# BCAL – Bio-Cue Adaptation Loop

## Narrative Description

BCAL is the data-responsive signal bridge that processes real-time biometric input to update session behavior dynamically. It determines whether a session should slow down, change tone, switch therapeutic module, or redirect to a group environment based on physiological changes.

## Algorithm Pseudocode

# Inputs  
biometric\_data = collect\_data(HRV, EKG, EDA)  
last\_known\_baseline = retrieve\_baseline\_data()  
  
# Core Adaptation Loop  
delta = compare\_current\_to\_baseline(biometric\_data, last\_known\_baseline)  
  
if delta > upper\_limit:  
 activate\_response("de-escalation")  
 clinician\_voice = set\_tone("reassuring")  
 redirect\_path("reflective\_mode")  
  
elif delta < lower\_limit:  
 escalate\_challenge()  
 clinician\_voice = set\_tone("motivational")  
 progress\_to\_next\_module()  
  
log\_physiological\_event(delta)  
store\_response\_delta\_to\_EHR()