

Making
SPACE
for Learning
Trauma Informed Practice in Schools

Australian Childhood Foundation
Hackham West Primary School 2022

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The Australian Childhood Foundation acknowledges Aboriginal and Torres Strait Islander peoples as the traditional custodians and owners of this land and waters. We pay our respects to their Elders past and present and to the children who are their leaders of tomorrow. We acknowledge their history and living culture and the many thousands of years in which they have raised their children to be safe and strong.

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Safety

*The content of this training can evoke strong emotions and may trigger personal experiences of trauma.
Please be mindful of your own wellbeing during this training and if you need support please ask the facilitator.*

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Key learning outcomes

- To develop an enhanced understanding of complex abuse related trauma, with a particular focus on its effects on brain functioning
- To develop a clear understanding of the manifestations of abuse related trauma on the general functioning of a child or young person
- To be able to assess the impacts of abuse related trauma on the child or young person
- To gain a knowledge of the strategies and activities that we may use in the classroom to assist a child or young person manage the impacts of abuse related trauma

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ACF Model of Trauma and SPACE

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Trauma

Developmental Trauma: Occurs when the foetus in utero, baby, child or adolescent experiences trauma, from abuse and neglect during key stages of development


Simple	Intergenerational
Complex	Transgenerational
Developmental	Historical

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Trauma impacts




Trauma can impact all elements of children's development: brain, body, memory, learning, behaviour, emotions, relationships.

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• Trauma and the Brain

- Normative development
- Impacts of trauma
- Capacity Building and Repair



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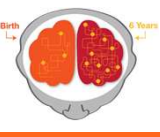
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Neuronal connections

- Neurons – cells in our brain interact and communicate with other neurons
- The neural system has the ability for one neuron to communicate with up to 10,000 other neurons
- The newborn brain has approximately 100 billion neurons

Neuroplasticity refers to the brain's capacity to:

- Grow new nerve cells
- Strengthen connections between nerve cells
- Sprout new connections between different cells

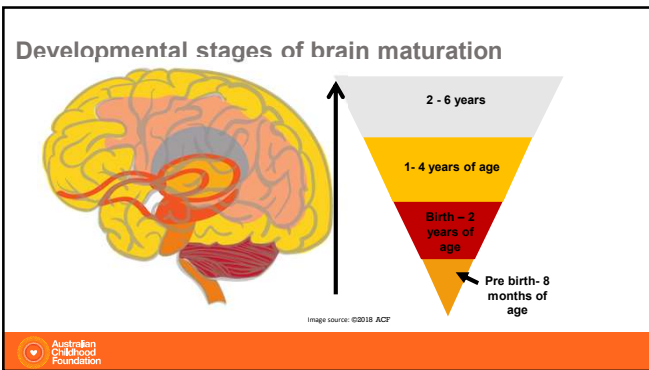


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Brainstem – survival centre

- basic life functions
- first part of our brain to develop & the most developed brain part at birth
- responsible for our heart beat, breathing, sucking and swallowing, temperature control blood pressure and our sleep cycle

Image source: ©ACF 2020

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The brain stem under stress and trauma

- may experience fast or slower heart rate
- shortness of breath or breathing difficulties
- sleep disturbances and unsettledness
- sucking and swallowing and digestion difficulties
- may feel hot or cold or not notice changes in temperature





Image source: Shutterstock

What do you notice?



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Cerebellum – movement & coordination centre

- helps us with our posture and balance
- helps us to know where our body is in space
- helps us with our voluntary movements such as walking and writing
- Plays a role in **physical and mental** coordination





Image source: GACF 2020



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The cerebellum under stress and trauma

- Difficulties coordinating cognitive processes such as planning & working memory
- difficulty in maintaining posture & balance
- difficulty in undertaking tasks that require balance
- lack of awareness of their body in space
- difficulty with voluntary movement tasks – walking or writing





Image source: Shutterstock

What do you notice and what can you do?



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Strategies for transforming – brainstem & cerebellum: RHYTHM, BREATH, MOVEMENT

- include soothing and calming activities, safe containment
- movement based activities
 - include activities that have a rhythmic, repetitive element
 - include activities that have a balancing element & gross & fine motor skills
- breath based activities
- conduct a sensory audit – ie: is it too hot or too cold, too noisy?
- include proprioceptive and interoceptive awareness and activities



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Diencephalon – sorting and sending centre

- develops mainly after birth
- sorts out “messages” coming into the brain and sends them out to other parts of the brain
- uses hormones to send signals to body





Image source: ©ACF 2020



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The diencephalon under stress and trauma

- becomes overwhelmed and cannot sort the information
- is unable to send information to the memory and thinking parts of the brain – that pathway shuts down
- it alerts the amygdala which sets of a sensory information response sequence





Image source: Shutterstock

What do you notice?



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Strategies for transforming – diencephalon

- conduct a sensory audit
- provide calm, positive sensory experiences
- provide regular and predictable brain and body breaks
- Provide routine and prompts to support body systems and tuning in



What might help during transitions, beginnings and endings?

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Limbic lobe - emotion and memory centre

- helps us attach an emotion to an experience or memory
- particularly involved with the emotions
- heavily involved in attachment processes
- develops mainly after birth
- two important brain parts – the amygdala and the hippocampus are in this part of the brain






Image source: GACF 2020

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Building Capacity – Limbic System

1. Co-regulating strong emotions
Validate emotion, cues for proximity/space, engage senses, prosody, rhythm & breathing
2. Enhancing positive emotions
May need help to name & express
3. Promoting emotional literacy
Teach during moments of calm






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Amygdala

- Alarm centre - the 'smoke detector' of the brain
- 'Fires' when a threat is detected – triggers a series of brain and body responses
- Stores (& generalises) implicit memories relating to fear/threat






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Image source: ©ACF2020

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Dan Siegel – hand model of the brain

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The amygdala under stress and trauma

- can be over active or under active
- can evoke reminders and flashbacks of the trauma (awakenings)
- will have difficulty in emotional regulation
- will have difficulty in reading facial expressions
- Constantly 'firing' – can hijack the cortex (thinking goes offline)





Image source: Shutterstock

What do you notice and what can you do?



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Strategies for transforming – Amygdala

- Manage own reactions (stay calm & present)
- Don't rely on reason/thinking to reduce an escalation
- Regular outreach activities
- Provide opportunities for rest and recovery
- Environmental audit (noise, smell, colour, person, situation).

Re-entry to the classroom should be a safe and positive transition whenever possible.




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Hippocampus

- explicit memory centre
- provides context to memories
- provides consolidation of information from short term memory to long term memory
- memory puzzle sorting centre






Image source: GACF 2020

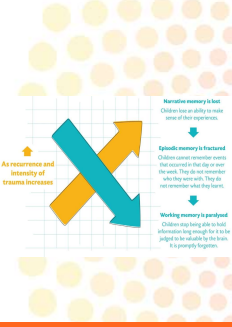
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Trauma, memory & learning

Much of the traumatised child's memory is implicit or subconscious

Children may struggle to remember life events

Working memory can become paralysed (for example, their ability to remember instructions is poor)





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Strategies for transforming – Hippocampus

- Repetition
 - Reminders
 - Review
 - Reinforce
- *Calming the brainstem, quietening the amygdala and boosting the cerebellum will all help the hippocampus to function more effectively*



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The Prefrontal Cortex- executive function centre

- self awareness
- reasoning and judgement
- foresight and anticipation
- focusing and sustaining attention
- planning organising and prioritising
- decision making
- reflecting
- enthusiasm, motivation and persistence
- impulse control
- working memory



Image source: ©2018 ACF

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Cortical areas under stress and trauma

Unable to:

- use foresight and anticipation, focus or sustain attention
- plan, organise or prioritise or make decisions well
- reflect or have self-awareness
- be enthusiastic, motivated or persist with activities
- use impulse control



Image source: Shutterstock

What do you notice and what can you do?

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Adolescents - The remodelling brain: Synaptogenesis, Pruning & myelination in the teenage brain



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Risk taking and impulse control



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Strategies for transforming – cortical areas

▪ **Safety and stability are essential pre-requisites for cortical access**

- problem solving activities and strategies
- Support to map and plan activities
- games - card games – boards games – strategy games
- voluntary movement activities – table top drumming, clapping etc
- thinking and choice games – “Would you rather?”
- Mindfulness activities



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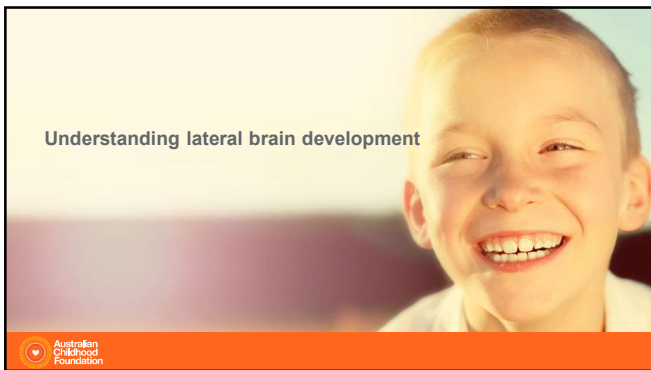
Strategies for transforming

Brain area	Function	Activity ideas
Brainstem & Diencephalon	Basic survival & sensory processing	Pacification or stimulation. Activities in the child's preferred sensory modality
Cerebellum	Coordination of movement	Using music, rhyme and movement activities
Limbic	Emotional processing	Building relational connection through plays, animals, games
Cortex	Thinking processes	Linking experiences and sensations to words and descriptions
Prefrontal cortex	Analytical and abstract thinking	Challenges and safe risk taking activities

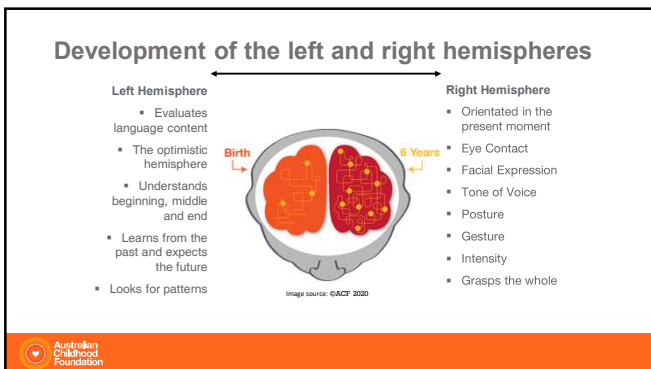
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Try this...

Red Blue
How Fast Is Your Brain?
Purple Orange



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Strategies for transforming – building RH/LH connection

- Activities that cross the midline
- Using gestures, intonation, melody, etc to accompany speech
- Putting words to feelings when making observations
- Incorporate cognitive elements into calming/stimulating activities (eg. Counting)





Image source: istock





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Trauma and the Body

- Neuroception
- Polyvagal Theory
- Window of Tolerance
- Creating Safety

Neuroception: *Cues of risk and safety are continually monitored by our nervous system* Borges, 2019.

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Polyvagal theory and protective responses

(Porges, 2011)

Behavioural Functions	Body Functions
Social Engagement Soothing and calming Indicates safety	• Lowers or raises vocalisation pitch • Regulates middle ear muscles to perceive human voice • Changes facial expressivity • Head turning • Tears and eyelids • Slows or speeds heart rate
Mobilisation Fight or Flight Active Freeze Moderate or extreme danger	Hyper-arousal • Increases heart rate • Sweat increases • Inhibits gastrointestinal function • Narrowing blood vessels - to slow blood flow to extremities • Release of adrenaline
Immobilisation Collapse or submission Death feigning Increased pain threshold Conserves metabolic resources Life threatening situations	Hypo-arousal • Slows heart rate • Constricts bronchi • Stimulates gastrointestinal function

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An introduction to the Polyvagal theory and neuroception

Cues of risk and safety are continually monitored by our nervous system.

“Before we can engage in social behaviour and learning we must first feel safe.”

(Porges, 2015, p.115).

Parasympathetic System

- Constricts pupils
- Stimulates flow of saliva
- Constricts bronchi
- Slows heartbeat
- Stimulates peristalsis and secretion
- Stimulates bile release
- Contracts bladder

http://www.instruction.com.au/wp-content/uploads/2017/08/img_strategic2.jpg

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Regulated Arousal

Fight or Flight hyper-vigilant, action-orientated, impulsive, emotionally flooded, reactive, defensive, self-destructive

Freeze Physically immobilized, frozen, tense musculature

Social Engagement

Submit Collapsed, weak, defeated, flat affect, numb, empty, helpless, hopeless

Sympathetic Hyper-arousal

Parasympathetic Hypo-arousal

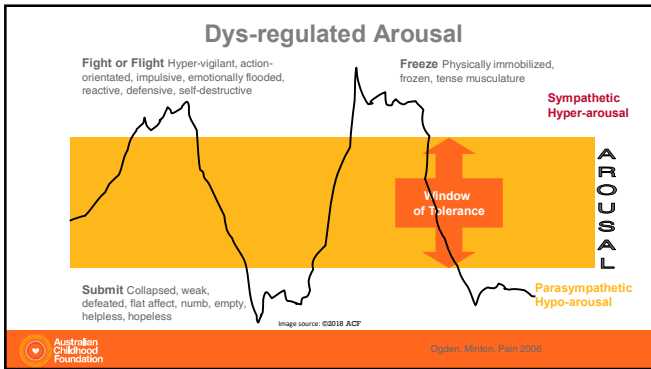
Window of Tolerance

Image source: ©2018 ACF

Optim, Milton, Pain 2008

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Overshooting your Window of Tolerance:

- Upset and hyped up
- Anxious and agitated
- Frustrated
- Heart beating fast
- Tense and can't think clearly
- Unable to regulate your emotions

Within your Window of Tolerance:

- Feeling safe, calm and peaceful
- Happy and able to think clearly
- Ready to learn
- Settled and content
- Mindful and able to regulate your emotions

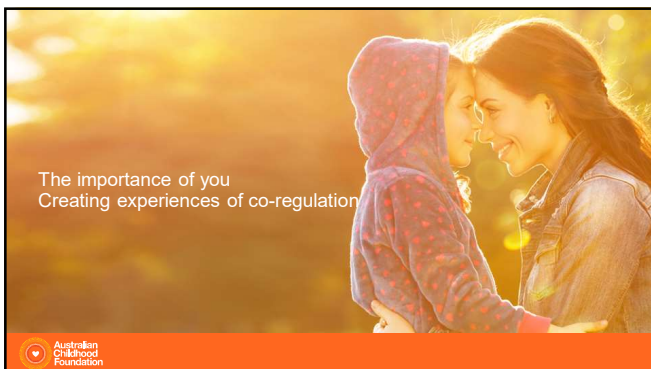
Undershooting your Window of Tolerance:

- Sad and tired
- Unmotivated with no energy
- Feel empty and withdrawn
- Don't want to listen, talk or play
- Can't think about learning

Making Space for Learning – Action Research Project - St Thomas More School, Elizabeth Park, S.A.

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Classroom antidotes to toxic stress

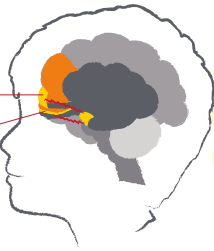


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2 ways to regulate

Medial Pre-Frontal Cortex
(the centre of Mindfulness/ Self awareness)

Right Orbitofrontal Cortex
(Regulation of Arousal)



- Mindful awareness/ meditation de-activates the amygdala
- Quality co-regulation de-activates the amygdala



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Finding it difficult to stay (want to be) connected?

Open Flexible and Adaptive Closed and Rigid

Well-Connected Brain
Utilizing the front part of the brain



Stressed out Brain
Utilizing the more primitive middle region of the brain



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Play as a classroom collective regulation tool to up-regulate and build neural tone

Relational
Rupture and Repair
Risk

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Energising & Releasing

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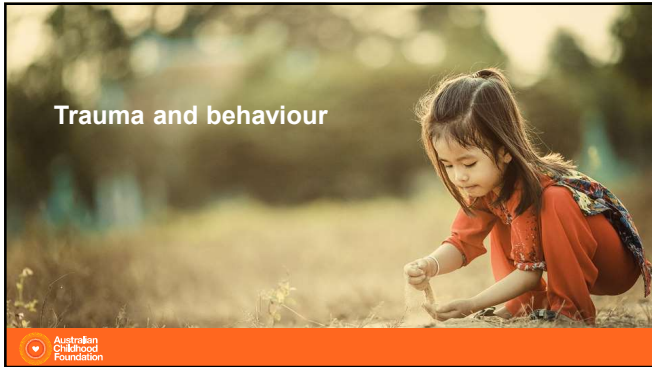
How do we implement regulation as a whole-of-classroom approach?

For slowing down?

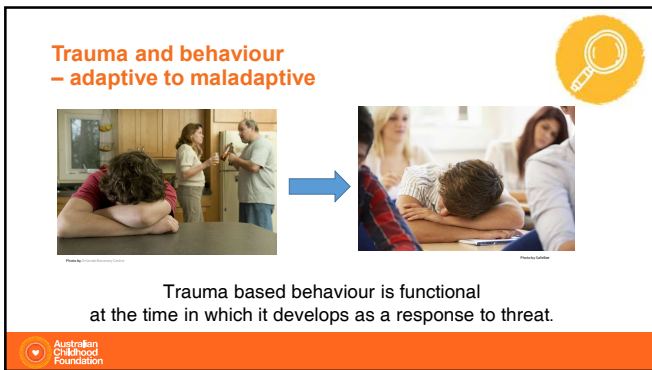
For speeding up or releasing stress?

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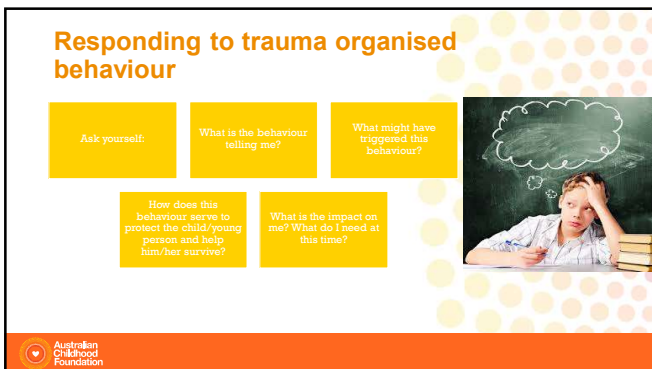
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SPACE

Schools can respond effectively to the needs of traumatised children and young people, using the five key dimensions of the acronym **SPACE**.

STAGED
PREDICTABLE
ADAPTIVE
CONNECTED
ENABLED

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Behaviour: Things to do

- Discipline with empathy and not anger
- Help the young person to calm before anything else
- Teach the behaviours you want to see
- Use predictable consequences for unacceptable behaviour
- Be clear while being supportive and empathic
- Use time in rather than time out
- Wonder aloud
- Don't take behaviours personally
- Reflect on the possible underlying cause

(Golding, et al., 2016, p. 107, 112)

- 1 thing your school does well?
- 1 thing you do well?
- How do you do that well?

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Making SPACE for Learning – Site Audit Tool

This audit tool can be used to evaluate the policies and practices of a school that reduce and equip different levels of the school structure to understand their role in promoting practices in the following table. Use strategies, policies or other processes currently implemented that support traumatised students at your school.

	Whole Site	Staff	Classroom / Group	Small Group	Individual Student / Child
S Staged					
P Predictable					
A Adaptive					
C Connected					
E Enabled					

Making Space for Learning – Trauma-Informed Practice in Schools

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Showcase booklets
<https://professionals.childhood.org.au/building-capacity-in-educational-settings/>

Making SPACE for Learning
Trauma Informed Practice in Schools
Victorian Project Reports
Catholic Schools 2017

TRANSFORMING TRAUMA PROJECT
A national research initiative in the field of Trauma which resulted in the development of the Trauma Informed Practice and Support for Schools Framework

Transforming Trauma Tasmania Showcase 2012

CATHOLIC EDUCATION SOUTH AUSTRALIA
PROJECT REPORTS 2017
Trauma Sensitive Practice in Schools

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