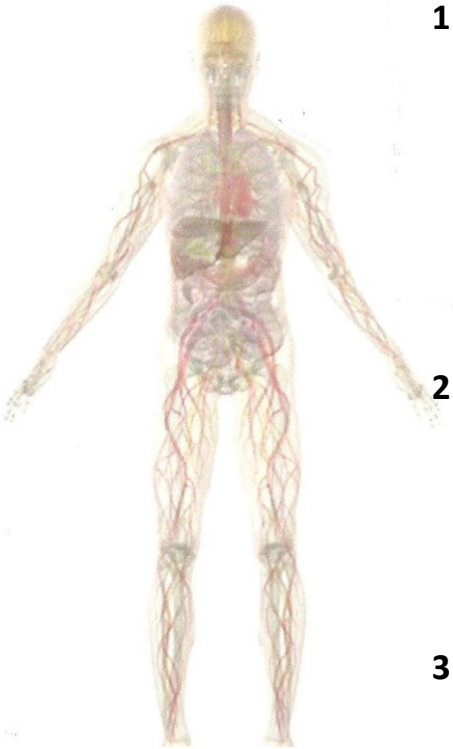
Webinar #2 July 14, 2020

COVID 19 and IDD:
Mental Health Research and Practice
Tuesday 14, July 2020, 12 – 1 30 pm ET

Dr Elspeth Bradley – No conflict of interests

Neuroception: detection of safety, danger and life threat



NEURAL CIRCUIT FOR

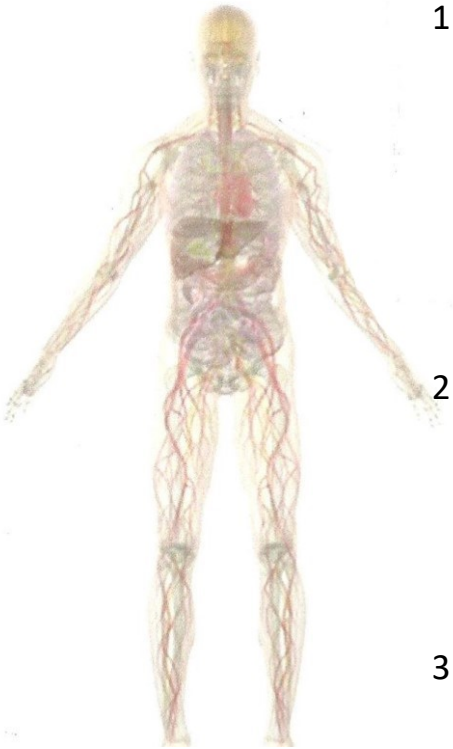
1. **Safety -**
2. **Danger -**
3. **Life threat –**

PHYSIOLOGICAL AND BEHAVIOURAL RESPONSES; FEELING STATE

- **SAFE** Optimal activation and relaxation (rest, digest); connection with others - *eye contact, facial expression, voice – feels OK / good*
- **DANGER** *Increased arousal, increased heart rate, muscle tension, stress, aggression, rage; feelings of fear, anger,*
- **LIFE THREAT** Decreased arousal, *decreased heart rate, limp, withdrawal, dissociated, collapse; no feelings*

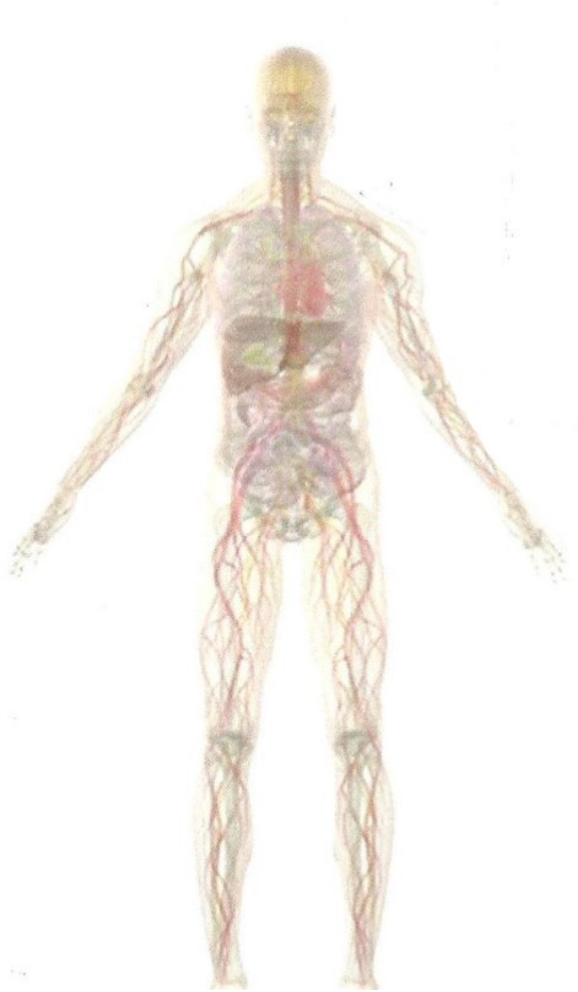
(Adapted from Porges, 2011; Dana, 2018)

Neuroception: detection of safety, danger and life threat



NEURAL CIRCUIT FOR	PHYSIOLOGICAL AND BEHAVIOURAL RESPONSES	NERVOUS SYSTEM INVOVEMENT
1. Safety - **Social Engagement System**	• **SAFE** Optimal activation and relaxation (rest, digest); connection with others - *eye contact, facial expression, voice – feels OK / good*	Parasympathetic Nervous System: Ventral Vagus Nerve - myelinated
2. Danger - **Mobilization into Fight - Fight – Freeze**	• **DANGER** *Increased arousal, increased heart rate, muscle tension, stress, aggression, rage; feelings of fear, anger,*	Sympathetic Nervous System
3. Life threat – **Immobilization into shutdown**	• **LIFE THREAT** Decreased arousal, *decreased heart rate, limp, withdrawal, dissociated, collapse; no feelings*	Parasympathetic Nervous System: Dorsal Vagus Nerve - unmyelinated

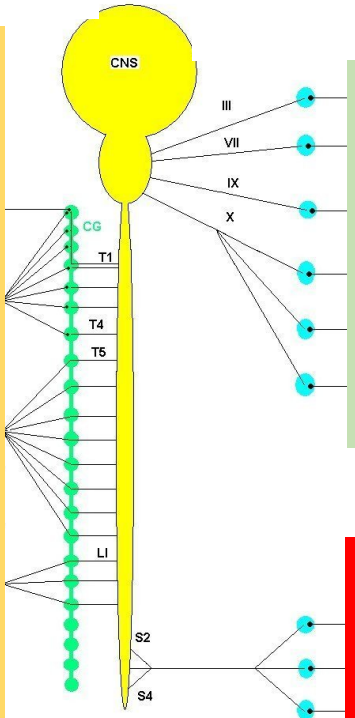
(Adapted from Porges, 2011; Dana, 2018)



Sympathetic NS

DANGER

Parasympathetic NS

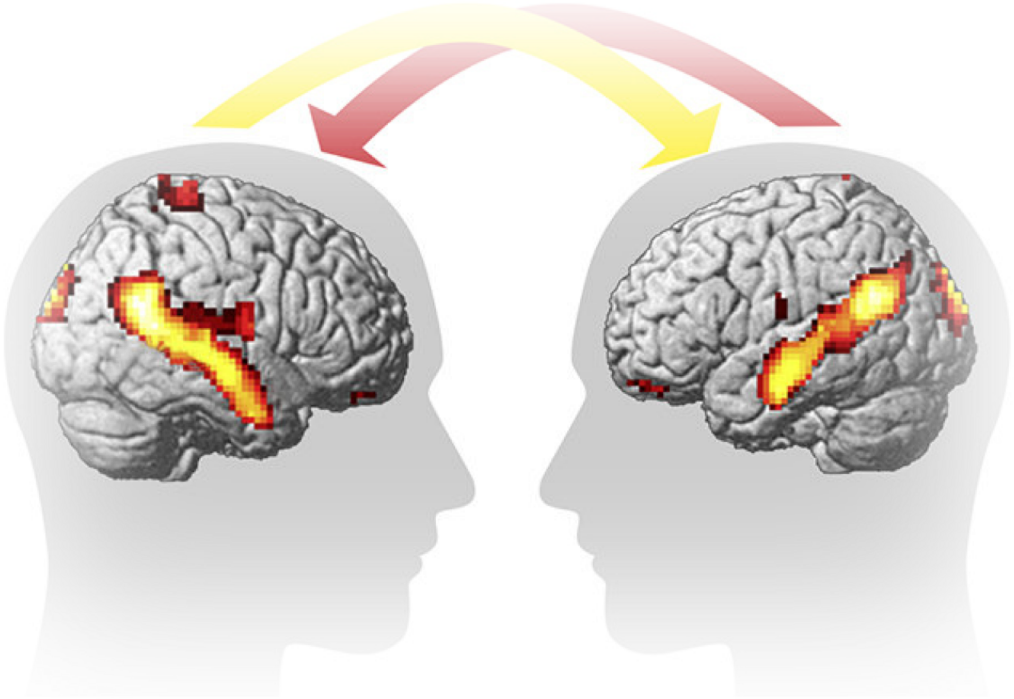


Ventral Vagus Complex

SAFETY

Dorsal Vagal Complex

LIFE THREAT



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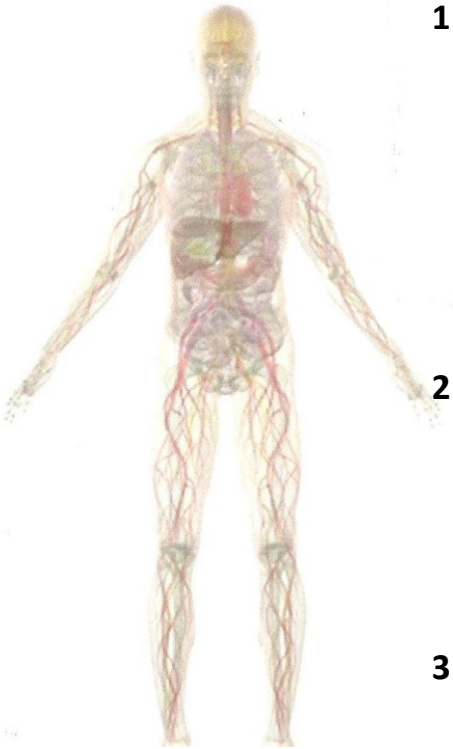
Neuroception: detection of safety, danger and life threat



NEURAL CIRCUIT FOR

1. **Safety -** Social Engagement System
2. **Danger -** Mobilization into Fight - Flight – Freeze
3. **Life threat –** Immobilization into shutdown

PHYSIOLOGICAL AND BEHAVIOURAL RESPONSES

- **SAFE** Optimal activation and relaxation (rest, digest); connection with others - *eye contact, facial expression, voice – feels OK / good*
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Developmental disabilities / special needs

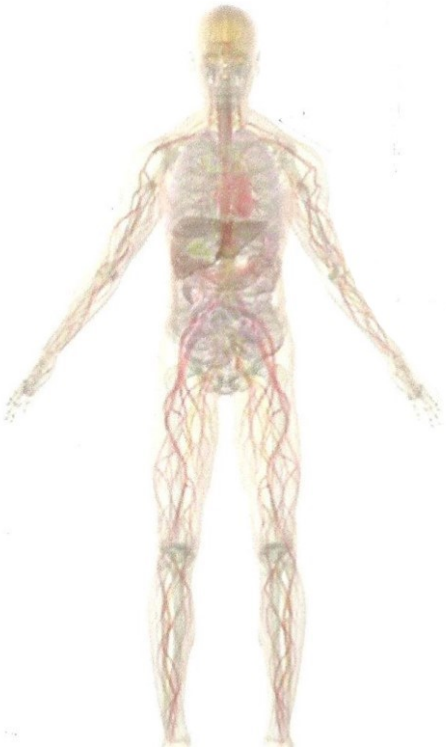
- Engaged, playful, curious, able to focus and learn

BEHAVIOURS THAT CHALLENGE

- *Increased arousal, increased heart rate, muscle tension, stress, aggression, rage, fear, anger,* **injury to self, others, environment; pacing, running, avoidance, refusal, stuck/catatonic-like**
- **Shut down, sleepy, withdrawn, confusion, dissociation, GI/tummy upsets**

(Adapted from Porges, 2011; Dana, 2018)

Examples of cues of safety, danger and life threat



CUES OF SAFETY

DANGER

LIFE THREAT

A UK poll of people with IDD, April 2020

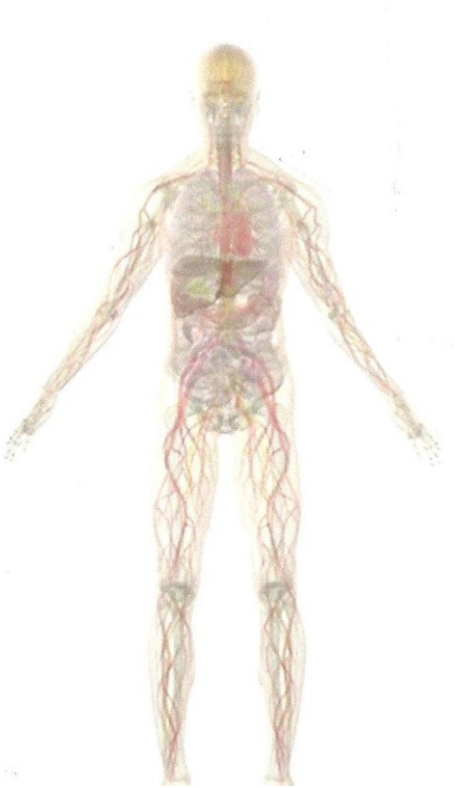
What was helpful in alleviating anxiety

- "To be heard is to feel safe"
- Routines
- Predictability

What was difficult

- Loneliness/isolation 44%
- Noise 14%
- Conflict 14%
- "Living near people I feel threatened by"
- "Being left out"
- "Being bossed around"

Examples of cues of safety, danger and life threat



CUES OF SAFETY

- Positive co regulation
- Activities involving vagal regulation –
- Meaningful communication
- Knowing what is happening
- Structure, routine, familiarity, predictability, favourite activities

DANGER related to sensory hypo & hyper sensitivities; disruption of routines; change; inappropriate expectations; loss; triggers associated with adversity, trauma and PTSD

LIFE THREAT overwhelmed in an environment where cues of danger unrecognized and unaddressed

EXAMPLES OF INTERVENTIONS

- Care-provider co regulation
- Physical exercise, singing, blowing bubbles, (especially exhalation …)
- Communication needs identified and met
- Social stories
- Predictable, structures, familiar environments

IDENTIFY CUES OF DANGER / TRIGGERS

- Sensory assessment
- Trauma assessment
- Remove / avoid triggers
- Introduce cues of safety

The end

Thank you