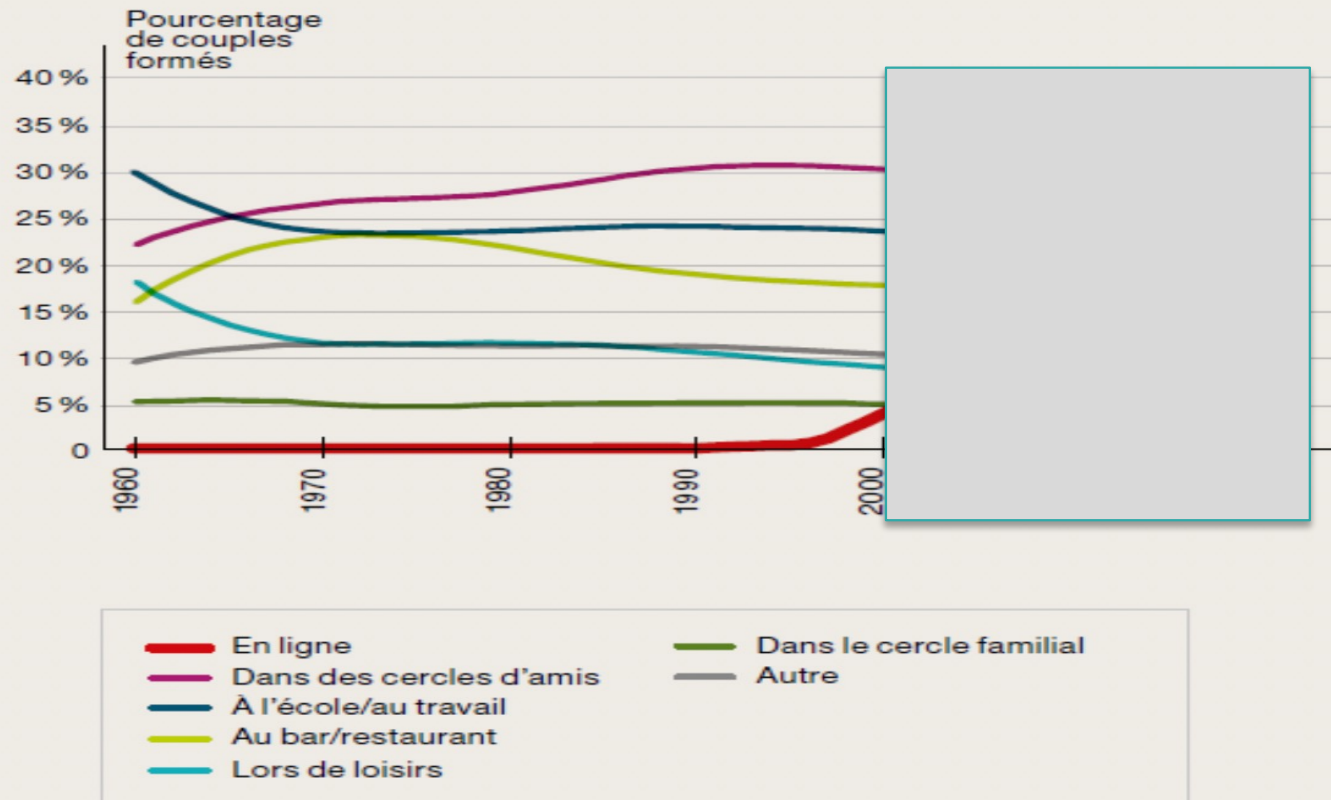




<https://www.businessofapps.com/data/tinder-statistics/#4>

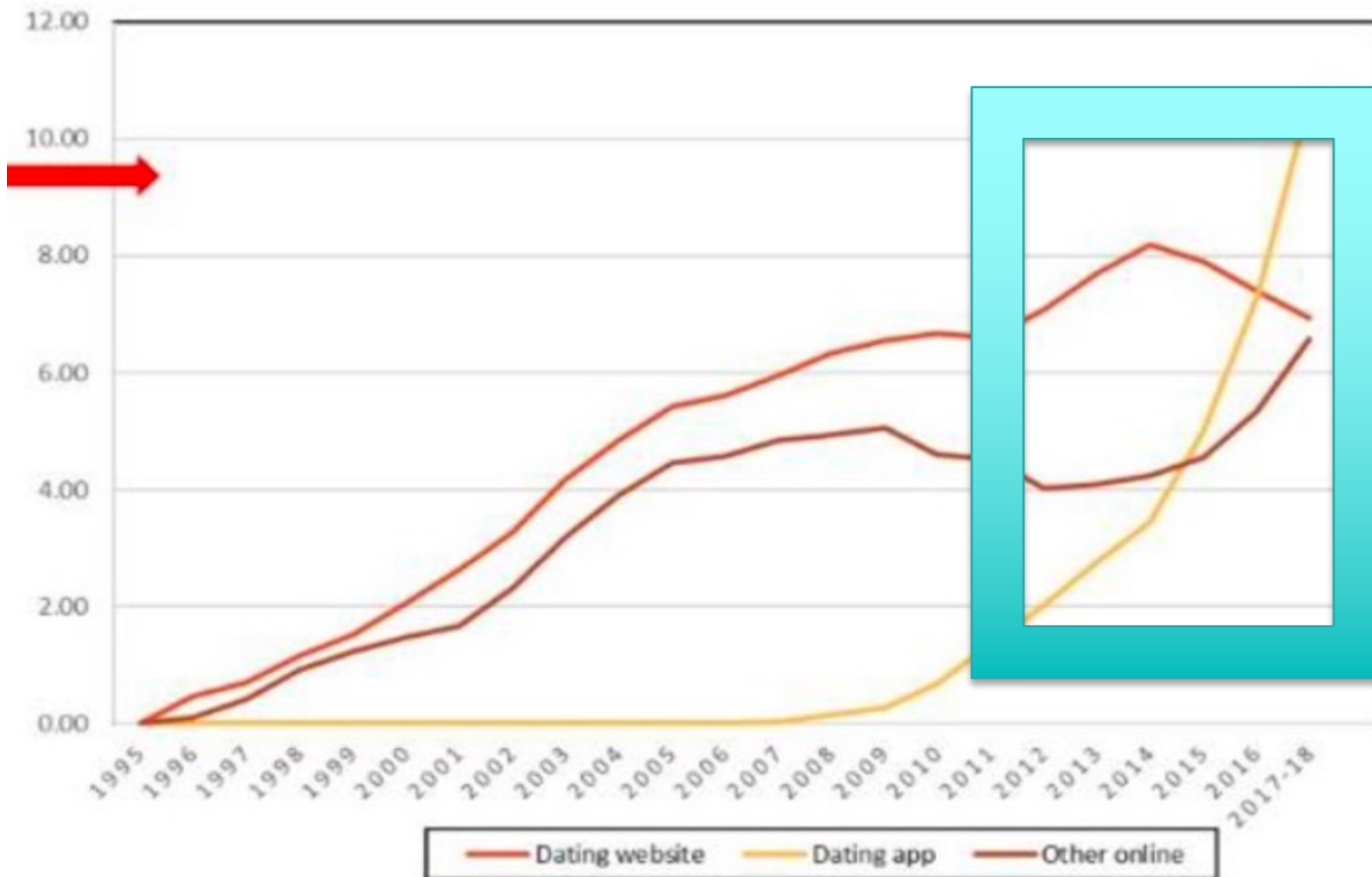


## LIEUX DE RENCONTRE DES COUPLES EN SUISSE



Source : Enquête sur les familles et les générations, Office fédéral de la statistique, 2018  
 Le total excède 100% car les catégories ne sont pas exclusives.  
 Ces données comprennent les couples homosexuels et hétérosexuels.

## B. THE ONLINE MEETING CONTEXTS OF HETEROSEXUAL COUPLES IN SWITZERLAND, 1995-2018

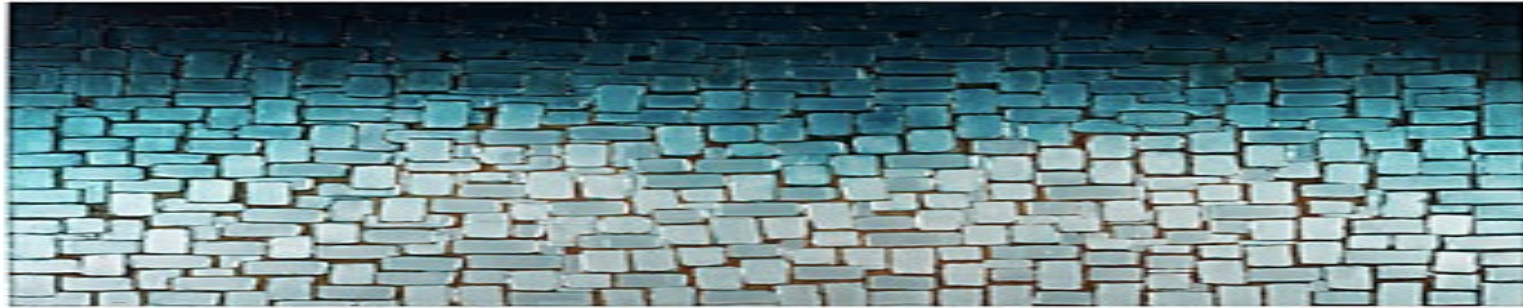


- Gaming
- Social Network

N = 3938  
 High school  
 students  
 56.3% Girls  
 Age range: 14-21

**Table 1. Intensity of Time Spent on Internet Activities Each Week According to Gender.**

Applications	Boys, % (n)	Girls, % (n)	P Value
<b>Social networks (n = 3880)</b>			
≤ 19 hours	89.91 (1527)	92.11 (1912)	<0.0001
≥ 20 hours	10.09 (172)	16.89 (369)	
<b>YouTube (n = 3882)</b>			
≤ 19 hours	92.10 (1562)	93.85 (2052)	0.0326
≥ 20 hours	7.90 (135)	6.15 (133)	
<b>Chat (n = 3871)</b>			
≤ 19 hours	96.88 (1635)	95.17 (2077)	0.007
≥ 20 hours	3.125 (53)	4.83 (106)	
<b>Blogs (n = 3871)</b>			
≤ 19 hours	99.29 (1681)	98.95 (2155)	0.25
≥ 20 hours	0.70 (12)	1.05 (23)	
<b>News (n = 3870)</b>			
≤ 19 hours	99.65 (1684)	99.86 (2177)	0.16
≥ 20 hours	0.35 (6)	0.14 (3)	
<b>MMORPGs (n = 3883)</b>			
≤ 19 hours	90.23 (1529)	99.41 (2173)	<0.0001
≥ 20 hours	9.77 (168)	0.59 (13)	
<b>Online games (n = 3874)</b>			
≤ 19 hours	87.30 (1481)	98.85 (2156)	<0.0001
≥ 20 hours	12.70 (215)	1.05 (22)	
<b>Downloading music or films (n = 3876)</b>			
≤ 19 hours	97.13 (1648)	97.90 (2134)	0.1239
≥ 20 hours	2.87 (49)	2.10 (45)	
<b>Adult sites (n = 3873)</b>			
≤ 19 hours	97.22 (1635)	99.77 (2186)	<0.0001
≥ 20 hours	2.78 (47)	0.23 (5)	



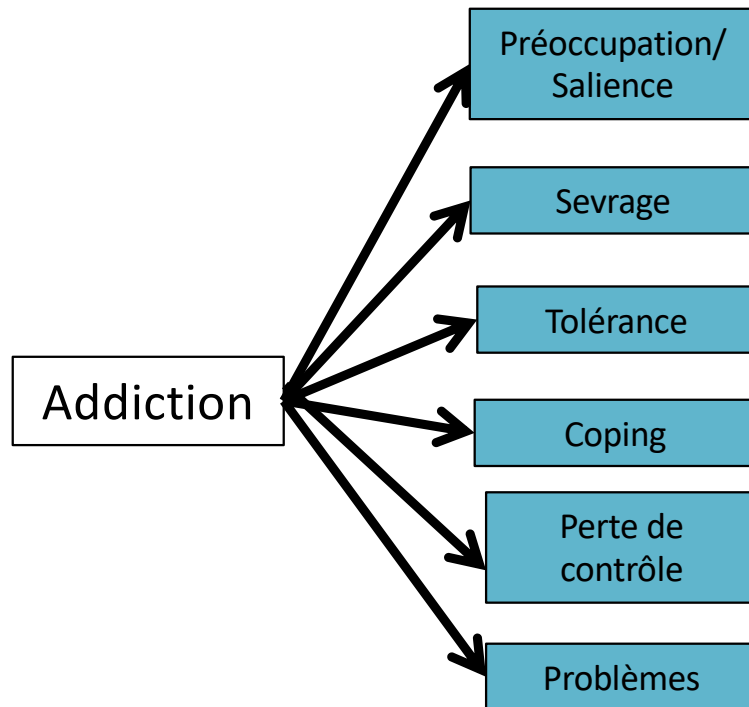
Beaucoup de temps, c'est combien ?

Beaucoup de temps, c'est quoi ?



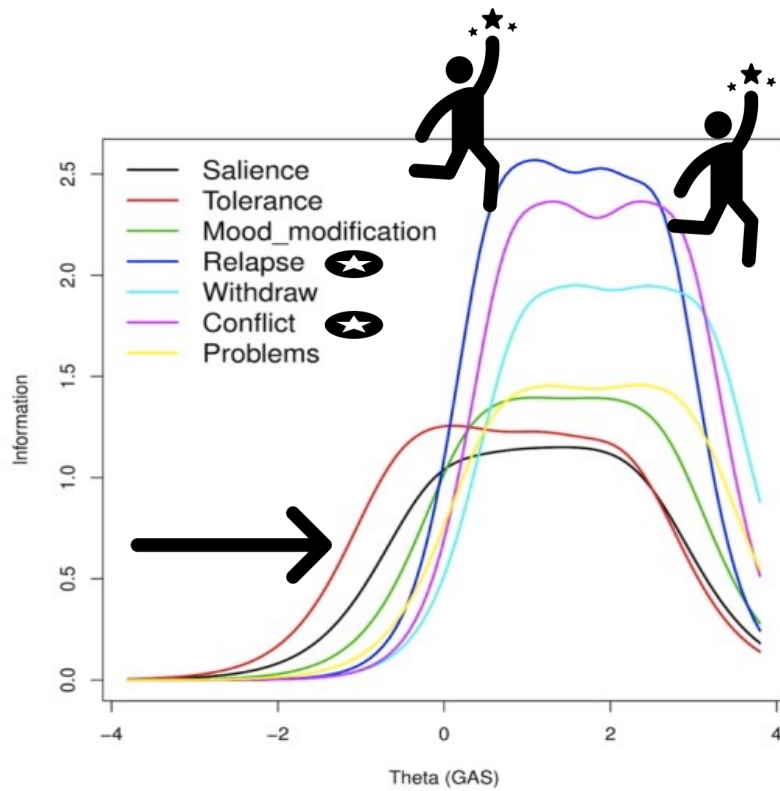
Hikikomori ; yzgeneration

# ADDICTION?



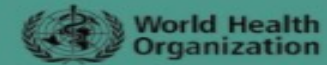
Young 1998; image Zullino 2007; Khazaal et al. 2008; Griffiths et al. 2005; Meerkerk et al. 2009; Khazaal et al. 2011; Khazaal et al 2012; Starcevic 2016; Kaptsis et al. 2016; Gmel, Khazaal et al. 2019





N = 5983  
 Age: 20.0 years (SD = 1.2)  
 Men: 100%

GAMING DISORDER  
CODE 6C51



For the first time,  
WHO is classifying  
gaming disorder  
as an addictive  
behaviour disorder  
– now we can  
measure how many  
people are affected

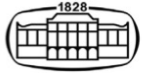


Addiction

**Trouble lié au Jeu Vidéo (Gaming Disorder)**

- 1. Priorité donnée au jeu** (par comparaison aux tâches quotidiennes et autres loisirs)
- 2. Perte de contrôle** sur les conduites de jeu vidéo
- 3. Conséquences négatives liées au jeu** (sociales, personnelles, professionnelles...)
4. Altération significative du fonctionnement
5. Pendant au moins 12 mois





AKADÉMIAI KIADÓ

Journal of Behavioral  
Addictions

DOI:  
10.1556/2006.2022.00013  
© 2022 The Author(s)

# Assessment of Criteria for Specific Internet-use Disorders (ACSID-11): Introduction of a new screening instrument capturing ICD-11 criteria for gaming disorder and other potential Internet-use disorders

SILKE M. MÜLLER<sup>1,2</sup> , ELISA WEGMANN<sup>1</sup> ,  
ANDREAS OELKER<sup>1</sup>, RUDOLF STARK<sup>3,4,5</sup> ,  
ASTRID MÜLLER<sup>6</sup> , CHRISTIAN MONTAG<sup>7</sup> ,  
KLAUS WÖLFLING<sup>8</sup>, HANS-JÜRGEN RUMPF<sup>9</sup>  and  
MATTHIAS BRAND<sup>1,2\*</sup> 

# ACSID-11

- active dating apps and cyberporn consumers (N = 1823)
  - the Problematic Tinder Use Scale (PTUS),
  - the Problematic Pornography Consumption Scale (PPCS-6)
  - The original four-factorial structure was confirmed both for dating apps and cyberpornography use.
- ACSID-11 scores correlated with the PTUS, PPCS-6,

# ACSID-11 (INTENSITY/FREQUENCY)

**Table 2.** Pearson correlation between ACSID-F and ACSID-I symptoms

ACSID-F/ACSID-I	Impaired control	Increased priority	Continuation/escalation	Functional impairment	Marked distress
Impaired control	0.57	0.49	0.53	0.46	
Increased priority	0.90	0.68	0.62	0.55	
Continuation/escalation	0.67	0.91	0.65	0.64	
Functional impairment	0.61	0.63	0.84	0.58	
Marked distress	0.58	0.65	0.63	0.84	

ACSID-F = Assessment of Criteria Specific Internet-use Disorders - Frequency.  
 ACSID-I = Assessment of Criteria Specific Internet-use Disorders - Intensity.

N: 1823

Tinder and Porn use

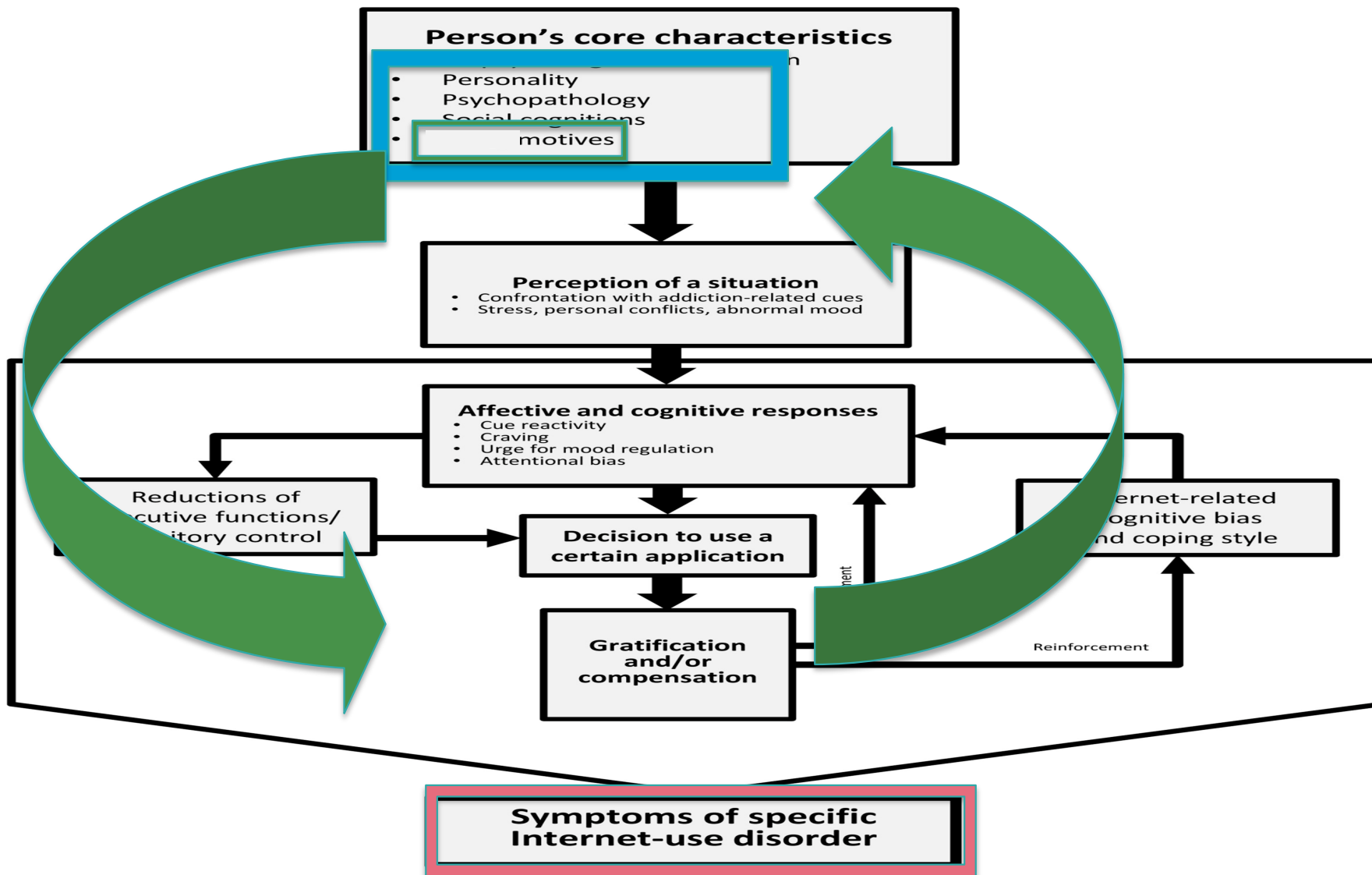
Vera Cruz, Khazaal et al. In preparation

# ACSID VS. PPCS

**Table 5.** Logistic regression results: Estimated beta coefficients of the associations between PPCS and ACSID dimensions/symptoms and CSBD “normal” vs “pathological” cases

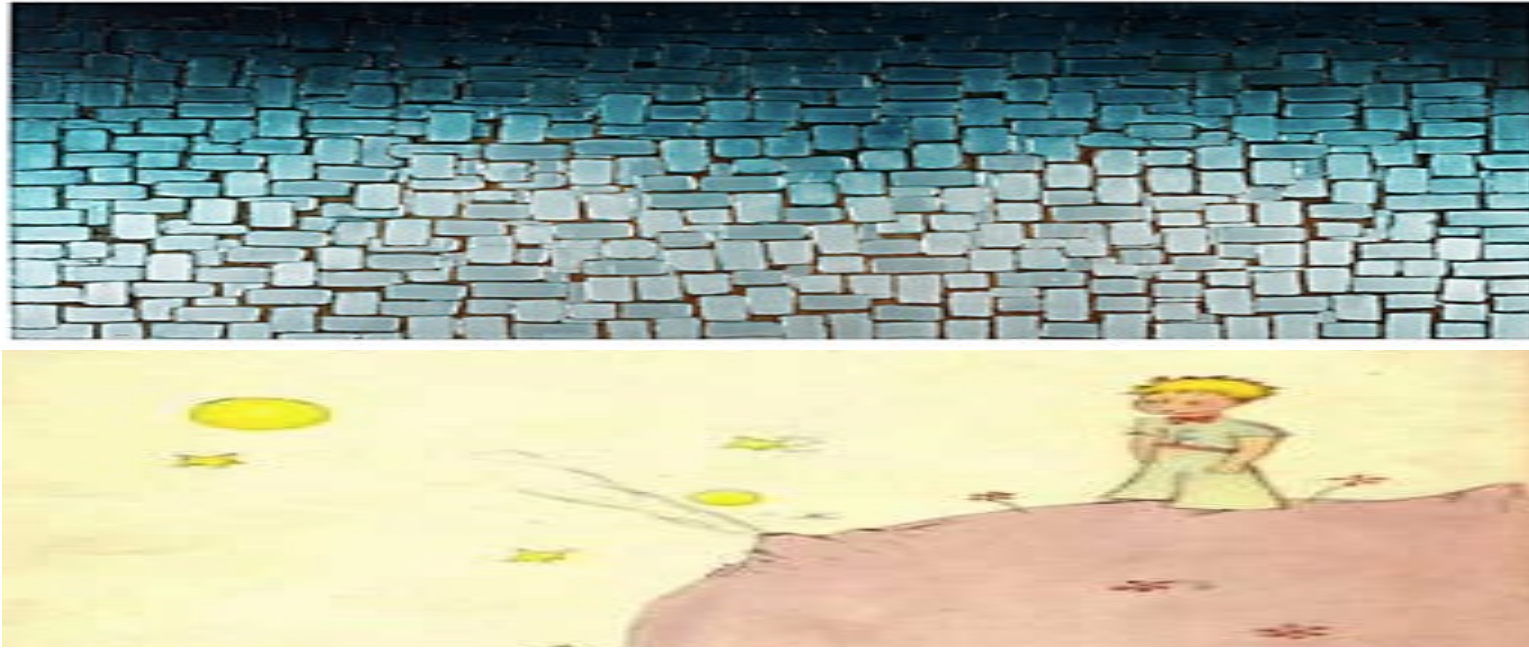
Latent classes	Covariates	<i>b</i>	SE	<i>p</i>	OR	OR 95%CI	
<b>Model 1: Nagelkerke R<sup>2</sup> = 60%</b>							
Scales total score	PPCS	1.085	0.102	<0.001	2.96	2.42	3.61
	ACSID	1.357	0.230	<0.001	3.88	2.47	6.09

N: 1823



**FIGURE 1** | Reduced version of the I-PACE model (Brand et al., 2016).





## Variabilité psychologique?

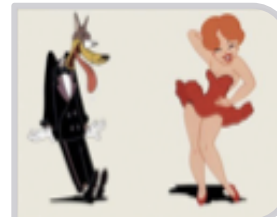
Image: zgallerie; AlexToohe; Le petit prince; Marjana

# TINDER USE

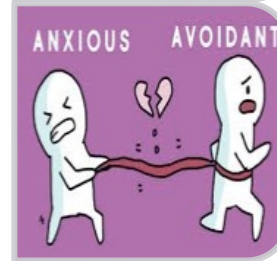
Cybersex  
Motives



Sexual Desire



Experiences  
in Close  
Relationships



Self-  
esteem



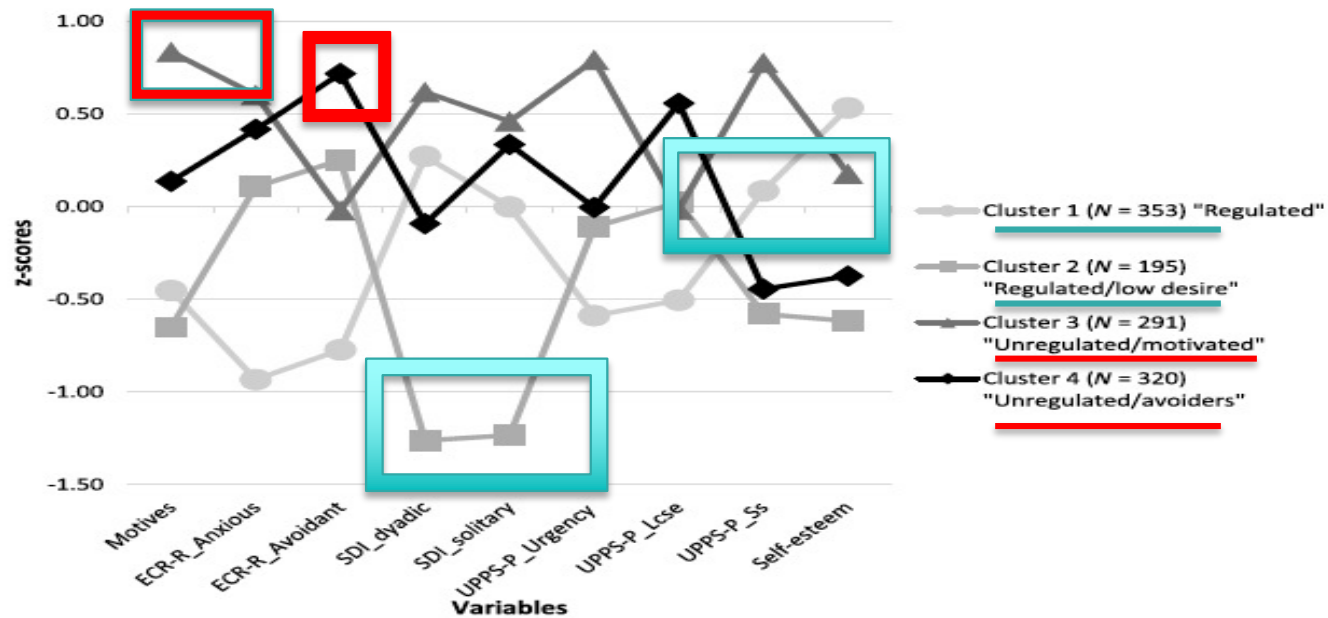
Impulsivity



Kaplan 1995; Spector et al. 1996; Joseph et al. 2004; Billieux, Khazaal et al. 2012; Ortigue & Bianchi-Demicheli 2008; Fraley et al. 2000; Lafontaine et al. 2003; Dosch et al. 2016; Varfi, Khazaal et al. 2019; Stockfresh.com; Tex Avery Wolf buckwriter.wordpress; nathalie gabril.com; Morigg cartoonstock

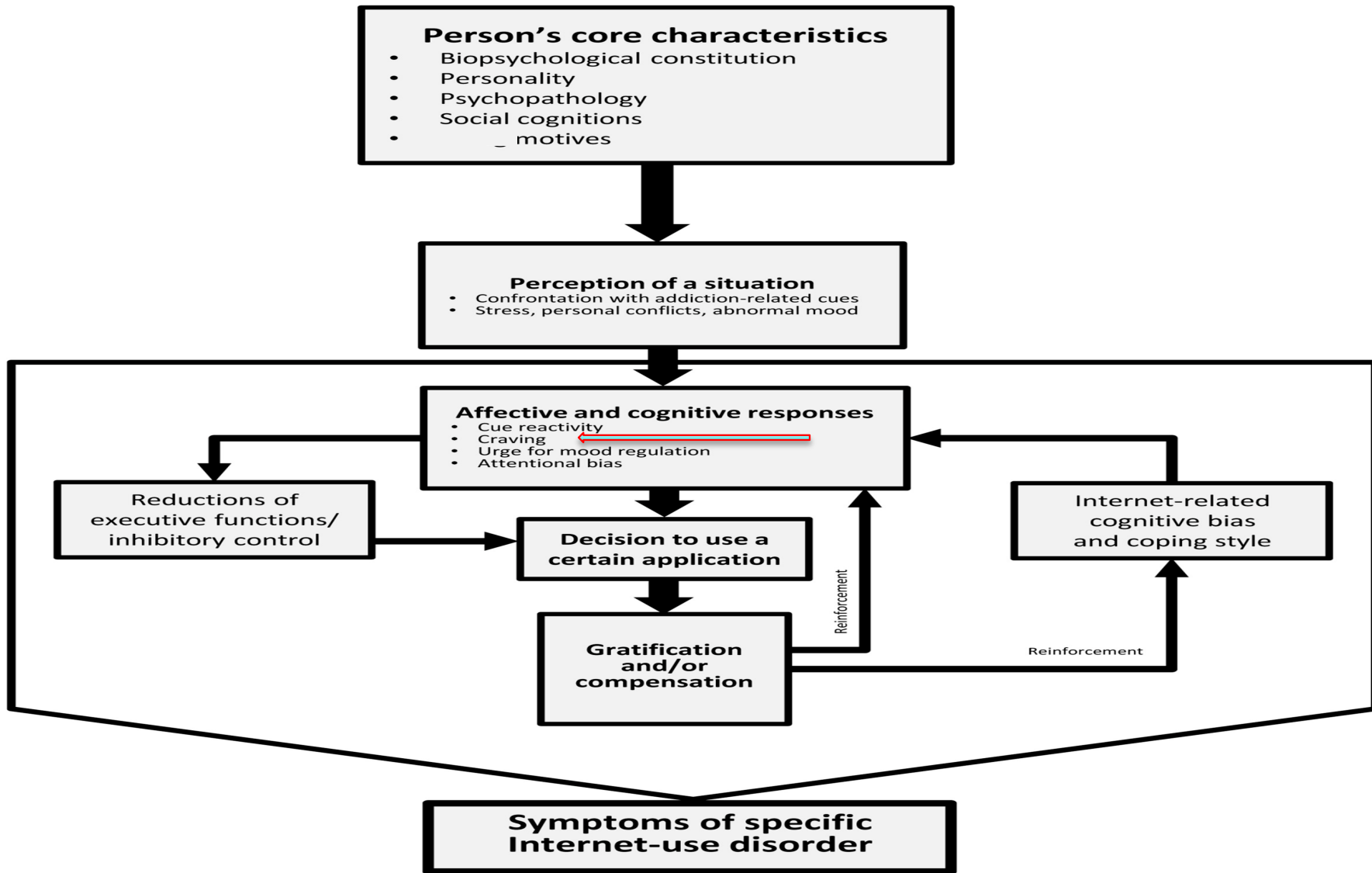
# A CLUSTER ANALYTIC APPROACH

N: 1159  
53% Men  
Age: 30; SD: 9.2



Psychopathology:  
negatively  
associated with  
Tinder use  
satisfaction

Figure 1. Means for Tinder-use-related factor scores in cluster profiling (z-transformed). Motives: global score from the cyber sex motives questionnaire adapted for Tinder; ECR-R: Experiences in Close Relationships – Revised; SDI: Sexual Desire Inventory; UPPS-P\_Urgency: urgency factor from the short version of the UPPS Impulsive Behavior Scale; UPPS-P\_Lcse: lack of conscientiousness factor from the short version of the UPPS Impulsive Behavior Scale; UPPS-P\_Ss: sensation-seeking factor from the short version of the UPPS Impulsive Behavior Scale; Self-esteem: score from the SISE



**FIGURE 1** | Reduced version of the I-PACE model (Brand et al., 2016).



## The Craving Experience Questionnaire: a brief, theory-based measure of consummatory desire and craving

Jon May<sup>1</sup>, Jackie Andrade<sup>1</sup>, David J. Kavanagh<sup>2</sup>, Gerald F. X. Feeney<sup>3</sup>, Mathew J. Gullo<sup>4,5</sup>, Dixie J. Statham<sup>6</sup>, Jessica Skorka-Brown<sup>1</sup>, Jennifer M. Connolly<sup>2</sup>, Mandy Cassimatis<sup>2</sup>, Ross McD. Young<sup>3,7</sup> & Jason P. Connor<sup>3,4,5</sup>

**Intensity:** Think about the time in the last month you most wanted to watch porn. At that time...how much did you want it?

**Imagery:** At that how vividly, did you picture doing it?

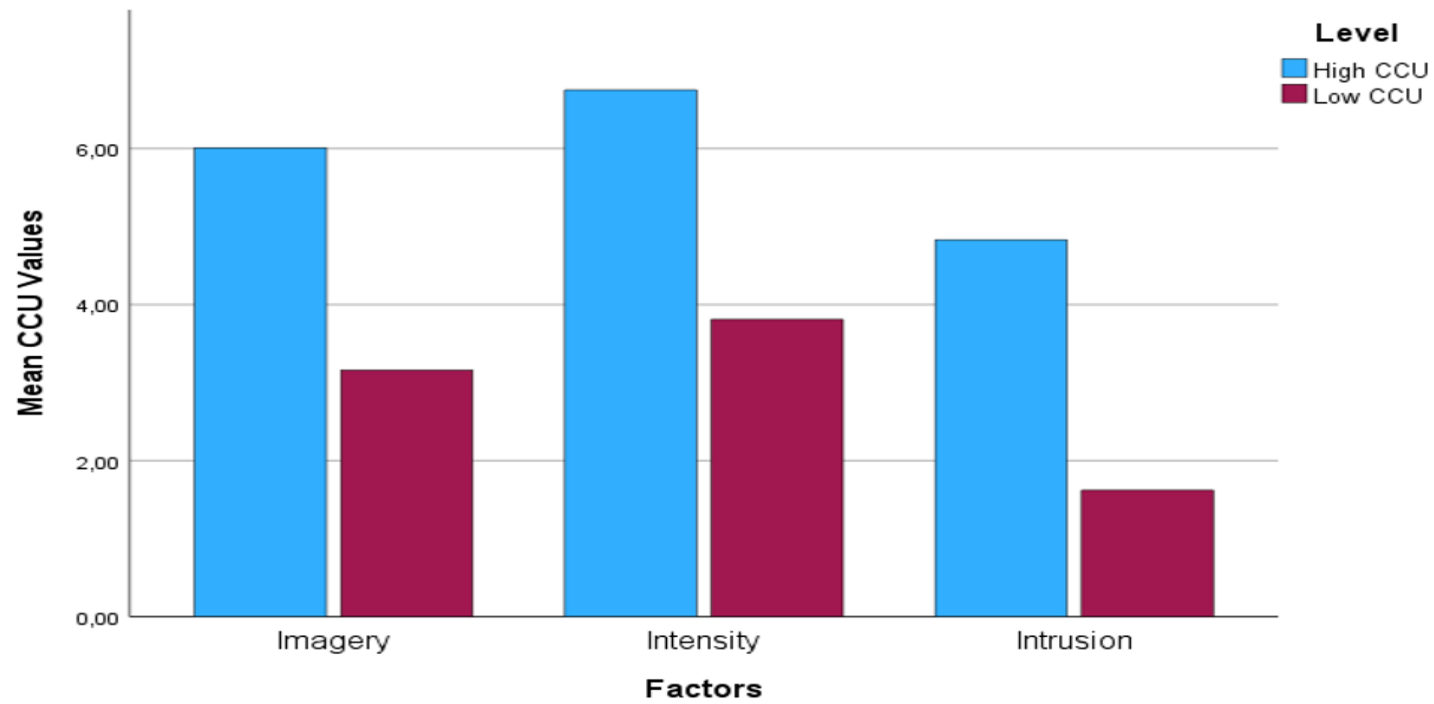
**Intrusiveness:** At that time, how hard were you trying not to think about it?

**Table 3.** Zero-order correlation between Pornography Craving Experience-Strength (PCE-S) and Compulsive Cyberporn score (CCU), Frequency of Cyberporn Use (FCU), UPPS-P negative urgency, and UPPS-P positive urgency.

PCE-S subscales	Imagery	Intensity	Intrusion	CCU	FCU	UPPS-P negative urgency	UPPS-P positive urgency
Imagery	--	0.658**	0.523**	0.396**	0.327**	0.093**	0.148**
Intensity	0.658**	--	0.525**	0.442**	0.462**	0.103**	0.160**
Intrusion	0.523**	0.525**	--	0.447**	0.275**	0.163**	0.190**

\*\*Correlation is significant at the 0.01 level (2-tailed).

UPPS-P = Urgency, Premeditation, Perseverance, Sensation Seeking, Positive Urgency



## Compulsive Cyberporn score (CCU),





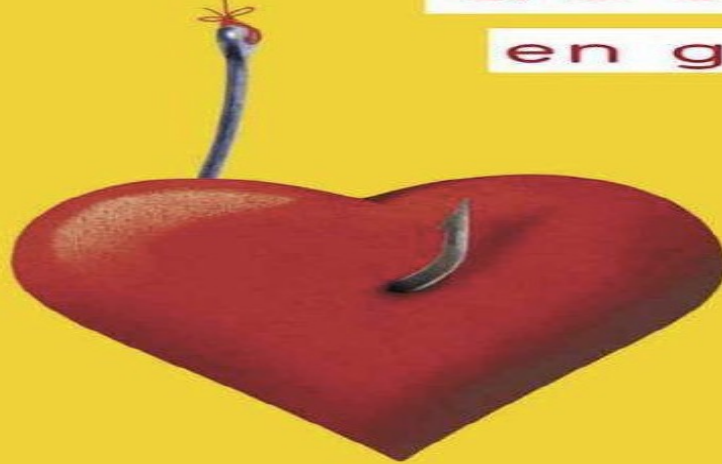
# Implications

## DIGITAL WELL-BEING

Image: zgallerie; AlexToohei

MICHEL  
REYNAUD

L'amour est  
une drogue  
douce...  
en général



Champs essais



Joelle Cabanne



**Anne Chatton**



**Louise Penzenstadler**



**Sophia Achab**



**Magali Dufour**



**Tania Lecomte**



**Lucia Romo**



**Cora Von Hammerstein**



**Amandine Luquiens**



**Stéphanie Baggio**



**Farah Ben-Brahim**

**Robert Courtois**



**Daniela Dunker-Sheuner**

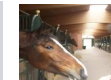


**Nathalie Ginovart**



**Emmanuelle Jeker**

**Stephane Rothen**



**Gabriel Thorens**



**Francesco Bianchi -Demicheli**



**Vladan Starcevic**



**François Borgeat**



**Daniele Zullino**



**Lucien Rochat**



**Joël Billieux**



**Jean-François Etter**



**Ueli Kramer**



**Gerhard Gmel**



**Charles Bonsack**



**Jérôme Favrod**





**Norman Sartorius**



**Guido Bondolfi**



**Jeam-Michel Aubry**



**François Ferreo**



**Yves Edel**



**Jacques Cornuz**



**Heleen Riper**



**Michael Schaub**



**François Ansermet**



**Tomas Ros**



**Elias Aboujaoude**



**Robert Courtois**



**Marc Potenza**



**Dzmitry Krupchanka**



**Riaz Khan**



**Perrine Brazo**



**Gregoire Monney et  
Roberto Prezzemolo**

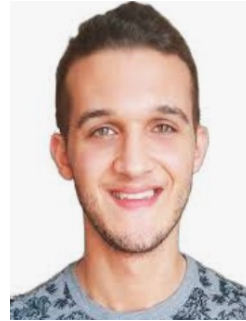


**George Klein**



**Ambros Uchtenhagen**





Tania Lecomte, Stéphane Potvin, Antoine Pennou  
Montréal

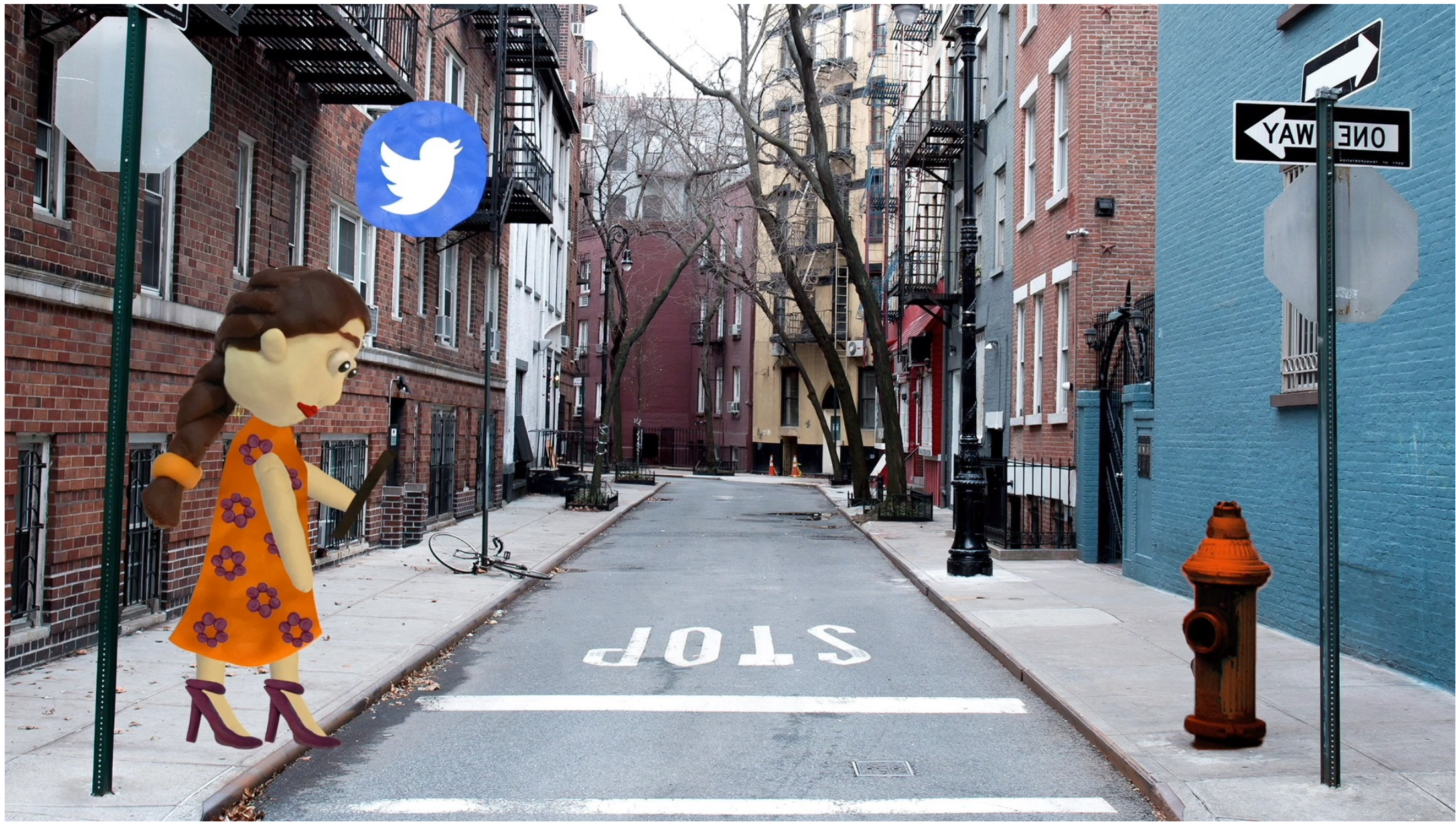


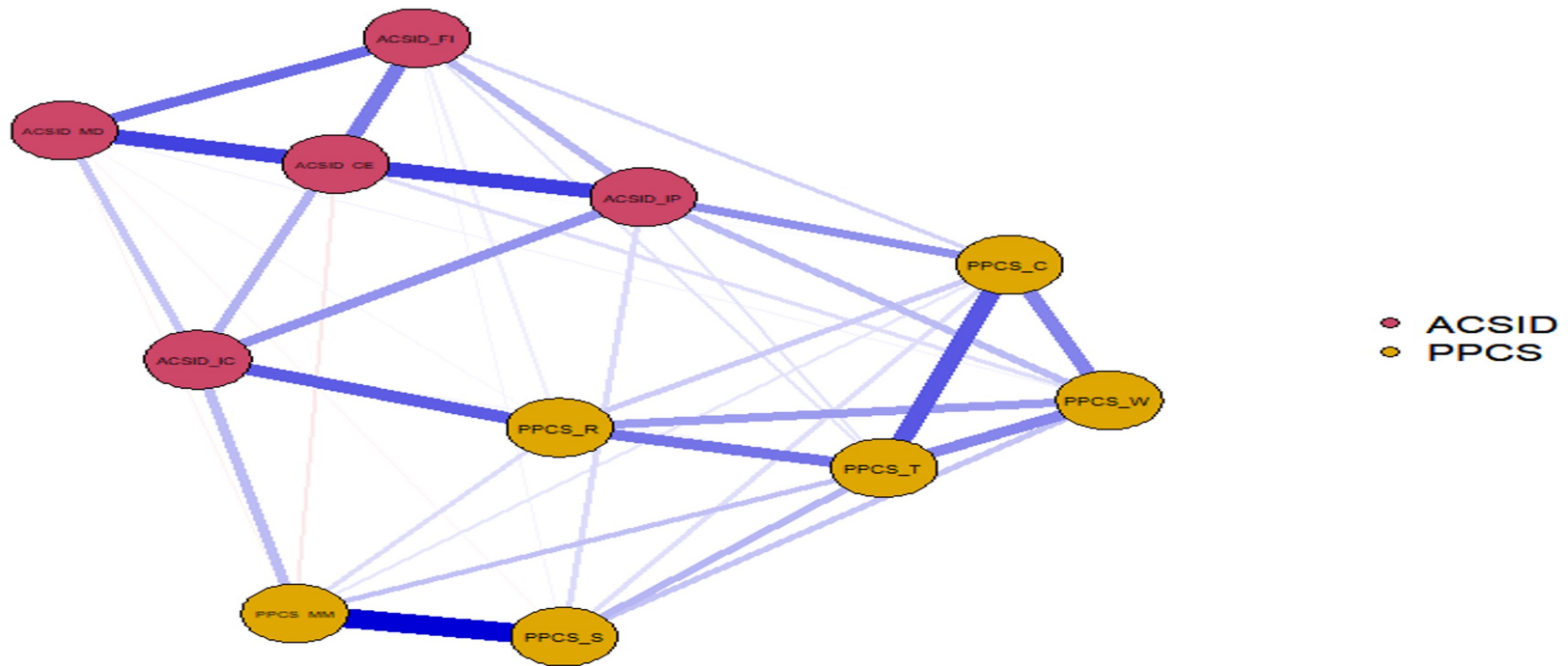
Etienne et Vincent Borgeat, Valentina Munoz,  
Montréal



Chill-Time

Pennou, Lecomte, Potvin, Khazaal et al. In process





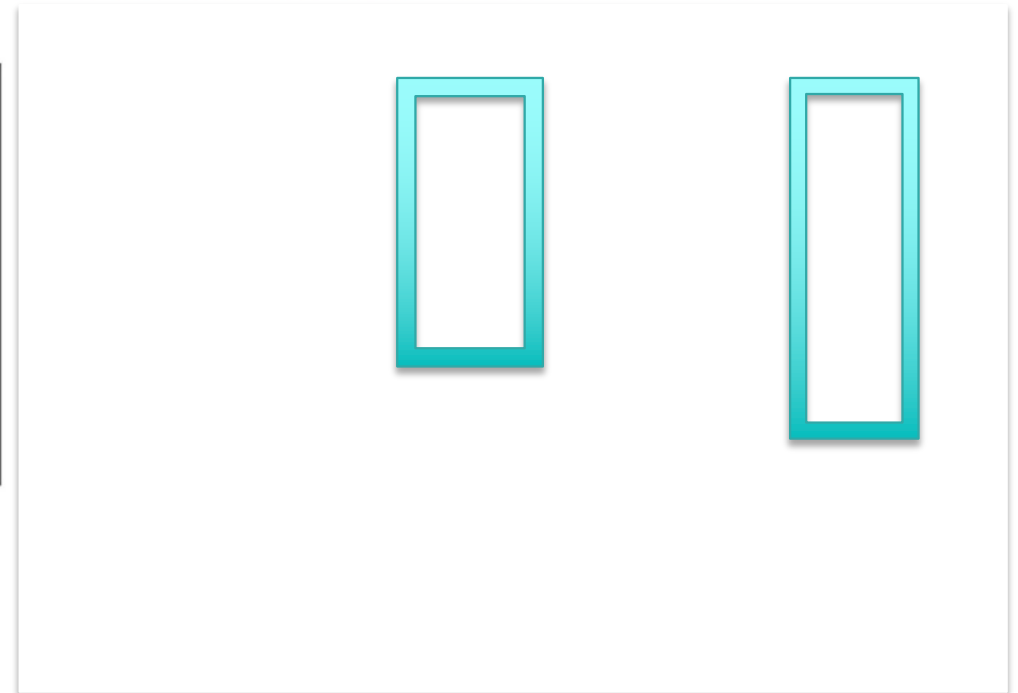
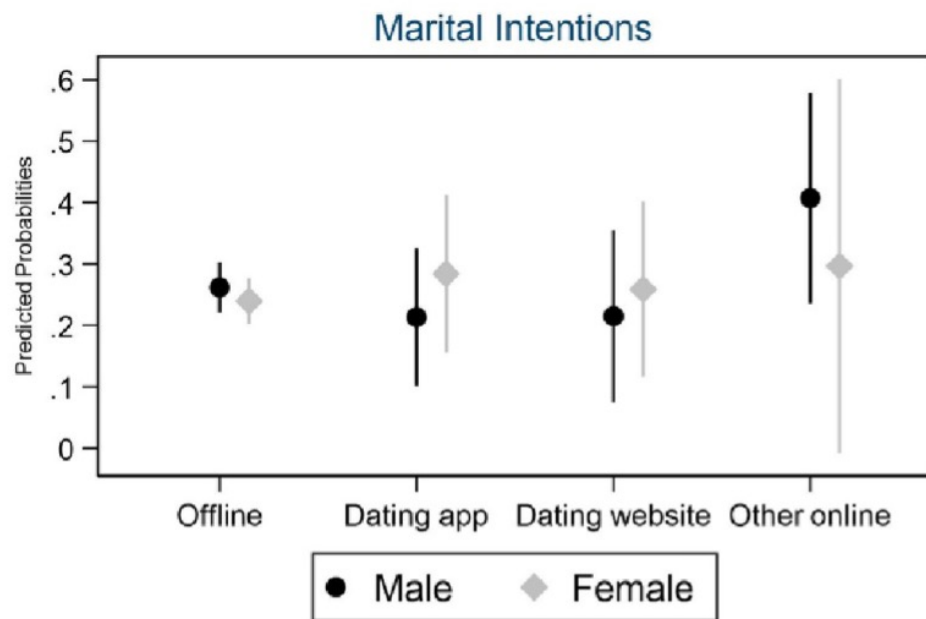
PPCS = Problematic Pornography Consumption Scale. PPCS-S = Saliency, PPCS-MM = mood modification, PPCS-C = conflict, PPCS-T = tolerance, PPCS-R = relapse, PPCS-W = withdrawal.¶

ACSID = Assessment of Criteria for Specific Internet-use Disorders. ACSID-IC = Impaired control, ACSID-IP = Increased priority given to the activity, ACSID-CE = Continuation/escalation of use despite negative consequences, ACSID-FI = Functional impairment in daily life; ACSID-MD = Marked distress.¶

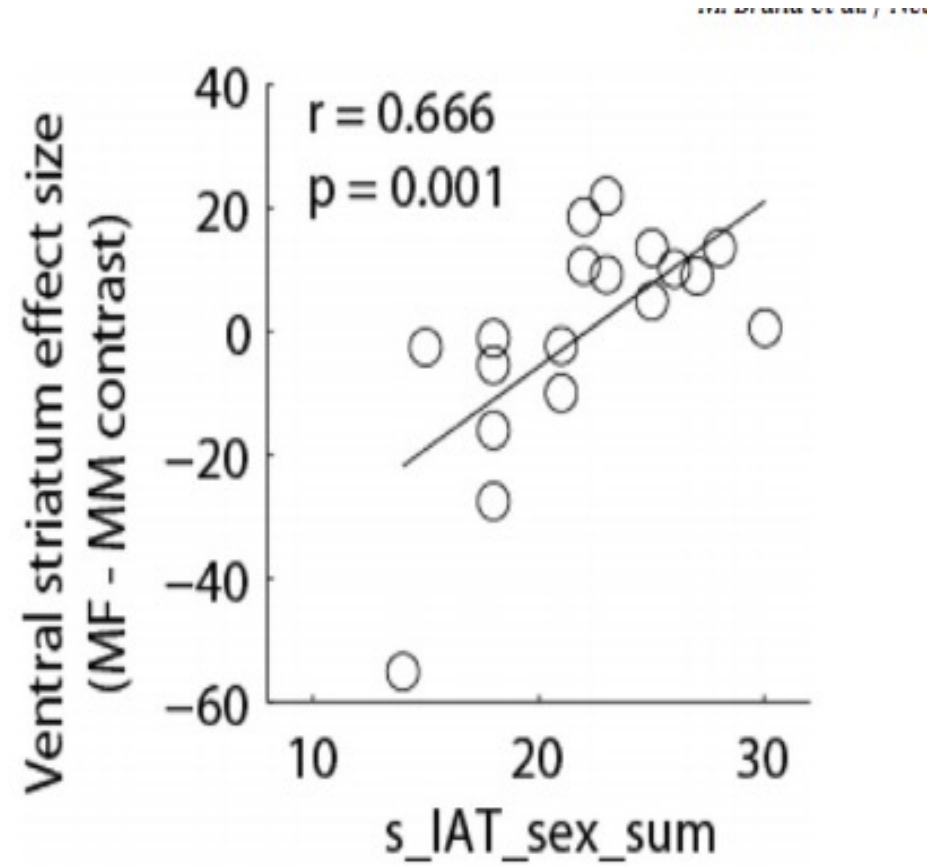




## Predicted Probabilities of Family Formation Intentions, by Meeting Context and Gender

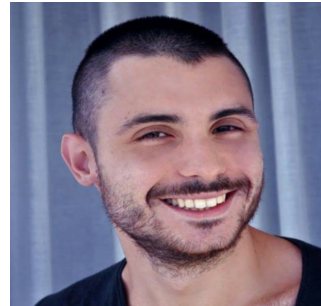


**Fig 2. Predicted probabilities of family formation intentions, by meeting context and gender, 95% CI.** Based on logistic regression models including interactions between meeting context and gender, controlling for whether same-sex couple, type of union, age, tertiary education, whether employed, whether previously married, prior cohabitation, biological children, (common children), religiosity, migration background, work-life conflict, relationship satisfaction, poor health, and partnership duration. Stars indicate probabilities significantly different compared to the offline category: †  $p < 0.10$ ; \*  $p < .05$ ; \*\*  $p < 0.01$ .

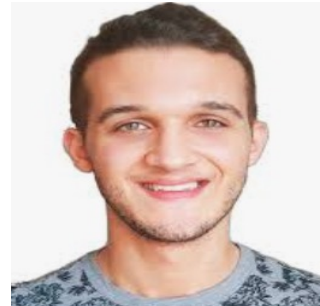




Eleonora Anci



Arsenakis Stylianos



Antoine Pennou

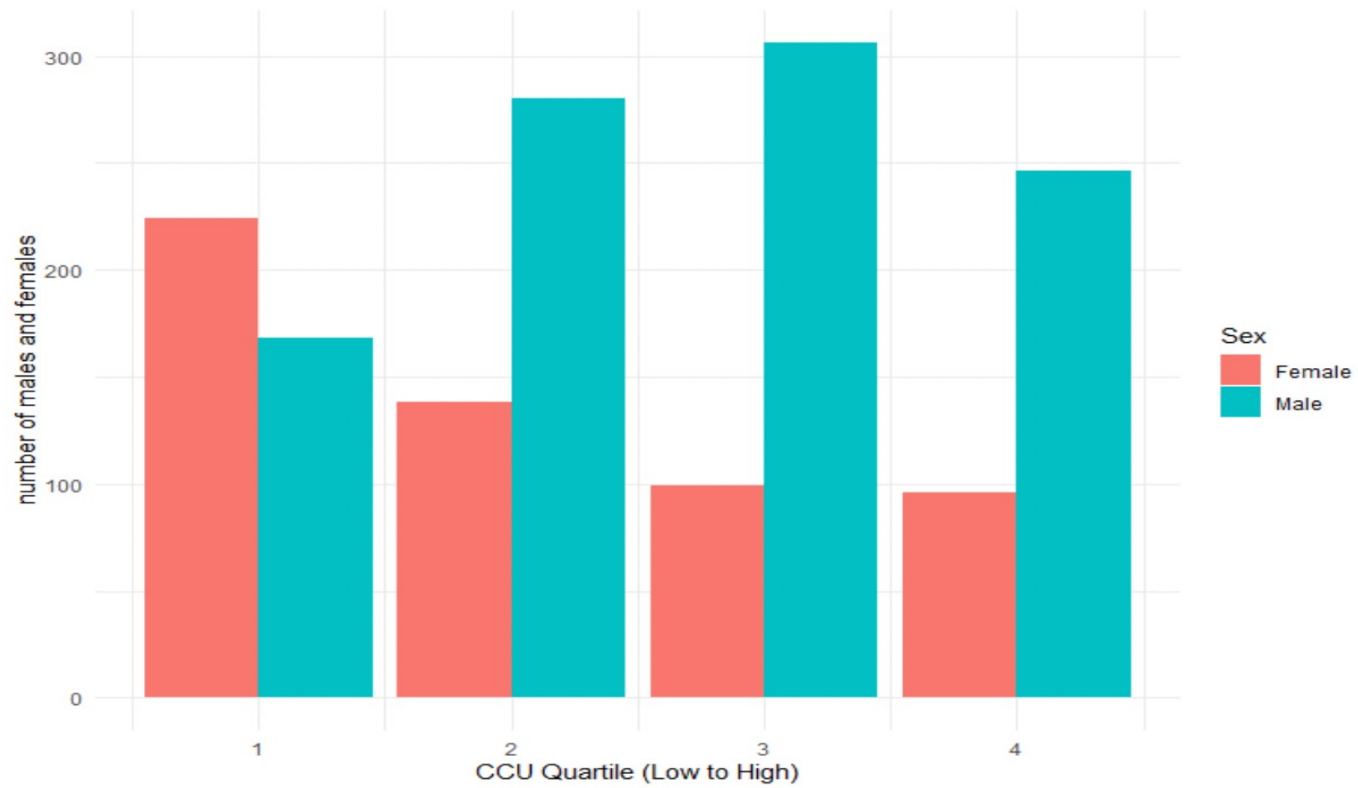


Farah Ben Brahim

# PREDICTORS OF DATING APP SUCCESS

- The study aimed to assess the level of satisfaction with Tinder use (STU) and the level of satisfaction with Tinder offline dates (STOD) in a sample of adult Tinder users. The study also aimed to examine, among 28 variables, those that are the most important in predicting STU and STOD. Overall, 1,387 Tinder users completed an online questionnaire. A machine learning was used to rank-order the predictors from most to least important. On 4-point scale, participants' mean STU score was 2.39. On 5-point scale, the participants' mean STOD score was 3.05. The results indicate that satisfaction with dating apps and the resulting offline dates are strongly predicted by participants' age and **by motives for using Tinder (enhancement, emotional coping, socialization, finding "true love" or casual sexual partners)**. In addition, the variables negatively associated with satisfaction were those related to psychopathology. Other interesting findings: 65.3% of participants were married or "in a relationship"; only 50.3% were using the dating app to find someone to meet offline. Generally, participants who engage with the dating app to cope with personal difficulties seem to be more likely to report higher levels of dissatisfaction. This suggest that dating apps are a poor coping mechanism and highlights the need to address underlying problems or pathologies that may help drive their use.

**Figure 3.** Number of participants in each CCU quartile by sex



# CYBERSEX MOTIVES

Cybersex users  
N = 395  
45.6% Women

Enhancement  
Motives

Coping Motives

Social Motives

Cybersex  
Motives  
Questionnaire

