

**Beyond cognition:
Considering emotional and interpersonal
impairments in alcohol-related disorders**

Pierre Maurage



November 29th 2019

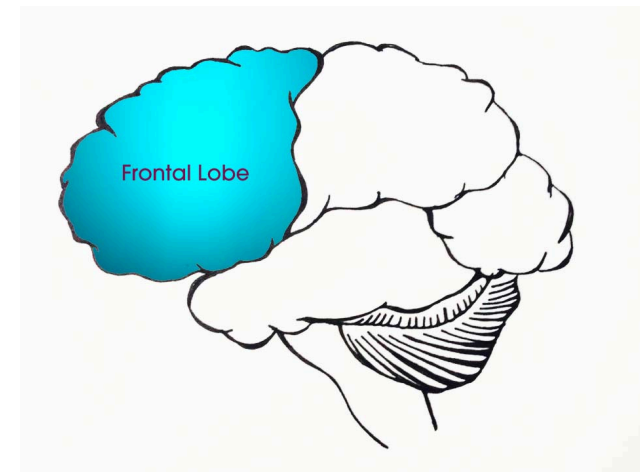
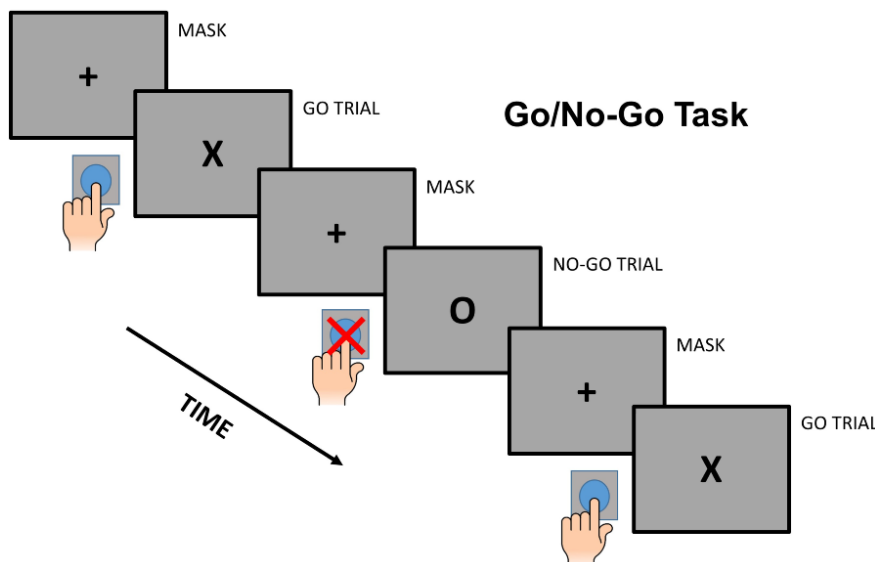
What is an addiction ?

Classical perspective:

Loss of control on consumption

- Inability to stop an initiated action.
- Inability to postpone a reward.
- No consideration of mid/long-term consequences.

Inhibition deficit



What is an addiction ?

Is it just an inhibition deficit ?

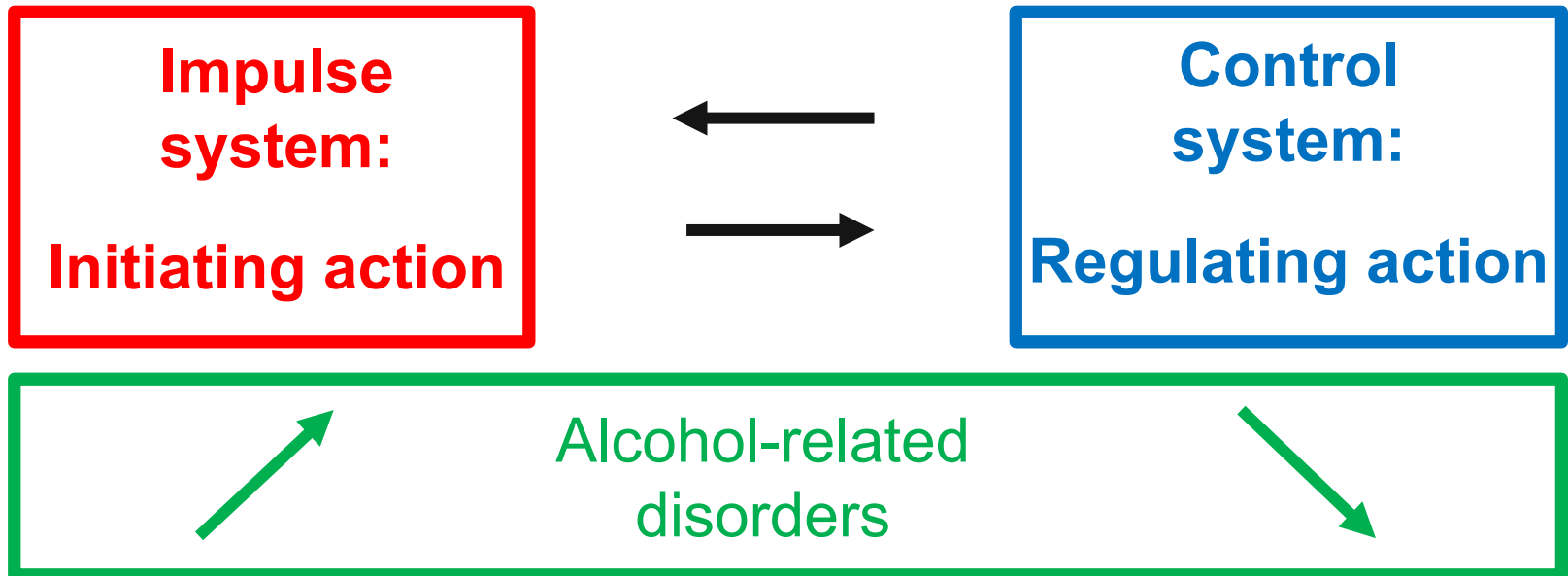
Addiction is a loss of control, but also an increased attraction towards the substance.

- Desire / Craving
- Attentional bias

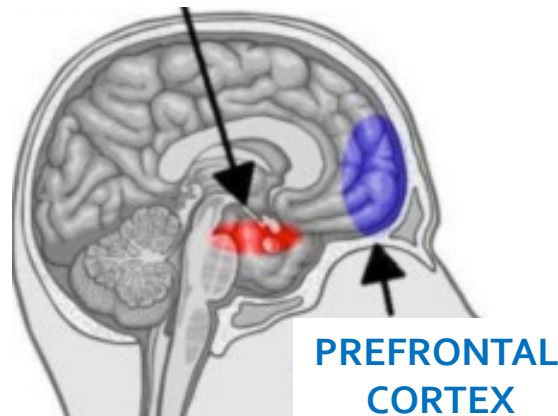
**INCREASED
ATTRACTION**



Psychological models of addiction

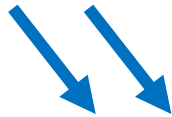


LIMBIC SYSTEM



Psychological models of addiction

**Under-activated
control system**



**REDUCED
INHIBITION**

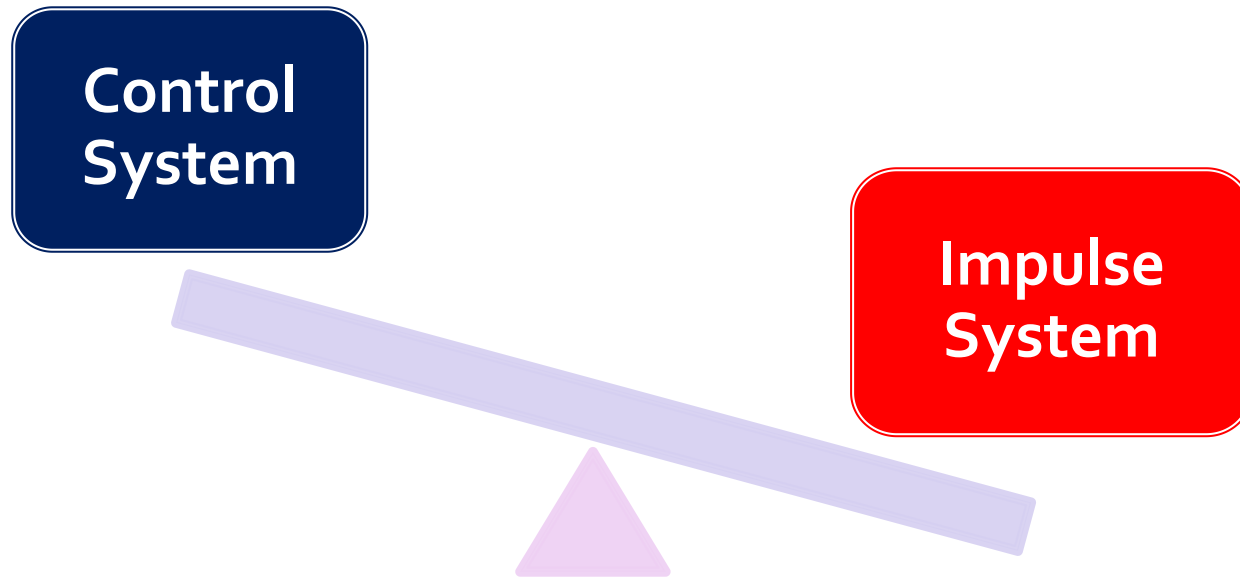


**INCREASED
ATTRACTION**

**Over-activated
impulse system**



Up to now...



Addicted individual =
« dysregulated machine »

Why does addiction persist ?

« I can't control my consumption »

« When I see a beer, my desire is too high »



CONTROL / IMPULSE
FACTORS

« When I have negative emotions,
I have to drink »



EMOTIONAL
FACTORS

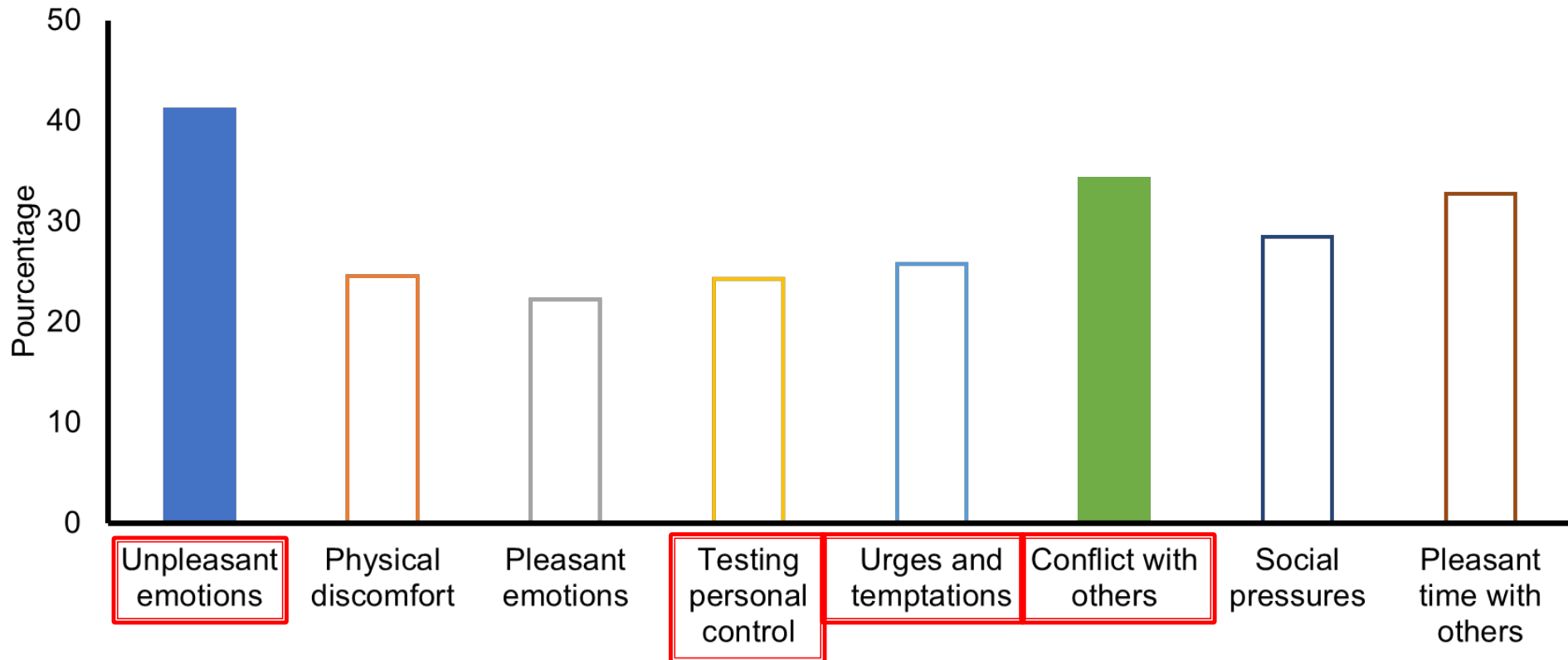
« When I feel lonely or rejected,
it's my unique solution »



SOCIAL
/ INTERPERSONAL
FACTORS

Why does addiction persist ?

Relapse factors



Why does addiction persist ?

Psychiatry Research 278 (2019) 97–115



Contents lists available at ScienceDirect

Psychiatry Research

journal homepage: www.elsevier.com/locate/psychres

Alcohol use disorder relapse factors: A systematic review

Wilco Sliedrecht^{a,*}, Ranne de Waart^b, Katie Witkiewitz^c, Hendrik G. Roizen^d

Conclusions

In this study, identified relapse factors encompassed psychiatric comorbidity, addiction severity, craving, negative emotion, use of other substances, health and social factors. Several supportive social factors, self-efficacy, and factors related to life purpose and spiritual involvement were recognized as protective.

A neglected research topic

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Best matches for Korsakoff memory:

[Destination Memory in Korsakoff's Syndrome.](#)

EI Haj M et al. Alcohol Clin Exp Res. (2016)

[Korsakoff's syndrome: a critical review.](#)

Arts NJ et al. Neuropsychiatr Dis Treat. (2017)

[Source Memory in Korsakoff Syndrome: Disentangling the Mechanisms of Temporal Confusion.](#)

Brion M et al. Alcohol Clin Exp Res. (2017)

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Species
Humans
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[Social anxiety disorder and childhood trauma in the context of anxiety \(behavioural inhibition\), impulsivity \(behavioural activation\) and quality of life.](#)
1. Bruijnen CJWH, Young SY, Marx M, Seedat S.
S Afr J Psychiatr. 2019 Jan 28;25:1189. doi: 10.4102/sajpspsychiatry.v25i0.1189. eCollection 2019.
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[Social cognitive training for adults with Noonan syndrome: a feasibility study.](#)
2. Roelofs RL, Wingbermühle E, Kessels RPC, Egger JIM.
Neuropsychiatr Dis Treat. 2019 Feb 26;15:611-626. doi: 10.2147/NDT.S179527. eCollection 2019.
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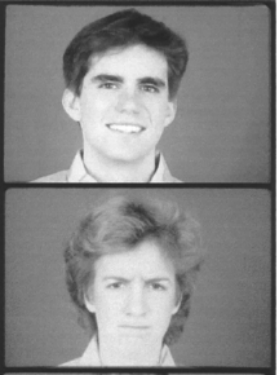
Emotional decoding



HAPPINESS

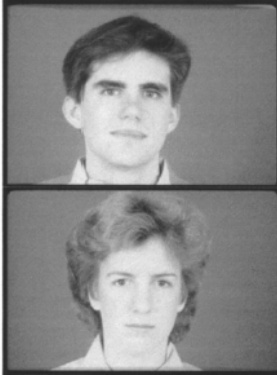


SADNESS

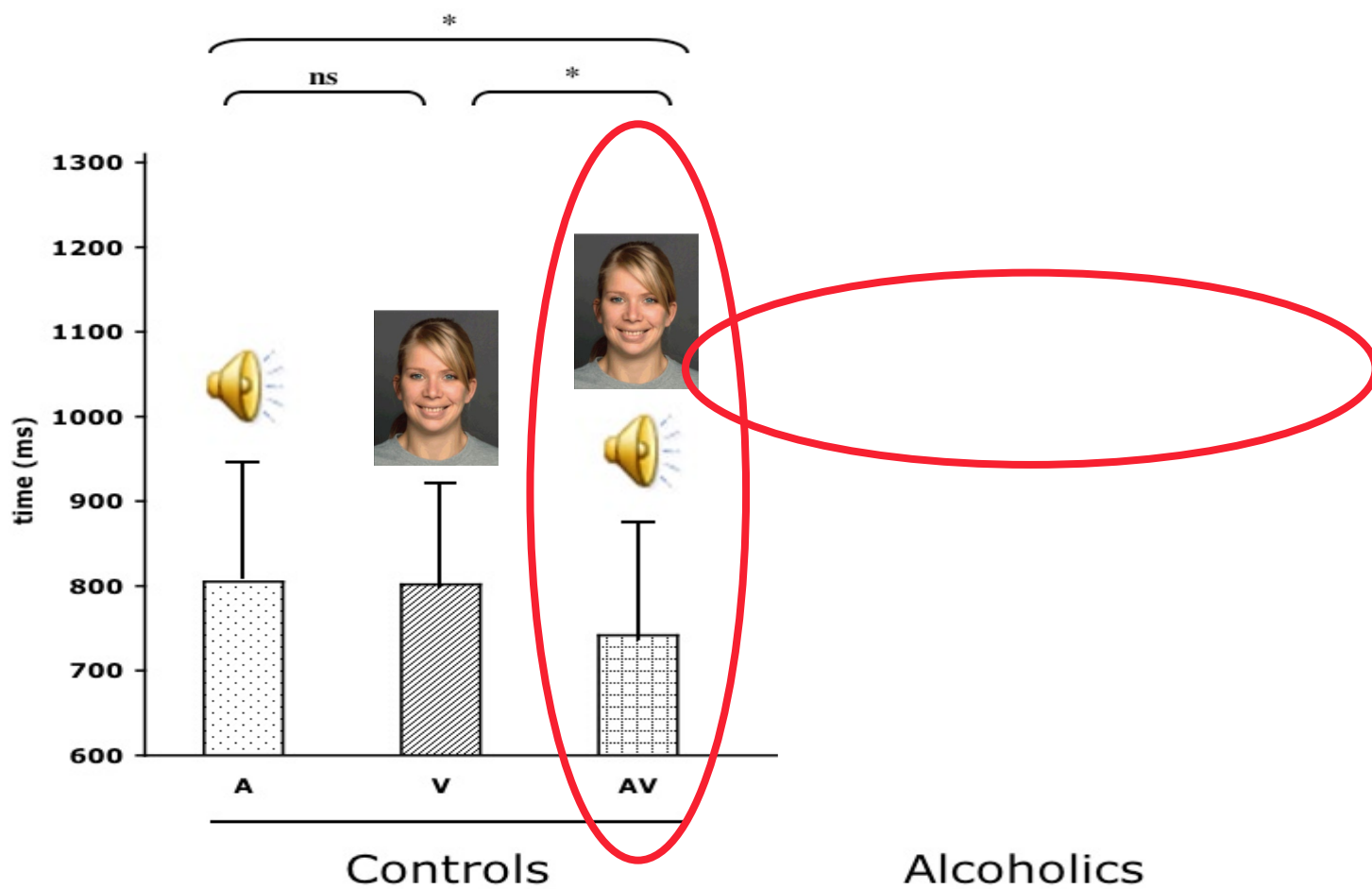


Happiness
70% 30%

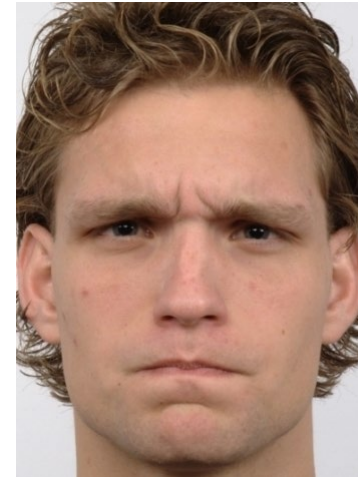
Anger
70% 30%



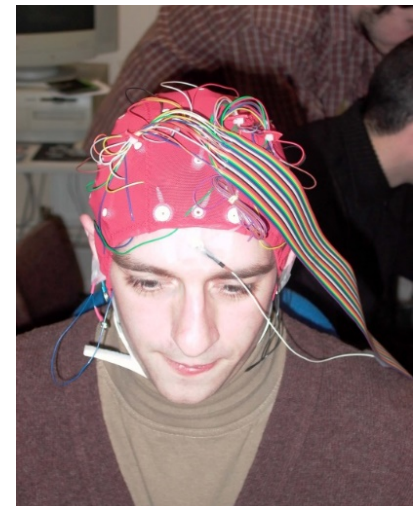
Emotional decoding



Emotional decoding



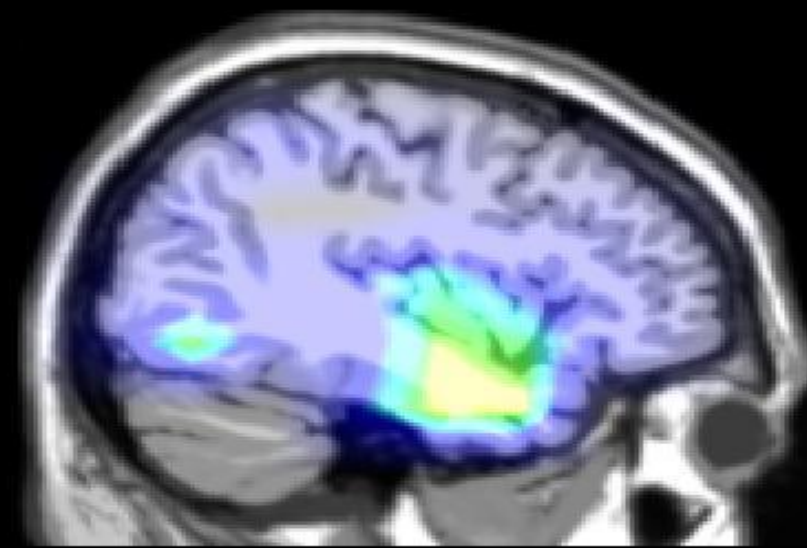
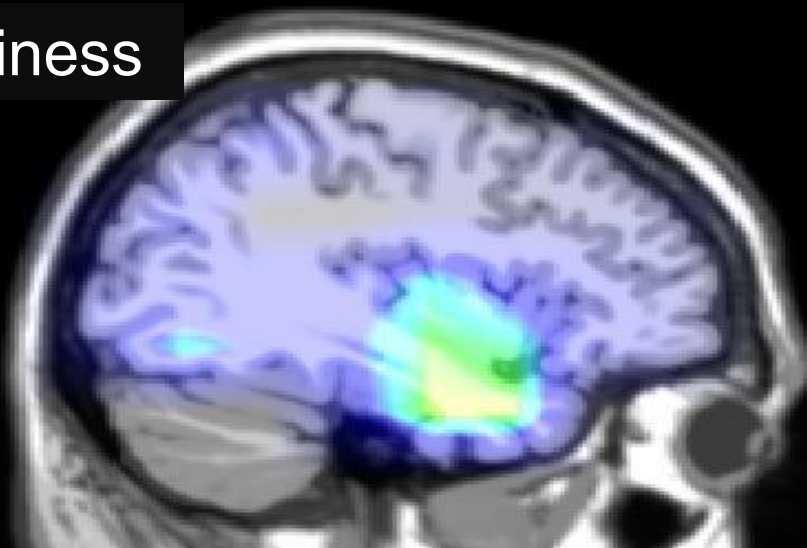
Anger over-estimation



CONTROLS

PATIENTS

Happiness

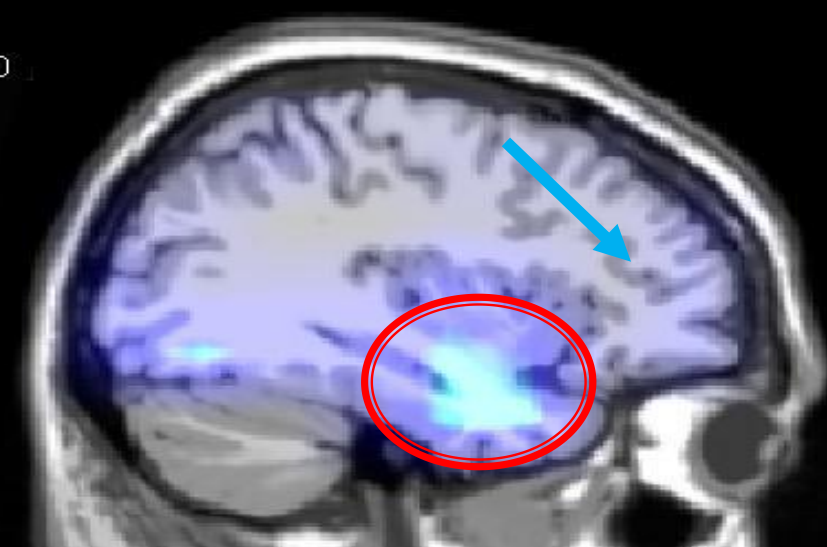
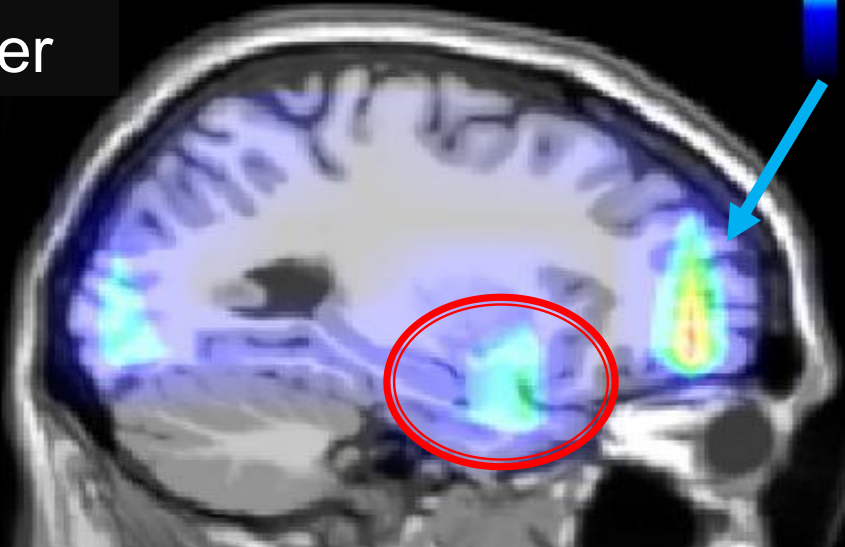


Posterior

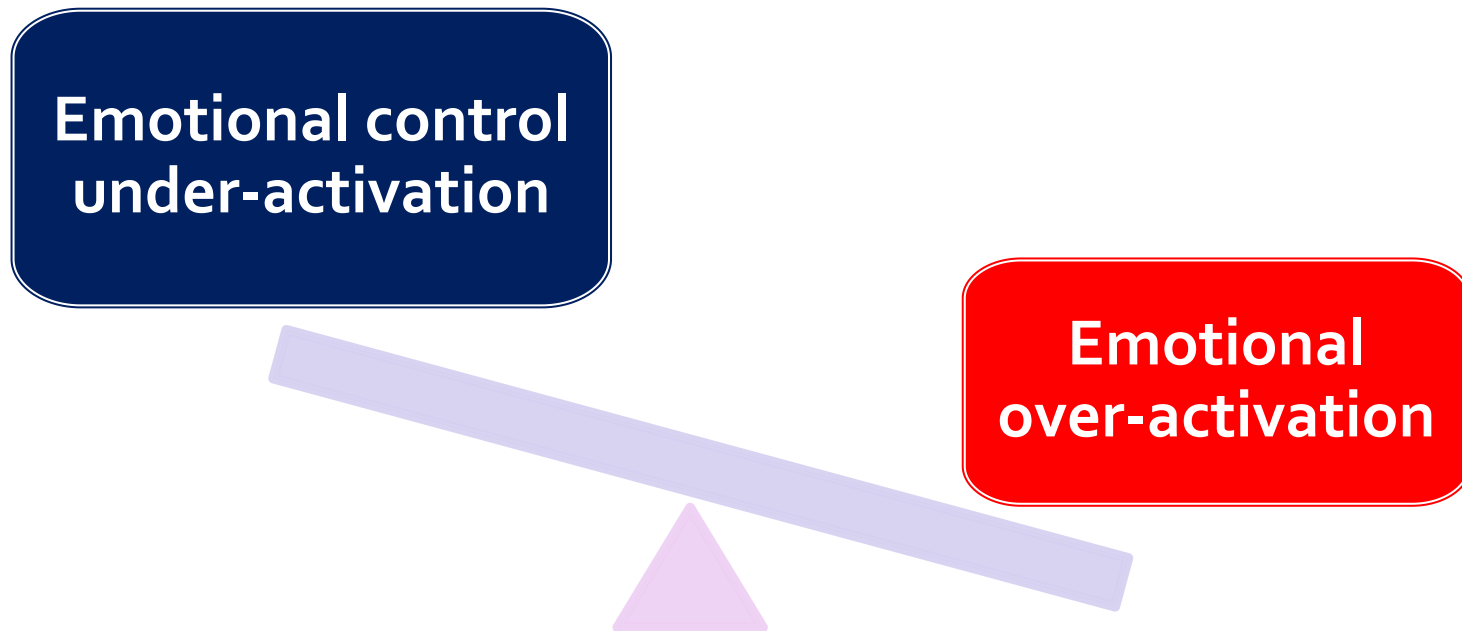
Anterior



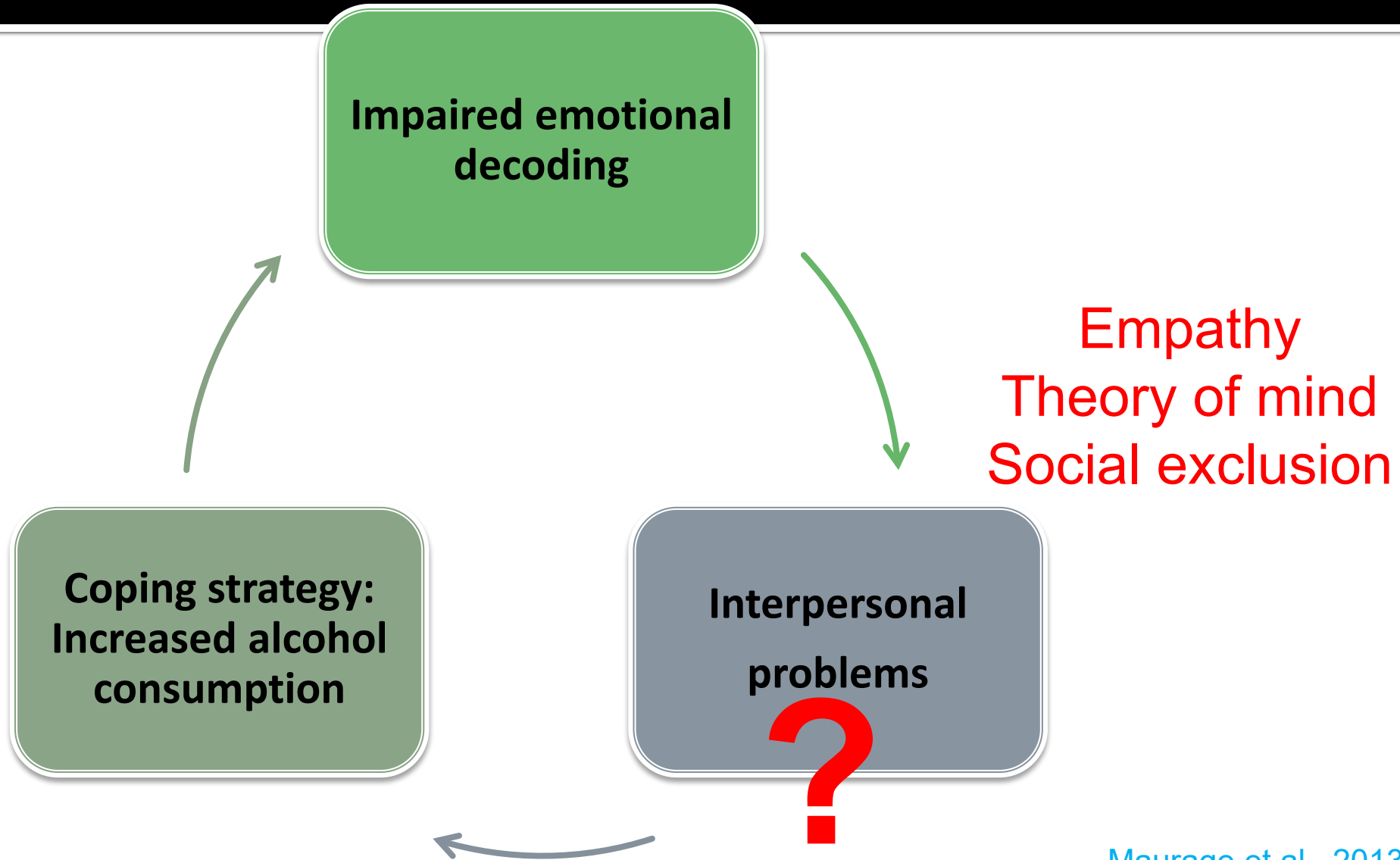
Anger



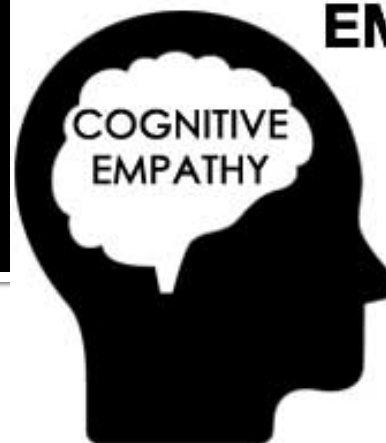
Emotional decoding



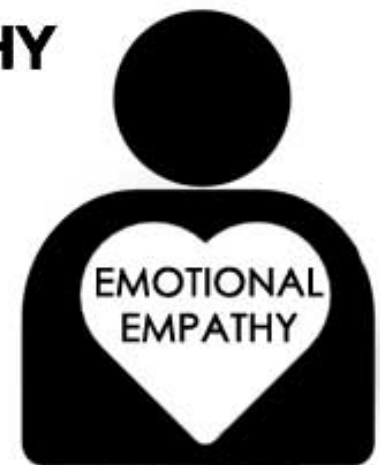
Vicious circle



Empathy

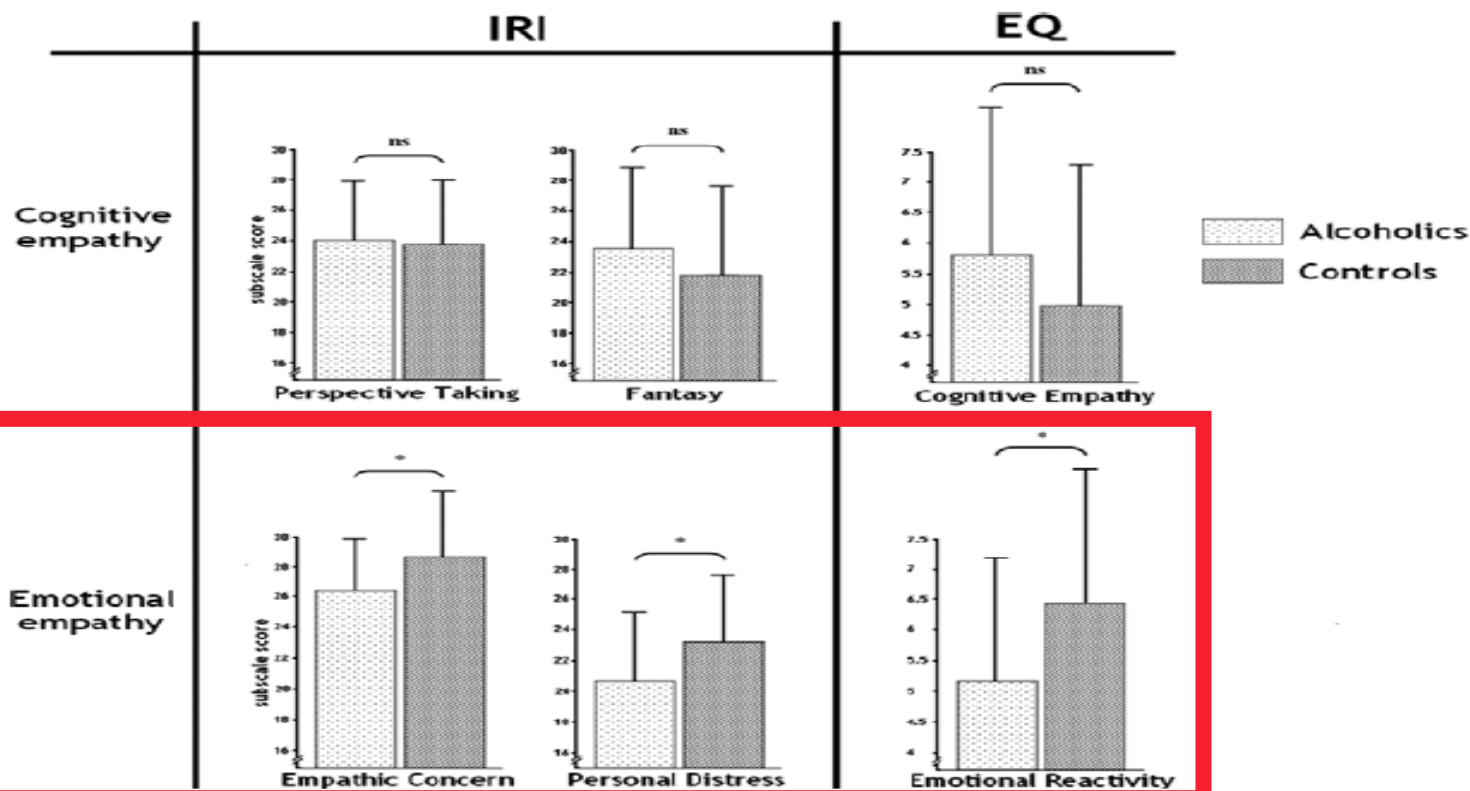


EMPATHY



Rational understanding, ability to take someones perspective

Emotional connection, being able to feel what they feel



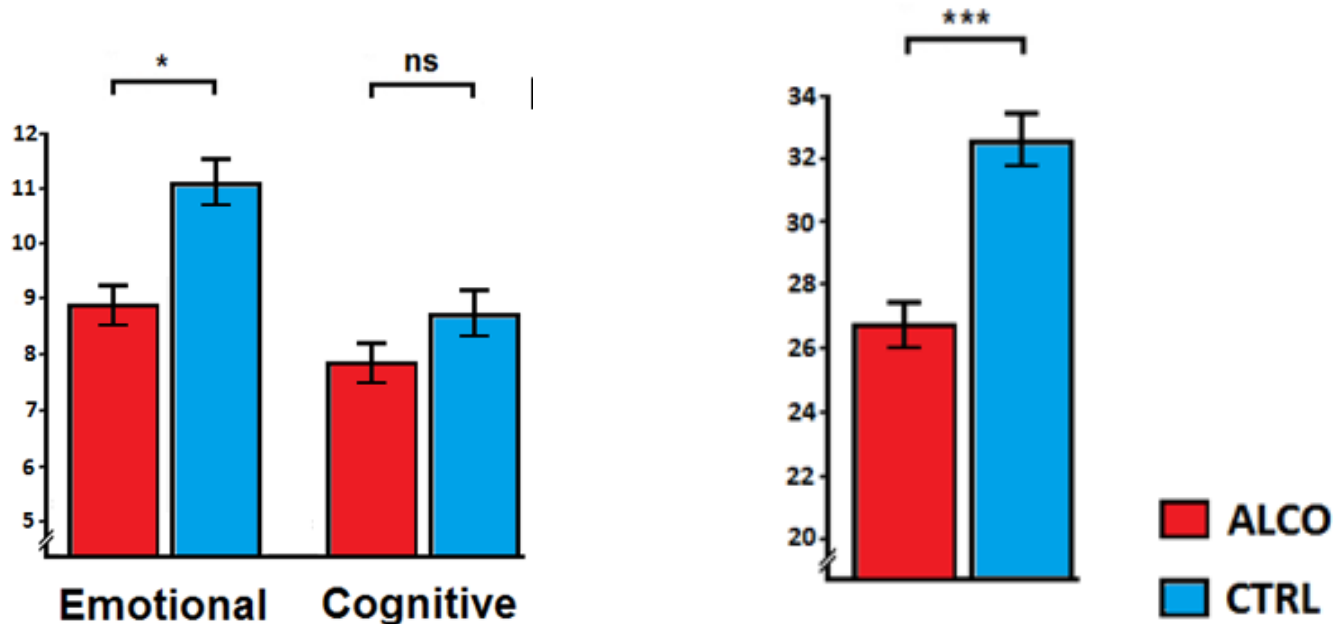
Theory of Mind



Theory of Mind

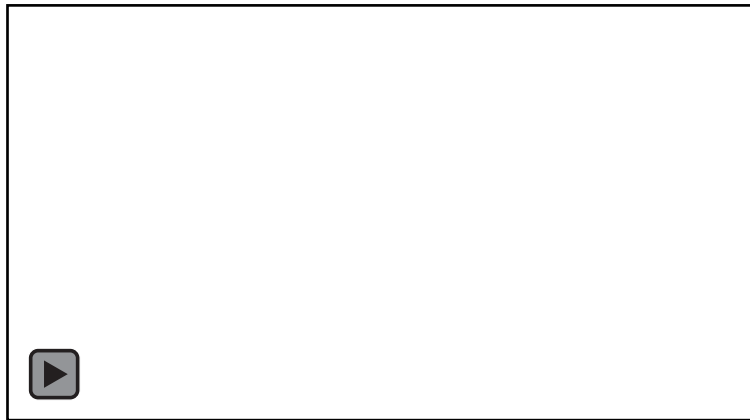
Why does Michael say that ?

- (1) He wants to impress her with his sport achievements.
- (2) He wants to meet Anna alone.
- (3) He is a good tennis player.
- (4) He prefers playing tennis than dining with friends.

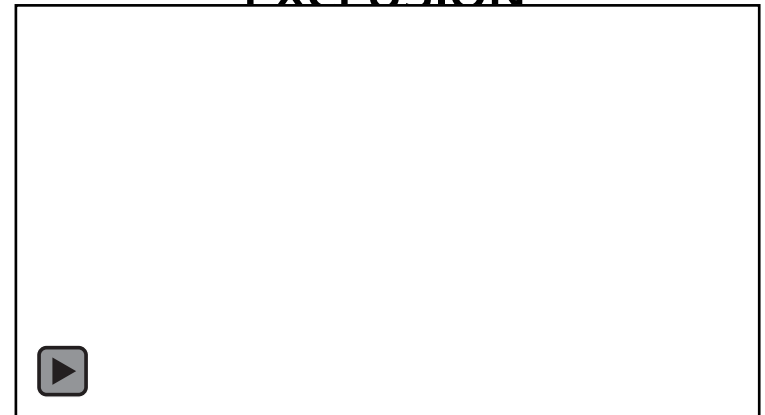


Social exclusion

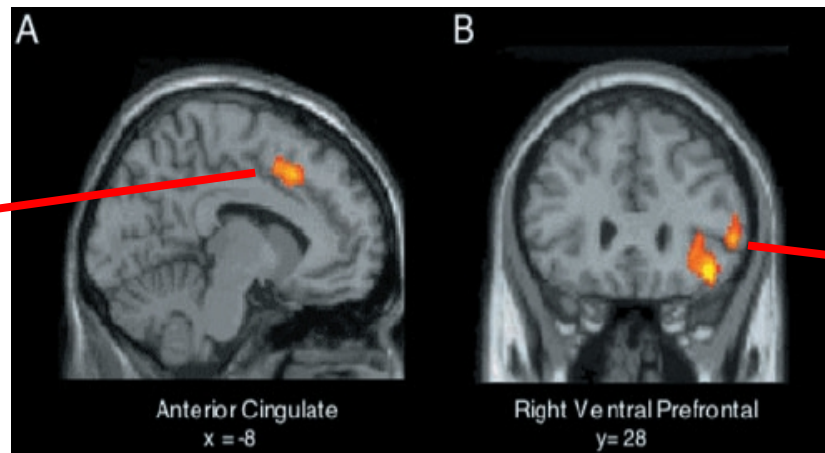
INCLUSION



EXCLUSION



ACC-Insula:
Social exclusion
feelings

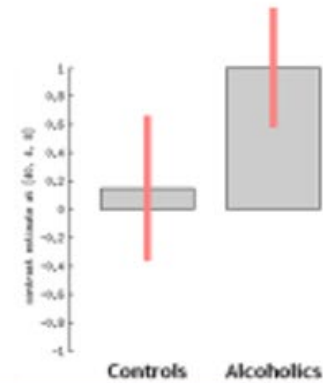
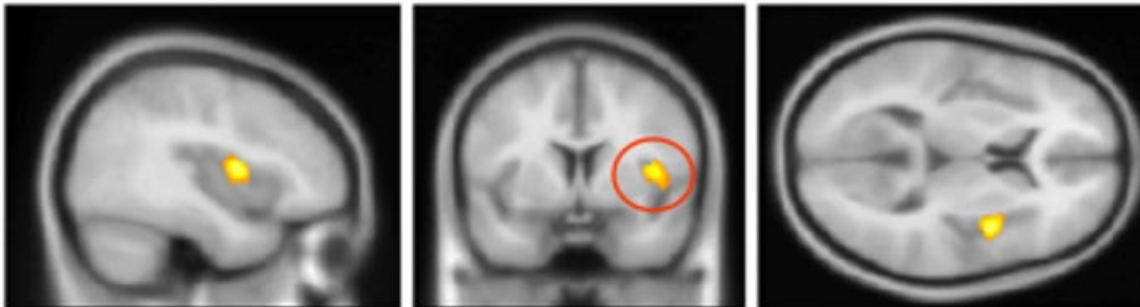


PFVC-MFG:
Regulation of
these feelings

Social exclusion

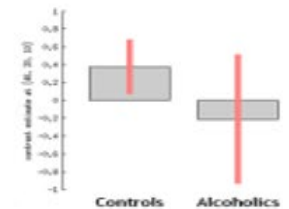
ALCOHOLICS > CONTROLS

INSULA (RIGHT)

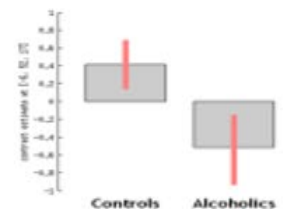
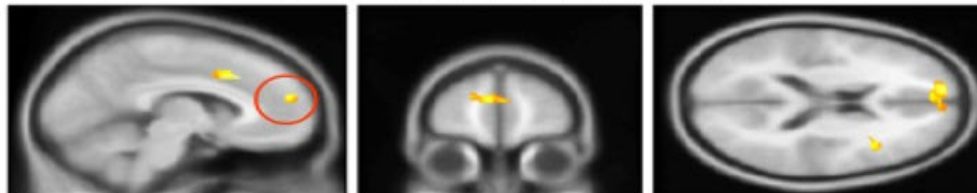


CONTROLS > ALCOHOLICS

VENTROLATERAL PREFRONTAL CORTEX (RIGHT)



MIDDLE FRONTAL CORTEX (LEFT)



Social exclusion

Reduced ability to regulate this exclusion

Over-sensitivity to social exclusion

Social exclusion / Stigmatization

Outcome Measure	Schizophrenia	Major Depression	Alcohol Dependence
Neurobiological attributions			
Mental illness	91	72	50
Neurobiological conception	86	67	47
Sociomoral attributions			
Bad character	31	32	65
Way raised	33	41	69
Stigma			
Social distance: unwilling to			
Work closely with	62	47	74
Make friends with	35	21	36
Have marry into family	69	53	79
Dangerousness			
Violent toward others	60	32	67



Dehumanization



Contents lists available at ScienceDirect

Addictive Behaviors

journal homepage: www.elsevier.com/locate/addictbeh

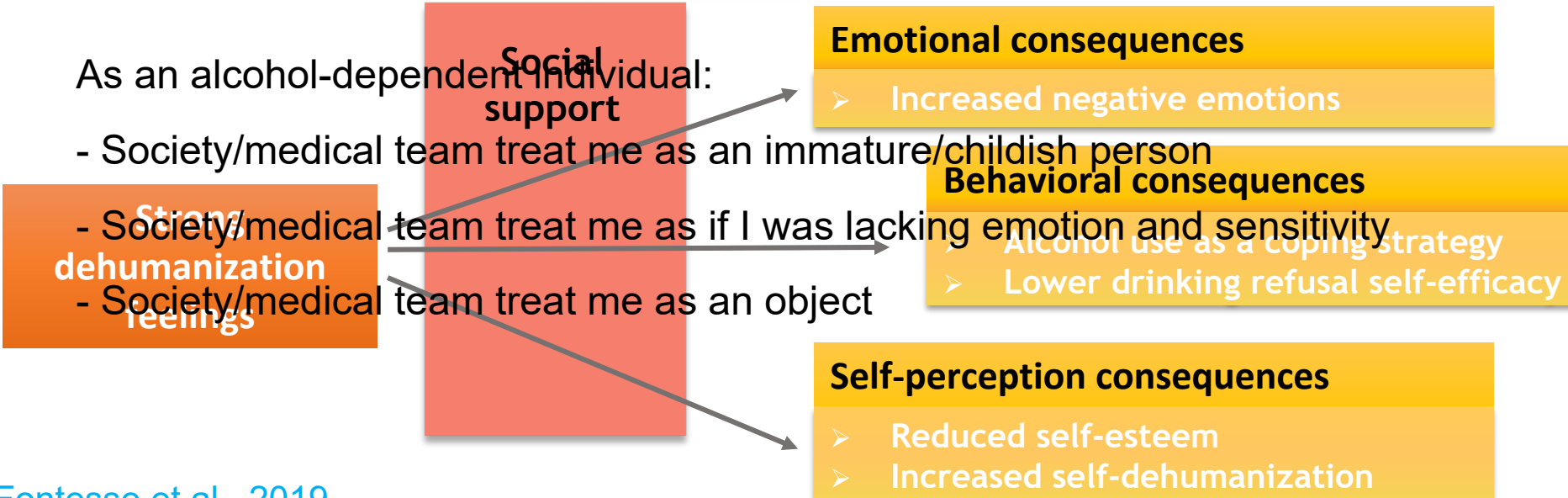
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ADDICTIVE BEHAVIORS

Dehumanization of psychiatric patients: Experimental and clinical implications in severe alcohol-use disorders

Sullivan Fontesse^a, Stéphanie Demoulin^b, Florence Stinglhamber^c, Pierre Maurage^{a,*}

Check for updates



Take-home message

- Addiction is not just an impulse control disorder.
- Emotional/social impairments are widespread.
- Neuroscience is useful to understand such deficits.
- Innovative therapeutic tools / Need to change care practice



COGNITIVE NEUROPSYCHIATRY
2018, VOL. 23, NO. 5, 307-320
<https://doi.org/10.1080/13546805.2018.1505607>

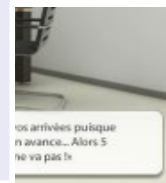
 Routledge
Taylor & Francis Group

Social and emotional loneliness in Korsakoff's syndrome

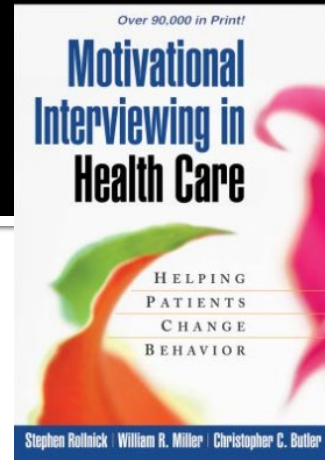
Erik Oudman, Mirjam van Dam and Albert Postma

Conclusion: Loneliness is a large problem in patients with KS that live in a long term care facility. Social loneliness can be positively influenced by creating possibilities to interact with other people, although the severity of the neuropsychiatric aspects of KS could compromise the presence of those interactions.

REHUMANIZE
ME

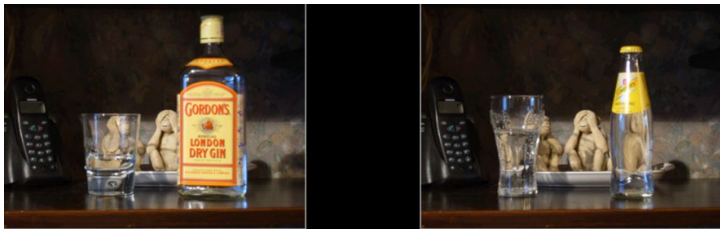


To conclude (and start the debate)



- Classical view:
The patient is responsible for his/her trouble, or at least for its resolution.

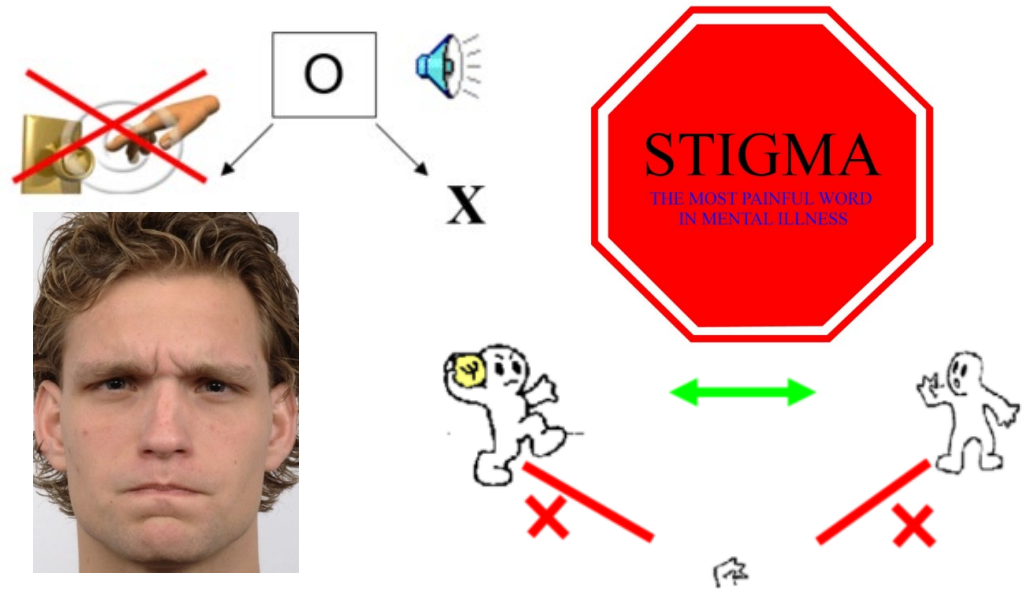
- But if we add:



- Is there any responsibility left?

- New paradigm:

**From a motivation/willingness disease
to a loss of cognitive willpower**



To conclude (and start the debate)

THE CLINICAL NEUROPSYCHOLOGIST

<https://doi.org/10.1080/13804495.2018.1518489>

Neuropsychology Review (2019) 29:103–115

<https://doi.org/10.1007/s11065-018-9395-3>



REVIEW

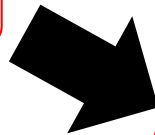
Improving
bridging t
and parad

A Patient-Tailored Evidence-Based Approach for Developing Early Neuropsychological Training Programs in Addiction Settings

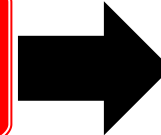
Roy P. C. Kess Benjamin Rolland • Fabien D'Hondt • Solène Montègue • Mélanie Brion • Eric Peyron • Julia D'Aviau de Ternay • Philippe de Timary • Mikail Nourredine • Pierre Maurage

The patient is active/responsible The patient is passive

Evaluate
deficits



Neuropsychological
remediation



Motivation
Willingness

Towards a third perspective?

Rochat et al., 2019;
Rolland et al., 2019

Thank you for your attention

pierre.maurage@uclouvain.be

My lab's website: <http://www.uclep.be>



Laboratory for
Experimental
Psychopathology