# STATE CATEGORIZATION HIERARCHY

## BROAD CATEGORIES (3)

**ENGAGED**
**High Performance**
**Task-Focused**

**MIXED**
**Strategic/Variable**
**Intermediate**

**LAPSED**
**Poor Performance**
**Disengaged**

## DETAILED STATES (5)

**Deliberative HP**

- Acc > 65%
- Variable RT
- Strong WSLS

**Procedural HP**

- Acc > 65%
- CV < 0.65
- Habitual

**WSLS Strategy**

- Strong WSLS
- Variable Acc
- Moderate RT

**Disengaged Lapse**

- Acc < 65%
- High CV
- Low WSLS

**Perseverative Bias**

- High Side Bias
- Low Acc
- Repetitive

**KEY DISTINCTION: Deliberative vs Procedural HP**

Both achieve high accuracy, but differ in HOW:

DELIBERATIVE: Thoughtful, effortful, variable RT
PROCEDURAL: Automatic, habitual, consistent RT

Early learning → Deliberative | Late learning → Procedural

**VALIDATION CRITERIA**

- Accuracy: Choice correctness
- Latency CV: Response consistency
- WSLS Ratio: Strategy use
- Side Bias: Perseveration

Automated classification with confidence scoring

■ Engaged States ■ Mixed States ■ Lapsed States