Cognitive Empathy (CE) among antisocial forensic inpatients without (ASPD) and with Psychopathic Personality Disorder (PPD):

Comparison between self-evaluation and competencies

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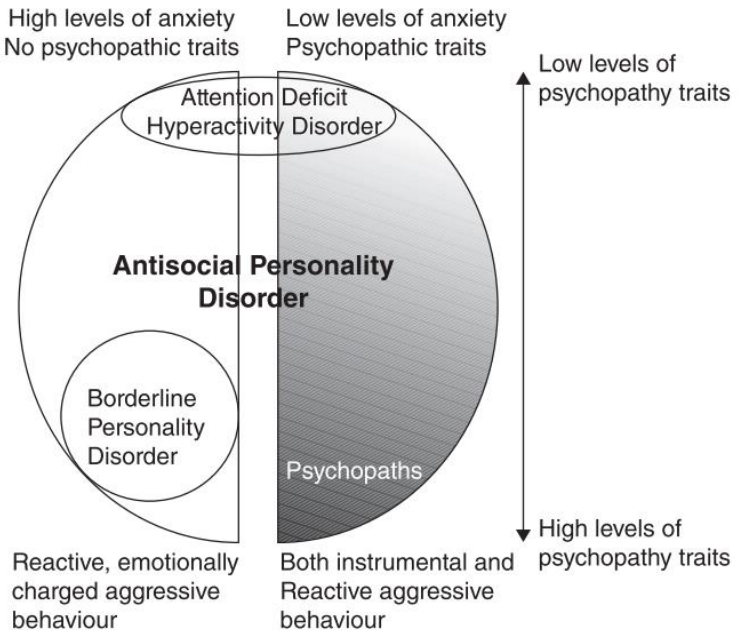
1.
INTRODUCTION

Antisocial Personality Disorder (ASPD)

- DSM-5 – **Cluster B Personality Disorder**, described as:
  - Disregard/**Transgression** of **social norms**, itself and others physical/psychological safety
  - **Lack** of **remorse**
  - **Impulsive**, **irritable** and **irresponsible**
  - **Failing to plan** ahead
  - **Aggressive** acting-out
- Prevalence:
  - In **carceral** facilities: **50%-60%**
  - In Belgium **forensic facility**: **37.5%**
- To **not confuse with**
  Psychopathic Personality Disorder (PPD)...

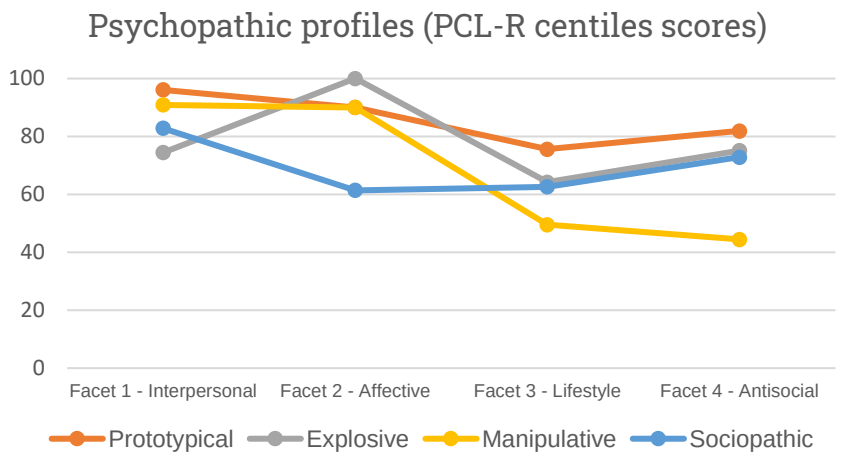


(APA, 2013; Hodgins et al., 2018; Neves & Pinho, 2018; Oswald et al., 2017)

Psychopathic Personality Disorder (PPD)

- Seen as a **severe form** of **ASPD**
  - Combination of ASPD and **Narcissistic** Personality Disorder
- Constellation of **symptoms**, divided in **four facets**, operationalized in 40 items:
  - f1 – **Interpersonal** symptoms *(e.g.: glibness/superficial charm, grandiose sense of Self worth, …)*
  - f2 – **Affective** symptoms *(e.g.: **lack of remorse or guilt**, shallow affect, …)*
  - f3 – **Lifestyle** symptoms *(e.g.: poor behavioral controls, impulsivity,…)*
  - f4 – **Antisocial** symptoms *(e.g.: juvenile delinquency, criminal versality,…)*

  + 2 supplemental items: *many short-term marital relationships, promiscuous sexual behavior*
- Four profiles identified
- According to Hare's LCA:
  - **Aggressive** = **subtype** of **psychopath**
  - **Manipulative** = **subtype** of **psychopath**
  - Sociopathic = subtype of offender



(Hare, 2003, 2016; Hervé & Hare, 2004)

Empathy

- **Lack of agreement** on the definition of empathy…
  - … 'umbrella-term', lacking specificity … some authors criticize/discourage its use
- Nevertheless… a virtual consensus:
  - **Understanding** (**cognitive**) – *Knowing something about the mental life of the other person*
    - *Sub-themes: knowing, perspective-taking, and cognition*
  - Feeling (affective) – *Affective response appropriate to another person's situation*
    - *Sub-themes: affect, emotion, and sensation*
  - Sharing – *Experiencing states similar to those the other person is experiencing*
    - *Sub-themes: sharing experiences, sharing representations, and sharing feelings*
  - Self-other differentiation – Differentiation between the other person and oneself
    - *Sub-themes: self-distinction, differentiation of feelings, and objectivity*
- Empathy is <u>not an emotional state</u> …
  - … but a **set of processes** through which these emotion-states are generated and/or **cognitively** represented in response to observing another conspecific
- **Crucial** to create and maintain **constructive relationships**

(Decety & Cowell, 2014; Håkansson et al., 2021; Stietz et al., 2019; Thompson et al., 2019)

Empathy among ASPD and PPD offenders

- Lack of empathy
  - 'Psychopathy paradox' = "*How may psychopathic individuals who lack the ability to fully grasp affective experiences, be so competent in the manipulation of others?*"

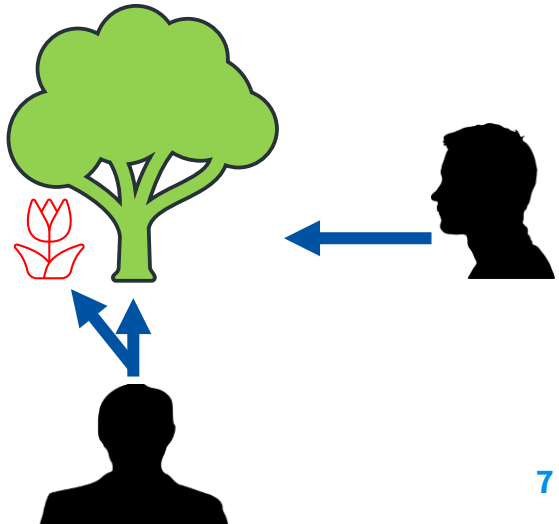
- Psychopathological specificity:
  - **ASPD** (**impulsive-antisocial**) exhibit **deficit** both on **cognitive and affective** empathy (larger deficit on cognitive empathy)
  - **PPD** (**callous-unemotional-boldness**) exhibit **deficit** on **affective empathy** but not on cognitive empathy (preserved or even increased)

- Recent meta-analysis:
  - **ASPD**: larger **deficit** in **cognitive** (g = -.43) than in affective (g =-.11)
  - **PPD**: larger **deficit** in **affective** (g =-.40) than in cognitive (g = -.22)
    - Hypothesis for successful psychopath: cognitive processing compensate for the affective processing deficit (socio-affective information), accounting as a transversal risk factor for aggressive behavior
  - **But … mainly self-report …**

(Baskin-Sommers et al., 2015; Campos et al., 2021; Gao et al., 2020; Joliffe & Farrington, 2004; Lorezn & Newman, 2002; van Langen et al., 2014; Pasion et al., 2018; Sellbom & Verona, 2007)

Empathy – Focus on perspective-taking (PT) and visual PT (VPT)

- Multidimensional **ability** enabling the **inference** of **someone's point of view** and the **appreciation** of the **correspondence** or **discrepancy** between **Self** *(ego)* and **Other's** *(alter)* points of view.
  - ***Cognitive** PT – **Thoughts** and **beliefs***
  - *Affective PT – Emotions and feelings*
- Visual …
  - Inferential process based on **someone's gaze direction** appeared early in life (even innate?)
  - VPT-level 1 – inferring **if** objects are **seen** (or not) by Other
  - VPT-level 2 – inferring **how** objects are **seen** by Other



(Bukowski, 2014; Bukowski & Samson, 2015; Kessler & Rutherford, 2010; Healey & Grossman, 2018; Thompson et al., 2019)

Research objectives

Our research aimed to investigate:

1. The **differences** regarding the **PT self-evaluation** *(self-questionnaire, SQ)* **between** two groups: **ASPD and PPD** forensic offenders

2. The **differences** regarding the **PT competencies** *(experimental task, ET)* **between** two groups: **ASPD and PPD** forensic offenders

3. The **association** between the **two PT assessments** *(SQ and ET)* **and** the **PPD dimensional traits** among the **offender sample** *(ASPD and PPD mixed)*

"[...] *self-report CE scores account* ***for only approximately 1% of the variance*** *in behavioral cognitive empathy assessments* [...]"

(Murphy & Lilienfield, 2019, p.1062)

2.
METHOD

Participants

- After exclusion of 5 outliers: **22 male forensic inpatients** from the High-Risk Security Forensic Hospital (FH) "*Les Marronniers*"
  - **12 ASPD inpatients**, diagnosed with the *Mini International Neuropsychiatric Interview*
  - **10 PPD inpatients**, diagnosed with the *Psychopathy CheckList-Revised* (score ≥ 25)

	ASPD inpatients (*n* = 12)			**PPD inpatients (*n* = 10)**			***p-value***
	M	SD	Min.-Max.	M	SD	Min.-Max.	
Age	44.85	10.71	21.86 – 60.16	41.23	11.95	28.86 – 65.83	.462
Years of study	8.58	2.90	5.00 – 15.00	7.00	1.88	4.00 – 9.00	.155
Length of hospitalization	6.49	8.60	.11 – 23.72	4.57	4.60	.38 – 13.05	.535

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	ASPD inpatients (*n* = 12)			PPD inpatients (*n* = 10)			*p-value*
	M	SD	Min.-Max.	M	SD	Min.-Max.	
PCL-R	21.28	2.55	17.00 – 24.50	27.97	2.29	25.00 – 31.60	**< .001**
Factor 1	8.17	2.72	4.00 – 13.00	12.20	2.78	8.00 – 16.00	**.004**
facet 1	3.00	1.95	0.00 – 6.00	5.50	1.58	4.00 – 8.00	**.006**
facet 2	5.17	1.64	3.00 – 8.00	6.70	1.70	4.00 – 8.00	**.043**
Factor 2	12.16	2.70	7.00 – 17.00	14.12	2.61	8.90 – 17.00	.080
facet 3	5.75	1.05	4.00 – 8.00	6.50	1.27	5.00 – 9.00	.180
facet 4	6.39	2.34	1.00 – 9.00	7.47	2.22	2.50 – 10.00	.228

  - **No significant difference** between the groups on **psychopathological diagnoses**
    - Axis I Disorder: ASPD (75.00%), PPD (50.00%)
      - Addiction: ASPD (66.70%), PPD (40.00%)
      - Alcohol: ASPD (33.00%), PPD (20.00%)
    - Axis II Disorder: ASPD (66.70%), PPD (60.00%)
      - Borderline: ASPD (50.00%), PPD (50.00%)
    - Comorbidity: ASPD (75.00%), PPD (70.00%)

PPD (80.00%) committed **more current sexual offence** than **ASPD** (30.00%)

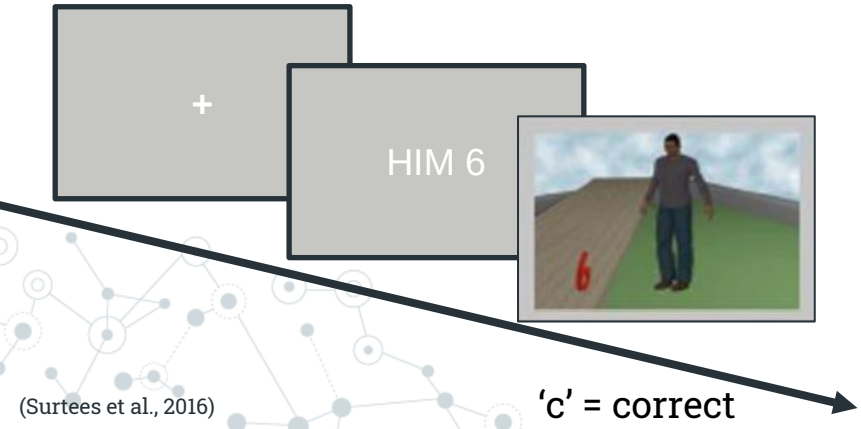
Instruments

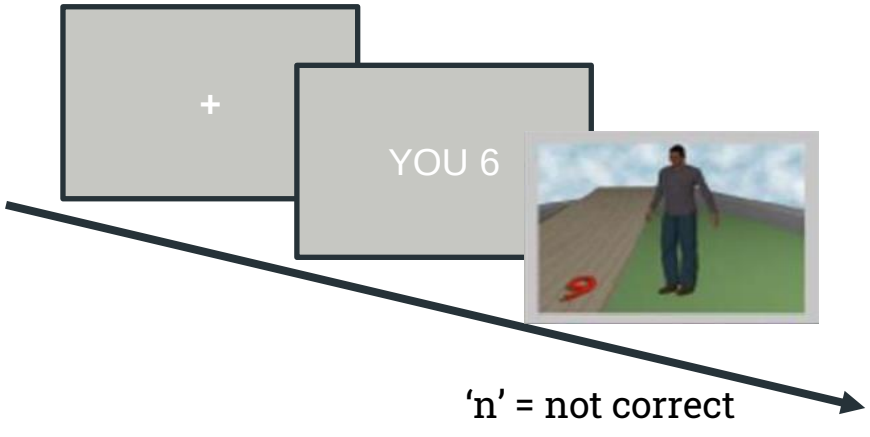
- Mini International Neuropsychiatric Interview (**MINI**)
  - 17 modules (3 optional): mood, addictive, psychotic anxious disorders (120 items)
  - Cohen κ = .88, *r* test-retest = .76-.93
- Psychopathy CheckList-Revised (**PCL-R**)
  - 4 facets: interpersonal and affective (F1), lifestyle and antisocial (F2) (40 items)
  - Threshold: 30/40 (North America) and 25/40 (Europe for research purpose)
  - Cronbach α = .76-.96, Cohen κ = .92
- Interpersonal Reactivity Index (**IRI**)
  - 4 subscales (* 7 items = 28 items):
    - Empathic concern – Tendency to sympathize to Others in distress
    - Personal distress – Tendency to feel discomfort when facing Others negative experiences
    - Fantasy – Tendency to strongly identify with fictious character (actions and feelings)
    - **Perspective-taking** – **Ability to adopt Other's perspective**
  - French version: 7-point scale (≠ Davis' 5-point scale)
  - Cronbach α = .70-.81
- Visual Perspective Taking-2 (**VPT-2**)

(Gilet et al., 2013; Hare, 2003; Lecrubier et al., 1998; Surtees et al., 2016)

Instruments

- Visual Perspective Taking-2 (VPT-2)
  - 8 scores ('accuracy' [Acc.] + 'reaction time' [RT]):
    - **Point Of View (POV) conflict** – Degree of **difficulty** to **adapt** to **different POV Self-Other**
      - Close to 0 = no difficulty ; Close to 1 = difficulty
    - **Self-priority** – Degree of **priority given to a POV**
      - Close to -1 = priority given to Other's POV ; Close to 1 = priority given to Self's POV
    - **Egocentric bias** – Degree of **difficulty** to **adopt Other's POV when POVs are conflictual**
      - Close to 0 = no difficulty ; Close to 1 = difficulty
    - **Altercentric bias** – Degree of **difficulty** to **adopt Self's POV when POVs are conflictual**
      - Close to 0 = no difficulty ; Close to 1 = difficulty
  - 96 trials (+ 24 'training'), split in two conditions (congruent/incongruent; Self/Other), distributed in 4 blocks (24 trials/condition)





(Surtees et al., 2016)

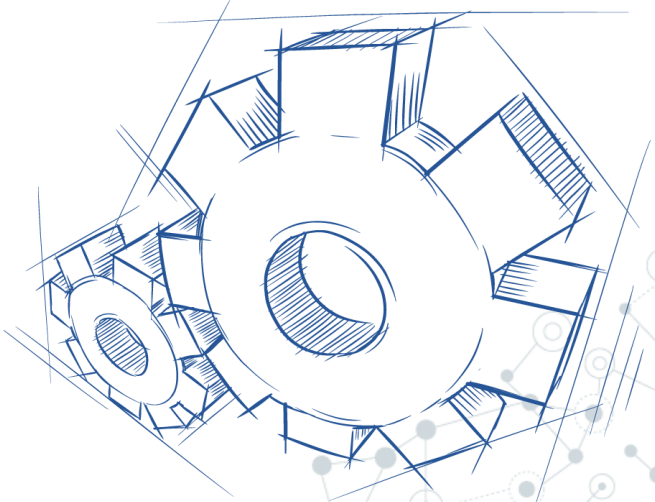
Procedure and data analysis

- Ethics Committees (UMONS and "*Les Marronniers*")
- **Two meetings** with forensic inpatients:
  - 1st – Present the research's aims, information and consent sheet
  - 2nd – **Assessment**
    - Undertaken in a room inside the FH dedicated to research
    - On 2 times: a) completion of IRI and b) completion of VPT-2 (on a tablet computer)

- In absence of normality of distribution (Kolmogorov-Smirnov test), we performed:
  - **Non-parametric comparison** group analysis (Mann-Whitney *U*) on **empathic self-questionnaire scores (IRI) between ASPD** and **PPD** forensic inpatients
  - **Non-parametric comparison** group analysis (Mann-Whitney *U*) on **empathic competencies scores (Acc., RT) (VPT-2) between ASPD** and **PPD** forensic inpatients
  - **Non-parametric correlation** analysis (Spearman ρ) between empathic self-questionnaire scores (**IRI**), empathic competencies scores (**VPT-2**) and psychopathic traits scores (**PCL-R**) among the **forensic inpatients sample**

3.

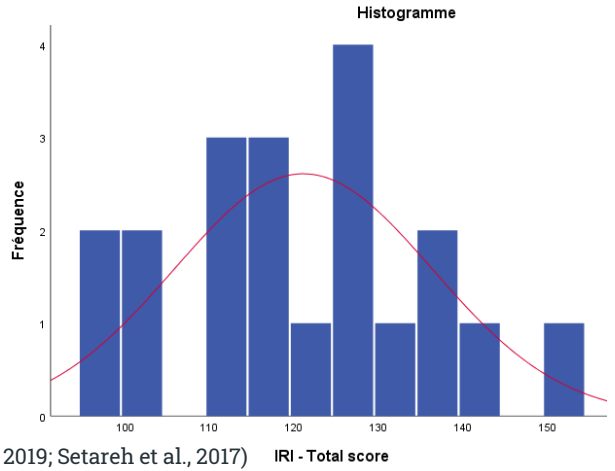
RESULTS & DISCUSSION



Comparison *(M-W U)* on IRI and VPT-2 between ASPD and PPD

	ASPD inpatients				PPD inpatients				*p-value*
	n	M	SD	Min.-Max.	*n*	M	SD	Min.-Max.	
IRI (154)	11	121.82	17.84	98-154	9	120.22	12.48	97-142	
Empathic concern (49)	12	33.75	5.44	27-40	9	33.22	3.49	29-37	.602
Personal distress (49)	12	26.00	7.12	13-38	9	26.11	5.20	16-31	.862
Fantasy (49)	12	30.50	8.05	19-47	9	31.33	8.77	20-47	.754
Perspective-taking (49)	11	31.00	8.69	14-44	9	30.56	8.69	19-43	.941

- No difference between ASPD and PPD inpatients regarding empathic abilities **self-assessment**
- ASPD and PPD forensic inpatients **perceived** themselves as **highly empathic, higher than the French-speaking validation sample** (community), except for personal distress subscale
  - Hypotheses:
    - Overestimation
    - Social Desirability
    - Length of hospitalization = treatment participation

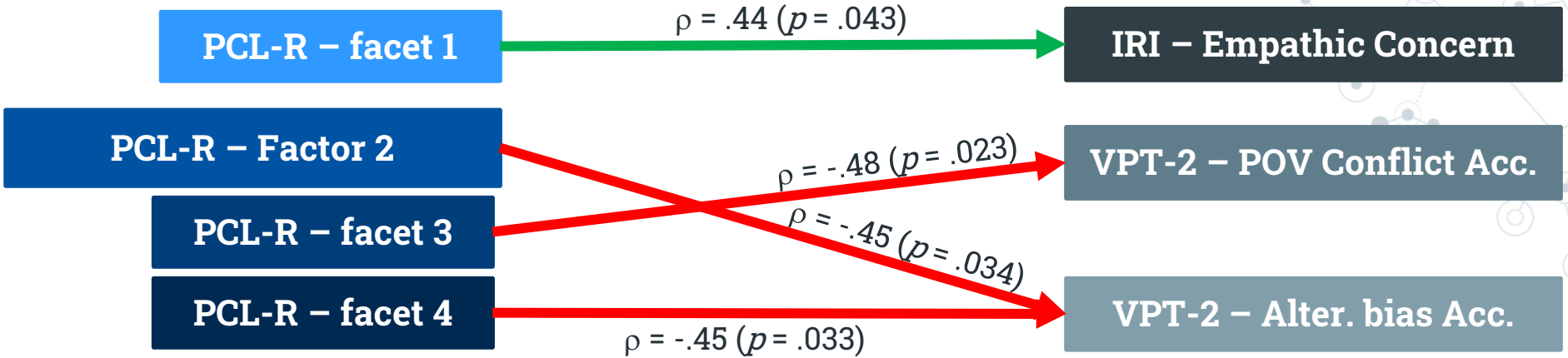


(Campos et al., 2021; Gilet et al., 2013; Hare, 2003; Marsden et al., 2019; Robinson & Rogers, 2015; Sanchez de Ribera et al., 2019; Setareh et al., 2017)

Comparison (M-W *U*) on IRI and VPT-2 between ASPD and PPD

	ASPD inpatients (*n* = 12)			PPD inpatients (*n* = 10)			*p-value*
	M	SD	Min.-Max.	M	SD	Min.-Max.	
VPT-2							
POV conflict Acc.	0.17	0.21	-.13 – .54	0.19	0.20	-.08 – .50	.923
POV conflict RT	34.46	138.93	-273.56 – 220.56	194.19	134.80	46.00 – 499.54	**.025**
Self-Priority Acc.	0.04	0.22	-.38 – .46	0.07	0.21	-.25 – .42	.923
Self-Priority RT	106.12	102.47	-.74 – 234.14	-32.46	217.43	-323.21 – 268.59	.159
Egocentric bias Acc.	0.16	0.33	-.25 – 1.00	0.23	0.29	-.17 – .75	.539
Egocentric bias RT	86.38	233.70	-281.93 – 575.09	180.86	300.87	-289.89 – 813.08	.512
Altercentric bias Acc.	0.18	0.31	-.08 – .92	0.14	0.24	-.08 – .75	.974
Altercentric bias RT	-9.36	111.27	-242.09 – 168.08	189.72	171.25	-33.71 – 561.58	**.004**

Correlations (ρ) between PCL-R, IRI and VPT-2 scores on total sample



- ASPD inpatients need less time adapting to conflictual POV and to prioritize their own (Ego) POV
  - Impulsive features (coherent with the correlations: f3 – impulsive, irresponsible, parasitic lifestyle …)
  - … and, broadly, with the antisocial characteristics: criminal versality (developmental view)
- Narcissistic interpersonal traits is associated with a self-perception to be concern by others
  - In line with previous research, emphasizing the desirability social impact, manipulative traits, …
- Both ASPD and PPD exhibit the same severity of Factor 2 traits and yet …
- … PPD are slower but accurate
  - Hypotheses:
    - Not as impulsive as ASPD and need more time to analyze the social situation (cf. response modulation model)
      - Control/Dominance (Narcissistic) perspective
    - Mentalization ability: difficulty to empathize with others
      - F2 (and f4): less difficulty to adopt their own (Ego) POV

Shifting

(Baskin-Sommers et al., 2012; Bateman et al., 2013; Hare, 2016; Marsden et al., 2019; Patterson & Newman, 1993; Patrick, 2018; Robinson & Rogers, 2015)

Contributions, Limitations and Future perspectives

- Use of an experimental task, less sensitive to social desirability and manipulation - Innovative and yet not invasive, not costly, not time consuming, objective measure of perspective-taking ability	- Sample size - Lack of community participants

- Increase the forensic offenders' sample and to compare with community male adult
- Deepen the forensic offender's sample comparison using the PCL-R profiles
  - Status of the "sociopathic offenders" (low F1, high F2 // ASPD) – subtype offender
- Measure of moderator variables: attentional competencies, mentalization, …
- Convergent analysis of IRI (PT subscale) and VPT-2 (Egocentric bias)
- Use of an affective experimental task
  - Compare affective perspective-taking vs cognitive perspective-taking

(Deming et al., 2020; Joyal & Dumais, 2013; Hare, 2016; Healey & Grossman, 2018)

Thank you for your attention!

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