

# Ayahuasca rituaalides osalejate vaimsus ja psühholoogia

Spirituality and psychology of participants of ayahuasca rituals

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1000+ of inhabitants of Estonia have taken ayahuasca





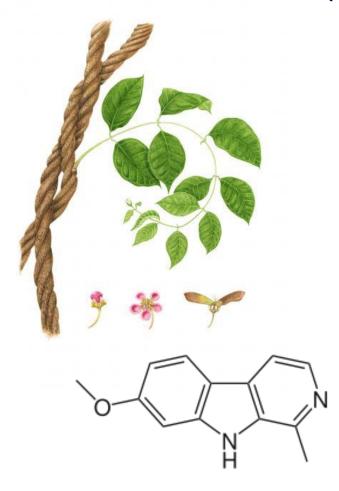
# Ayahuasca

- Psychedelic tea from Amazonian plants
- Ritual use in shamanic, "new spirituality" and religious context

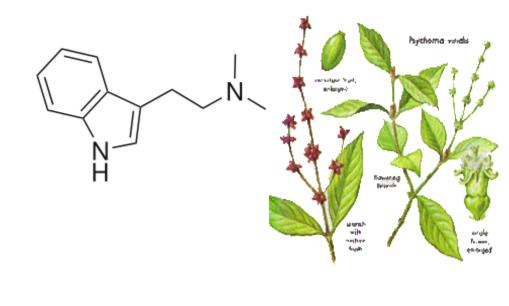


# Banisteriopsis caapi:

MAO-A inhibitors (harmine, harmaline)



+ *Psychotria viridis*: dimethyltryptamine (DMT)





**Santo Daime** 





"Secret and dangerous shamanic rituals planned in Estonia again Police: it's an illegal activity"





# Who are ayahuasca users in Estonia?

# How they describe:

- the ritual?
- the experience?
- its effects on their life?

### Which are their:

- mental health?
- personality?
- quality of life?





# **Design**

Cross-sectional questionnaire and interview study (no ayahuasca served).

Small-scale approximate replication of the work of Bouso JC *et al.* [2012, PLoS One, 7(8): e42421].

Also a social experiment on initiating ayahuasca research in academic environment.





# **Participants**

- 30 ayahuasca users (15 men),
- adults who drank ayahuasca at least once
- found by snowball method initiated by personal contacts and facebook
- age 25-62, mean 39
- first language Estonian
- above average income
- diverse spirituality
- 30 controls matched by gender, age and education





### **Measures**

- Ayahuasca use, lifestyle and quality of life: questionnaires (<u>kodu.ut.ee/~hellex/aya</u>)
- Mental health:
  - M.I.N.I. neuropsychiatric interview
  - MoCA (cognitive performance)
  - Raven Standard Matrices (fluid IQ)
  - EEK-2 (screening depression and anxiety)
- Personality:
  - EE-PIP.NEO (5-factor, Costa, McCrae)
  - SNAP-2 (dimensional, Clark)





# Patterns of use

- Mainly (neo)shamanic ceremonies, also Santo Daime
- Experienced 1-250 ceremonies, median 10
- In average 5 ceremonies during last 12 months
- 10 considered themselves "regular users"
- 23 intended to participate in future ceremonies, 4 not.

**Motivations for use** 

Results
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I use ayahuasca:	yes/30
for spiritual development	27
for self-exploration	26
for spiritual experience	24
for psychological healing	22
to explore potential of human consciousness	20
for excitement-seeking	2
for entertainment, against boredom	1
to prove my courage and strength to others	1
due to pressure from others	1
to enjoy excitement from illegal activity	1
to escape from difficulties of life	<sup>0</sup> 12



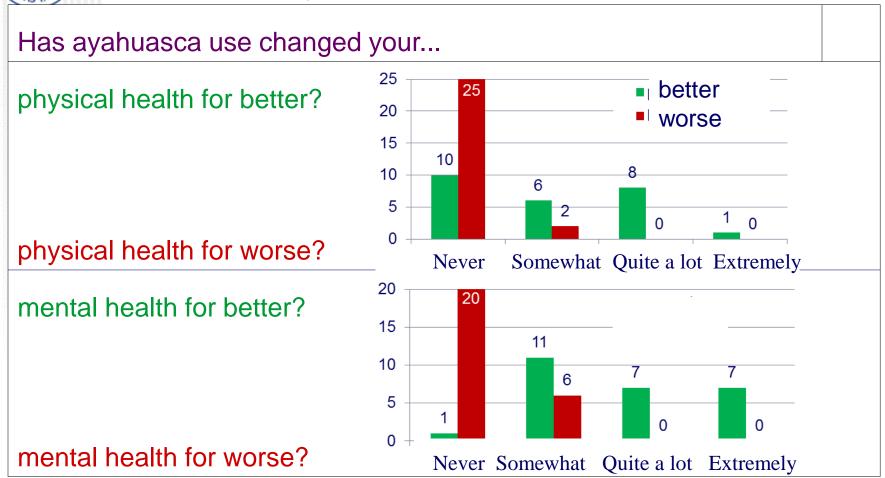
# **Experiences**

To what extent was your <b>first</b> experience	Not at all	Somewhat	Quite a lot	Extremely	N		
pleasant, enjoyable?	4	10	9	3	27		
difficult?	8	7	8	4	27		
teaching?	1	4	9	12	26		
To what extent was your <b>last</b> experience							
pleasant, enjoyable?	3	4	12	5	25		
difficult?	10	10	5	0	25		
teaching?	0	5	10	9	25		





# Subjective health effects



better > worse: *Wilcoxon signed rank test*: physical health Z=3,35; mental health Z=4,78, both p<0,001.



### Mental health for worse

- emotional lability
- fears, suspicions
- "out of balance for 2 weeks"
- difficulty to understand and communicate experiences

"I cannot live in innocent oblivion of other worlds or be certain about ordinary reality, because I have experienced totally different worlds, and those experiences are much more intense than everyday experiences. They have been even more real than this reality here."





# **Positive changes**

- I got rid of suicidal thoughts, self-injuring and bouts of heavy depression.
- Endurance of psychological and emotional stress has improved a lot.
- After the ceremony there was a big positive change in being and thinking.
- I guess that thanks to Aya I am still alive.
- It has increased my creative freedom a lot.
- Fully changed perception of the world, huge expansion of the worldview.
- Achieving better contact with my body and a strong religious experience.
- Many new understandings about topics that are essential for me, new view of death and bereavement.
- This was like a rebirth and gift, it was shown that life and consciousness are much broader than we think.
- It has given me new experiences and opened a completely new world. If you have never experienced this you cannot imagine that something like this could exist.



#### Mental health assessment

None of studied users fulfilled ICD-10 criteria for abuse of or addiction to ayahuasca.

No significant differences from control group was found in cognitive abilities (MoCA test) or fluid intelligence (Raven Standard Matrices).

M.I.N.I. neuropsychiatric interview (with a blinded mental health professional) did not show any increase of mental health disorders.

Indicators of anxiety and depression of screening test EEK-2 were lower in ayahuasca users.





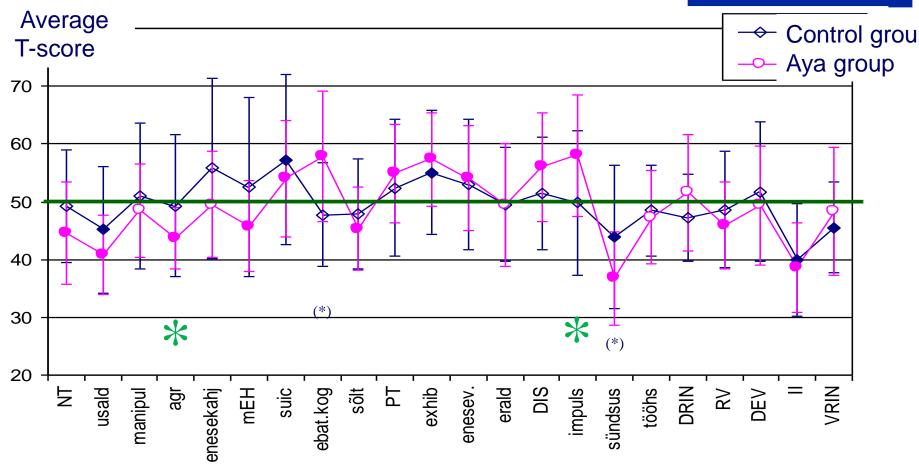
## **Personality**

In comparison to test norms, ayahuasca users had:

- 1) according to 5-factor test EE.PIP-NEO (Estonian version of NEO-PI-R (Costa, McCrae, 1992))
- lower neuroticism;
- higher openness and agreeability.
- **2) according to dimensional personality test SNAP-2** (Clark, 1993, 2009):
- higher: positive temperament, disinhibition, impulsivity (and eccentric perceptions as expected)
- lower: negative temperament, mistrust, aggression (and propriety as expected).





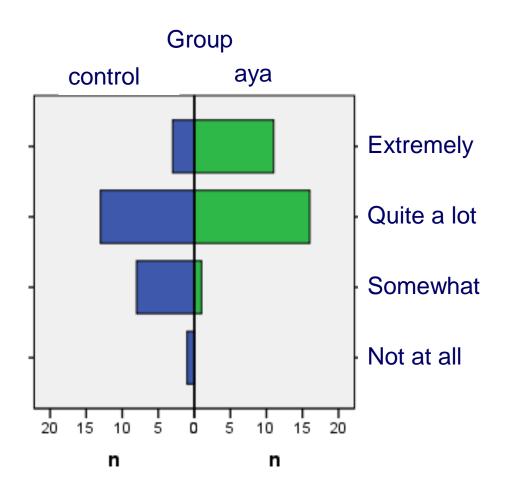


NT=negative temperament; usald=mistrust; manipul=manipulativity; **agr=aggression** enesekahj=self-harm; mEH=low self-esteem; suic=suicidality, **ebat.kog= eccentric perceptions**; sõlt=dependency; PT=positive temperament; exhib=exhibitionism; enesev.=entitlement; erald=detachment; DIS=disinhibition; **impuls=impulsivity**; **sündsus=propriety**; tööhs=workacholism; DRIN=socially desirable response; RV=rare virtues; DEV=deviance; **Il=invalidity indeks**; VRIN=variable response. Error bars are ±1 SD.





#### Life satisfaction

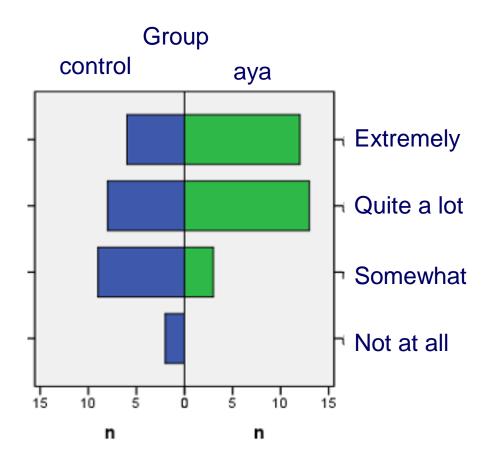


Life satisfaction in ayahuasca group (N=28) and control group (N=25).





# **Happiness about life**



Happiness about life in ayahuasca group (N=28) and control group (N=25).





Mental health and quality of life of studied ayahuasca users was not impaired.

Peculiarities of their personality were moderate and benign.

Participants of the study described their use of ayahuasca as a serious spiritual practice with mostly beneficial effects.





Social experiment on initiating ayahuasca reasearch in academic environment was successful.

Academic freedom really exists.

We are welcome to use and enjoy it.



Thank you!