Finding 2: Existential Flatness Under Competition

Statement

The emotional and neurological collapse of reference signal under performance pressure produces a state of existential flatness—a loss of meaning, agency, and embodied presence.

Mechanism

Within the Control Loop Framework, the reference signal is the nervous system's target state—not just for movement, but for the entire experience of self. Under normal conditions, the reference signal maintains a sense of agency, presence, and meaning. The athlete feels "themselves."

Under competitive pressure, the reference signal collapses. The nervous system cannot maintain its normal target state because cognitive resources are depleted and sensory feedback is degraded. The athlete loses their reference signal for what it feels like to be themselves.

This produces existential flatness—a state in which the athlete is physically present but emotionally absent. They describe it as "not being there," "going through the motions," or "watching themselves play." This is not anxiety or fear. It is a neurological collapse of the reference signal that maintains sense of self.

Key Implications

- **Pressure performance is not primarily psychological**: It is a nervous system organization problem

- **Reference signal maintenance is trainable**: Athletes can learn to maintain reference signals under pressure
- **Existential flatness indicates reference signal collapse**: When athletes report feeling absent, the issue is reference signal degradation, not confidence or mental toughness

Practical Applications

1. Train reference signal maintenance under progressive pressure
2. Use somatic anchoring (Finding 13) to stabilize reference signals
3. Identify early signs of reference signal degradation
4. Implement recovery protocols when flatness occurs

Competitive Context

Elite athletes maintain embodied presence even under extreme pressure. They describe feeling “in the moment” or “in the zone.” This is not luck or talent—it is a result of training that maintains reference signal stability under pressure.

Study 001 — Control Loop Framework Research
The Unfinished Athlete — Scott Felluss, PhD