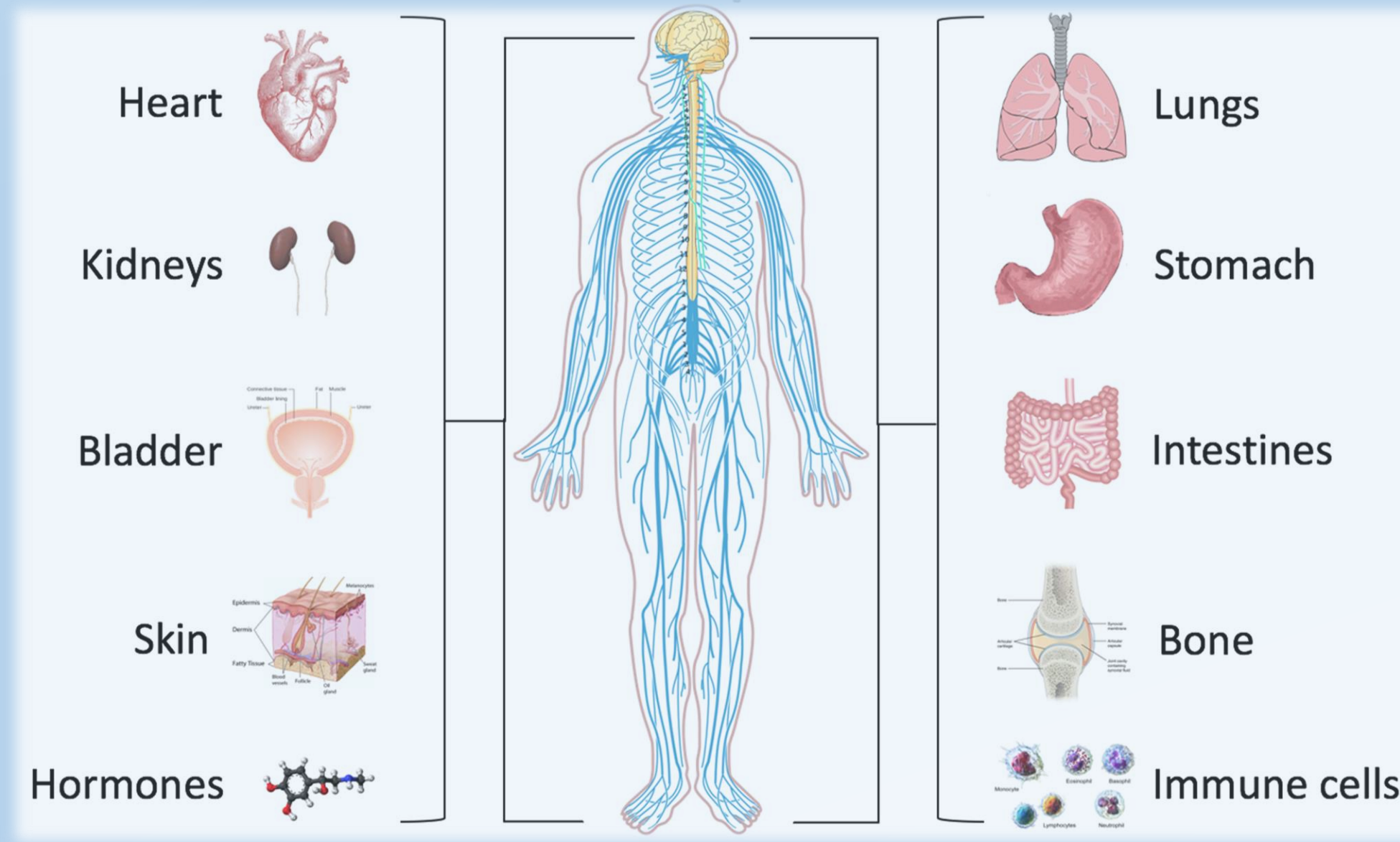


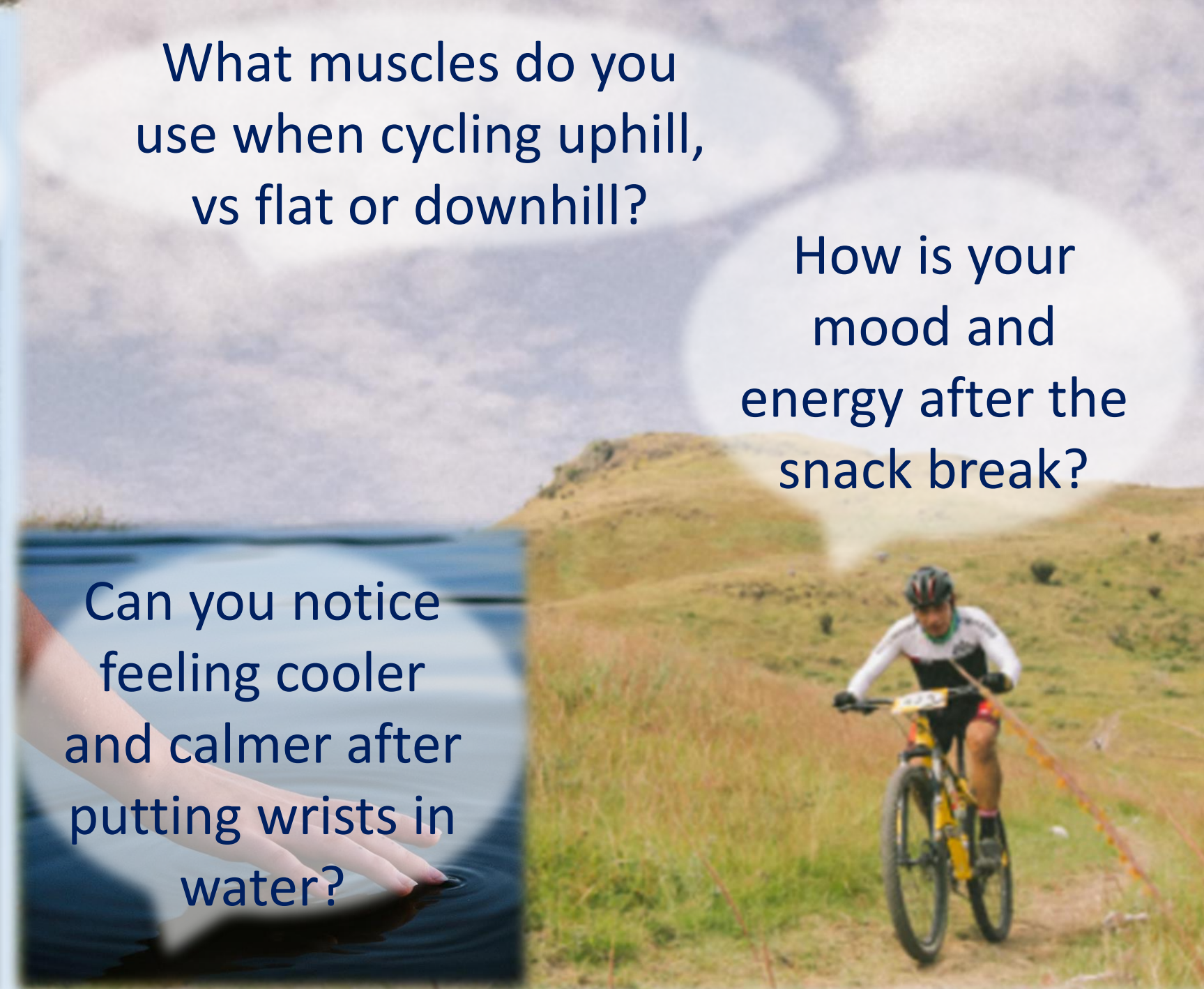
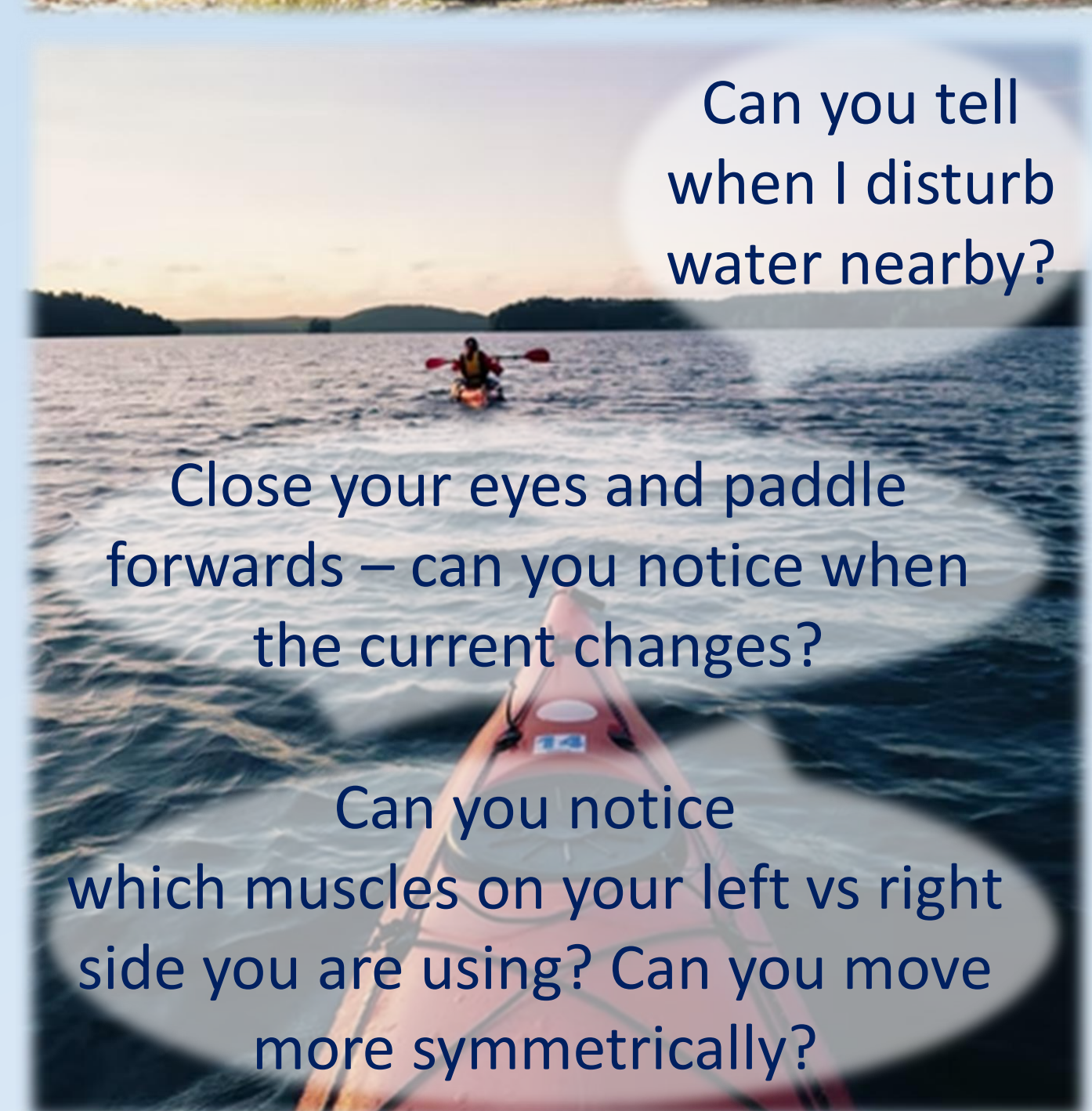
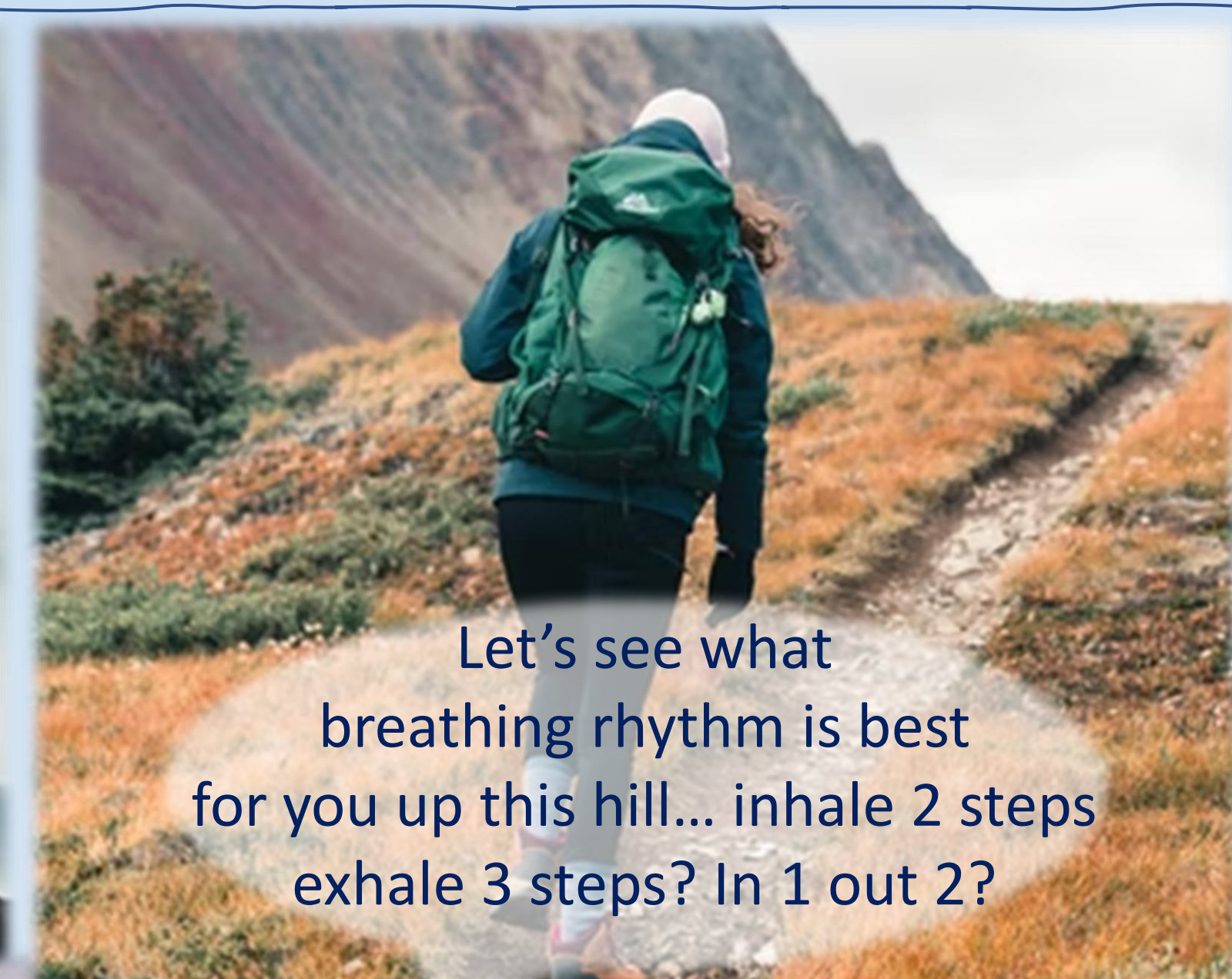
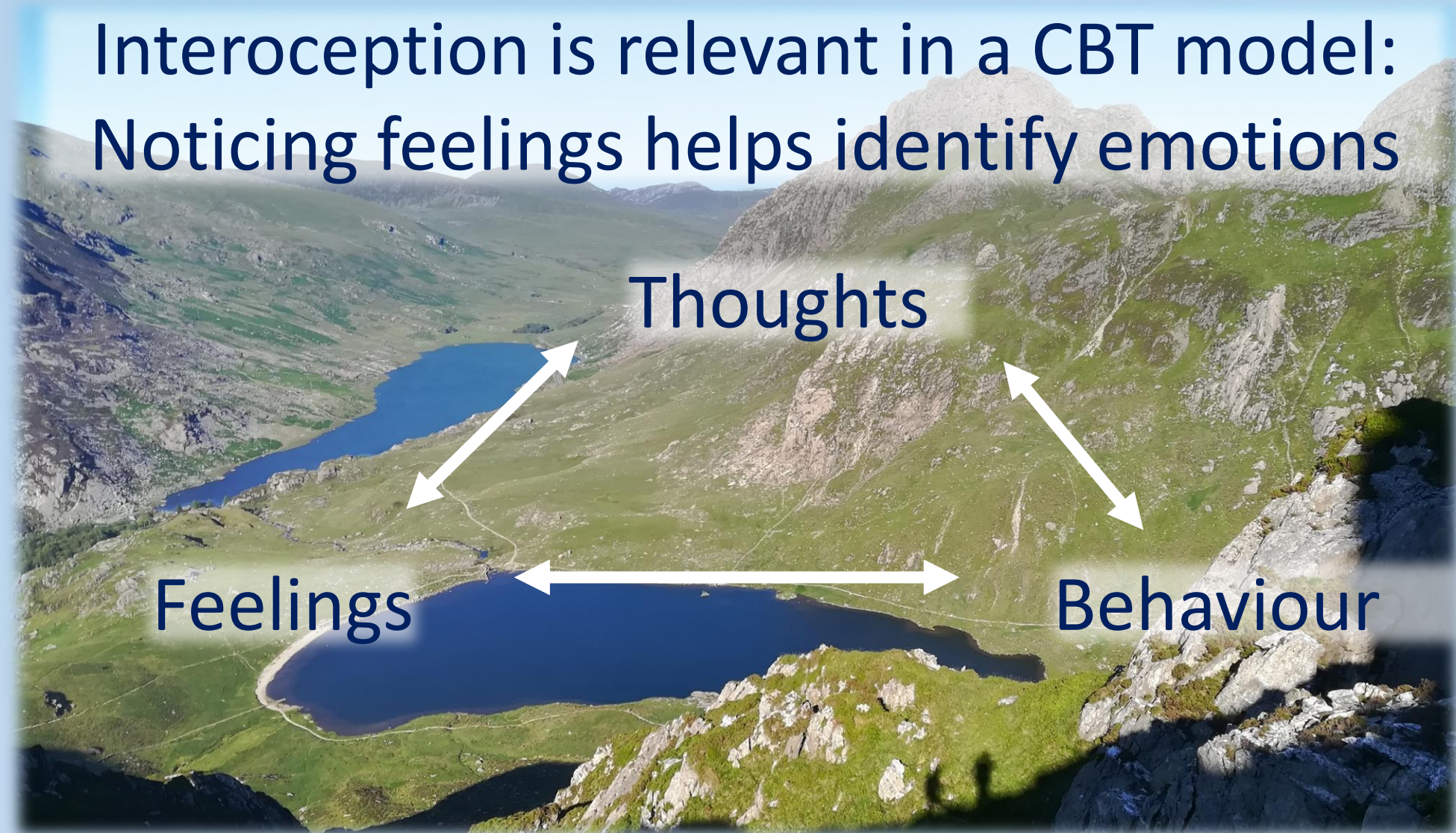
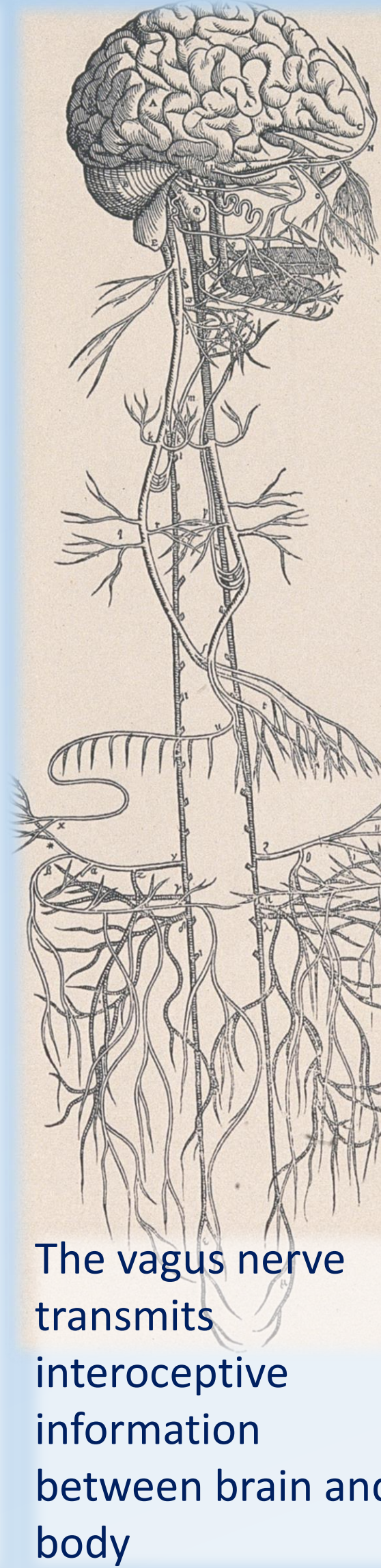
# Interoceptive Awareness Opportunities during Outdoor Education: Developing an Adventure Therapy programme for children with a history of complex trauma

## Study 1: Feasibility trial at Afon Goch Children's Homes Ltd.

Supervised by: Dr Lara Maister, Dr Jamie McDonald, Dr Andy Cooke, Dr Germano Gallicchio, Kevin Williams, Dr Dawn Wimpory

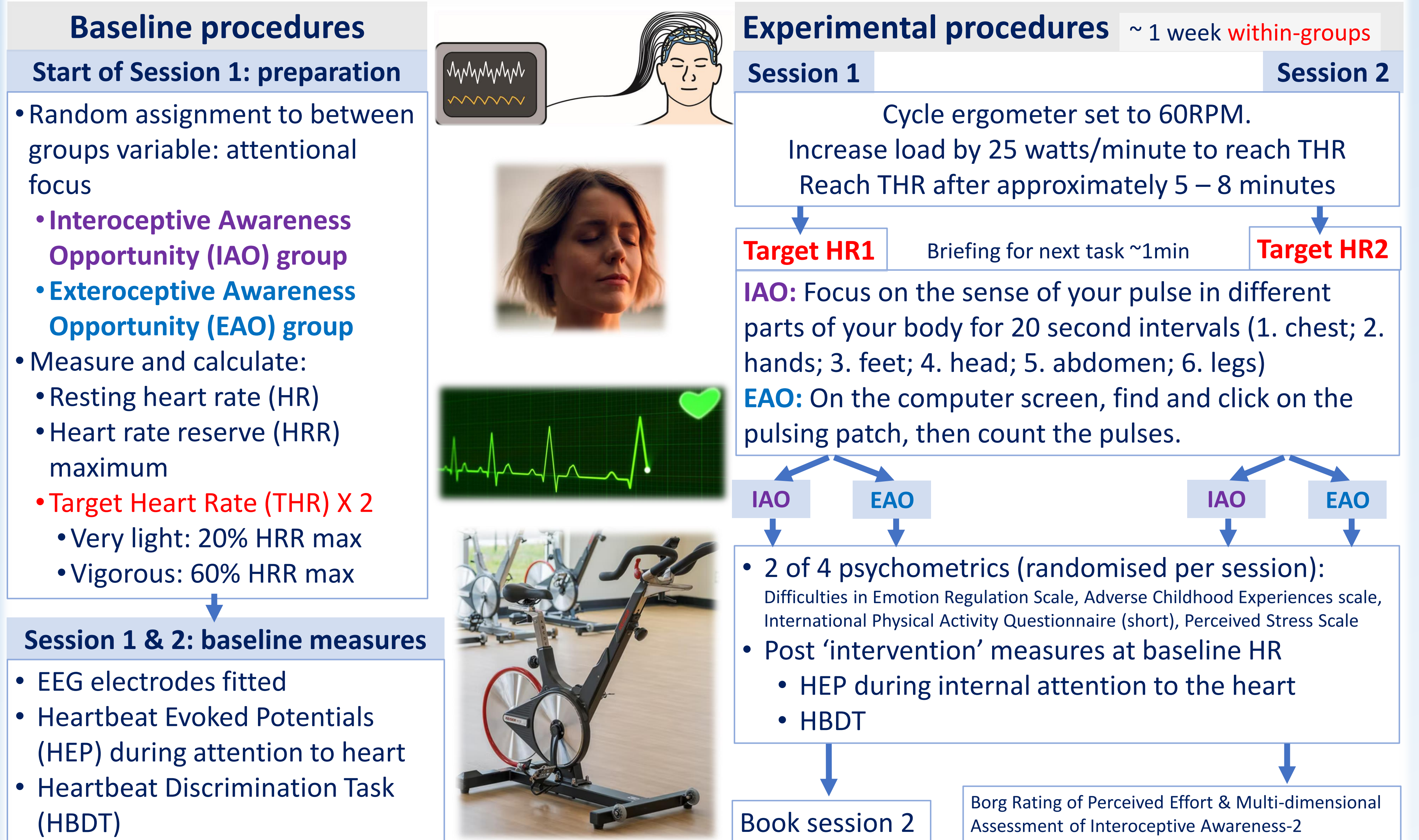


**'Interoception'** is the internal sense of our bodies and is related to our emotional wellbeing. There are strong links between interoception and mental health.<sup>[1]</sup> Maladaptive interoception can develop after traumatic life experiences.<sup>[2]</sup> Mindful body-based activities and exercise are thought to improve interoception.<sup>[3, 4]</sup> Interoceptive Awareness Opportunities (IAOs) are child-friendly tasks; designed to guide children's attention to senses in their body during 1:1 Outdoor Education, within their therapeutic residential placement. Instructors have introduced IAOs to consenting children and report that the tasks can be naturally incorporated whilst teaching the activity. IAOs can help hone children's physical and proprioceptive skills within the activity, plus also provides an opportunity to focus on interoceptive sensations in an enjoyable way. Children who avoid traditional therapy and education have engaged positively in IAOs. See below for examples:



Predictive 'priors'	Prediction Error	Recommended therapeutic interventions in a predictive coding model of maladaptive interoceptive systems
Hyper-precise, over-weighted		
<b>Type 1 trauma</b>	Under-weighted/ insensitive	'Seeding the brain' with novel sensation. Interoceptive accuracy training. Discrimination & attentional training to interoceptive input. Grounding techniques, reorienting to reality. Behavioural experiments. [5, 6, 7]
<b>PTSD</b>	Under-weighted	
<b>Depression</b>	Under and/or over-weighted	Process aversive interoceptive sense differently, minimise somatic error. Mindfulness. Shift attention from predicted body state to observed body state. Aerobic activity prevents depression. [7, 8, 9]
<b>Type 2 trauma &amp; anxiety</b>	Over-weighted & sensitive	Provide brain with intense novel sensory input, to reset brain's mapping of body state. Try new things. Create new associations from physical sensations that are safe and tolerable. Focus on cardiac/respiratory, vestibular sensations. [9, 10]

## Study 2: Can attentional focus and exertion affect interoception? Aiming to empirically validate Study 1, recruiting University students and testing out effects of one IAO using well-operationalised variables [11]



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