INTERNSHIP PROGRESS

Modeling curriculum learning

TABLE OF CONTENTS

WEEKLY OBJECTIVES

	FEBRUARY	MARCH	APRIL	MAY
W1	/	Level 2: accuracy RL Level 2: learning progress RL	Level 3: integrate all LVL2 and manually set weights	Finishing touches Written report
W2	/	Unify level 1 Compare different versions of the model	Level 3: create the policy gradient model	Written report
W3	Level 1: implement tasks and neural network	Prepare the presentation	Level 3: explore more options (chaining effect? Between-task learning?)	(exams)
W4	Finish 3 models for Level 1 Level 2: accuracy RL learning	**LAB PRESENTATION** Integrate all suggestions	Level 3: adjust and compare model performances	(exams)

🟧 Past week

🟩 Upcoming week

LAST WEEK'S OBJECTIVES

COMBINE ALL CRITERIA

Novelty, LPx2, Accuracy

✓

② 2

COMPARE MODELS

Each individual model + combined version

④ 4

...

...

③ 3

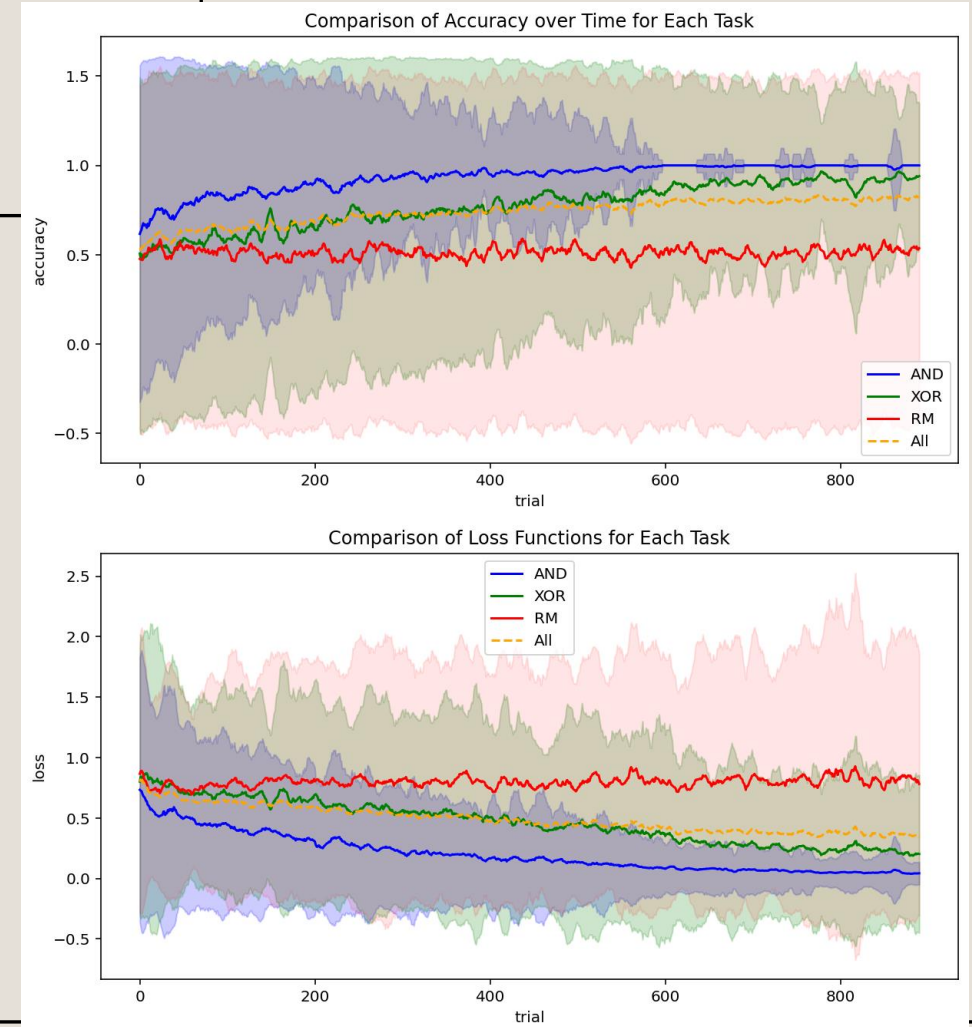## SUMMARISE FINDINGS

Write a short summary of findings, questions and plan for next week.

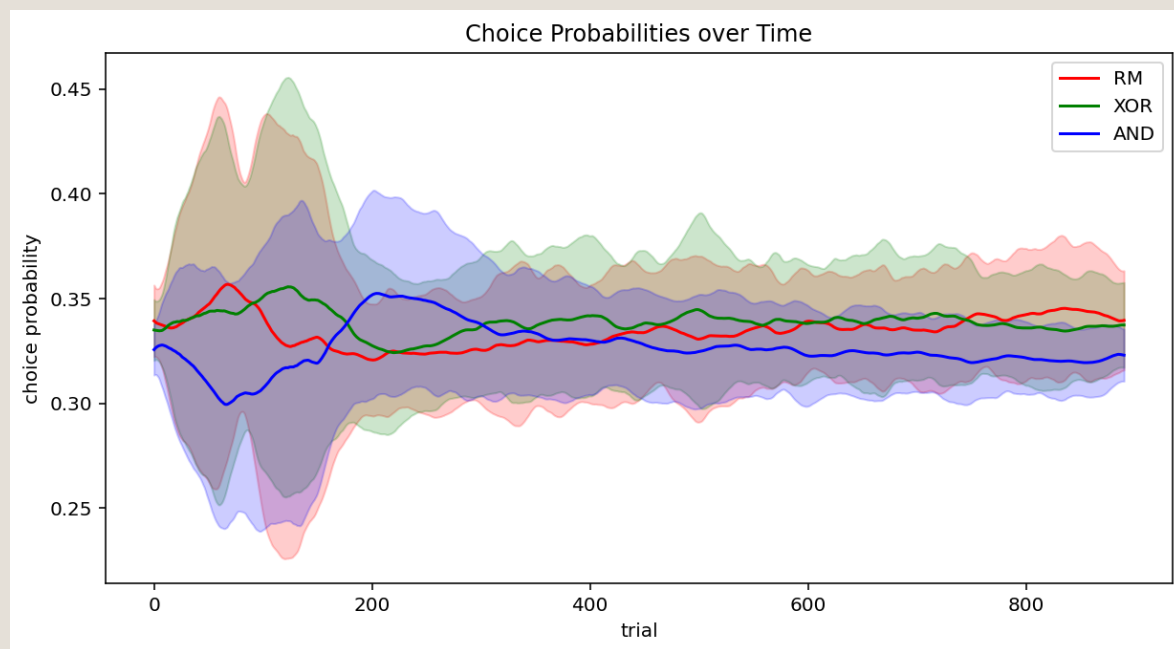⑤ 5

① 1 ## TRY THE HPC

For more efficiency

✓

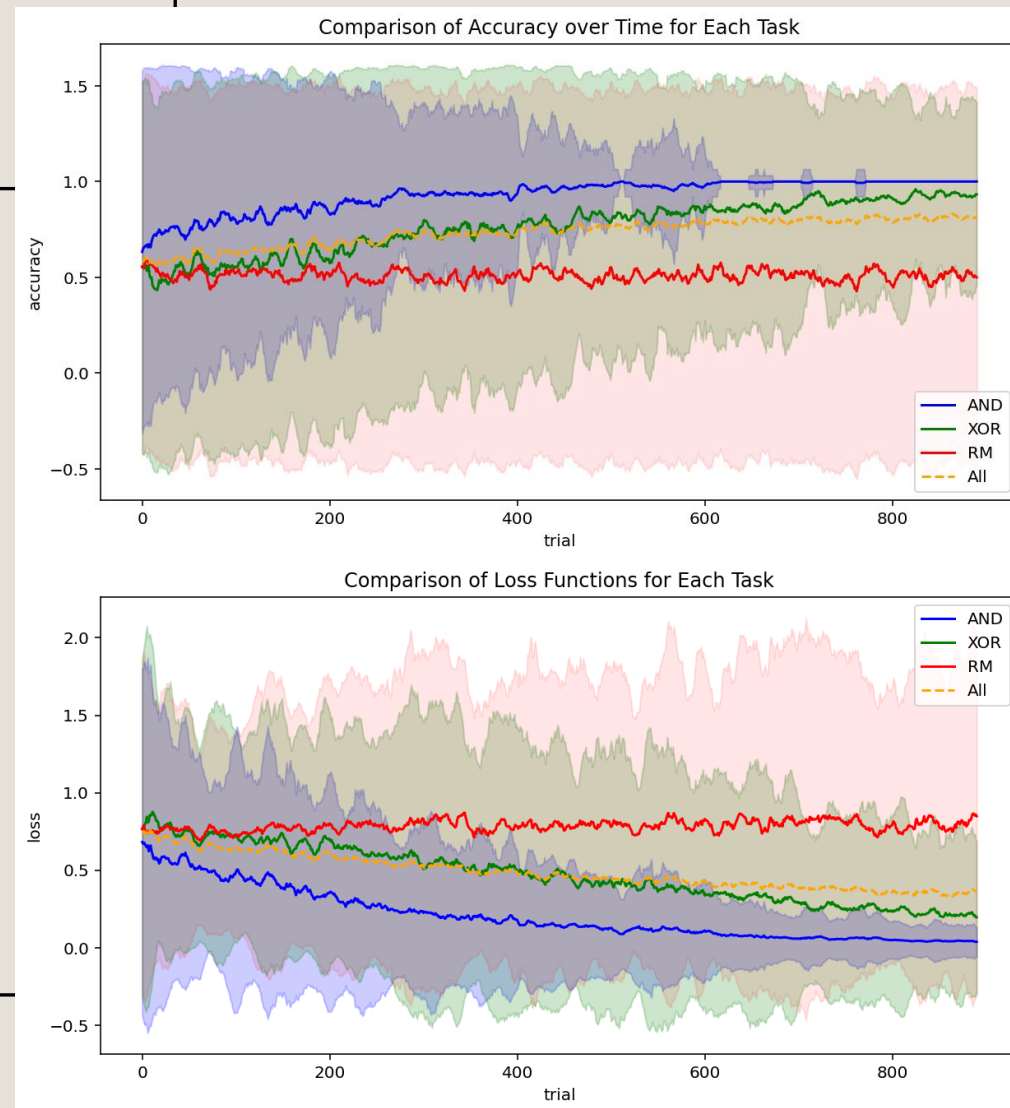# Signed LP model (30 x 900 trials, 1 trial per epoch)
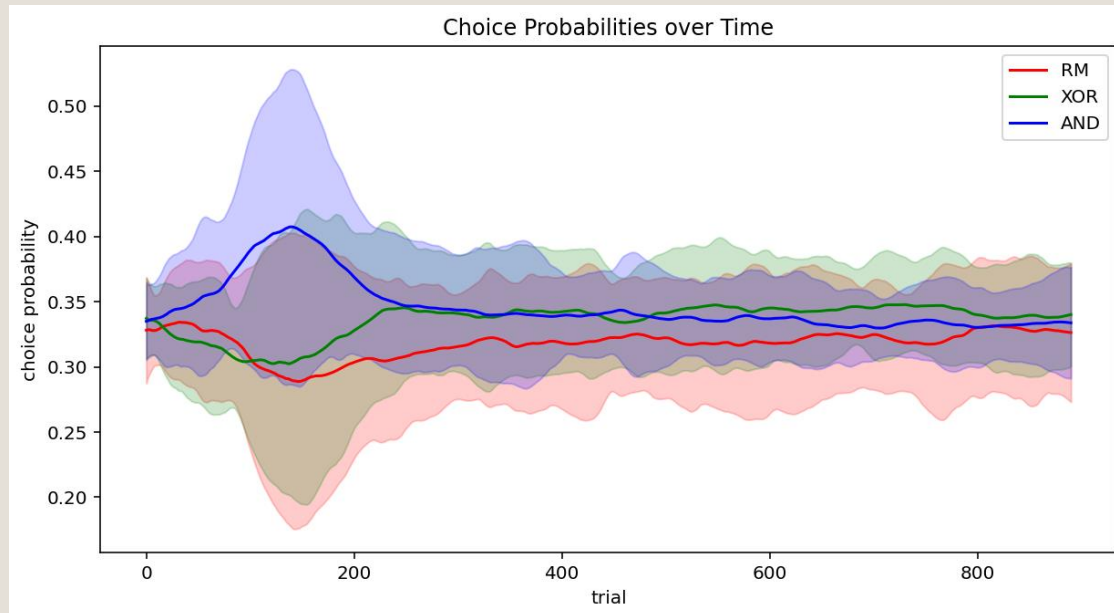
XOR is way harder now: only 1 trial at a time, no flip

Still too little differenciation
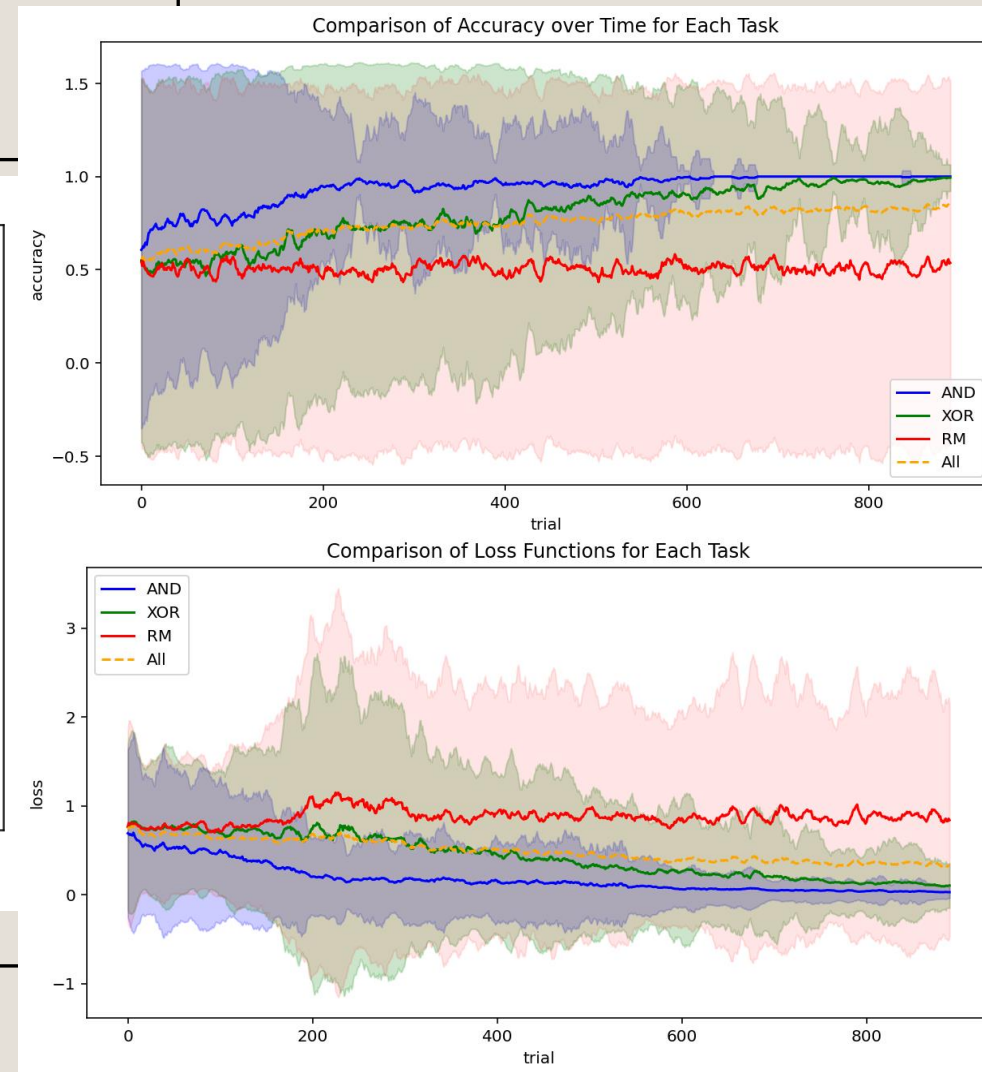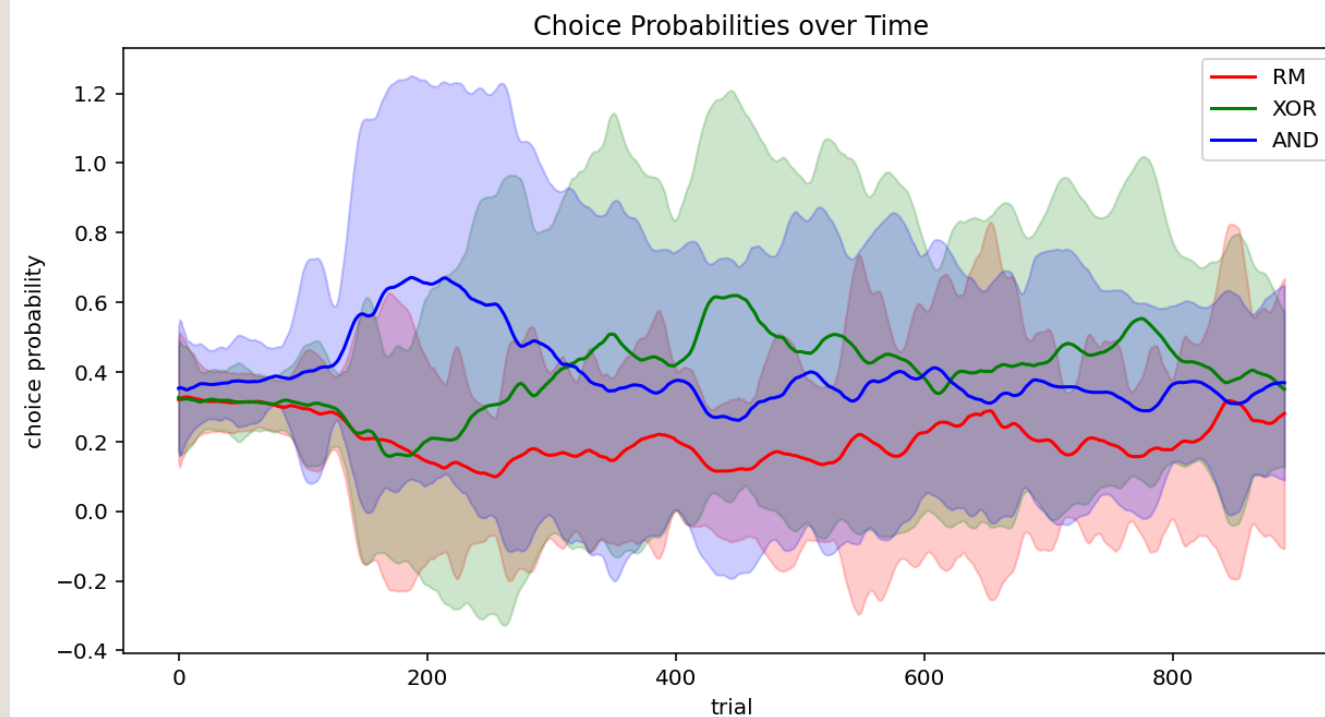
Catastrophic forgetting

Unsigned LP model (30 x 900 trials, 1 trial per epoch)

What the models look like

Combined criteria, manual weights

Choice Probabilities over Time

Comparison of Accuracy over Time for Each Task

Comparison of Loss Functions for Each Task

What the models look like

```
weight = {
'LP_signed': 10,
'LP_unsigned': 10,
'acc': 1,
'novelty': 1
} #manually set for now
```

QUESTIONS

QUESTION 1	▪ Scaling accross rewards: through weights?
QUESTION 2	▪ Rewards weights are universal (vs task specific)?
NOTES	▪ Maximise criteria for policy gradient model: mean accuracy

NEXT WEEK'S OBJECTIVES

COMPARE PERFORMANCE

Of combined criteria and different weights

②

...

...

④

TRY NEW CRITERIA

Entropy

③

SUMMARISE FINDINGS

Write a short summary of findings, questions and plan for next week.

⑤

① START LVL 3

With a policy gradient model