

Trauma, Dissociation & Behaviour

An evolutionary approach to behaviour and self-awareness in trauma-related disorders.



universität
uulm

**4th International Trauma
Informed Care Conference.
Online Conference,
28th November 2023**

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**Centres for Psychiatry Suedwuerttemberg,
Ravensburg-Weissenau**

Germany

zfp

Südwesttemberg

Acute unit for the treatment of borderline personality disorder and trauma-related disorders

- Patients with main diagnoses F4 and F6
- Age 18-65
- Residence in the catchment area, outside if necessary
- No Restrictions by severity

Clinical problems

Suicidal communication

Dissociative seizures

Mistrust

Aggressive behaviour

Regression/ invalidation

Termination of therapy

Invalid commitment

Escalation on ward with coercive interventions

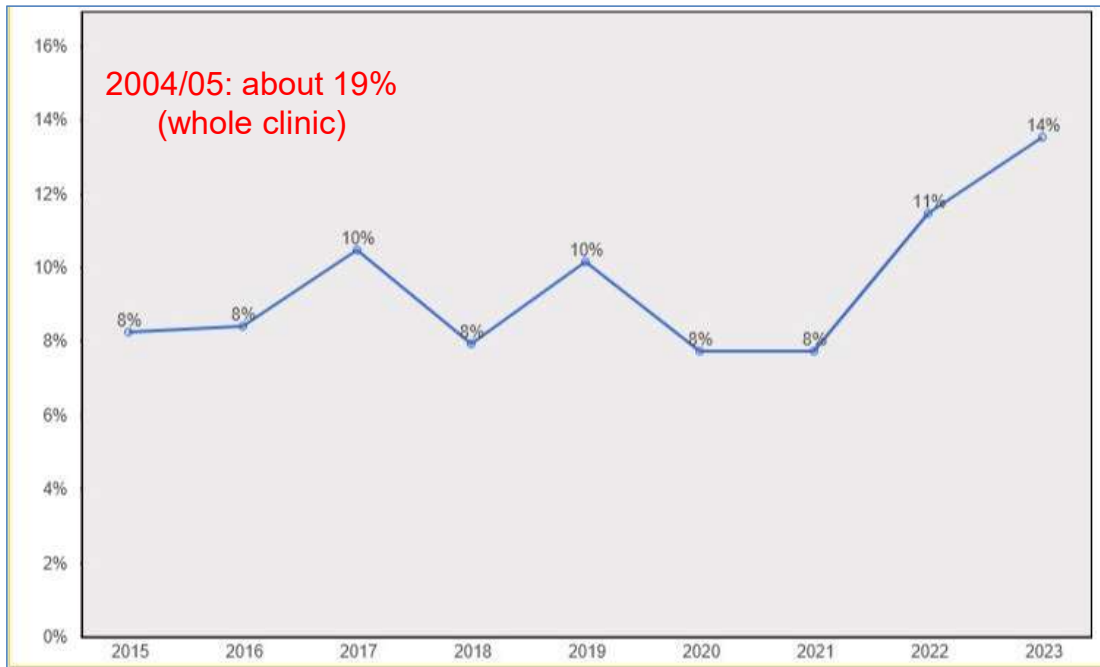
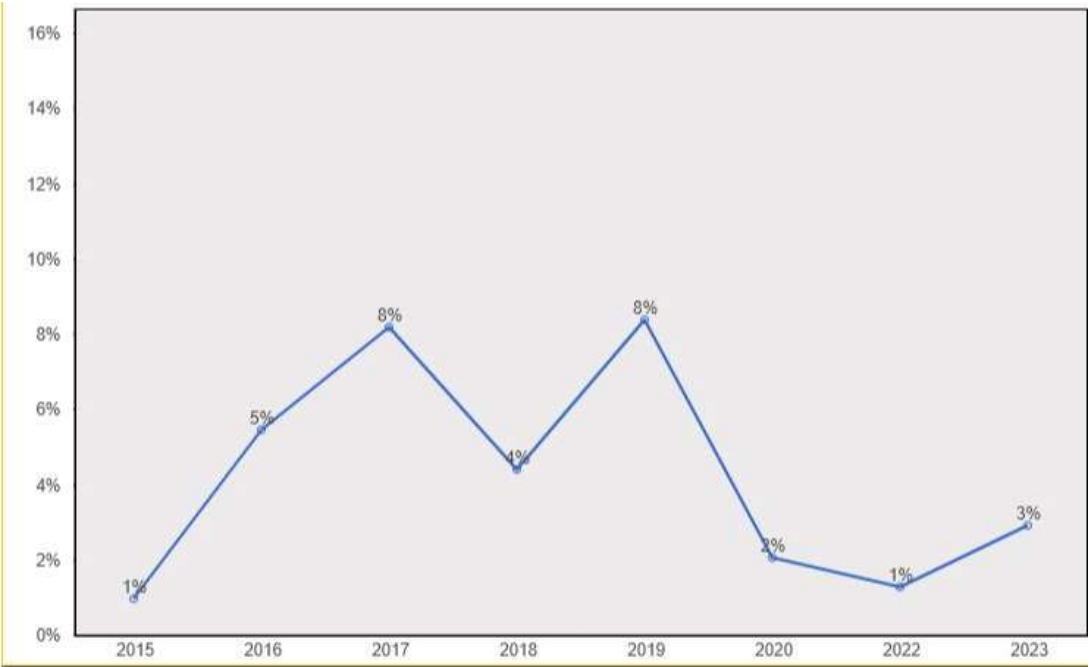
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Steinert, T. et al. (2008). Successful interventions on an organisational level to reduce violence and coercive interventions in in-patients with adjustment disorders and personality disorders. *Clinical Practice and Epidemiology in Mental Health : CP & EMH*, 4(1), 1–6.

Table 2: Frequency of aggressive behaviour and coercive measures before and after conceptual change in patients with personality disorders [ICD-10 F 6]

	1.11.2004–31.10.2005	1.11.2005–31.10.2006	Change
Treatment episodes affected by mechanical restraint	N = 127 6.3%	N = 147 3.4%	+ 15.7% -46%
Treatment episodes affected by seclusion	15.0%	2.7%	-82% [p < .001]
Mean duration of mechanical restraint	3.7 h	12.4 h	+ 230% [p < .01]
Mean duration of seclusion	17.0 h	8.1 h	-52%
Mean number of any kind of coercive interventions per affected patient	4.9	2.3	-53%
Total number of coercive interventions	120	17	-86%
Suicide attempt [†]	10.0%	7.6%	-24%
Violent threat [†]	5.0%	4.5%	-10%
Violence against objects [†]	5.0%	4.5%	-10%
Violence against persons [†]	7.0%	3.8%	-45.7%
Involuntary commitment [†]	11.0%	3.8%	-65.5% [p < .05]

[†] reduced n available for this item: 100 before/132 after intervention



Percentage of F4 or F6 patients affected by coercive interventions

Trauma unit

Clinic, without trauma unit

Similarities and Differences in Borderline Personality Disorder and Schizophrenia With Voice Hearing

Stefan Tschoeke, MD, Tilman Steinert, MD, Erich Flammer, MSc, and Carmen Uhlmann, PhD

TABLE 1. Sample Characteristics

	BPD Group	Schizophrenia Group
No. patients	23	21
Age, yrs	24.1 (7.5)	37.1 (11.1) [<i>t</i> -test: $p < 0.001$]
Sex: female	100%	100%
Duration of admission, days	86.1 (98.1)	94.3 (66.7) [MWU: $p = 0.36$]
Diagnosis		
BPD	23 (100%)	3 (14%) (secondary diagnosis)
No. SCID-II comorbidity diagnoses	5.8 (1.9)	1.9 (3.1) [MWU: $p < 0.001$]
FDS-20 score (possible range, 0–100)	35.8 (16.9)	19.8 (17.8) [MWU: $p = 0.0034$]
Dissociative disorder SCID-D		
DID	4 (18%)	None or not applicable
DDNOS	18 (78%)	
No dissociative disorder	1 (4%)	

MWU indicates Mann-Whitney's *U*-test.

TABLE 2. CTQ-SF German Version

	BPD Group	Schizophrenia Group
Emotional abuse	20.3*	10.81
Physical abuse	13.13*	7.29
Sexual abuse	14.91*	6.1
Emotional neglect	18.78*	12.62
Physical neglect	12.35**	9.43
Experiences of inconsistency	12.74*	6.19
Total score	92.3*	52.52

Group differences: * $p < 0.001$; ** $p < 0.05$.

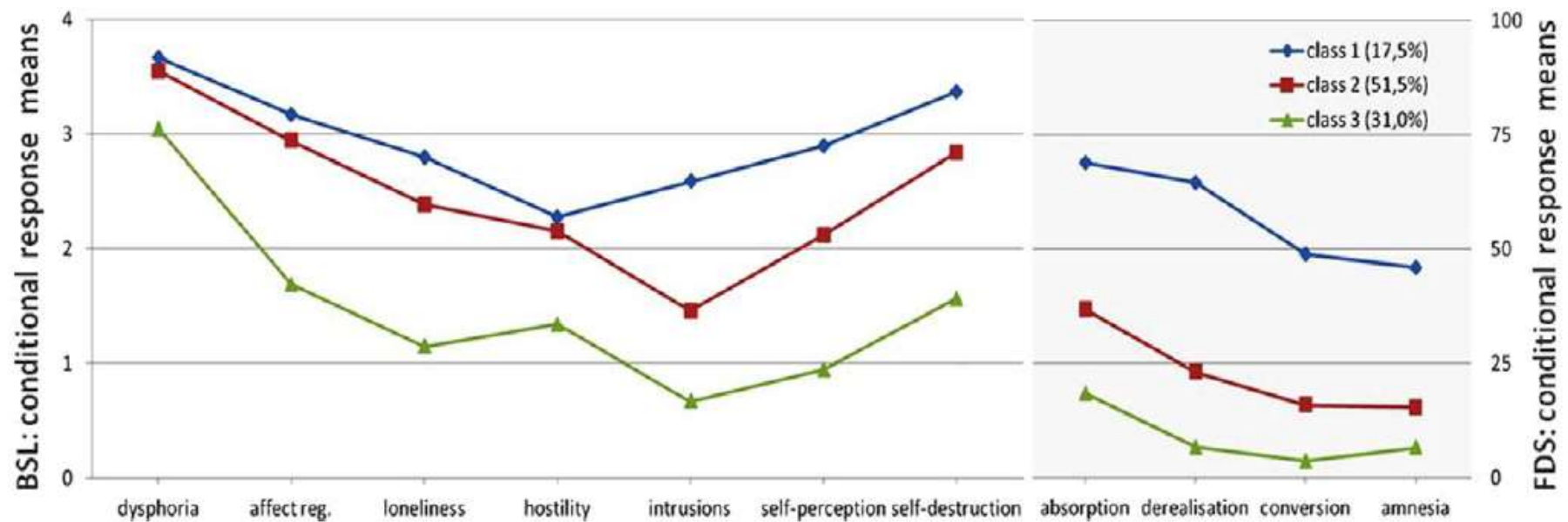


Fig. 1. Conditional response means of the three classes' profiles Note: dysphoria to self-destruction – possible range of values: 0 (not at all) to 4 (very strong); absorption to amnesia – possible range of values: 0 (not at all) to 100 (always).

N: 103

History of Childhood Trauma and Association With Borderline and Dissociative Features

Stefan Tschoeke, MD, Dana Bichescu-Burian, PhD, Tilman Steinert, MD, and Erich Flammer, PhD

Abstract: Both borderline personality features and dissociative symptoms have been associated with different types of childhood trauma. The aim of this investigation was to analyze to what extent emotional, physical, and sexual child maltreatment predict borderline personality features and dissociative symptoms. For this purpose, we analyzed data from 86 consecutively admitted patients who completed the Borderline Symptom List, the Childhood Trauma Questionnaire, and the German version of the Dissociative Experiences Scale for differential diagnosis of a borderline personality disorder. Hierarchical regression analyses revealed that borderline features were mainly predicted by emotional abuse, whereas pathological dissociation was best predicted by sexual and physical abuse. This evidence supports the hypothesis that different kinds of maltreatment may lead to different psychopathological symptoms in adulthood and should be taken into account in the therapy.

Key Words: Dissociation, borderline features, trauma type, psychopathology

(J Nerv Ment Dis 2020;00: 00–00)

TABLE 2. Results of Regression Analyses for the Relationships Between Childhood Trauma Type and D

Dependent	Independent	R ²	Significance	β
Total FDS	SA	0.146	0.000	0.284
	PA	0.201	0.000	0.255
Amnesia	PA	0.162	0.000	0.292
	SA	0.233	0.000	0.288
Absorption	EA	0.125	0.001	0.353
Derealization/depersonalization	SA	0.115	0.001	0.340
Conversion	SA	0.178	0.000	0.422

EA indicates emotional abuse; PA, physical abuse; SA, sexual abuse.

Vonderlin, R. et al. (2018). Dissociation in victims of childhood abuse or neglect: A meta-analytic review.
Psychological medicine, 1–10.

Dissociation & Child abuse	65 Studies	N: 8279
		N: 7352 (abused or neglected)
		Dissociative Experience Scale (DES)
	DES-Mean	M (Abuse): 23.5
		M (Neglect): 18.8
		M (Control): 13.8
Predictors	Early onset	
	Sexual abuse	
	Physical abuse	
	Long lasting	
	Abuse by parents	

Is
Dissociation
clinically
relevant?

(see Hyland et al 2023; Loewenstein
2018; Langeland et al. 2020; Reinders
et al. 2023; Krause-Utz et al. 2021;
Kleindienst et al. 2016)

Complex construct

Wide range of phenomenology: From
Absorption to Identity alteration
Under-researched: A poorly understood
phenomenon

Ongoing
controversy

Trauma

Suggestion

Not useful vs. very important for clinical work

More severe
disorder

High (financial) burden on health services

Negative therapy
outcome

No evidence-based psychotherapy or
pharmacology available
Trauma-focused PT is time-consuming
without immediate relief

Pierre Janet

(30.05.1859 – 24.02.1947)



Janet P.
L'automatisme
psychologique.
Paris: Alcan,
1889

Narrowing of the
consciousness

Disturbed
integration of
traumatic
experiences into
consciousness

Subconscious:

Subsystems of
personality

Fixed ideas

Emotions

Memory

Automatisms

F. CB. Die Neurosen und die Dynamische Psychologie von Pierre Janet. Am J Psychiatry 1952;108(12):939.

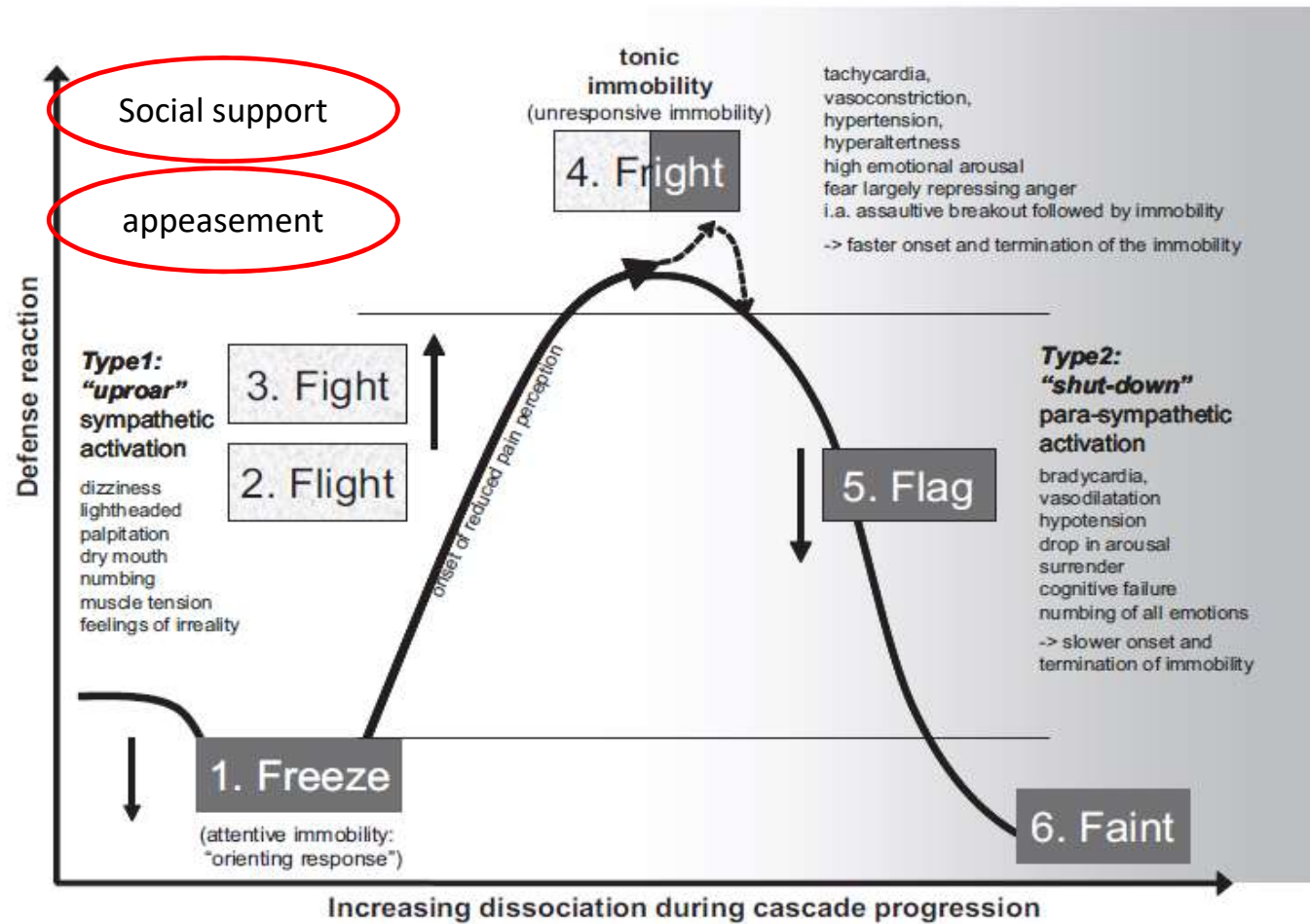


Dr.
Leonhard
Schwarz
1951,
Basel

Behavioural psychology

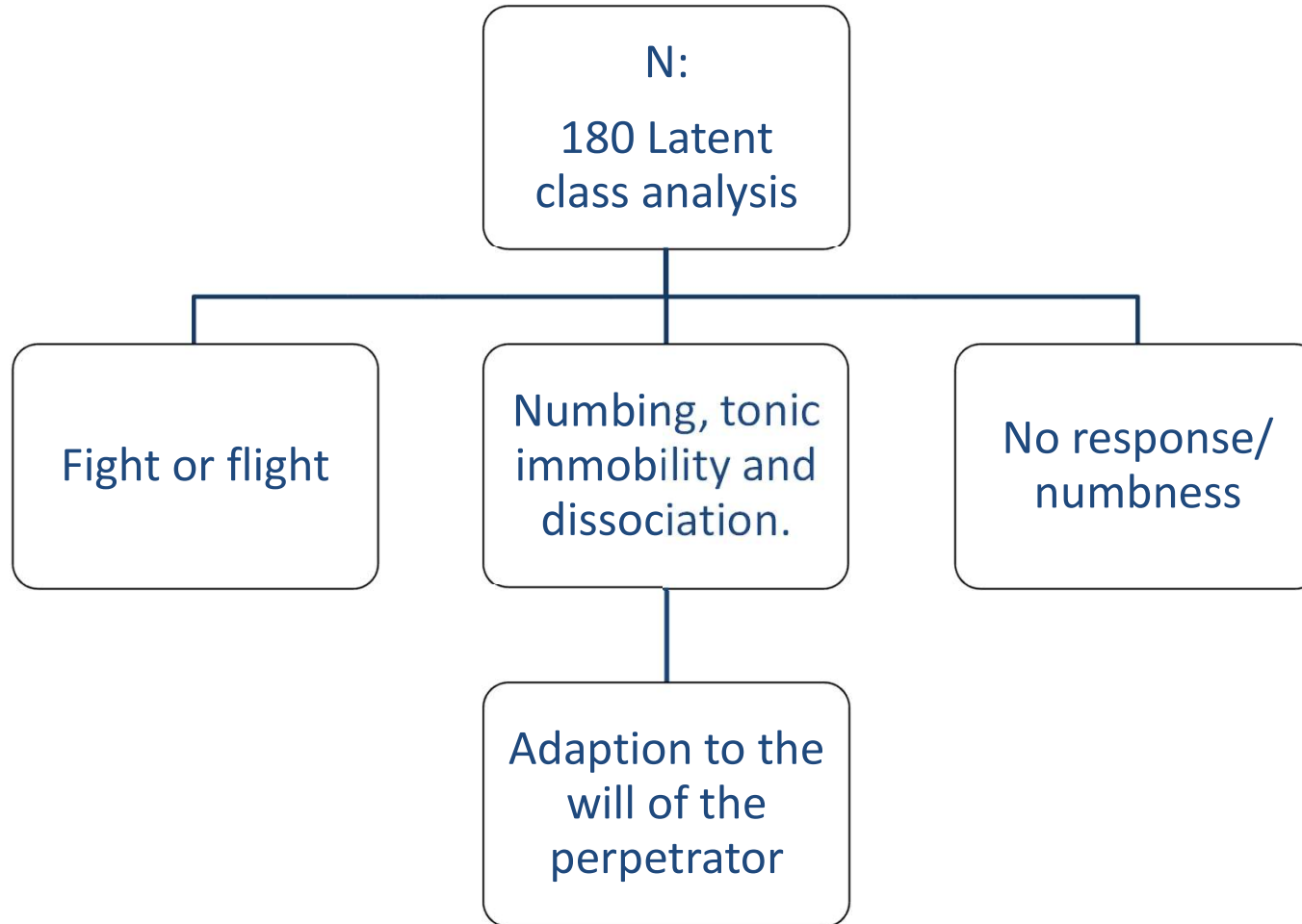
Evolutionary aspects of
human behaviour.

Taylor SE et al.
 Biobehavioral
 responses to stress in
 females: Tend-and-
 befriend, not fight-or-
 flight. Psychological
 Review 2000; 107:
 411–429.



Peritraumatic reaction patterns in childhood sexual abuse

(Katz, C. et al. 2021)





Freeze/ Tonic
immobility/ Faint
(Coimbra et al.
2023; Hagedaars
et al. 2014)

Catatonia

Dissociative
seizures

Stupor



<https://de.wikipedia.org/wiki/>



https://m.focus.de/panorama/welt/maerderischste-gang-der-welt-us-ermittler-nehmen-230-mutmassliche-mitglieder-der-gang-ms-13-fest_id_11484429.html



Affiliation/
Appeasement/
Social support

(Cantor & Price
2007; Bailey et al
2023; Gewirtz-
Meydan & Lahav
2021; Middleton
2017)

Revictimization

Ongoing contact
to perpetrator/
domestic violence

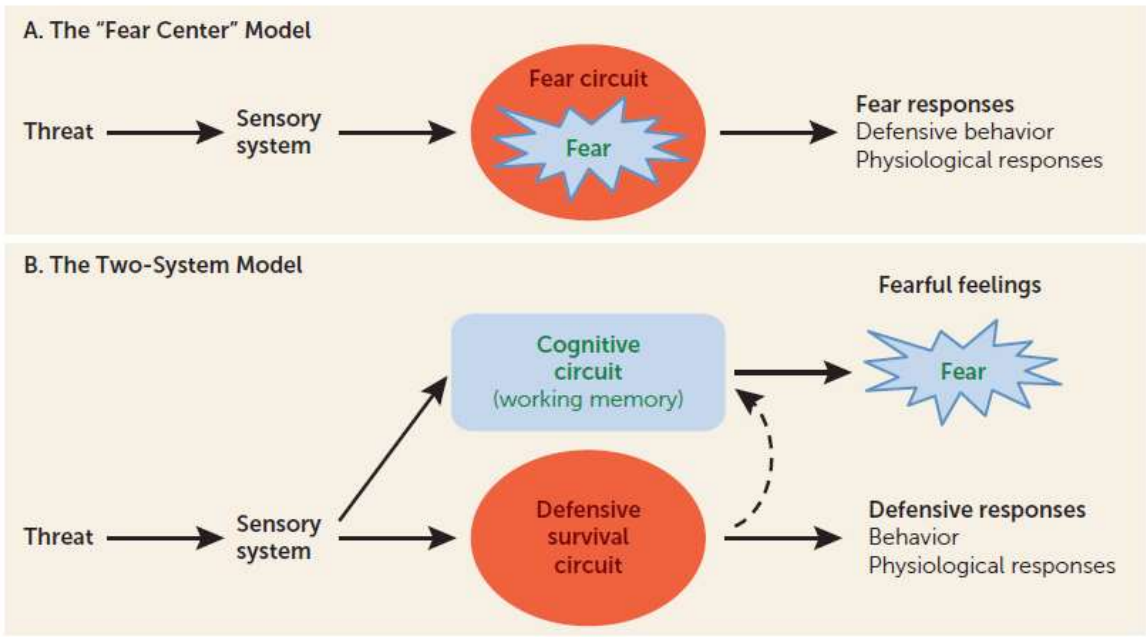
Suicidal
communication

Long term
hospitalisation

“While we all want to move beyond trauma, the part of our brain that is devoted to ensuring our survival (deep below our rational brain) is not very good at denial”

van der Kolk, 2015, p. 2

FIGURE 1. The Traditional "Fear Center" View Versus the "Two-System" View of "Fear"^a



LeDoux, J. E., & Pine, D. S. (2016). Using Neuroscience to Help Understand Fear and Anxiety: A Two-System Framework. *The American journal of psychiatry*, 173(11), 1083–1093.

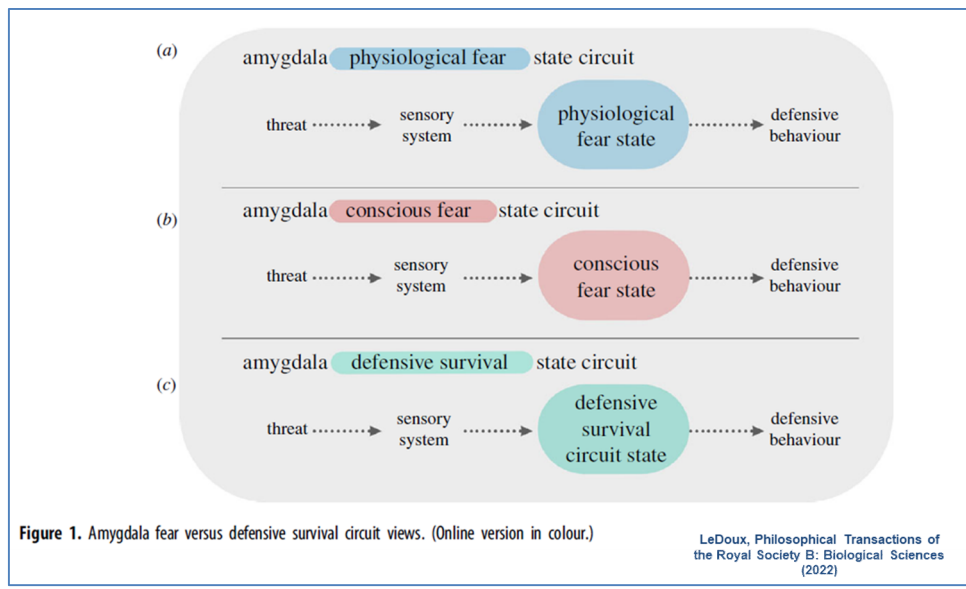
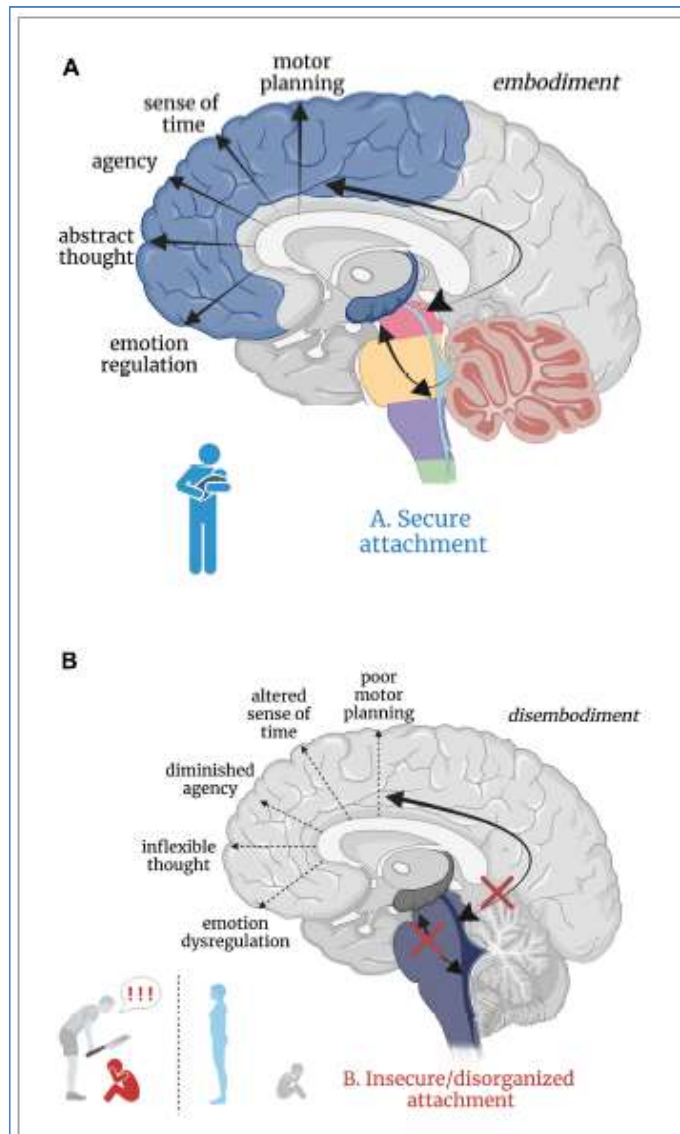


Figure 1. Amygdala fear versus defensive survival circuit views. (Online version in colour.)

LeDoux, Philosophical Transactions of the Royal Society B: Biological Sciences (2022)



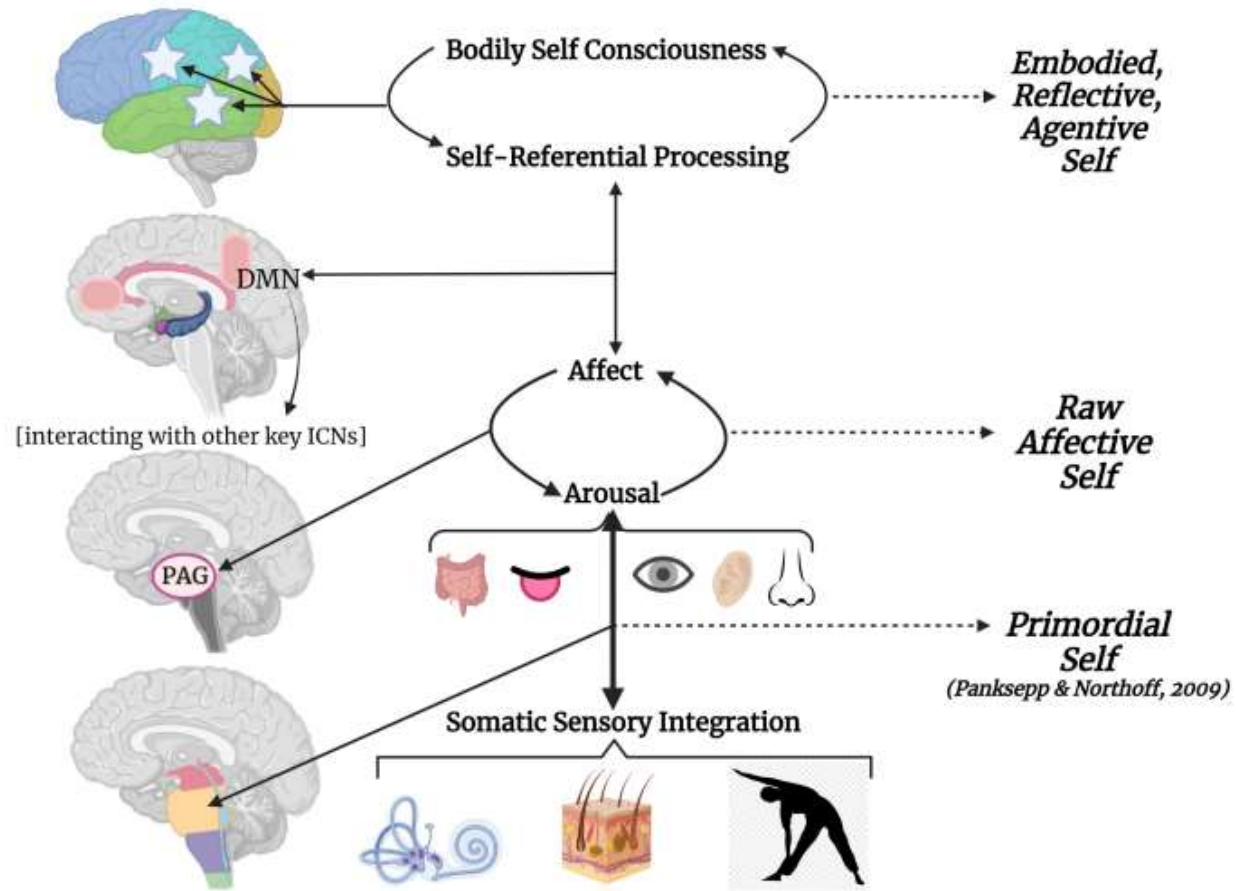


FIGURE 10

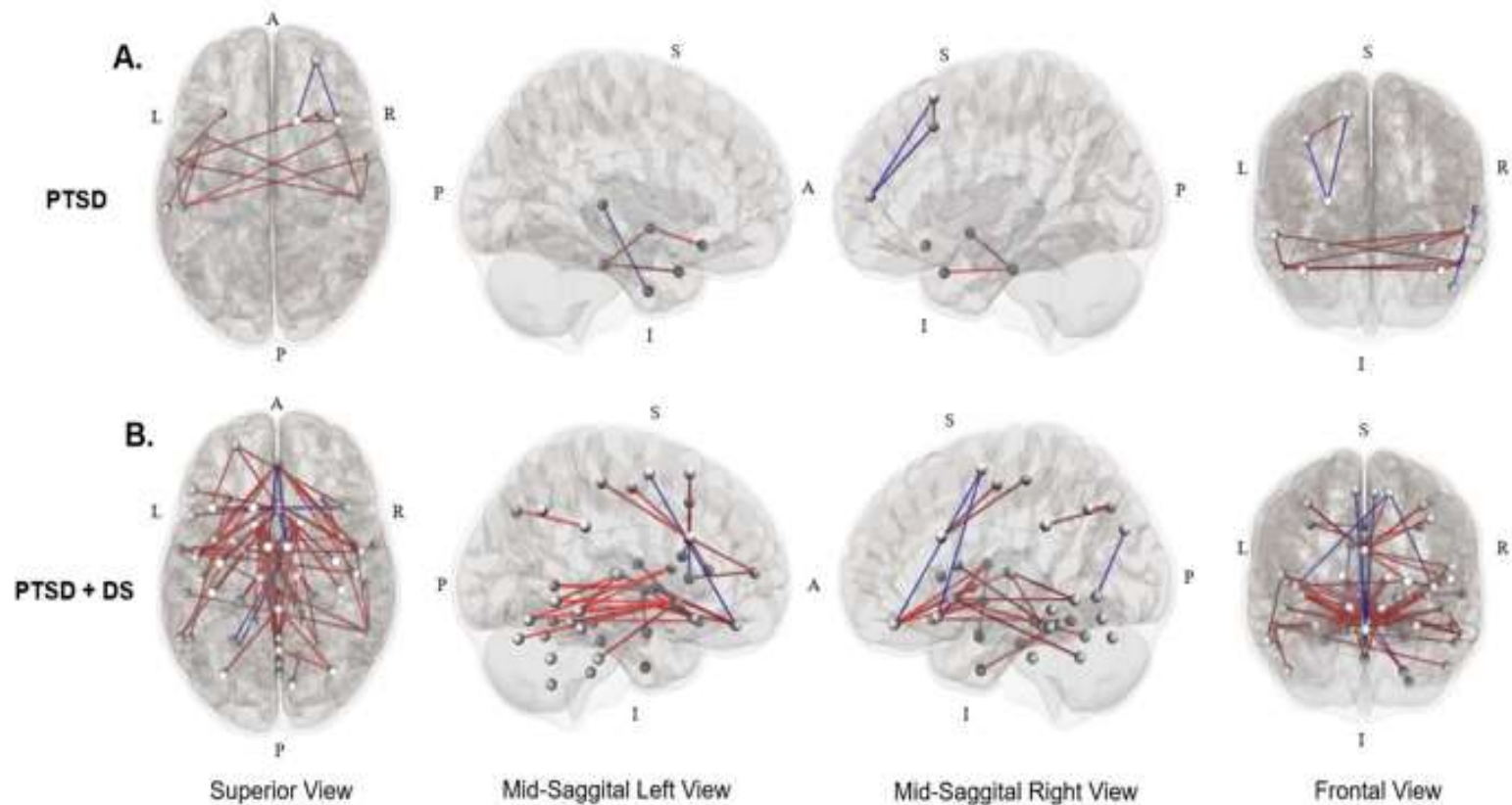


Figure 2: ROI-to-ROI connectivity differences from Figure 1, visualized on the brain for the contrast A) PTSD > Controls; and B) PTSD + DS > Controls. These are shown across different views (left to right – superior view, mid-sagittal left view, mid-sagittal right view and frontal view). The anterior (A), posterior (P), superior (S), inferior (I), left (L) and right (R) directions are also shown. Shaw, S. B. et al (2022)

Review article

Functional correlates of subliminal stimulation in Posttraumatic Stress Disorder: Systematic review and meta-analysis

Valentina Cesari^{a,1}, Sergio Frumento^{a,1}, Andrea Leo^b, Marina Baroni^{a,c}, Grazia Rutigliano^d, Angelo Gemignani^{a,e}, Danilo Menicucci^a  

Abstract

Patients with Post-traumatic stress disorder (PTSD) exposed to traumatic reminders show hyperreactivity in brain areas (e.g., amygdala) belonging or related to the Innate Alarm System (IAS), allowing the rapid processing of salient stimuli. Evidence that IAS is activated by subliminal trauma-reminders could shed a new light on the factors precipitating and perpetuating PTSD symptomatology. Thus, we systematically reviewed studies investigating neuroimaging correlates of subliminal stimulation in PTSD. Twenty-three studies were selected from the MEDLINE and Scopus® databases for a qualitative synthesis, 5 of which allowed a further meta-analysis of fMRI data. The intensity of IAS responses to subliminal trauma-related reminders ranged from a minimum in healthy controls to a maximum in the PTSD patients with the most severe (e.g., dissociative) symptoms or the least responsiveness to treatment. Comparisons with other disorders (e.g., phobias) revealed contrasting results.

Our findings demonstrate the hyperactivation of areas belonging or related to IAS in response to unconscious threats that should be integrated in diagnostic as well as in therapeutic protocols.

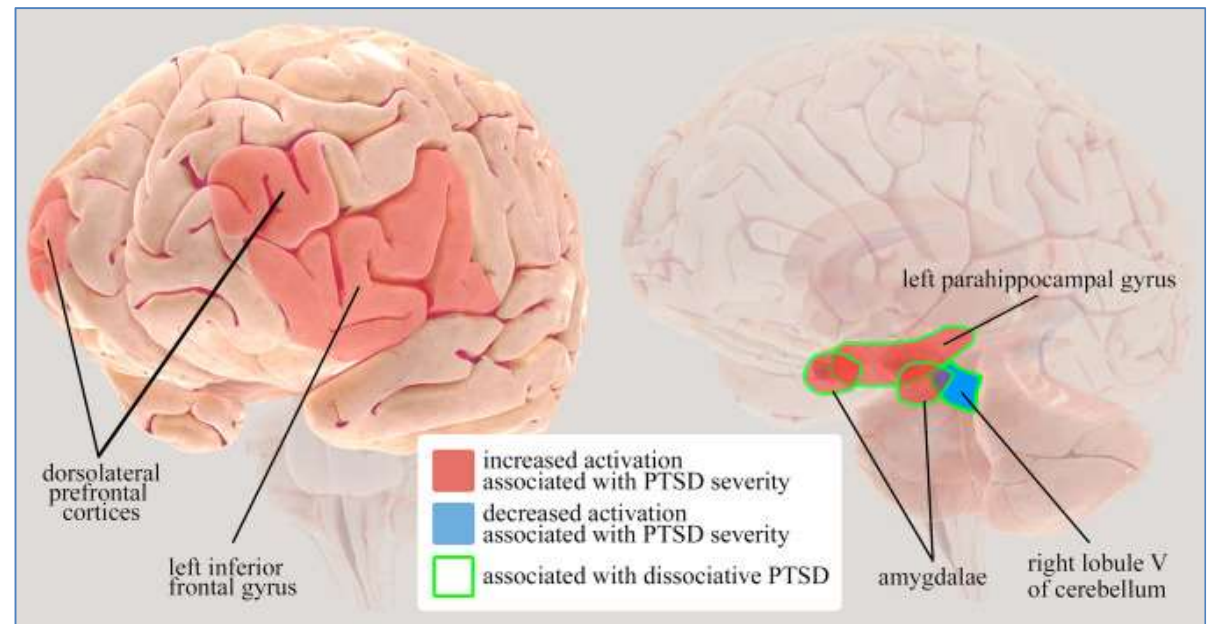
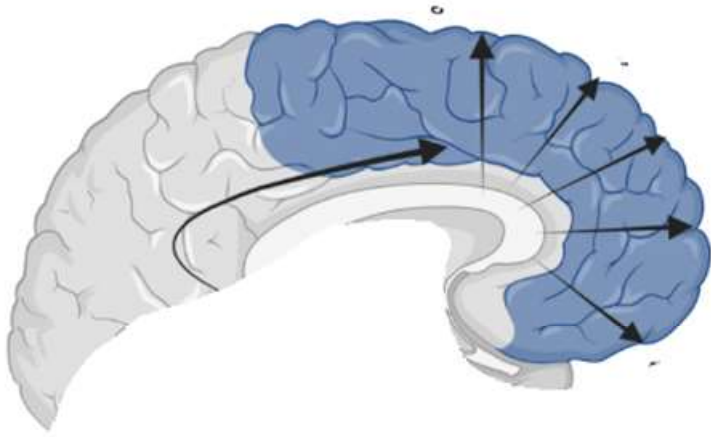


Table 1 | **A defensive taxonomy**

Reactions and behaviours	Elicited or emitted	Instrumental	Goal-directed	Basis of goal-directedness	Implicit or explicit	Example
<i>Species-typical reactions</i>						
Reflexes	Elicited	No	No	N/A	Implicit	Startle
Fixed reaction patterns	Elicited	No	No	N/A	Implicit	Freezing
<i>Instrumental behaviours</i>						
Habits	Elicited	Yes	No	N/A	Implicit	Avoidance responses that persist despite lack of evidence that harm will come if they are not performed
Action–outcome behaviours	Emitted	Yes	Yes	Action–outcome contingency	Implicit	Avoidance responses based on a history of harm
Deliberative actions, implicit	Emitted	Yes	Yes	Nonconscious deliberation	Implicit	Avoidance of possible harm by implicitly anticipating a potentially dangerous event
Deliberative actions, explicit	Emitted	Yes	Yes	Conscious deliberation	Explicit	A conscious feeling of fear that motivates a plan to mitigate or escape from present harm or to avoid future harm

N/A, not applicable.

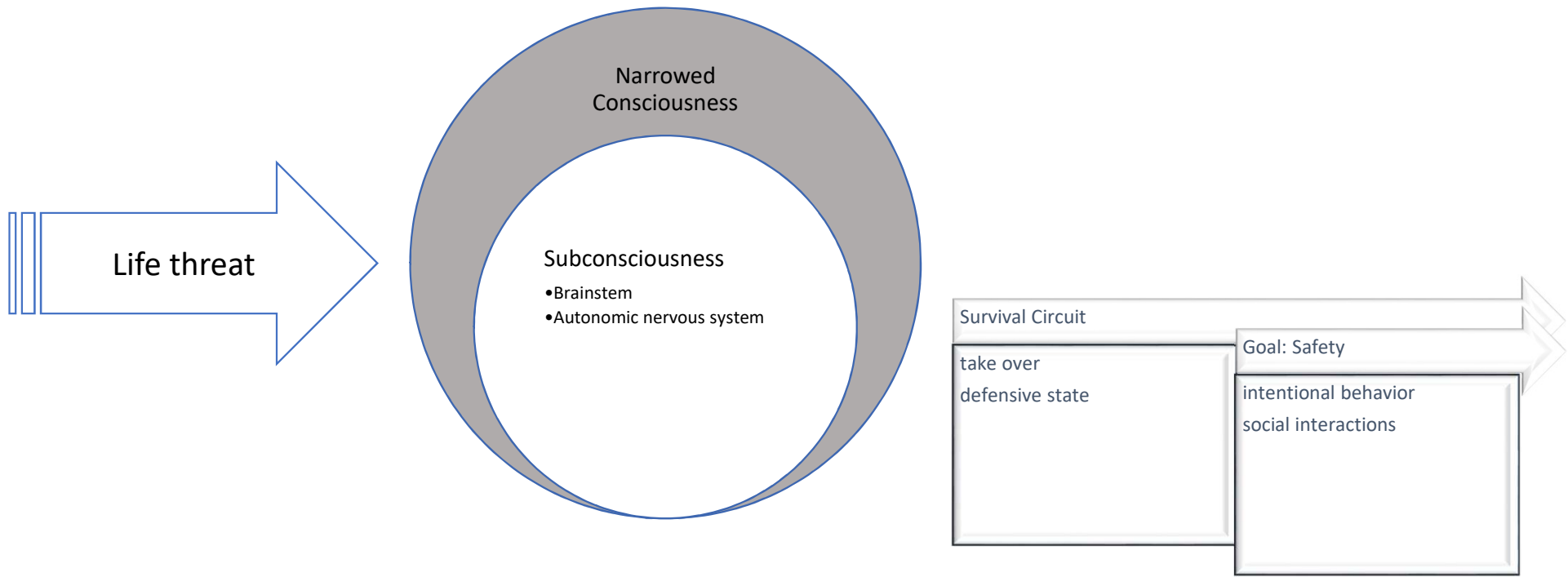
(LeDeoux J. & Daw N.D. 2018)



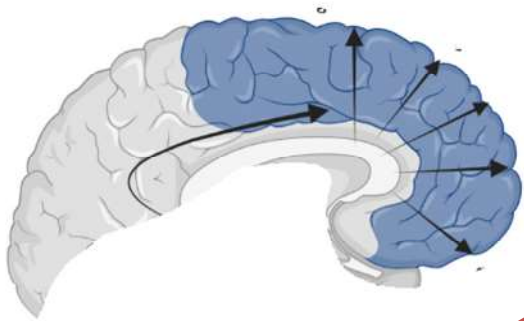
Consciousness
-Actions-

Dissociation

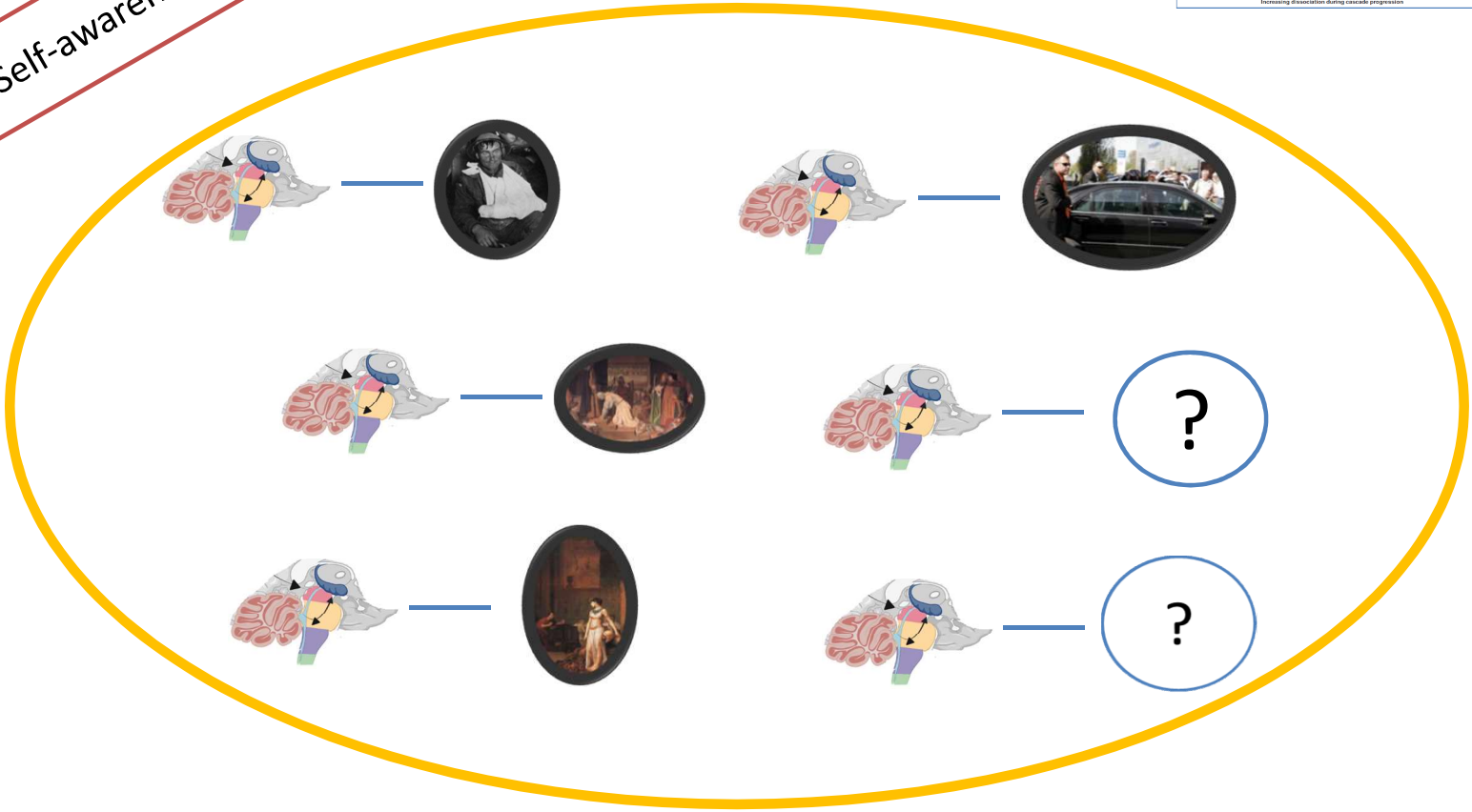
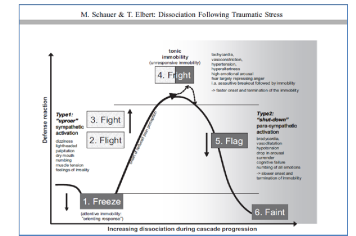
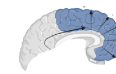
Defence
System
-Reactions-

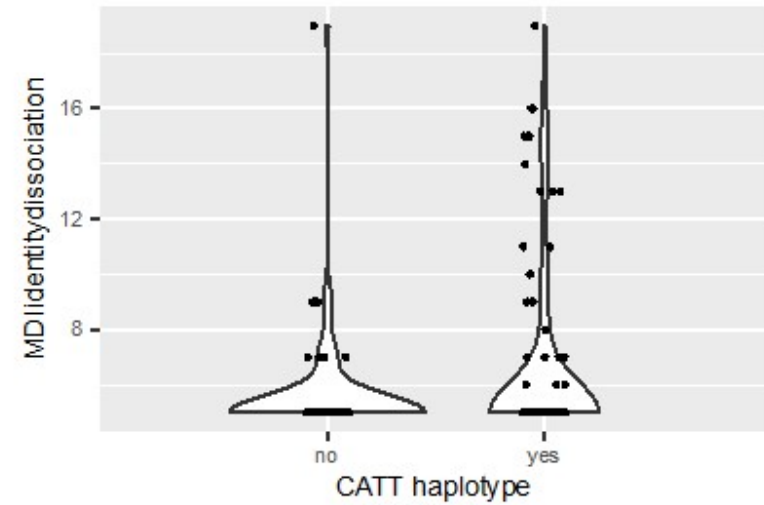
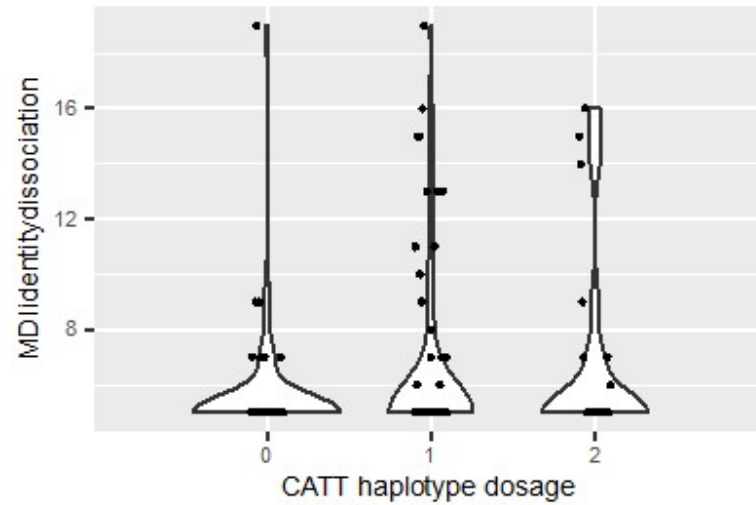


Cantor (2009); Le Doux (2022); Porges (2022);



Self-awareness





CATT Haplotype of the FKBP 5 Gene and Dissociative Phenomenology

Grady Trauma Project

Primarily Black Americans of low socioeconomic status

N: 194

High trauma burden

Type of child trauma

Child Trauma Questionnaire (CTQ)

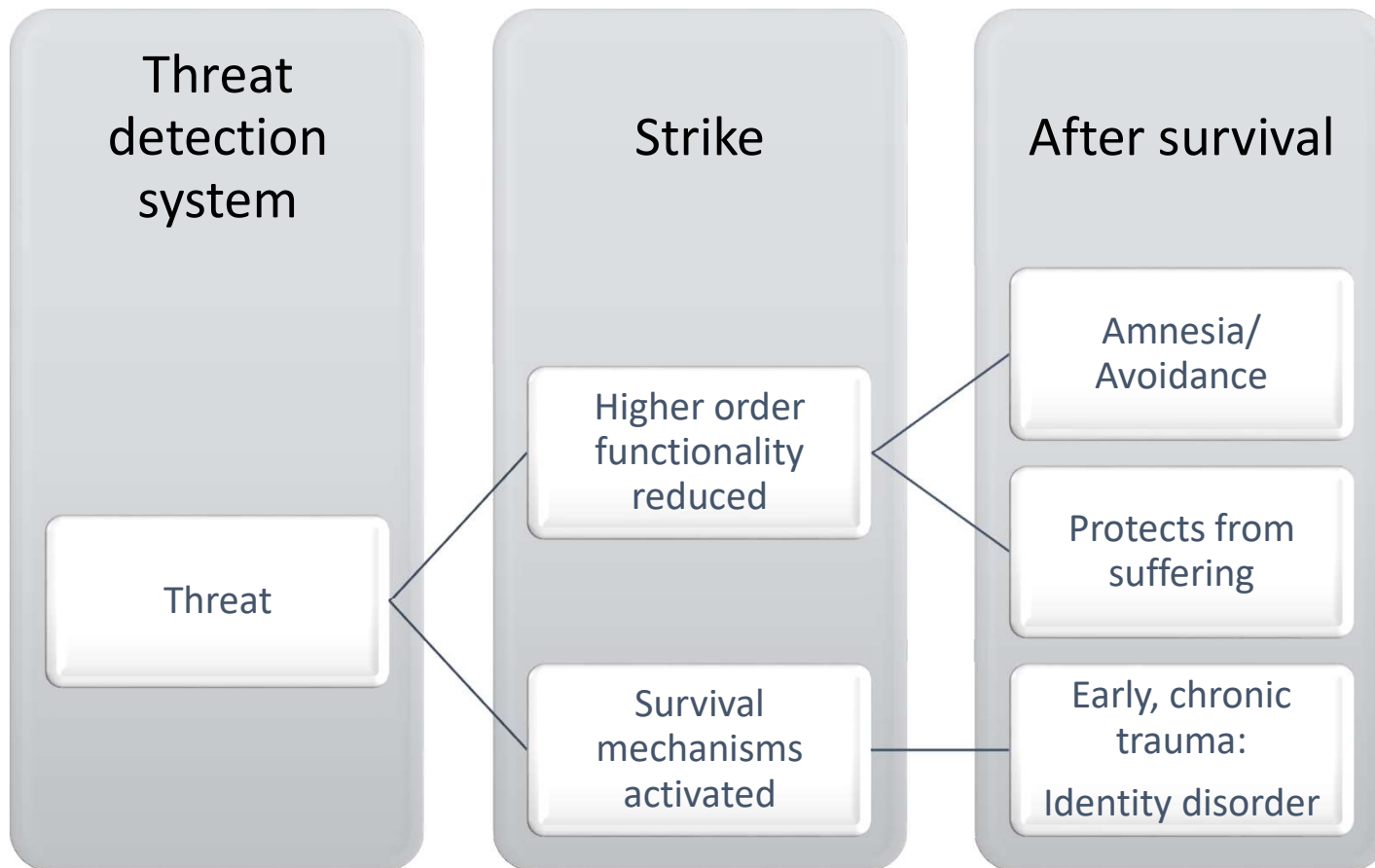
6 Types of Dissociation

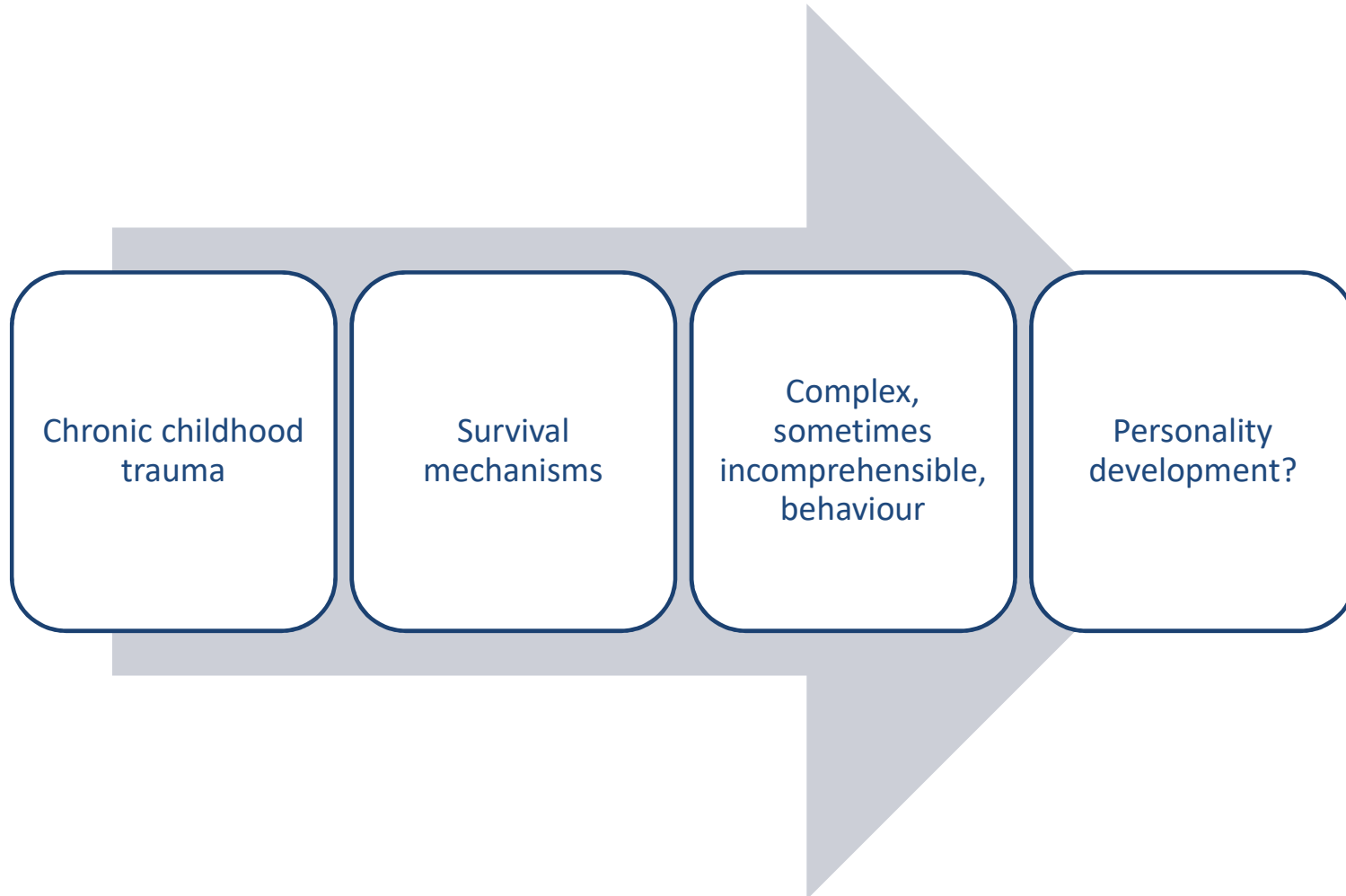
Multiscale Dissociation Inventory (MDI)

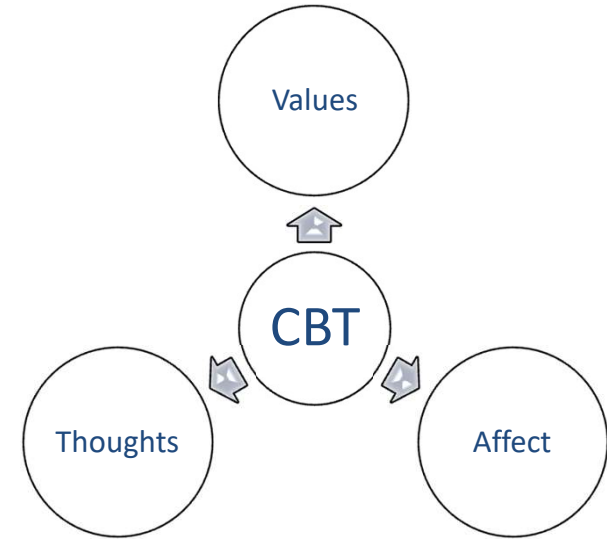
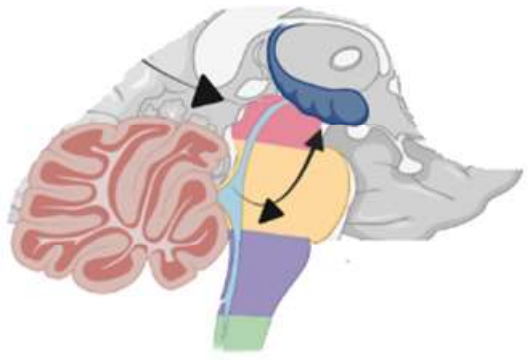
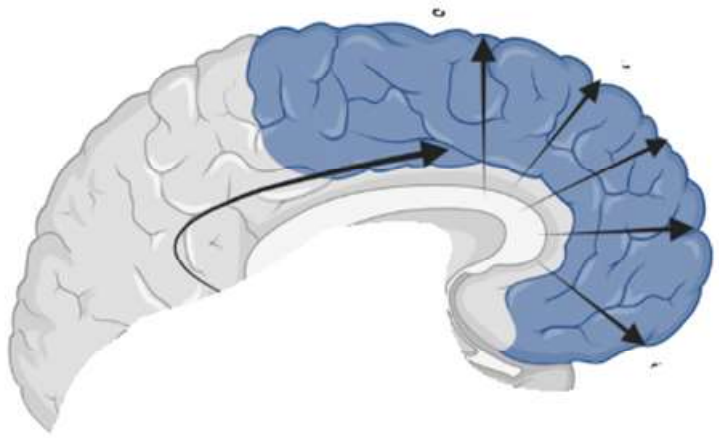
FKBP5-Haplotype

Sylvain Moser, Hans Knoblauch, Bertram Müller-Myhsok, Seyma Katrinli, Yara Mekawi, Charles Gillespie, Negar Fani, Bekh Bradley, Vasiliki Michopoulos, Jennifer Stevens, Kerry Ressler, Tanja Jovanovic, Alicia K. Smith, Abigail Powers & Stefan Tschöke (Mol Psych, under Review)

Meaning of Dissociation?

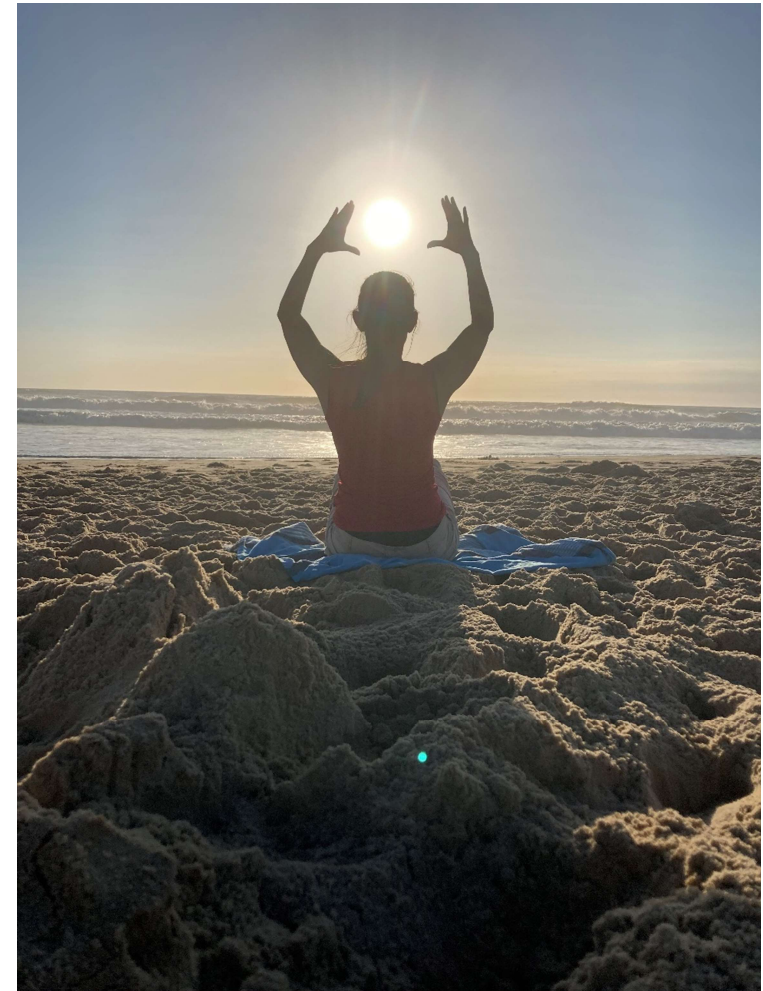






Self-experience in somatic-sensory therapy

Mindfulness and yoga for psychological trauma: systematic review and meta-analysis (Taylor J et al. 2020)	Until 2018	66 studies systematic review 24 studies meta-analyses
	MBIs	$g = 0.51$, 95%CI 0.31 to 0.71, $p < .001$.
	Mindfulness	$g = 0.45$, 0.26 to 0.64, $p < .001$.
	Yoga	$g = 0.46$, 0.26 to 0.66, $p < .001$.
	Integrative exercise	$g = 0.94$, 0.37 to 1.51, $p = .001$.
No difference between interventions.		



Therapy of PTSD and cPTSD

(Norman, S. B. 2022;
Maerker, A. et al. 2022)

Trauma-focused psychotherapies have been shown to be the most effective therapy for PTSD (Lewis et al 2020).

Psychotherapies vs. pharmacotherapies for PTSD

Metaanalysis of 112 studies (Watts et al 2013):

Effect sizes:

Psychotherapy (g=1.14)

Medication (g=0.42)

The number of people who discontinue PTSD treatment remains high.

Bohus et al (2020): DBT-PTSD (N: 98) vs Cognitive Processing Therapy (CPT) (N: 95)

CPT group 39%

DBT-PTSD group 25.5%

Exposure therapy

Loucks L et al. *Journal of anxiety disorders* 2019; **61**: 55–63.

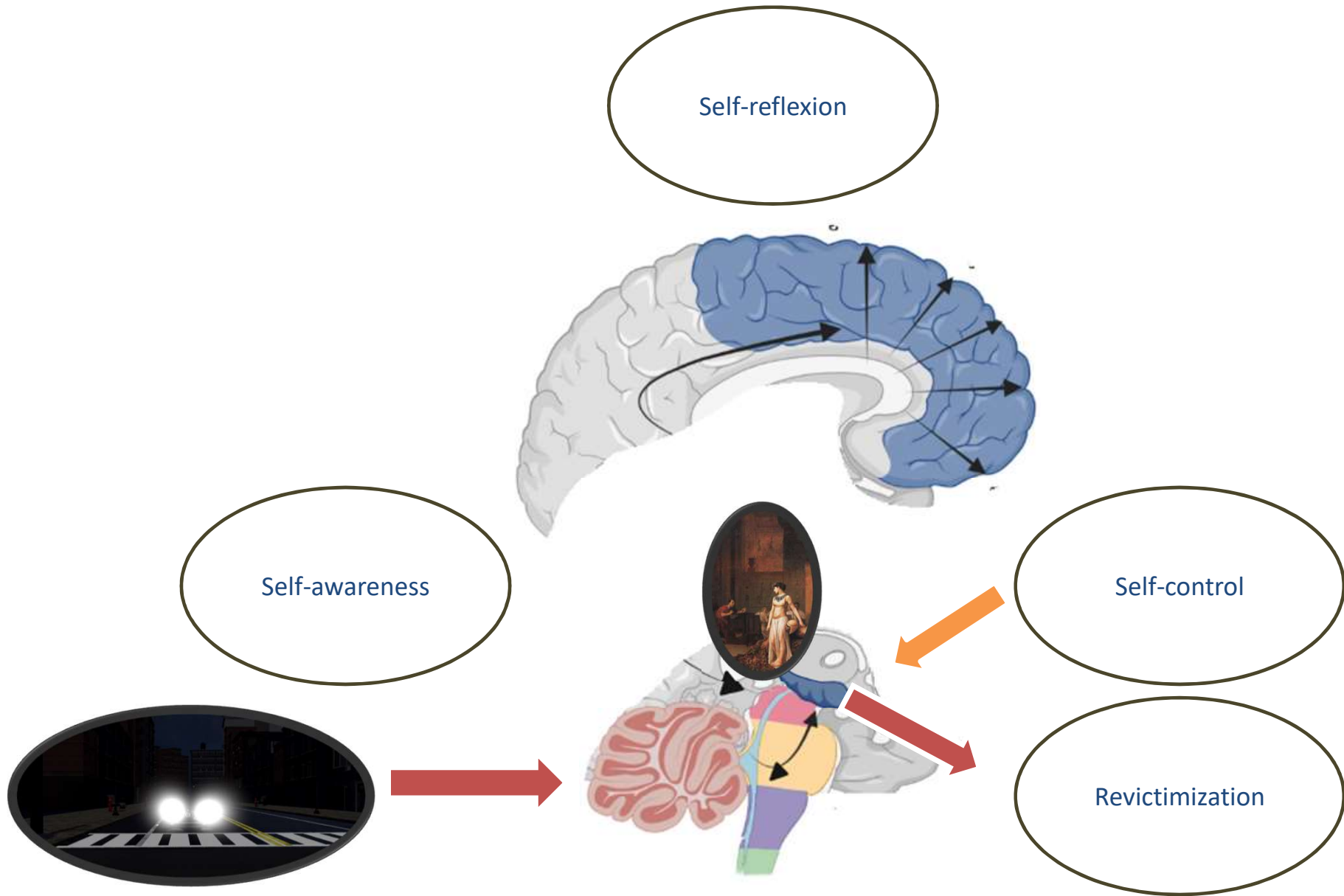


Ongoing Trial:

Virtual reality technology as adjunctive trauma-informed psychotherapy: a feasibility study.

Spohrs J., Degenhard A., Tschöke S.





Research

Biology and human behaviour

Self-
experience/phenomenology

Neuroscience

Identity development

Free will

...

Advanced

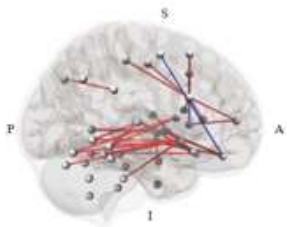
Psychotherapeutic
Methods

Exposure Therapy

For beginners and patients

Survival Model

Stress Behaviour



Mid-Sagittal Left View

Shaw, S. B. et al (2022)

Adult Phenomenology

- Personality
- Decision-making under stress
- Dissociative Psychosis
- **Behaviour**

Forensic

- Self-Determination
- Coercion/ involuntary hospitalization
- Culpability
- Credibility in court

Treatment

- Multimodal
- Easy to understand: Psychoeducation; Staff training

Research

- Biology of survival strategies
- Genetics/Epigenetics
- Self + body interaction

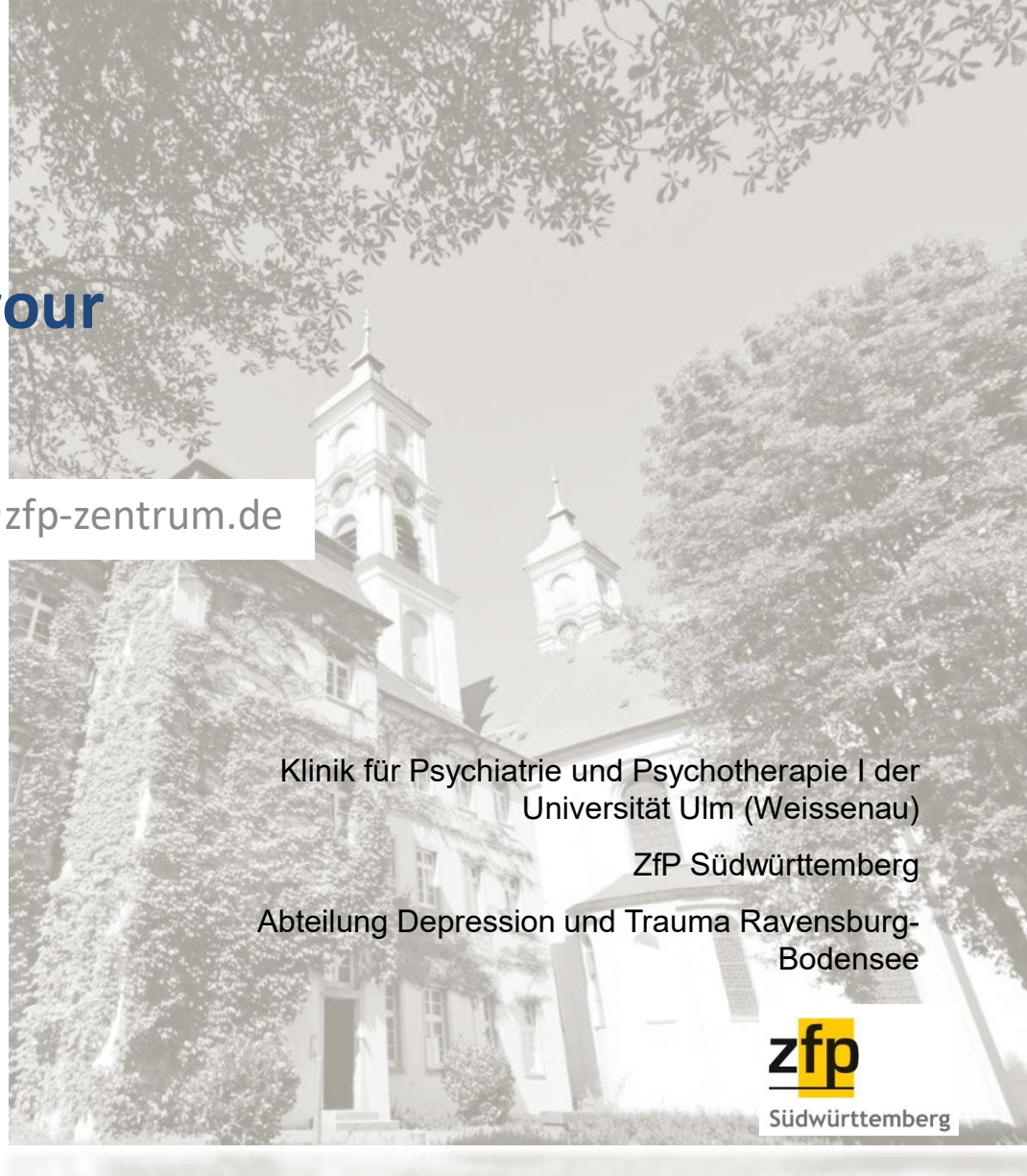
Clinical
conclusions

Dysfunctional behaviour associated with a history of chronic childhood trauma may be due to different states of consciousness with behavioural automatisms corresponding to biologically determined survival behaviour.

A pragmatic approach to dissociation based on the neuroscience of survival behaviour and consciousness may be a good way for psychiatric wards to access this clientele and reduce coercive measures.

**Thank you for your
attention!**

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