

Phase 8 – Post-Training Analysis Report

Generated: 2025-11-18 05:01:15

Results folder: phase8_results_20251118_050009

Weights sampled: 40

Episodes/weight: 50

Pareto points found (by mean): 5

Mean/std not found in summary.

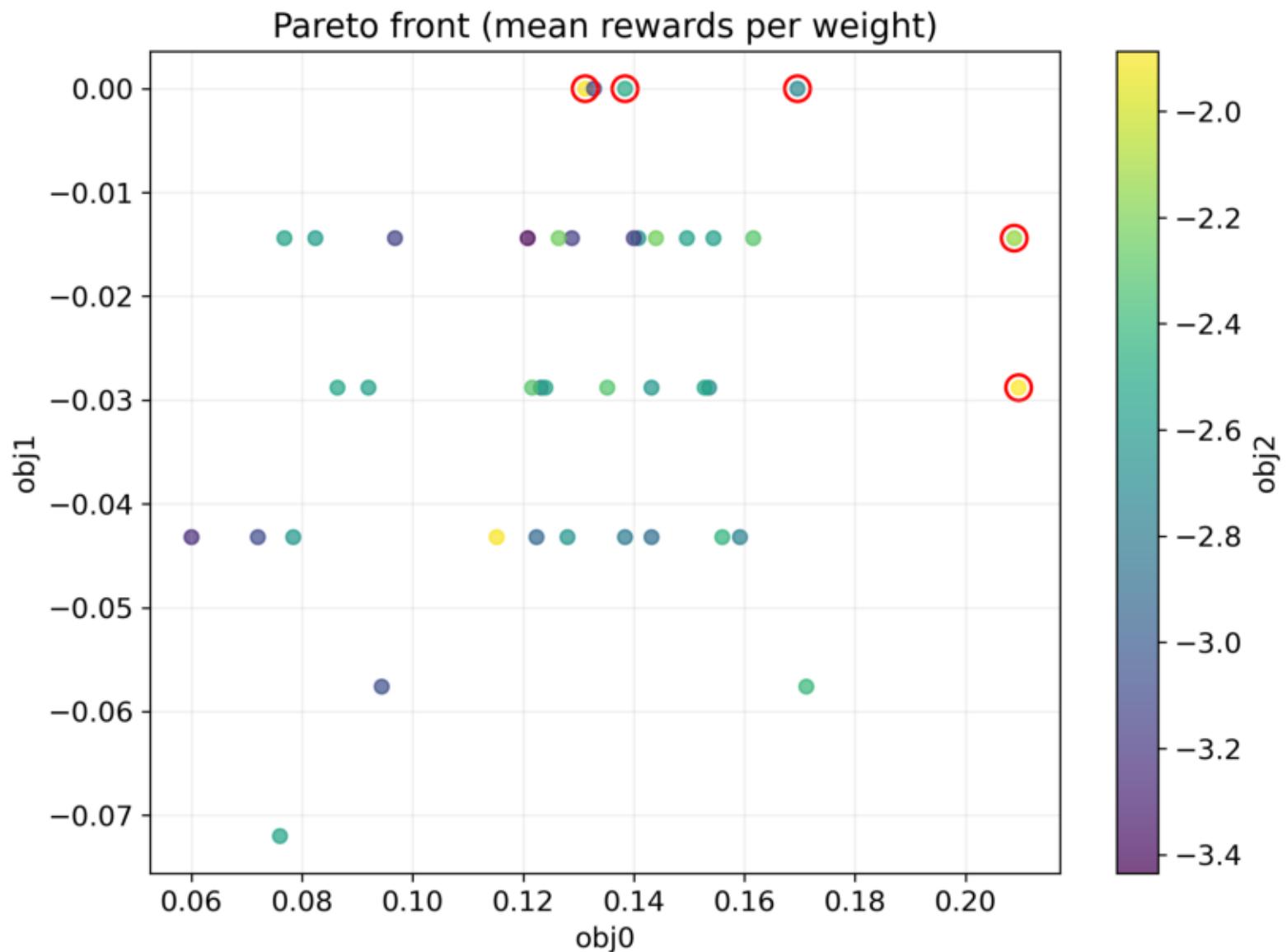
Interpretation (auto-generated):

- The Pareto plot shows trade-offs between objectives across sampled weight vectors.
- The action-frequency heatmap highlights which actions (drugs) are preferred under different weights.
- Radar plots summarize per-weight tradeoffs; correlation matrix shows objective correlations.

Limitations:

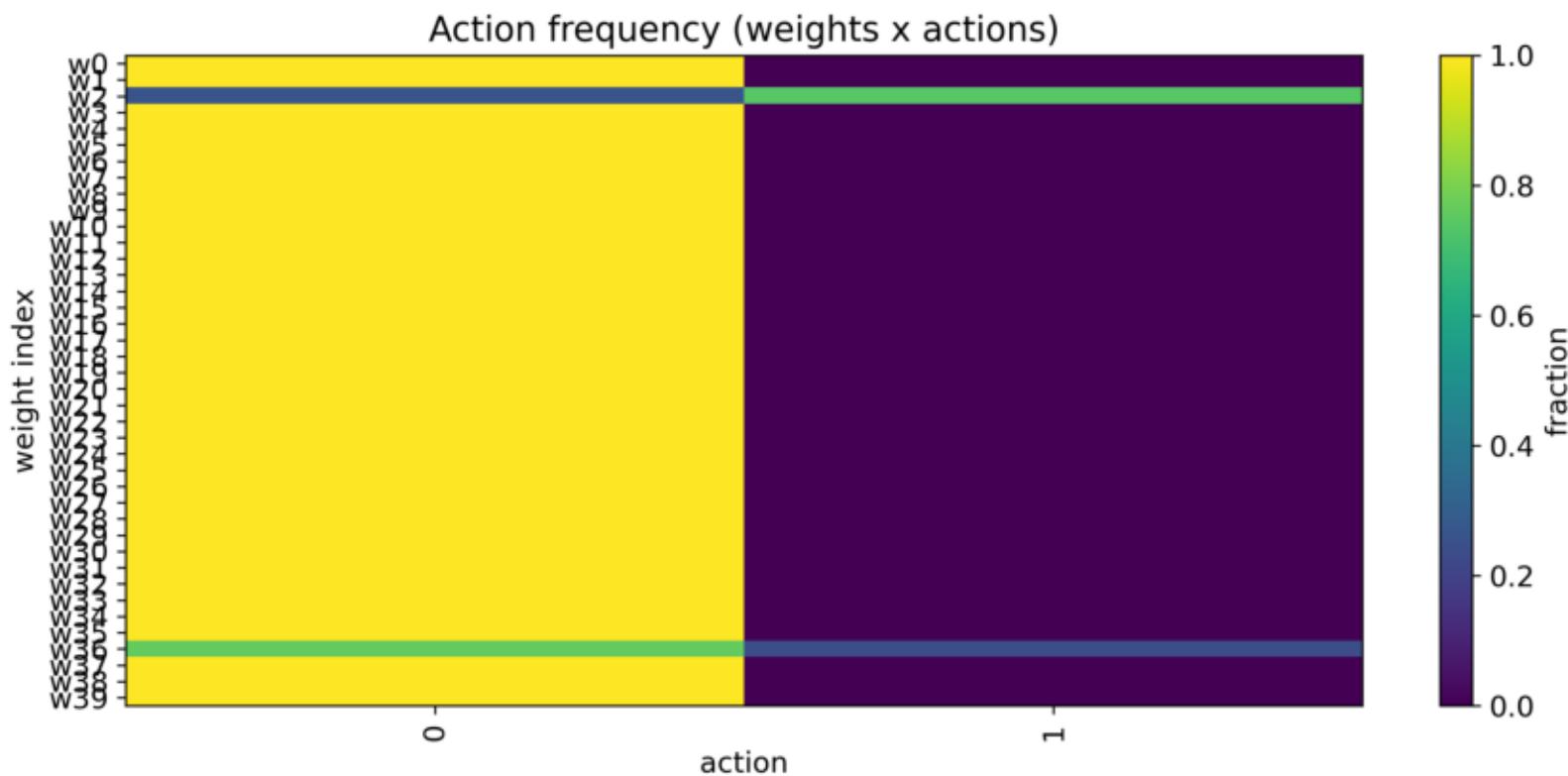
- Evaluation uses `agent.eval()` with per-weight greedy selection — may not capture stochasticity.
- Clinical interpretation requires mapping actions → drug names and domain expert review.

Pareto Scatter (mean per weight)



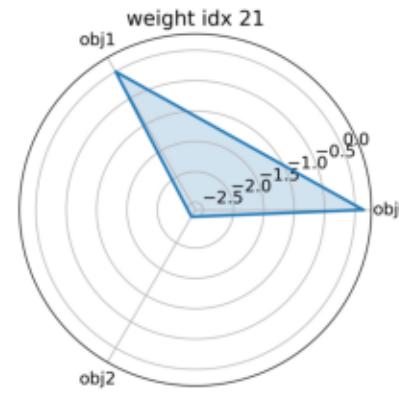
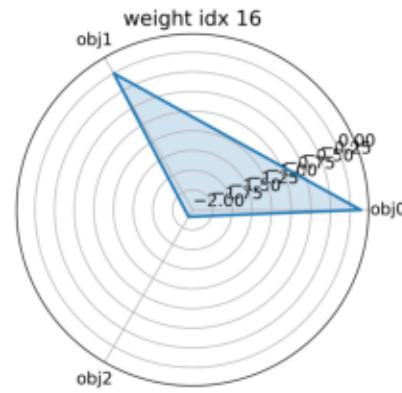
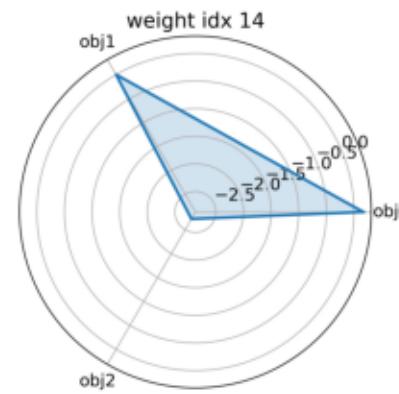
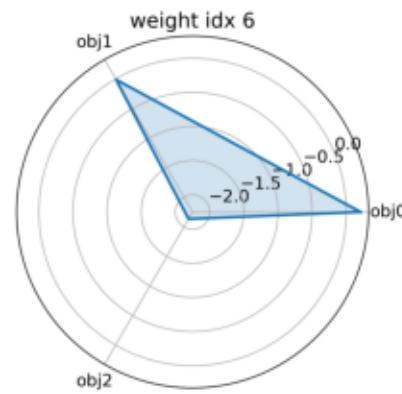
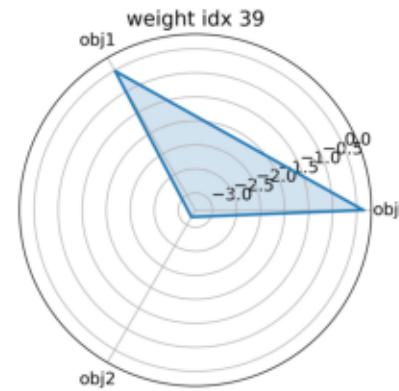
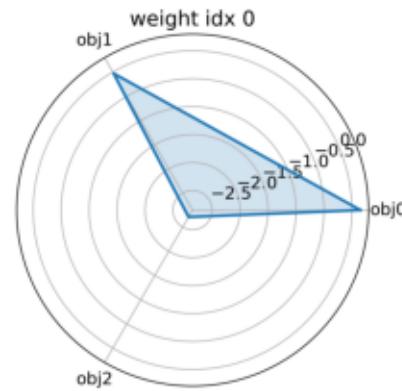
Pareto scatter: mean reward vector for each sampled weight. Red markers indicate estimated Pareto frontier.

Action Frequency Heatmap



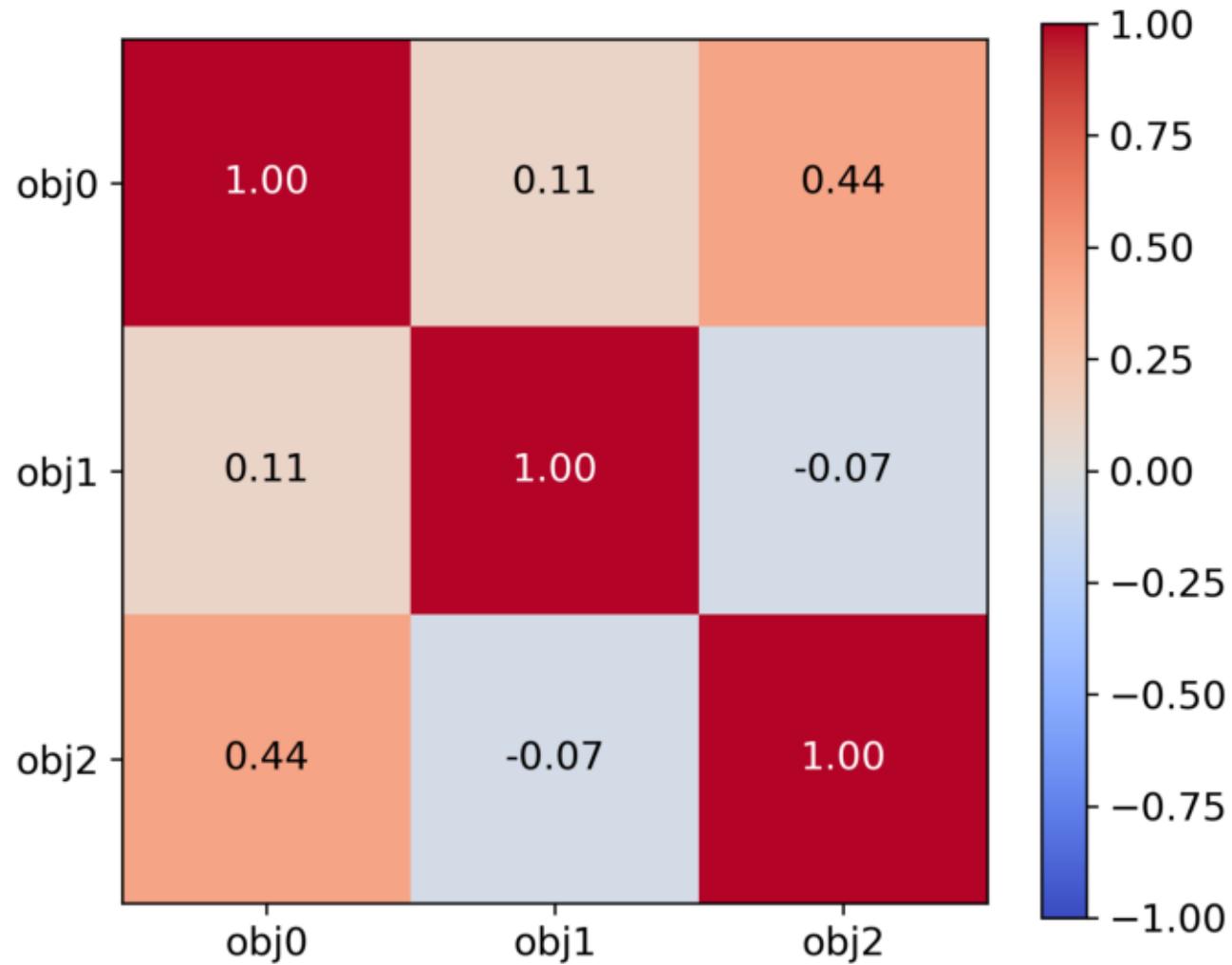
Rows = weight vectors, Columns = action indices. Values = fraction of picks across episodes.

Tradeoff Radar Plots



Radar plots of mean objective values for representative weight vectors.

Reward Correlation Matrix



Pearson correlation matrix between objective returns across all evaluated episodes.

Flat results preview (first 20 rows)

id	label	model_id	label_id	is	is	is	is
1	ALTAZADDEK'S L'ESTWOOD'S LEHMANNING	1	20004	L'ESTWOOD'S LEHMANNING	0.0	LEHMANNING	0.0
2	ALTAZADDEK'S L'ESTWOOD'S LEHMANNING	1	20764	L'ESTWOOD'S LEHMANNING	0.0	LEHMANNING	0.0
3	ALTAZADDEK'S L'ESTWOOD'S LEHMANNING	1	20844	L'ESTWOOD'S LEHMANNING	0.0	LEHMANNING	0.0
4	ALTAZADDEK'S L'ESTWOOD'S LEHMANNING	1	20844	L'ESTWOOD'S LEHMANNING	0.0	LEHMANNING	0.0
5	ALTAZADDEK'S L'ESTWOOD'S LEHMANNING	1	20844	L'ESTWOOD'S LEHMANNING	0.0	LEHMANNING	0.0
6	ALTAZADDEK'S L'ESTWOOD'S LEHMANNING	1	20844	L'ESTWOOD'S LEHMANNING	0.0	LEHMANNING	0.0
7	ALTAZADDEK'S L'ESTWOOD'S LEHMANNING	1	20844	L'ESTWOOD'S LEHMANNING	0.0	LEHMANNING	0.0
8	ALTAZADDEK'S L'ESTWOOD'S LEHMANNING	1	20844	L'ESTWOOD'S LEHMANNING	0.0	LEHMANNING	0.0
9	ALTAZADDEK'S L'ESTWOOD'S LEHMANNING	1	20844	L'ESTWOOD'S LEHMANNING	0.0	LEHMANNING	0.0
10	ALTAZADDEK'S L'ESTWOOD'S LEHMANNING	1	20844	L'ESTWOOD'S LEHMANNING	0.0	LEHMANNING	0.0
11	ALTAZADDEK'S L'ESTWOOD'S LEHMANNING	1	20844	L'ESTWOOD'S LEHMANNING	0.0	LEHMANNING	0.0
12	ALTAZADDEK'S L'ESTWOOD'S LEHMANNING	1	20844	L'ESTWOOD'S LEHMANNING	0.0	LEHMANNING	0.0
13	ALTAZADDEK'S L'ESTWOOD'S LEHMANNING	1	20844	L'ESTWOOD'S LEHMANNING	0.0	LEHMANNING	0.0
14	ALTAZADDEK'S L'ESTWOOD'S LEHMANNING	1	20844	L'ESTWOOD'S LEHMANNING	0.0	LEHMANNING	0.0
15	ALTAZADDEK'S L'ESTWOOD'S LEHMANNING	1	20844	L'ESTWOOD'S LEHMANNING	0.0	LEHMANNING	0.0
16	ALTAZADDEK'S L'ESTWOOD'S LEHMANNING	1	20844	L'ESTWOOD'S LEHMANNING	0.0	LEHMANNING	0.0
17	ALTAZADDEK'S L'ESTWOOD'S LEHMANNING	1	20844	L'ESTWOOD'S LEHMANNING	0.0	LEHMANNING	0.0
18	ALTAZADDEK'S L'ESTWOOD'S LEHMANNING	1	20844	L'ESTWOOD'S LEHMANNING	0.0	LEHMANNING	0.0
19	ALTAZADDEK'S L'ESTWOOD'S LEHMANNING	1	20844	L'ESTWOOD'S LEHMANNING	0.0	LEHMANNING	0.0
20	ALTAZADDEK'S L'ESTWOOD'S LEHMANNING	1	20844	L'ESTWOOD'S LEHMANNING	0.0	LEHMANNING	0.0

Next steps (suggested)

Recommended next steps:

- 1) Map action indices → drug names and produce a clinical interpretation table.
- 2) Run targeted weight sweeps around Pareto regions for higher resolution.
- 3) Build a Streamlit demo to interactively toggle weights and visualize policy actions.
- 4) Prepare a write-up or manuscript with methods, experiments, and clinical validation plan.