

Automatic biases towards alcohol drinking in adolescents are related to a genetic vulnerability; and online interventions which directly target such cognitive-motivational processes show promise as add-ons to treatment for clinical alcohol problems.

**alcohol
cannabis
implicit cognitions
online interventions**

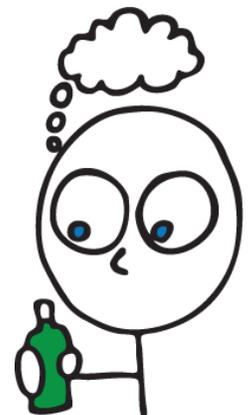
Cognitive-motivational processes related to substance use are influenced both by biological factors (e.g., genetics), and by cultural factors (e.g., differences between Southern and Northern drinking cultures); and relatively automatic (or “implicit”) and more consciously controlled (explicit) cognitive-motivational processes come into play, both of which can be targeted in prevention interventions.

By combining new data on implicit approach tendencies for alcohol in a sample of European adolescents with their biological (including genetic) data gathered through another EU project (IMAGEN, 2016), AR found that implicit bias was related to a genetic vulnerability factor. The same genetic factor has been previously related to the same bias in heavy adult drinkers, irrespective of drinking status and country.

In addition, AR used a multilingual online platform (www.mindsurfer.eu) to assess cognitive-motivational processes related to use of the most common legal substance (alcohol) and illegal or semi-legal substance (cannabis). ALICE RAP also examined cultural differences through a panel-study, including participants from countries with very different drinking cultures (England and Italy).

Although drinking and cognitive-motivational processes were largely found to differ in the expected directions (more frequent drinking in the South, more intoxication oriented drinking in the North), factors related to problematic drinking were rather stable across countries, with the expected risky motives (enhancement and coping) playing a role, as well as alcohol or cannabis identity, a construct less studied so far, which might open up new avenues for further research into interventions.

The online platform, which is available in 7 languages, has also been used to accommodate a number of (ongoing) online intervention studies, which directly target specific cognitive-motivational processes (cognitive bias modification), an approach which has shown promise as an add-on to treatment for clinical alcohol problems.



READ MORE

Pronk, T., Gladwin, T., Wiers, R. (2013): *Report on Cognitions Website*. Addiction and Lifestyles in Contemporary Europe: Reframing Addictions Project (ALICE RAP): [Deliverable D17.1](#)

Pronk T, Larsen H, Wiers R, Nikolaou K, Conrod P (2016) *When culture and biology meet*. Addiction and Lifestyles in Contemporary Europe: Reframing Addictions Project (ALICE RAP): [Deliverable 17.2](#)

Pronk, T. (2014): [JASMIN](#); a library of JavaScript modules for administering response time tasks

Boffo, M., Pronk, T., Wiers, R. W., & Mannarini, S. (2015): [Combining cognitive bias modification training with motivational support in alcohol dependent outpatients: study protocol for a randomised controlled trial](#). *Trials*, 16:63

Wiers, R. W., Gladwin, T. E., Hofmann, W. Salemink, E., & Ridderinkhof, K. R. (2013). [Cognitive Bias Modification and Control Training in Addiction and Related Psychopathology: Mechanisms, Clinical Perspectives and Ways Forward](#). *Clinical Psychological Science*, 1(2), 192-212.

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