

# Models of Understanding Pain and Fear of Movement

## Where does yoga come in?

Tamara James  
Physiotherapist (BPhty Qld)  
Yoga Teacher (BWY, UK)  
Yoga Therapist (YTA)

# Objectives for Session

- Overview of models that explain pain and associated fear of movement
- How this can be integrated into a yoga class to empower folk limited by pain



# 1664 - Descartes

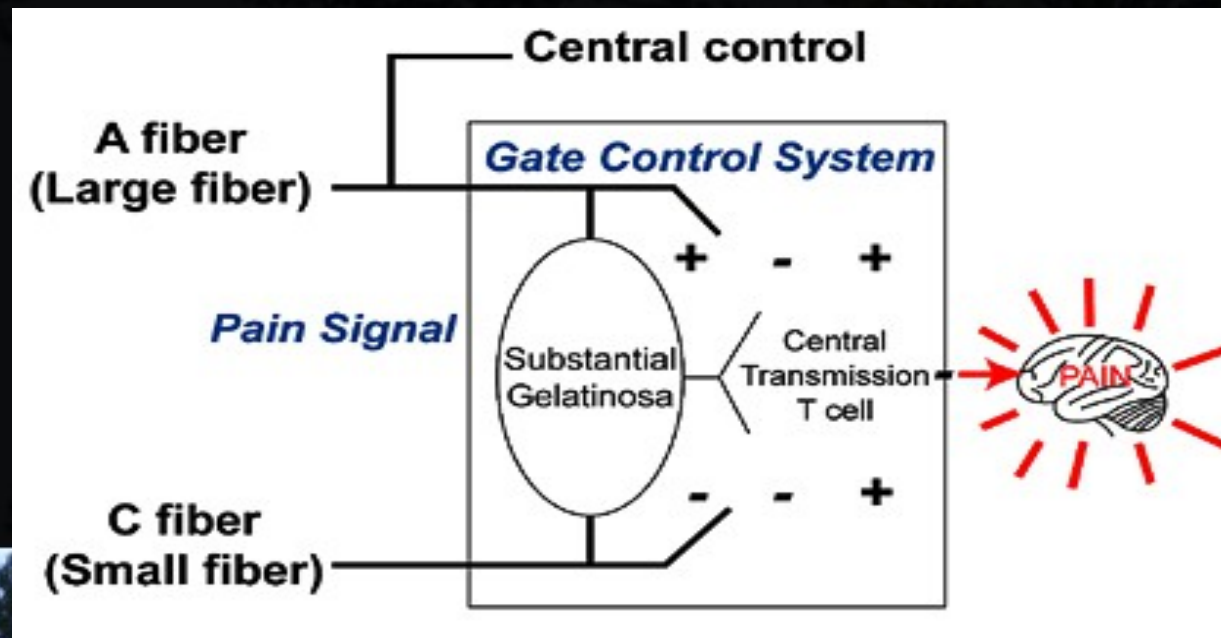
- Hard-wired system
- Brain and spinal cord relayed to produce sensation
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# 1965 -The Gate Control Theory

- Melzack and Wall
- Pain was a consequence of ascending and descending factors
- Descending inhibition at spinal cord dorsal horn could prevent ascending impulse

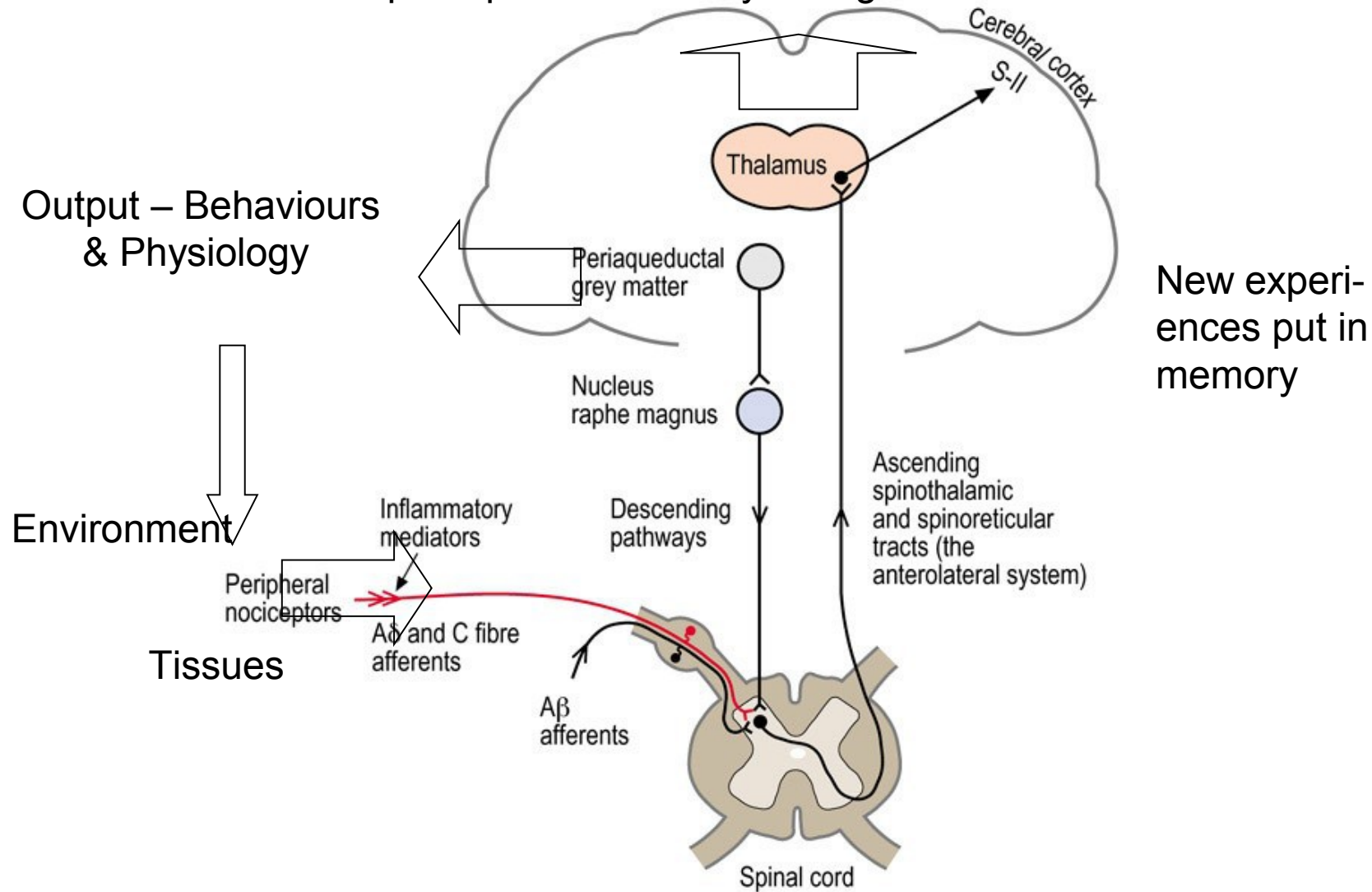


# 1990 Neuromatrix

- Ronald Melzack
- Beginning of research that showed the complexity of the pain experience at a neurophysiological level
- The pain experience is modulated by a number of factors in the CNS and PNS
- The number of therapies to manage pain broadened across disciplines



Pain perception = Sensory + Cognitive + Affective



# IASP Definition of Pain

Pain is an unpleasant sensory and **emotional** experience associated with actual or potential tissue damage, or described in terms of such damage. (1979)



# Patrick Wall's Pain definition


## Why do we experience Pain?

□ “Pain is better defined as an awareness of a need state rather than a sensation. It serves more to promote healing than to avoid injury. It has more in common with the phenomenon of hunger and thirst than with seeing or hearing. The period after injury is divided into the immediate, acute and chronic stages. In each stage it is shown that pain has only weak connection to injury but a strong connection to the body state”

Patrick Wall 1979, (Pain 6, 253 – 264)



# Biopsychosocial Model

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- The diagram consists of five nested, light blue ellipses that are wider than they are tall. They are arranged in a series of concentric layers, with the largest ellipse at the back and the smallest at the front. The ellipses are slightly offset to the right, creating a tunnel-like effect. The text of the list is overlaid on these ellipses, with each item corresponding to one of the layers.
- Social Environment
  - Response/ Behaviour
  - Suffering/ Distress
  - Pain appraisal
  - Nocioceptive/ Neuropathic

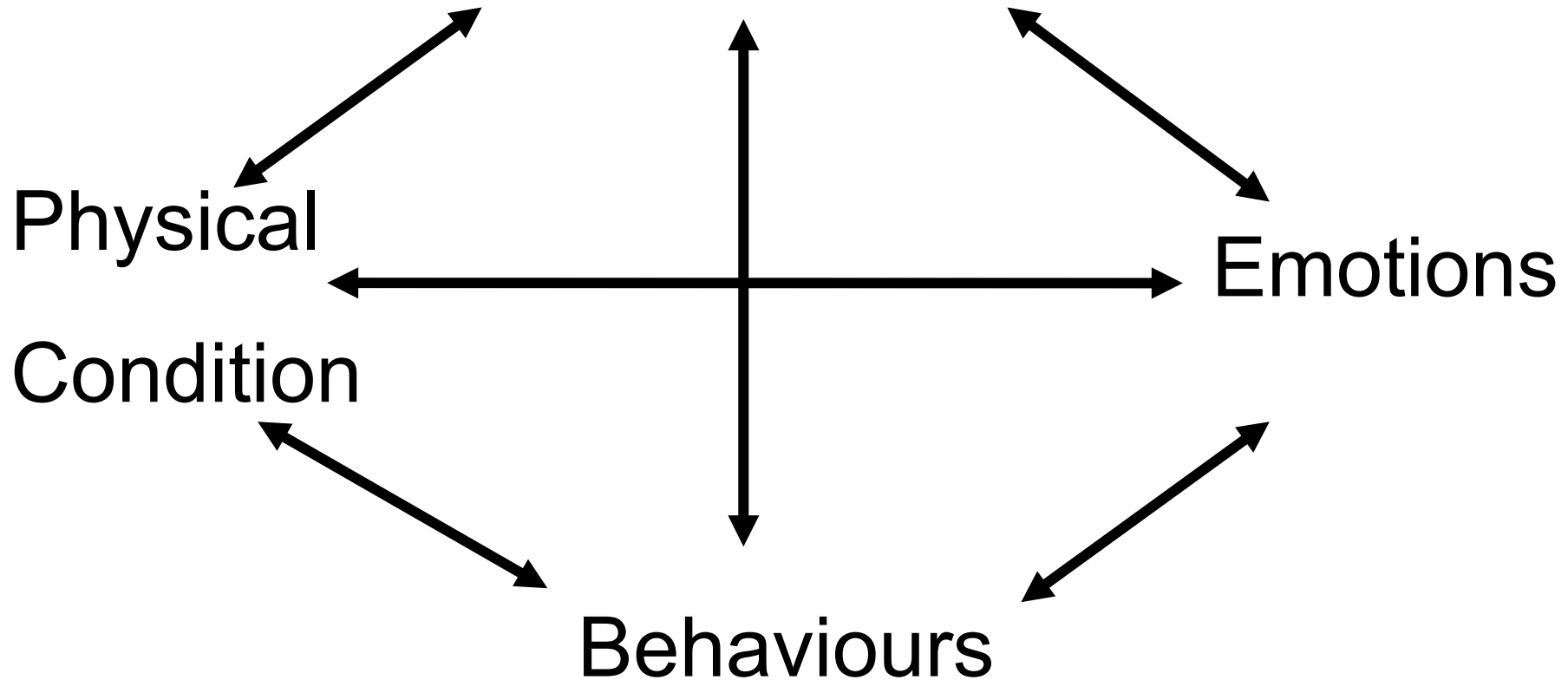
	Pain
<b>Red Flags</b>	<p>Signs and symptoms associated with serious pathology –</p> <ul style="list-style-type: none"> <li>•weight loss</li> <li>•night sweats</li> <li>•bladder/bowel</li> <li>•bilateral numbness or weakness</li> <li>•mechanism of injury that could produce serious disruption</li> </ul>
<b>Yellow Flags</b>	<p><b>Attitudes</b>  <b>Behaviours</b>  <b>Compensation issues</b>  <b>Diagnosis and treatment</b>  <b>Emotions</b>  <b>Family</b>  <b>Work</b></p>
<b>Pink Flags</b> <small>Gifford 2005</small>	<p>Intelligence and understanding  Level-headedness  Flexibility and adaptability  Helpful coping strategies  Supportive family  Supportive employer  Peer support</p>



	Acute Pain	Chronic Pain
Red Flags	<p>Signs and symptoms associated with serious pathology –</p> <ul style="list-style-type: none"> <li>•weight loss</li> <li>•night sweats</li> <li>•bladder/bowel</li> <li>•bilateral numbness or weakness</li> <li>•mechanism of injury that could produce serious disruption</li> </ul>	<p><b>No new injury</b>  <b>No new signs or symptoms suggestive of serious pathology</b></p>
Yellow Flags	<p><b>A</b>ttitudes  <b>B</b>ehaviours  <b>C</b>ompensation issues  <b>D</b>iagnosis and treatment  <b>E</b>motions  <b>F</b>amily  <b>W</b>ork</p>	<p><b>Well entrenched patterns related to any of ABCDEFW.</b></p>
Pink Flags	<p>Intelligence and understanding  Level- headedness  Flexibility and adaptability  Helpful coping strategies  Supportive family  Supportive employer  Peer support</p>	<p><b>Ready to make changes</b>  <b>Insight into themselves</b>  <b>Responsibility shift</b></p>

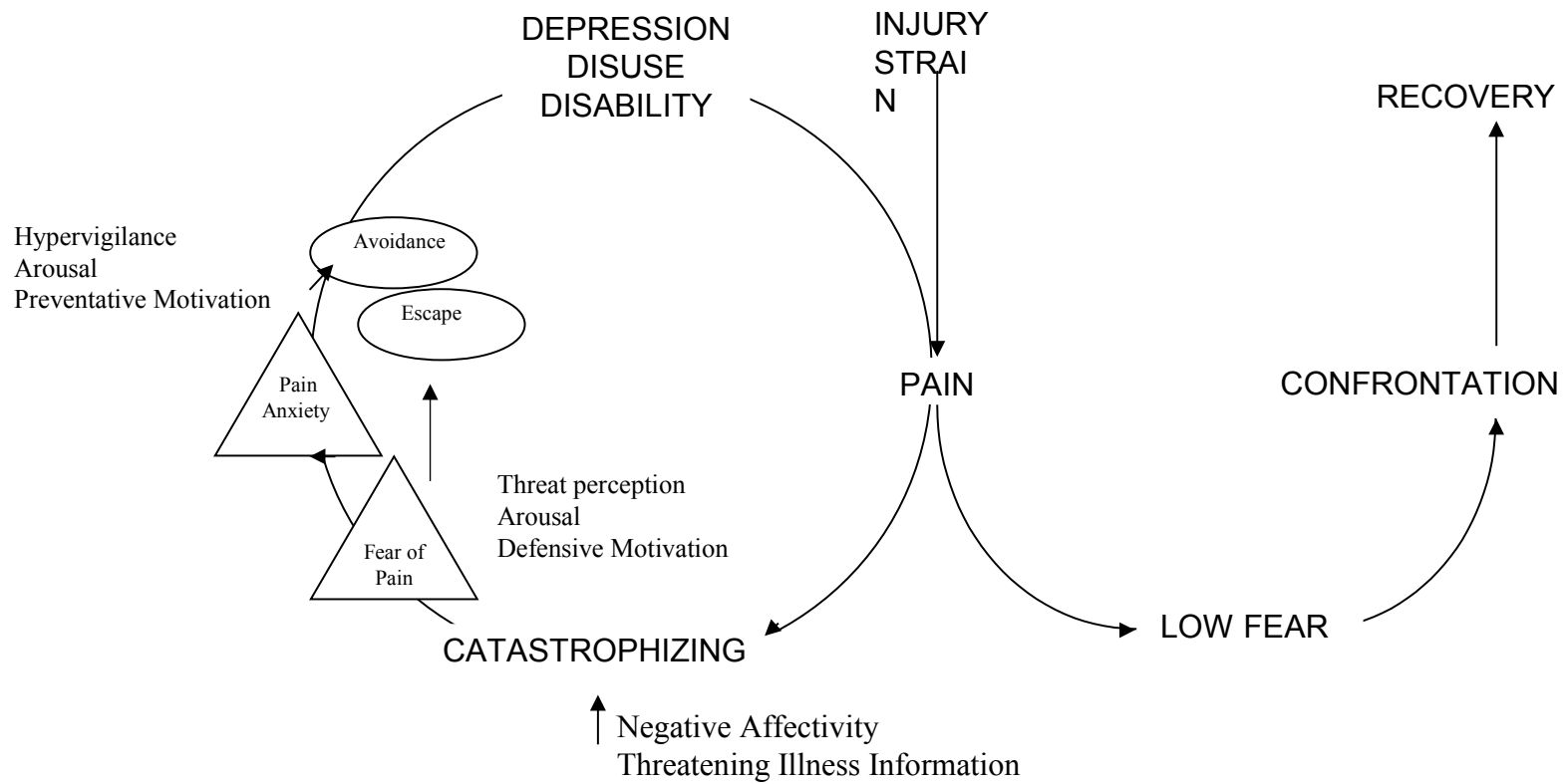
# Cognitive Behavioural Therapy

Thoughts/Beliefs



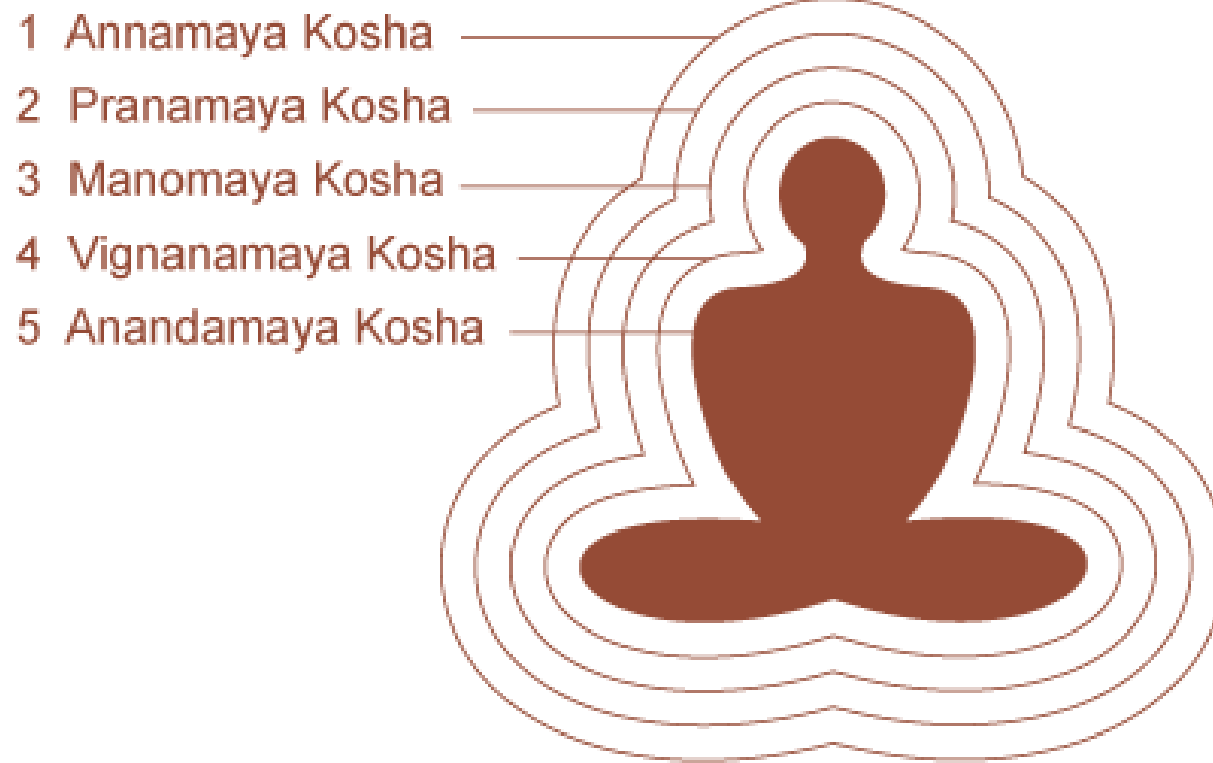


# The Fear Avoidance Model of Musculoskeletal Pain



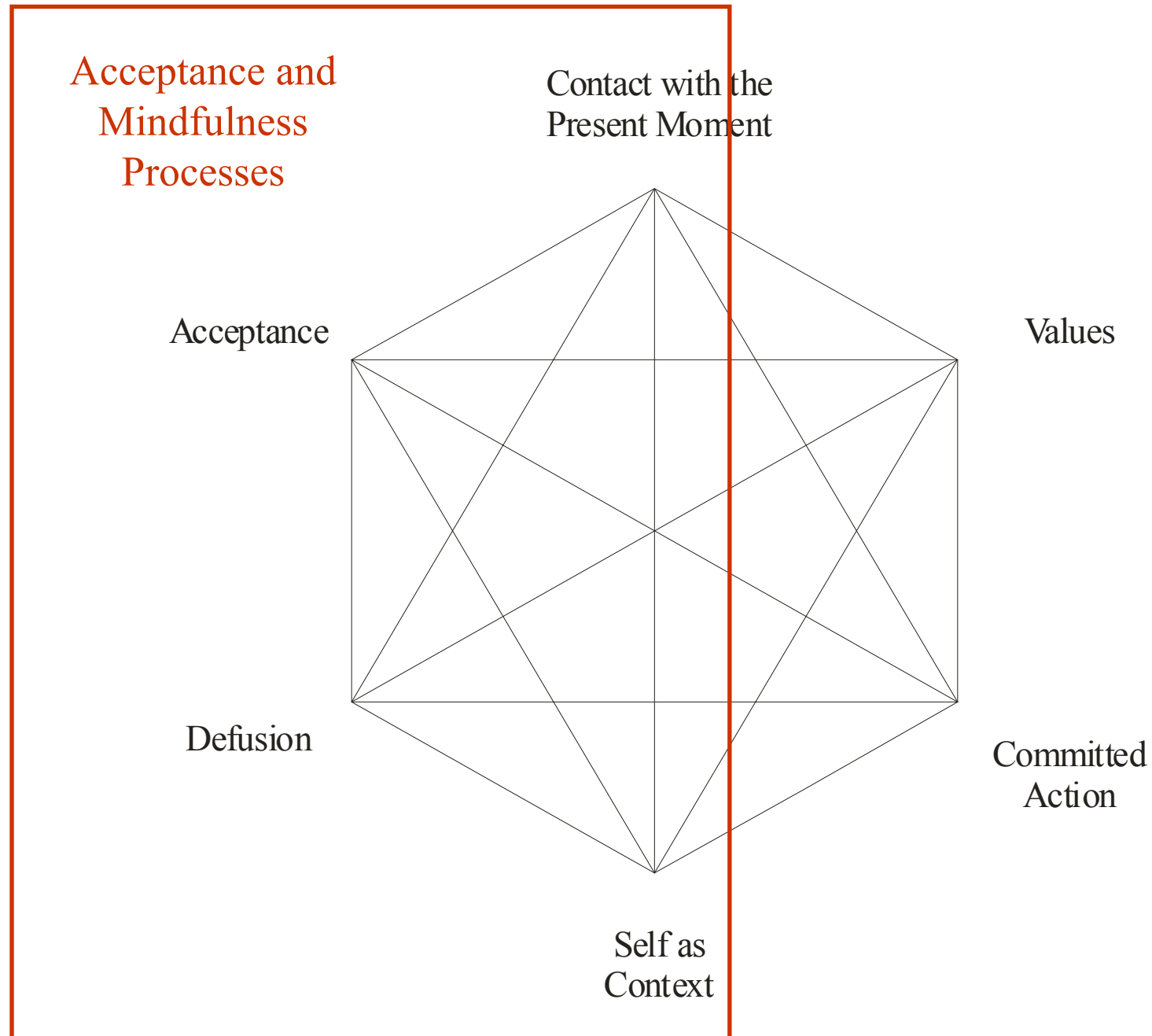
Leeuw 2007 (Vlaeyan 2001)

# Pancha Kosha Model

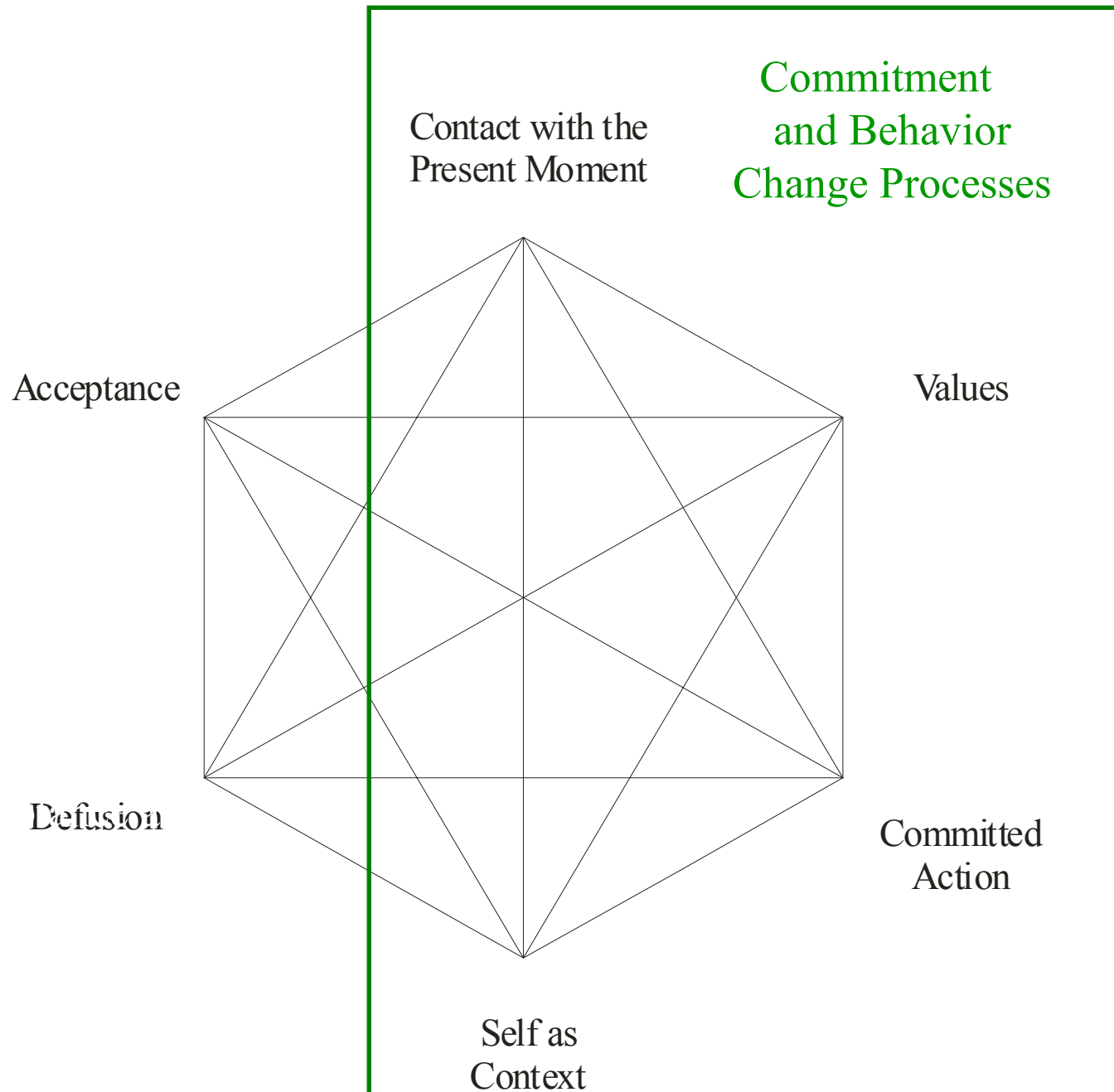


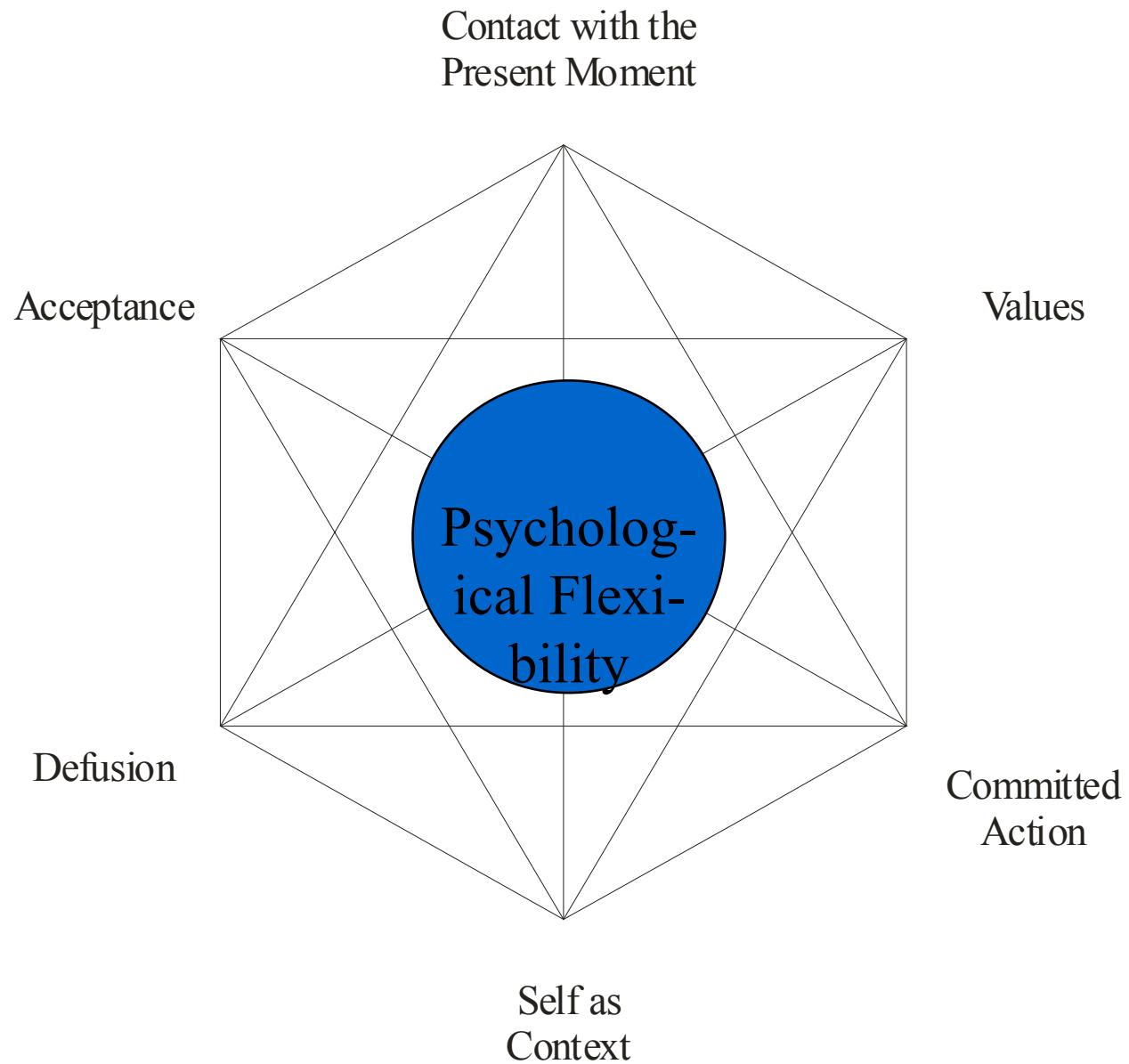


# Acceptance and Commitment Therapy



# Acceptance and Commitment Therapy







“Consider some injury or pain condition you have... and your physical understanding of it?”



What emotions do you feel if I tell you there is nothing really wrong?

# Clients perspective

- My pain is real, it was caused by an accident/ injury; it's still hurts there is still something wrong; and you're trying to tell me it's in my head.
- Angry, anxious, depressed, frustrated, suspicious....
- On top of life's other stresses
- Compounds the situation – increases sense of threat.



# Education

- Tissue healing – acute injury v's pain persisting beyond healing time – pain is unrelated to tissue damage
- Neuromatrix Model – Explain Pain - pain as a warning message not a sensation
- Consequences of fear avoidance
- Managing the impact of the situation to create more supportive environment



# Yoga Class

- Education can be integrated into the class providing positive messages about healing, desensitization of pain and capacity despite pain “increasing your body's confidence in moving” .....
- The focus is on self awareness, achieving a balance of guidance to ensure safety, and flexibility to empower the student increase self confidence with movement
- Yoga classes for folk with chronic pain can be planned to address biomechanical factors in a graded way and grade exposure to feared movements



# Yoga class cont'd

- The class environment is supportive and non-confrontational – invitational language and no imposition of 'technique'
- Relaxation, yoga nidra and mindfulness
- It is affordable and in a normal setting
- With peers - see what others are able to do
- It's about their experience – behavioural; the teacher is the teacher not the 'expert'
- Private session for home programs more specific to their individual needs

# [Www.yogaphysio.com.au](http://Www.yogaphysio.com.au)

- Resources:
- Explain Pain Lorimer Moseley & David Butler
- [Www.bodyinmind.org](http://Www.bodyinmind.org)

Thank You