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

Pierre Maurage
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.

Jentsch et al., 2014
Is it just an inhibition deficit?

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

- Desire / Craving
- Attentional bias

Baker et al., 1986; Field et al., 2015; Volkow et al., 2018
Psychological models of addiction

**Impulse system:** Initiating action

**Control system:** Regulating action

Alcohol-related disorders

LIMBIC SYSTEM

PREFRONTAL CORTEX

Wiers et al., 2010
Psychological models of addiction

Under-activated control system

INCREASED ATTRACTION

REDUCED INHIBITION

Over-activated impulse system
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 »
« When I feel lonely or rejected, it’s my unique solution »

EMOTIONAL FACTORS
SOCIAL / INTERPERSONAL FACTORS
Why does addiction persist?

Relapse factors

Unpleasant emotions | Physical discomfort | Pleasant emotions | Testing personal control | Urges and temptations | Conflict with others | Social pressures | Pleasant time with others

Marlatt, 1996; Shafiei et al., 2014; Zywiak et al., 2006
Alcohol use disorder relapse factors: A systematic review
Wilco Sliedrecht, Ranne de Waart, Katie Witkiewitz, Hendrik G. Roozen

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
Emotional decoding

Philippot et al., 1999; Kornreich et al., 2001; 2002; 2003; Frigerio et al., 2002
Emotional decoding

Brion et al., 2017; 2018; Creupelandt et al., Submitted; Maurage et al., 2007
Emotional decoding

Anger over-estimation

Maurage et al., 2008
Emotional decoding

- Emotional control under-activation
- Emotional over-activation

Maurage et al., 2009
Vicious circle

Impaired emotional decoding

Coping strategy: Increased alcohol consumption

Interpersonal problems

Empathy
Theory of mind
Social exclusion

Maurage et al., 2013
Empathy

Rational understanding, ability to take someone's perspective

Emotional connection, being able to feel what they feel

Maurage et al., 2011
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

**ACC-Insula:**
Social exclusion feelings

**PFVC-MFG:**
Regulation of these feelings

Eisenberger et al., 2003
Social exclusion

Maurage et al., 2012
Social exclusion

Reduced ability to regulate this exclusion

Over-sensitivity to social exclusion

Maurage et al., 2012
## Social exclusion / Stigmatization

<table>
<thead>
<tr>
<th>Outcome Measure</th>
<th>Schizophrenia</th>
<th>Major Depression</th>
<th>Alcohol Dependence</th>
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<tbody>
<tr>
<td>Neurobiological attributions</td>
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<td>Mental illness</td>
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<td>Sociomoral attributions</td>
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<td>Bad character</td>
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<td>Way raised</td>
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<td>Stigma</td>
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<td>Social distance: unwilling to</td>
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<td>Work closely with</td>
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<td>Make friends with</td>
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<tr>
<td>Have marry into family</td>
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<tr>
<td>Dangerousness</td>
<td></td>
<td></td>
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<tr>
<td>Violent toward others</td>
<td>60</td>
<td>32</td>
<td>67</td>
</tr>
</tbody>
</table>

Pescosolido et al., 2010; Schomerus et al., 2006; 2012
Dehumanization of psychiatric patients: Experimental and clinical implications in severe alcohol-use disorders

Sullivan Fontesse, Stéphanie Demoulin, Florence Stighlhamber, Pierre Maurage

As an alcohol-dependent individual:
- Society/medical team treat me as an immature/childish person
- Society/medical team treat me as if I was lacking emotion and sensitivity
- Society/medical team treat me as an object

**Social support**

**Emotional consequences**
- Increased negative emotions

**Behavioral consequences**
- Alcohol use as a coping strategy
- Lower drinking refusal self-efficacy

**Self-perception consequences**
- Reduced self-esteem
- Increased self-dehumanization
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

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.

Peyroux & Franck, 2015; Philippot & Power, 2009
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 patient is active/responsible  The patient is passive

Towards a third perspective?

Evaluate deficits

Neuropsychological remediation

Motivation Willingness

Rochat et al., 2019; Rolland et al., 2019
Thank you for your attention

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My lab’s website: http://www.uclep.be