

Which emotions are associated with the retrieval of Self-defining memories of criminals with antisocial personality disorder?

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Antisocial personality disorder (ASPD)

- **In general population: 3%**

- **In prison environments: between 60% and 80%**

DSM-5, Black, Gunter, Loveless, Allen & Sieleni, 2010

Characteristics of Antisocial Personality Disorder

- **Impulsivity**
- **Failure to comply with standards and laws**
- **Lie**
- **Aggressivity**
- **Contempt safety**
- **Failure in commitment**
- **Lack of remorse**

Often have experienced adverse situations

Exacerbate anger in antisocial personality disorder

- **Anger** seems at the center of this pathology.
- The clinical point of view: *Hawes et al., 2016*
- Impulsivity and aggression are highly linked to anger: *Fanti et al., 2015*

Need to carry ecological studies

(Lobbestael, Arntz, Cima & Chakhssi, 2009)
(Künecke, Mokros, Olderbak & Wilhelm, 2018)

More ecological design

→ What emotions Antisocial Personality Disorder offenders mostly feel during the retrieval of their past life significant events?

Exploratory study

- Can we discriminate the emotional facial expressions between control men and antisocial patients in self-defining memory retrieval?
- Are their emotional facial expression influenced by the valence of the discourse?

Method

❖ Participants

- ❖ 21 control men
- ❖ 21 inpatient men diagnosed ASPD, having committed crimes and hospitalized in forensic hospital

Method

➤ Instructions

➔ Retrieval of 5 Self Defining Memories (SDMs)

- *Spontaneous retrieval*
- *No restriction on the valence or on the content*

Singer, Blagov, Berry, & Oost, 2013 ; Singer & Moffitt, 1992

Method

➤ Data acquisition

→ From discourse: Characterization of the valence

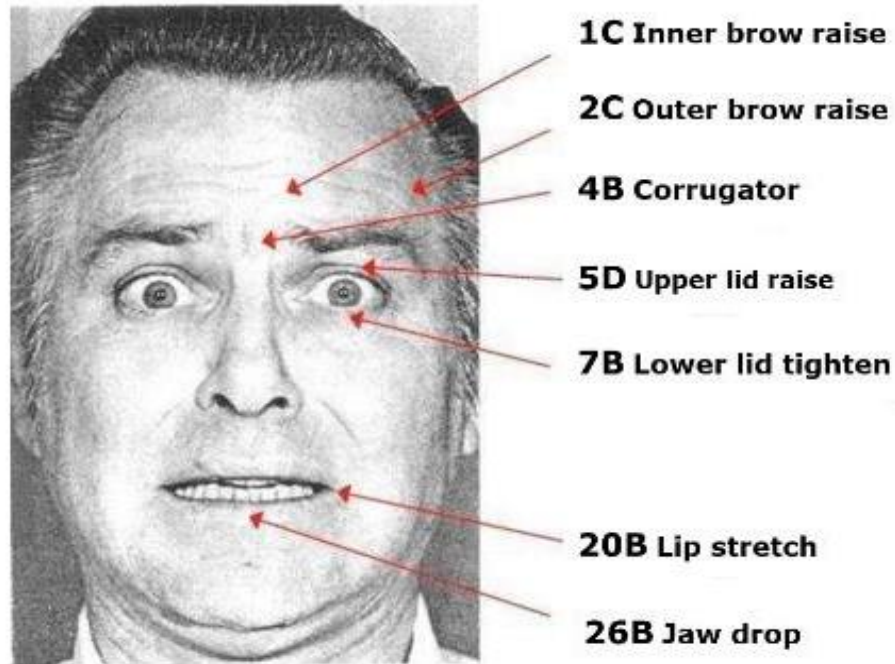
- *Positive*
- *Negative*
- *Neutral*
- *Mixed*

(Kappa=0.81) (Nandrino & Gandolphe, 2017)

Method

➤ Data acquisition

➔ From facial expressions: FaceReader



Method

➤ Facial action coding system (FACS)

AU n°	Muscular activation
1	Inner brow raise
2	Outer brow raise
4	Corrugator
5	Lower lid tighten
6	Cheek raiser
...	
12	Lip corner puller

Emotions	AU pattern
Happiness	6 +12
Surprise	1+2+5+26
Sadness	1+4+15
Fear	1+2+4+5+7+20+26
Anger	4+5+7+23
Disgust	9+15+16

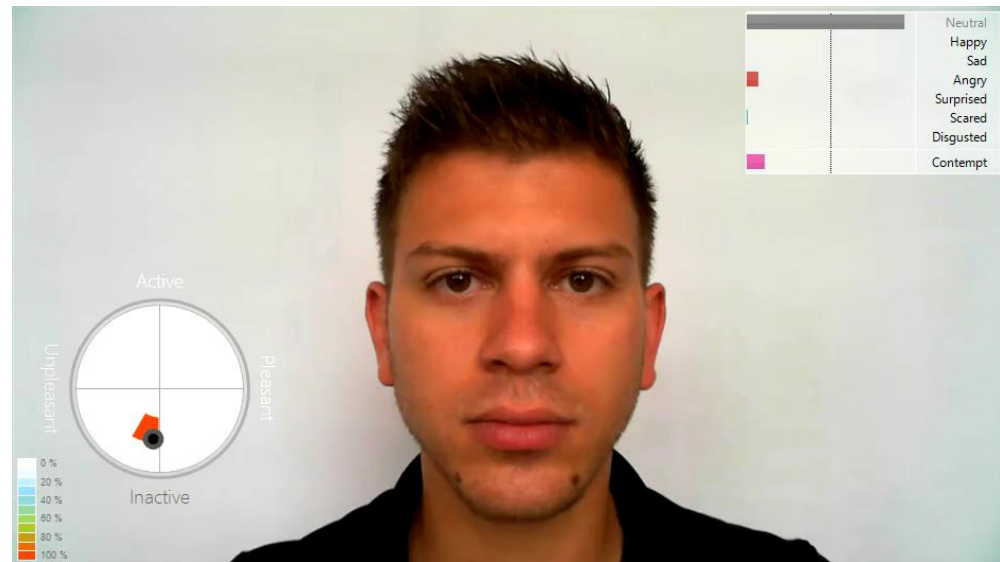
Ekman & Friesen, 1978

Method

FaceReader

Between 20 and 27 action units

- *Surprise*
- *Happiness*
- *Sadness*
- *Anger*
- *Fear*
- *Disgust*



Method

➤ Data analyses

→ From FaceReader

- *Happiness*
- *Sadness*
- *Anger*
- *Fear*

Method

➤ Data analyses

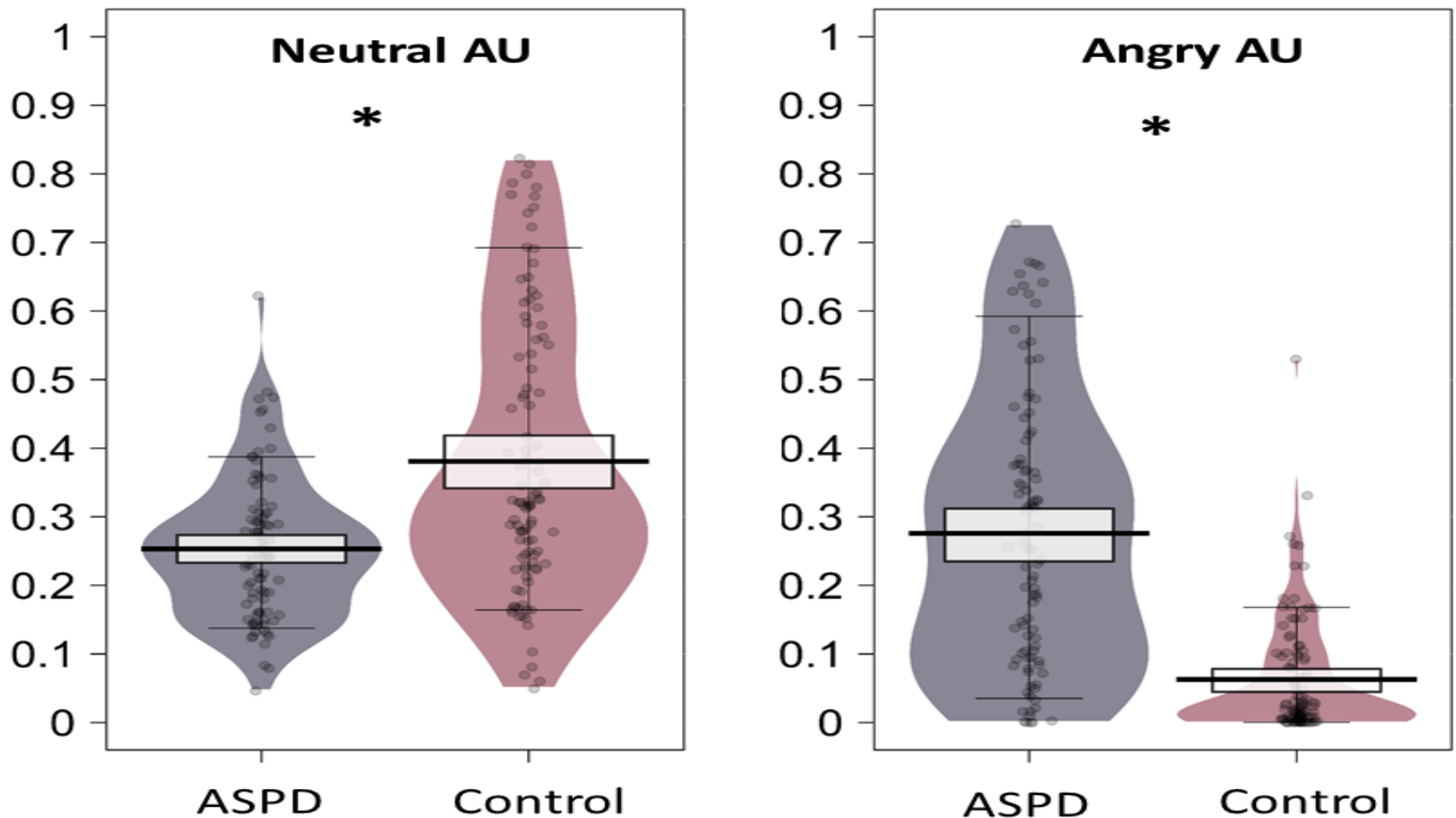
→ **Activation of action units**

→ **Dominant emotion:** highest action units' activation per SDM

Results

Antisocial participants used more action units associated with anger

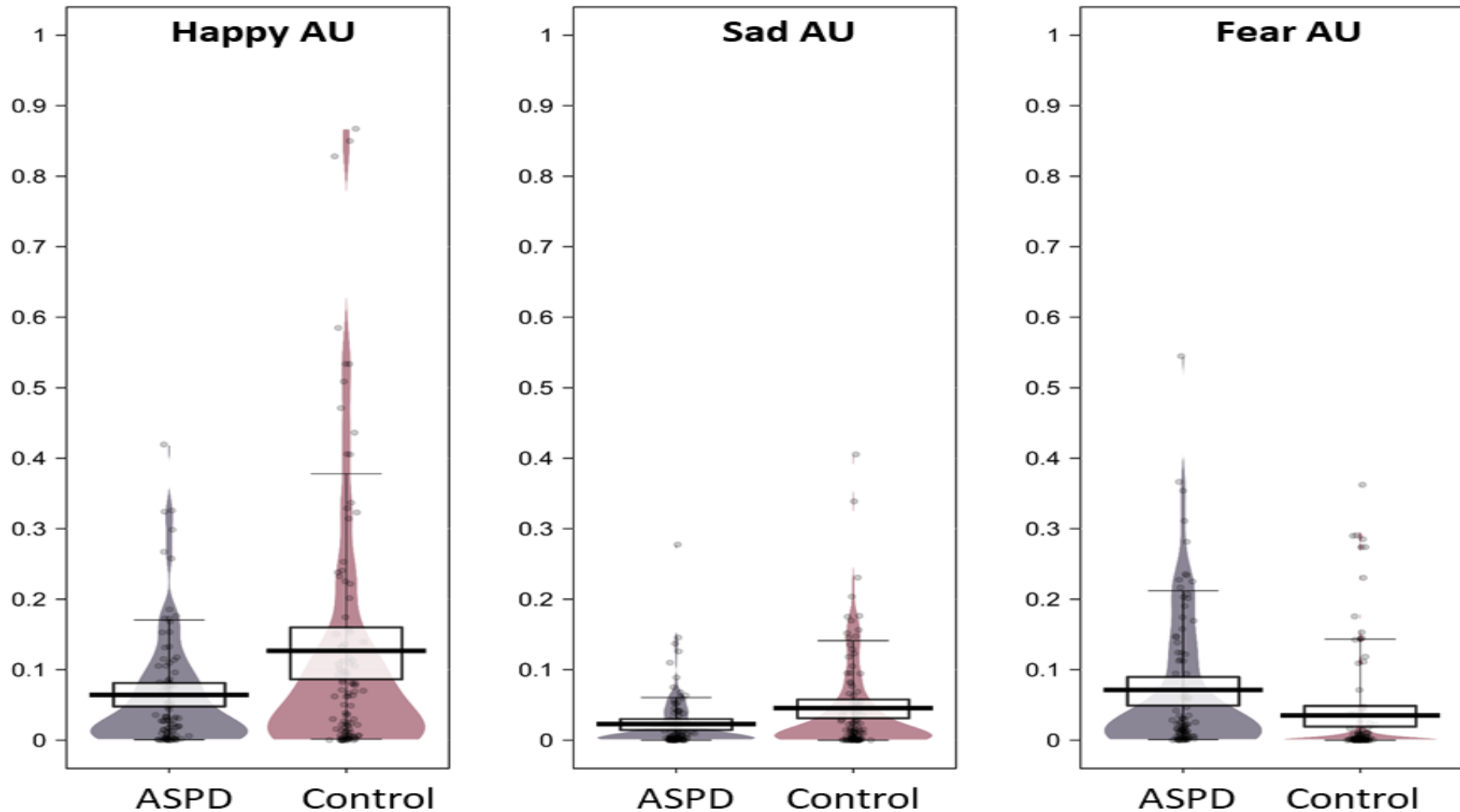
Mean activation of action units per SDM in ASPD and control groups



Results

No difference in the others emotions

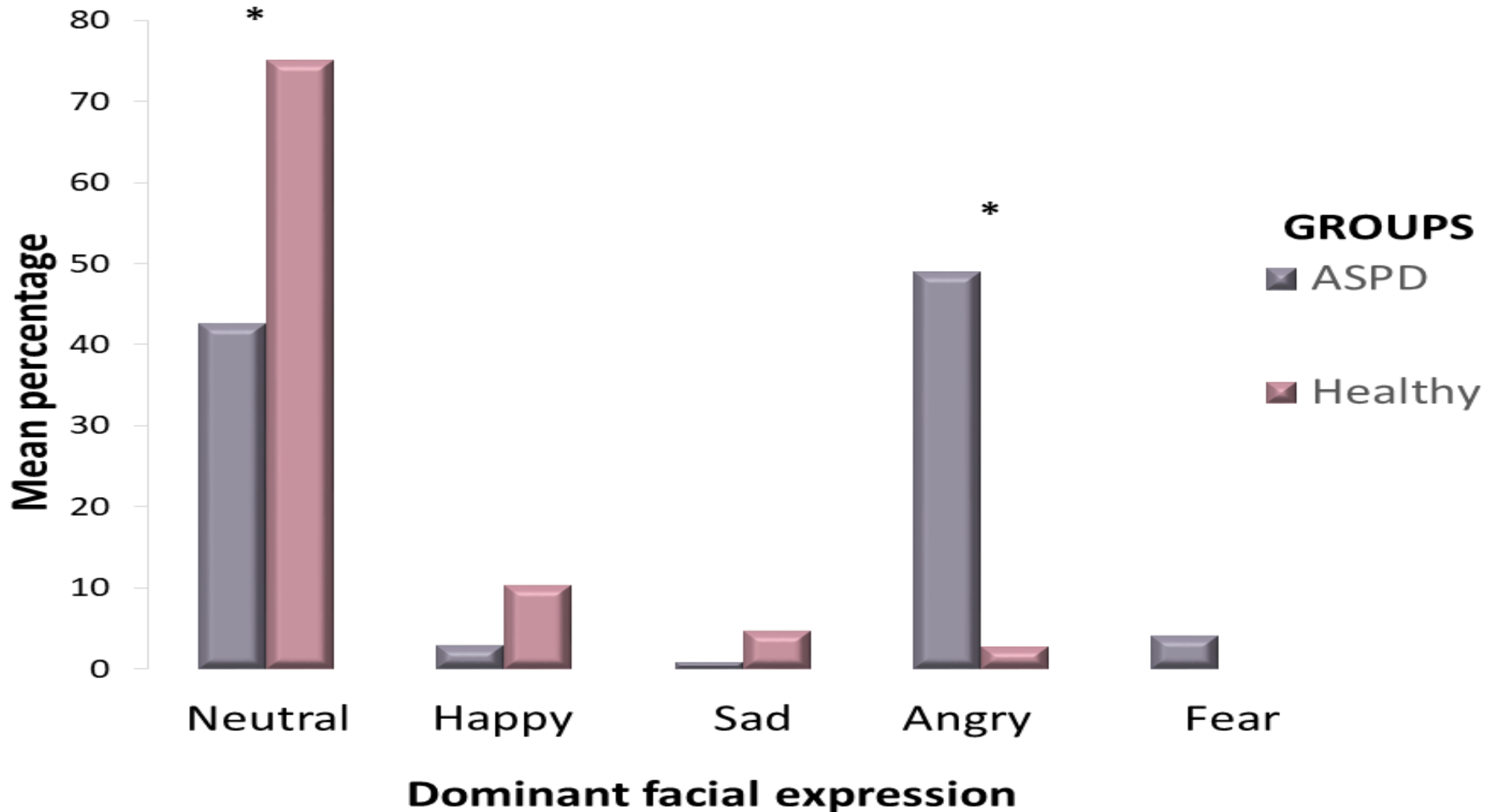
Mean activation of action units per SDM in ASPD and control groups



Results

Anger as dominant emotion in antisocial group

Dominant emotion per SDM according to the group



Results

Similar Self-defining memories between the groups

➤ Data analyses

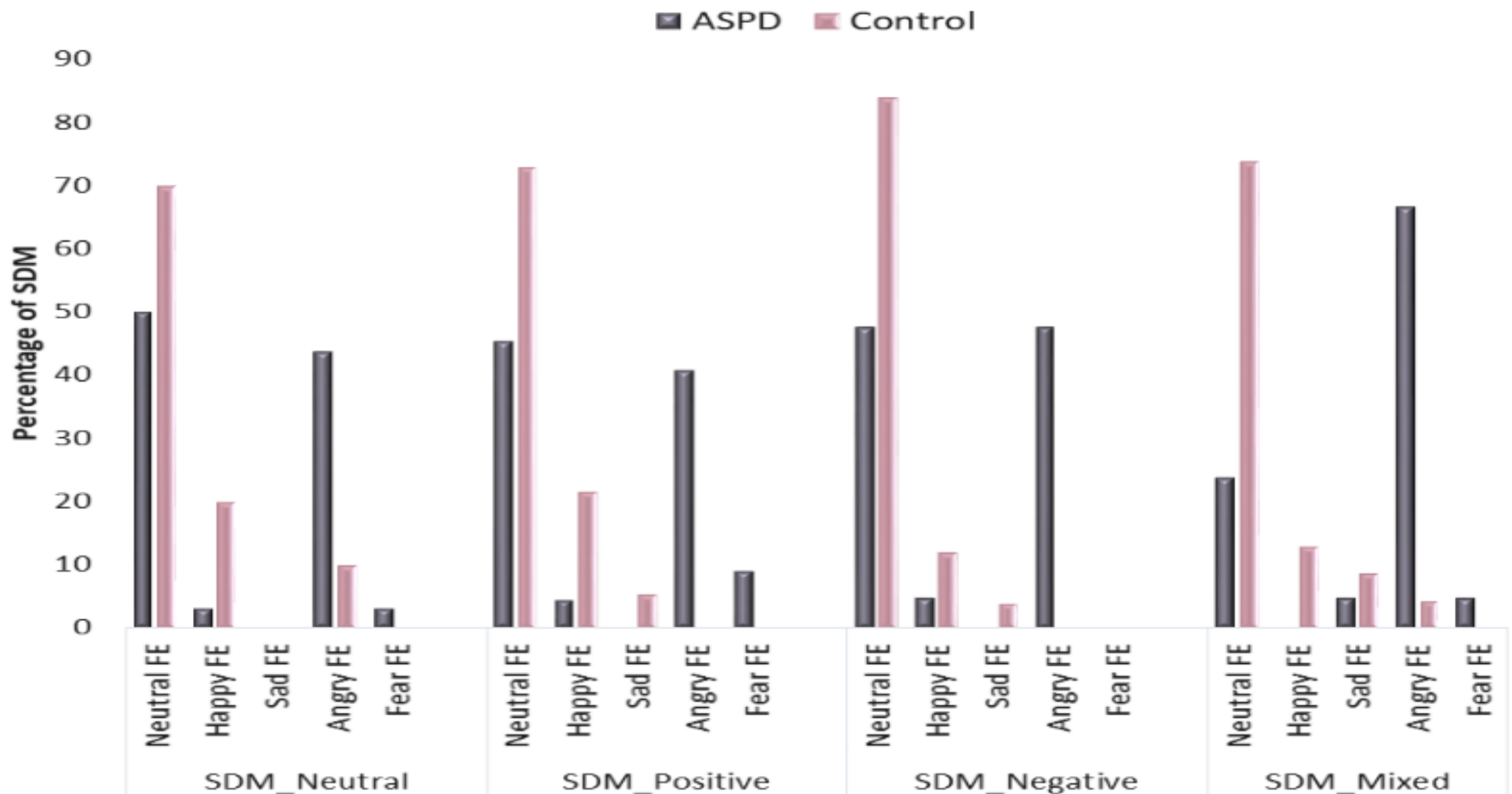
➔ From characterization of the self-defining memories' valence

- *No difference within groups*
- *No difference between groups*

Results

The valence of SDM did not influence the facial expressions

Distribution of facial expressions according to the groups and the SDM's valence.



Summary

→ First ecological study!

→ *internal emotional stimuli*

→ *spontaneous retrieval*

→ *objective measures of valence and emotions*

→ **Anger** seems central in their memories

→ *observed in action units and dominant emotion analyses*

Conclusion

→ Anger could be considered as a mood

→ *longer than emotion*

→ *saturated in emotion*

→ *related to aversive life events*

→ Anger must be the target of therapeutic interventions



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**Thank you for
your attention**

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