

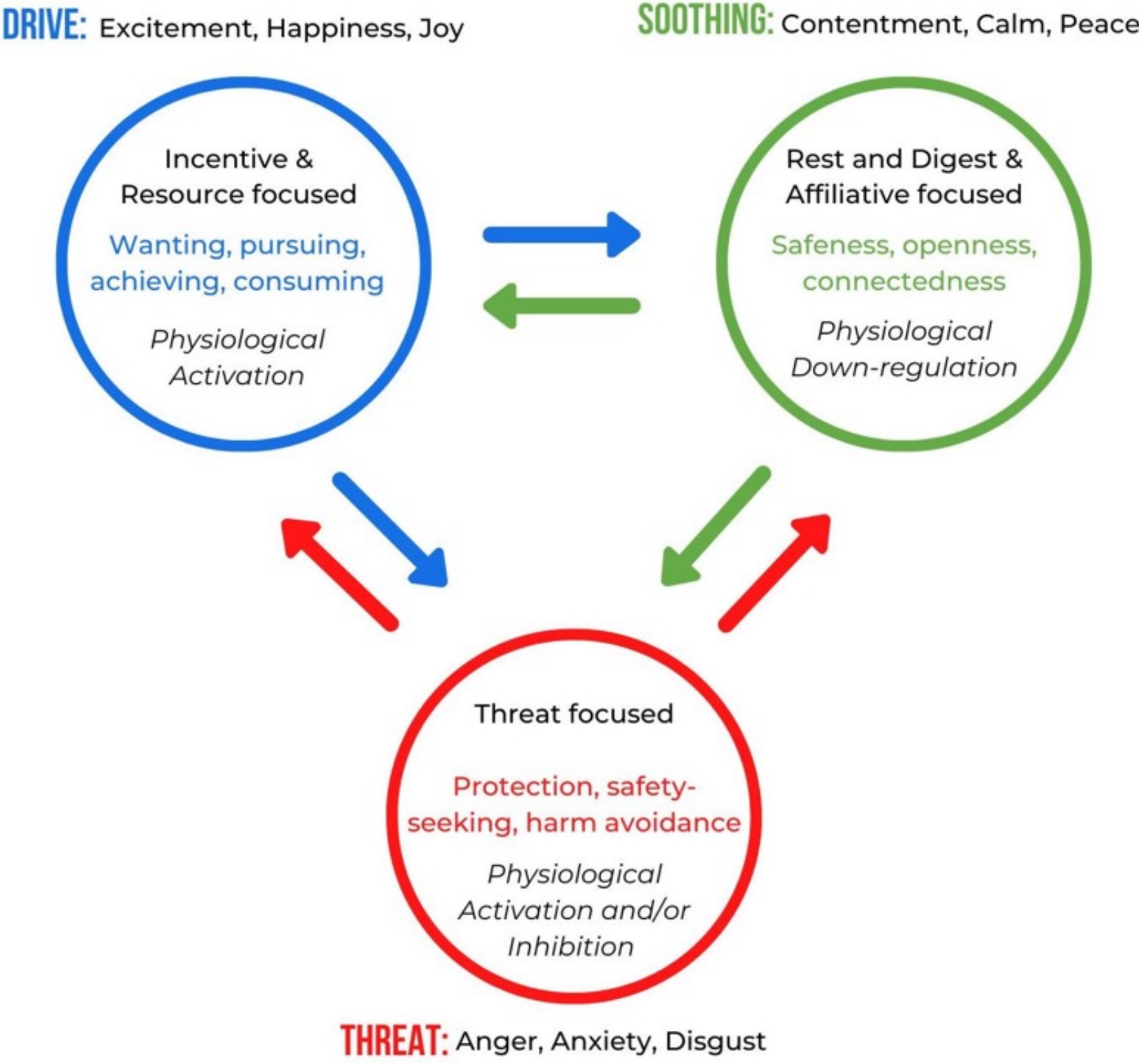
# THE THREE CIRCLES: A HIGHLY ADAPTIVE TOOL FOR CAPTURING EMOTIONAL EXPERIENCE IN THE REAL-WORLD

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## THEORETICAL BASIS

- The Tripartite Model proposes three primary emotional systems guiding motivation and behaviour
- Emotions are resultant from activity of three systems which motivate you to adapt to your environment
- Activation of each system is not mutually exclusive – systems activate in concert, often to regulate activity of other systems
- Each system plays a role in survival, but when one system becomes overactive or cannot be regulated, this may lead to psychopathology or mental health symptoms

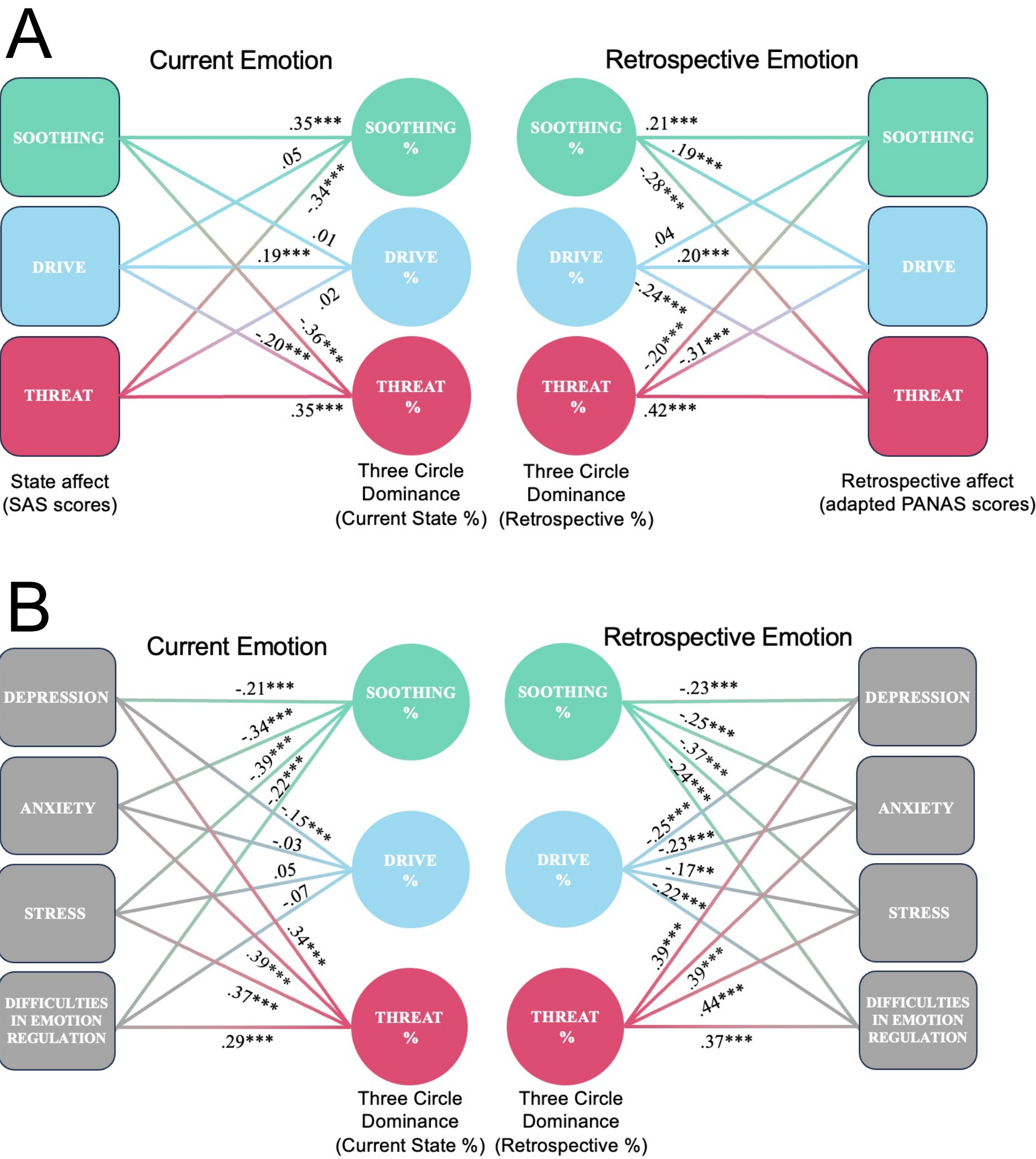


## THREE CIRCLE TOOL

- We developed a digital tool for measuring self-reported activation of each system
- Brief instructions detail an overview of the tripartite model in everyday language
- Respondents then resize three circles (Drive, Soothing, and Threat) to reflect their relative experienced activation
- The relative size of each circle (compared to the others) is used as the outcome metrics for each system, reflecting their relevant *dominance*
- The low effort, time, and language-comprehension requirements of the measure make it ideal for various target and general populations

## MEASURE VALIDATION

- When asked to report current emotions and their emotions over the past week, the **relative size of each system is significantly associated with the traditional psychometric scales** of respective emotions. [A]
- The relative size of the **Soothing** system **predicted lower psychological distress and emotion regulation difficulties**. Conversely, larger **Threat** system predicted **greater psychological distress and emotion regulation difficulties**. [B]
- When used in Experience Sampling to capture emotions 7 times per day, the Three Circles tool was **sensitive to changes over one week in emotional states**. [C]
- Parasympathetic activity (measured via heart rate variability) is significantly higher when the **Soothing** system is dominant, compared to when the **Threat** system is dominant. [D]



### THREE CIRCLES ADOLESCENT STUDY

- Currently validating the Three Circles for use with adolescents
- Students aged 12 – 17 years old complete the Three Circle measure and psychometric scales on emotions and emotion regulation in class
- Ethics approval to collect data from Independent and non-state schools
- Promises to be a useful tool in quickly gauging student emotions, with applications for educators to 'vibe-check' the classroom

### OCCUPATIONAL SIMULATION TRAINING STUDY

- Exploring how emotional experiences are related to knowledge and skill acquisition during virtual reality simulation training
- Collaboration with the Swiss Federal University for Vocational Education & Training
- Occupational trainees in Australia and Switzerland will complete the Three Circle measure during different phases of simulation training to track emotional experience
- Potential application in training contexts to quickly capture learner states to inform feedback and adapt training to individual needs

### TEACHER WELLBEING STUDY

- Investigating the influences on day-to-day emotional experiences of school educators, and how this impacts professional identity and wellbeing
- Brief (<1min) surveys will be sent daily to teachers via text message to capture longitudinal patterns of emotional experience and their antecedents
- Beyond understanding the factors contributing to or detracting from educator well-being, capturing emotions over time can be used to triage support or as a feedback mechanism for reflective practice

Scan code to test the Three Circles tool



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