

|               | IBR (%) |         |         |          |          | Strategy Diversity (EHE) |         |         |            |            |
|---------------|---------|---------|---------|----------|----------|--------------------------|---------|---------|------------|------------|
| Model         | Group A | Group B | Group C | ΔR (B–A) | ΔR (C–A) | Group A                  | Group B | Group C | ΔEHE (B–A) | ΔEHE (C–A) |
| Gemma-3 4B    | 1.15    | 0.86    | 0.86    | -0.290   | -0.290   | 0.307                    | 0.636   | 0.636   | +0.329     | +0.329     |
| Gemma-3 12B   | 3.35    | —       | 0.15    | —        | -3.200   | 0.282                    | —       | 0.310   | —          | +0.028     |
| Gemma-3 27B   | 0.78    | —       | 0.33    | —        | -0.450   | 0.322                    | —       | 0.496   | —          | +0.174     |
| Ministral 3B  | 8.89    | —       | 1.70    | —        | -7.190   | 0.373                    | —       | 0.571   | —          | +0.198     |
| Ministral 8B  | 1.56    | —       | 0.13    | —        | -1.430   | 0.555                    | —       | 0.531   | —          | -0.024     |
| Ministral 14B | 11.61   | —       | 0.40    | —        | -11.210  | 0.572                    | —       | 0.605   | —          | +0.033     |

IBR = Irrational Behaviour Rate (lower is better). EHE = Strategy Diversity via normalized Shannon entropy (higher is better).  
Group A = Ungoverned. Group B = Governed (window memory, Gemma-3 4B only). Group C = Governed (HumanCentric memory).  
Red highlights: IBR reduction (governance reduces irrationality) or EHE increase > 0.05 (governance widens diversity). All flood domain, 100 agents × 10 yr, 3 seeds.