

Supplemental Results

This section provides additional examples and extended analysis supporting the main experimental results.

Extended Quadrant Examples

Quadrant 1: Advanced Sensory Processing

Example: Visual Scene Recognition

States: {indoor_scene, outdoor_scene, urban_scene, natural_scene} **Observations:** {geometric_patterns, organic_patterns, human_made_objects, natural_elements}

Actions: {foveate_center, pan_left, pan_right, zoom_in, zoom_out}

Generative Model:

$$A = \begin{pmatrix} 0.8 & 0.1 & 0.9 & 0.2 \\ 0.1 & 0.8 & 0.05 & 0.7 \\ 0.05 & 0.05 & 0.03 & 0.05 \\ 0.05 & 0.05 & 0.02 & 0.05 \end{pmatrix}$$

Preference Structure: