Analyses of Relational Coherence and Rule-Following

Consistent liars are preferred over occasional truth tellers

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The Behavior-analytic Study of Rule-following

- The capacity to engage in rule-governed behaviour has long been identified as important within the behaviour-analytic study of human learning
- This capacity is also highlighted as a critical behaviour that differentiates humans from non-human animals
- A wealth of research has emerged within the tradition on aspects such as rule-based contingency insensitivity, how rule-following is affected by different reinforcement schedules, generalisation of rule-following, how rules can influence how time and resources are allocated, how decisions are made, and how to respond to social cues

But why do we follow rules provided by some people but not others?

- One way of going about this is making a distinction between different types of rules (e.g., pliance, tracking and augmenting)
- But of course these are not precise technical terms—maybe we could ask questions about rule-following using more technically precise terms (in the service of developing a precise experimental analysis of this behaviour)?
- That is, irrespective of whether you consider it a ply or track, why do you follow a rule provided by one individual but are less likely to follow it by another?
- What are the variables that impact on this likelihood?

The Psychological Record (2022) 72:145–158
https://doi.org/10.1007/s40732-021-00458-x

THEORETICAL ARTICLE

The Status of Rule-Governed Behavior as Pliance, Tracking and Augmenting within Relational Frame Theory: Middle-Level Rather than Technical Terms

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Accepted: 1 February 2021 / Published online: 11 March 2021

Abstract
A recent systematic review has highlighted that the terms "pliance," "tracking," and "augmenting" have rarely been used as the basis for conducting systematic experimental-analytic research since their conception in 1982, despite their theoretical centrality to the study of rule-governed behavior and their presumed impact on psychological suffering. Given that some time has passed since the review article, it may be useful to reflect again upon their place within the literature on the experimental analysis of human behavior, and relational frame theory in particular. As such, the current article constitutes a "position piece" rather than another formal systematic review. In reviewing (informally) the literature since the systematic review, the recent emergence of psychometric research involving these concepts could be seen as reinforcing the original conclusions, in that researchers are recognizing that pliance, tracking, and augmenting may be of limited value in the experimental analysis of human behavior. Instead, the concept of rule-governed behavior itself, as well as the subcategories of pliance, tracking, and augmenting, should be considered middle-level terms, which lack the relative precision of more technical terms within the literature on relational frame theory.

Keywords pliance · tracking · augmenting · rule-governed behavior · RFT/ACT

Rule-following and the Impact of Coherence

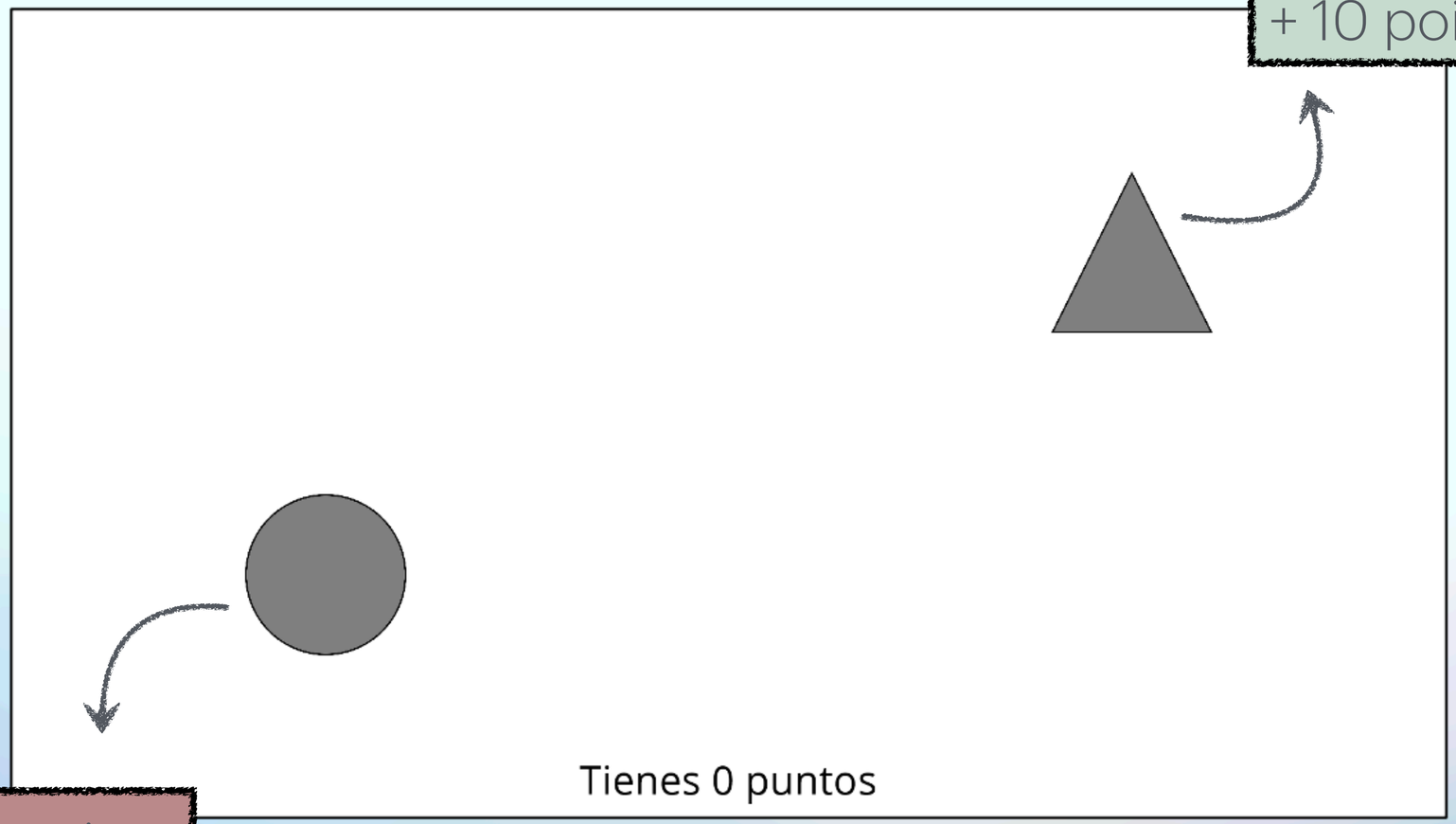
- One potential source is a history of relational coherence in terms of your history of interactions with a speaker
- Coherence refers to the extent to which a pattern of relational responding is consistent (coherent) with a previously established pattern
- The extent to which responding is generally predictable based on prior histories of reinforcement (Bern et al., 2021, p.280)
- Bianchi et al. began to “explore the extent to which manipulating coherence would impact upon the extent to which a listener would follow the advice of a speaker and would show a preference for one speaker over another” (p.6)

How do different levels of speaker coherence impact upon speaker preference and rule-following?

Experiment 1

Phase 1

Simple Discrimination Training

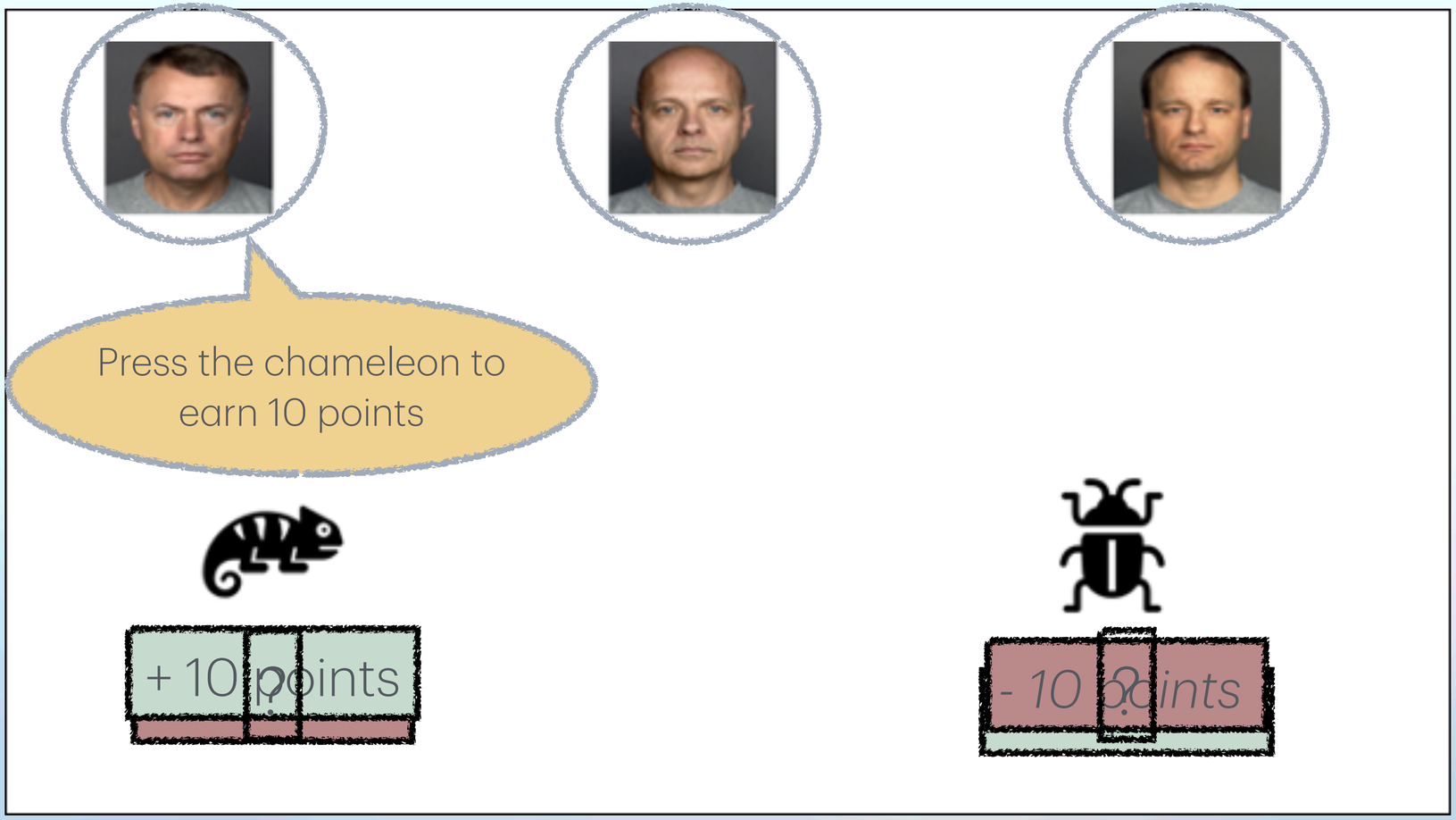


Mastery Criteria

450 points

Phase 2

Speaker Relational Coherence Training



Speaker 1:
100% correct

Speaker 2:
50% correct

Speaker 3:
0% correct

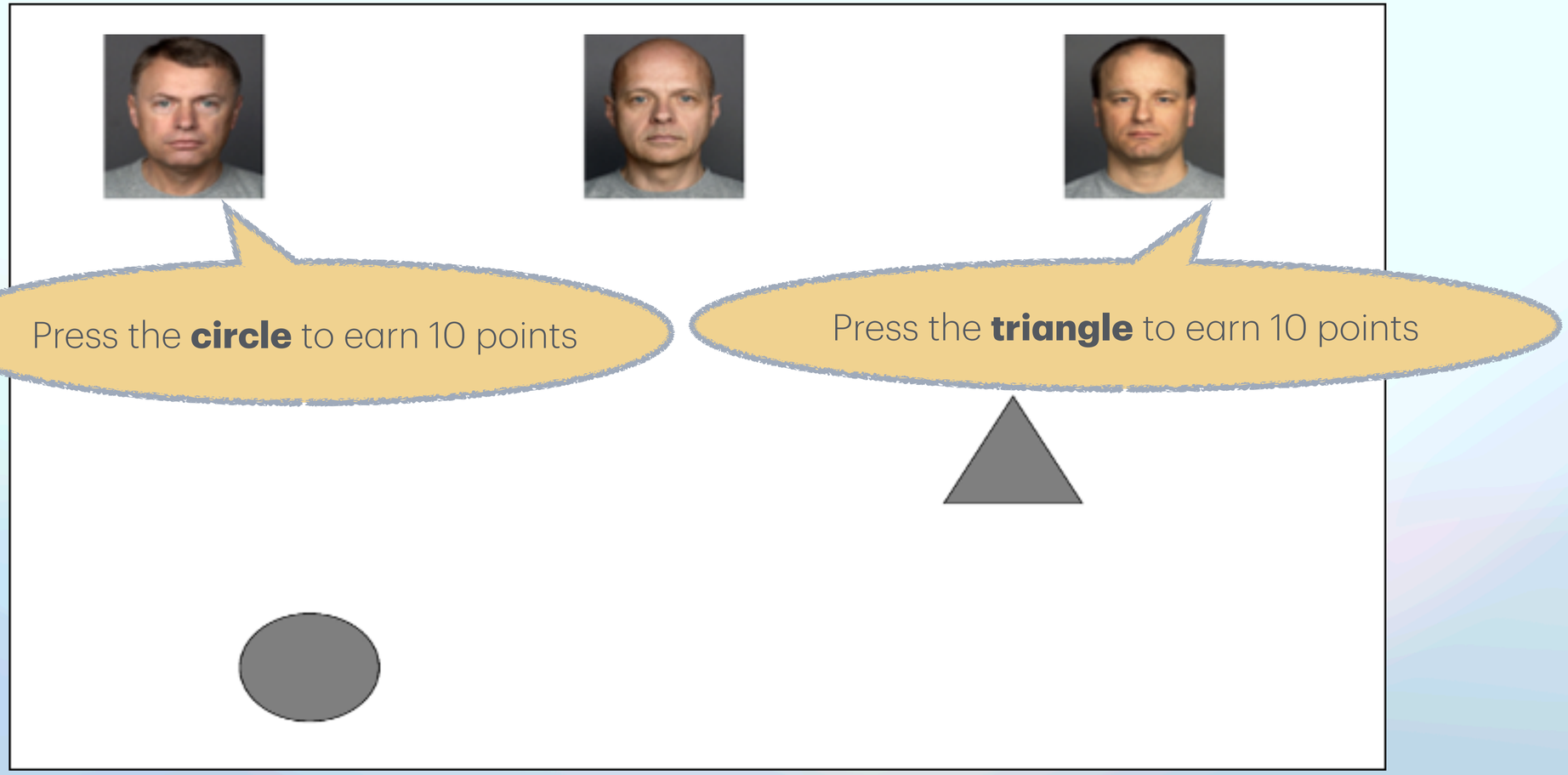
Mastery Criteria

450 points

Phase 3

Generalisation Test

No feedback provided!



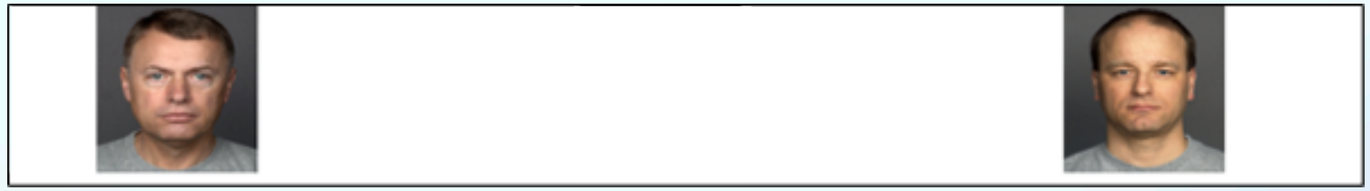
Phase 4

Preference Test

No feedback provided!

Speakers 1 vs 2

Speakers 1 vs 3

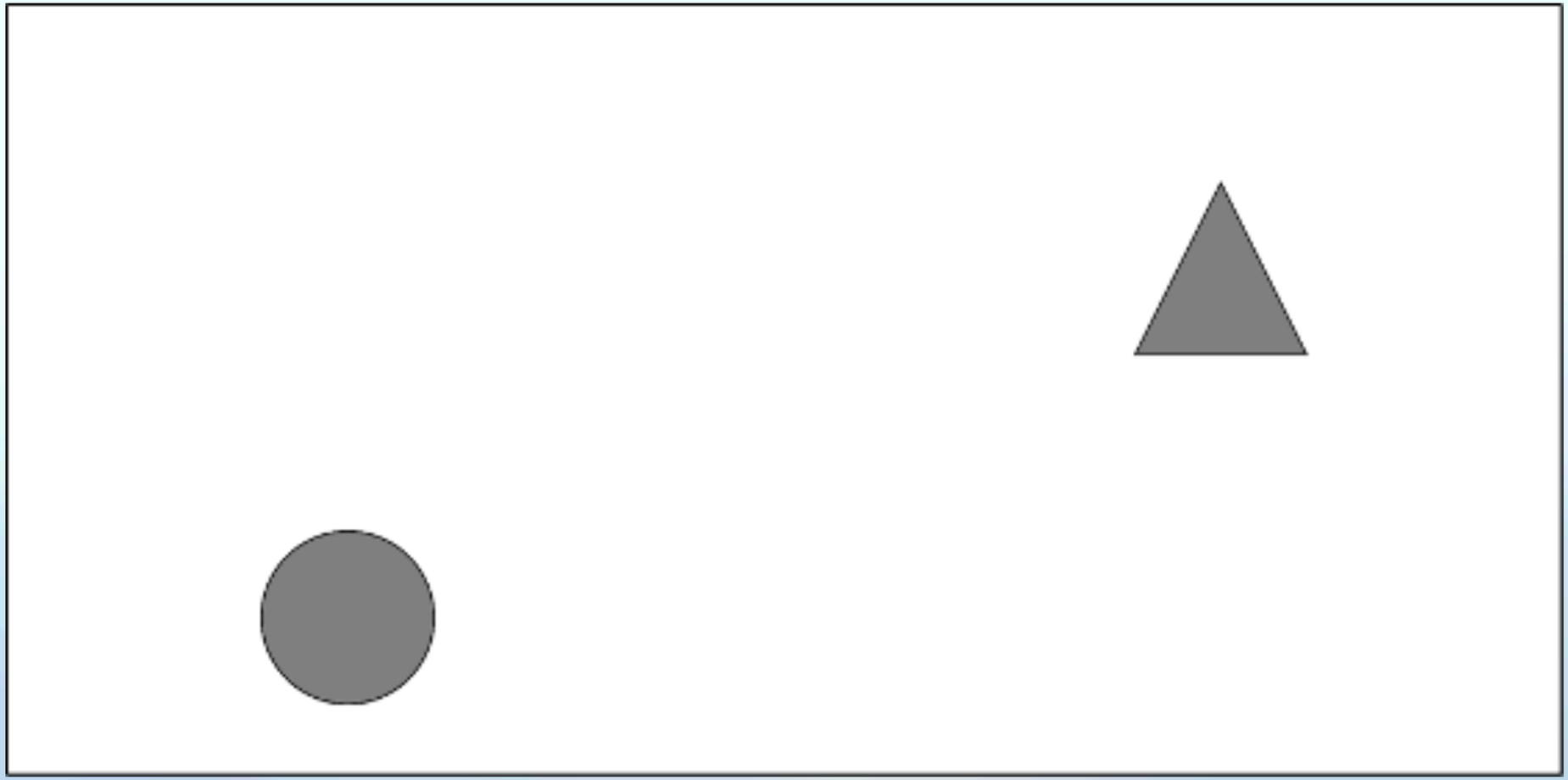


Speakers 2 vs 3

Phase 5

Simple Discrimination Maintenance

No feedback provided!

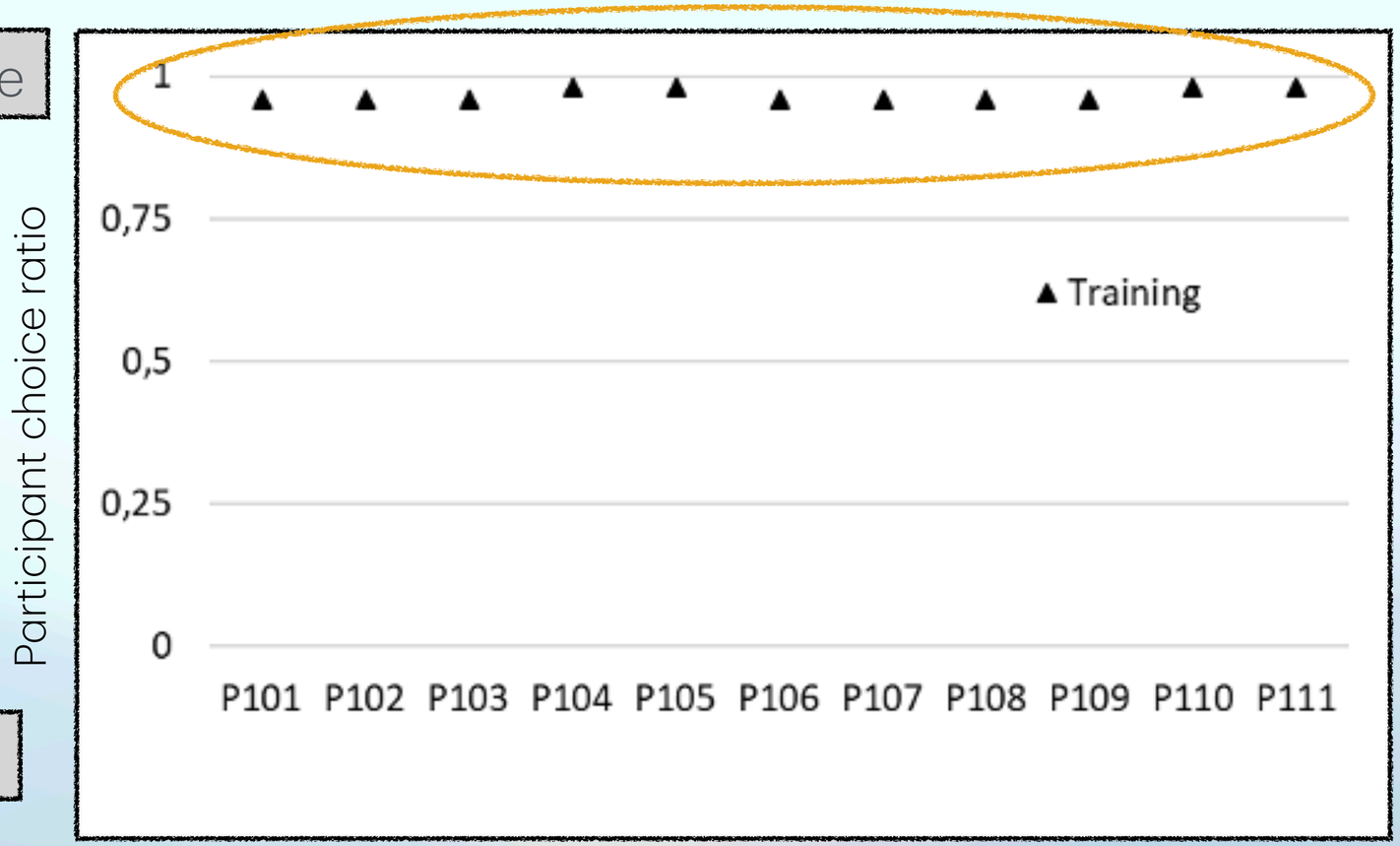


Results

Simple Discrimination Training

Phase 1

Choosing the triangle



Choosing the circle

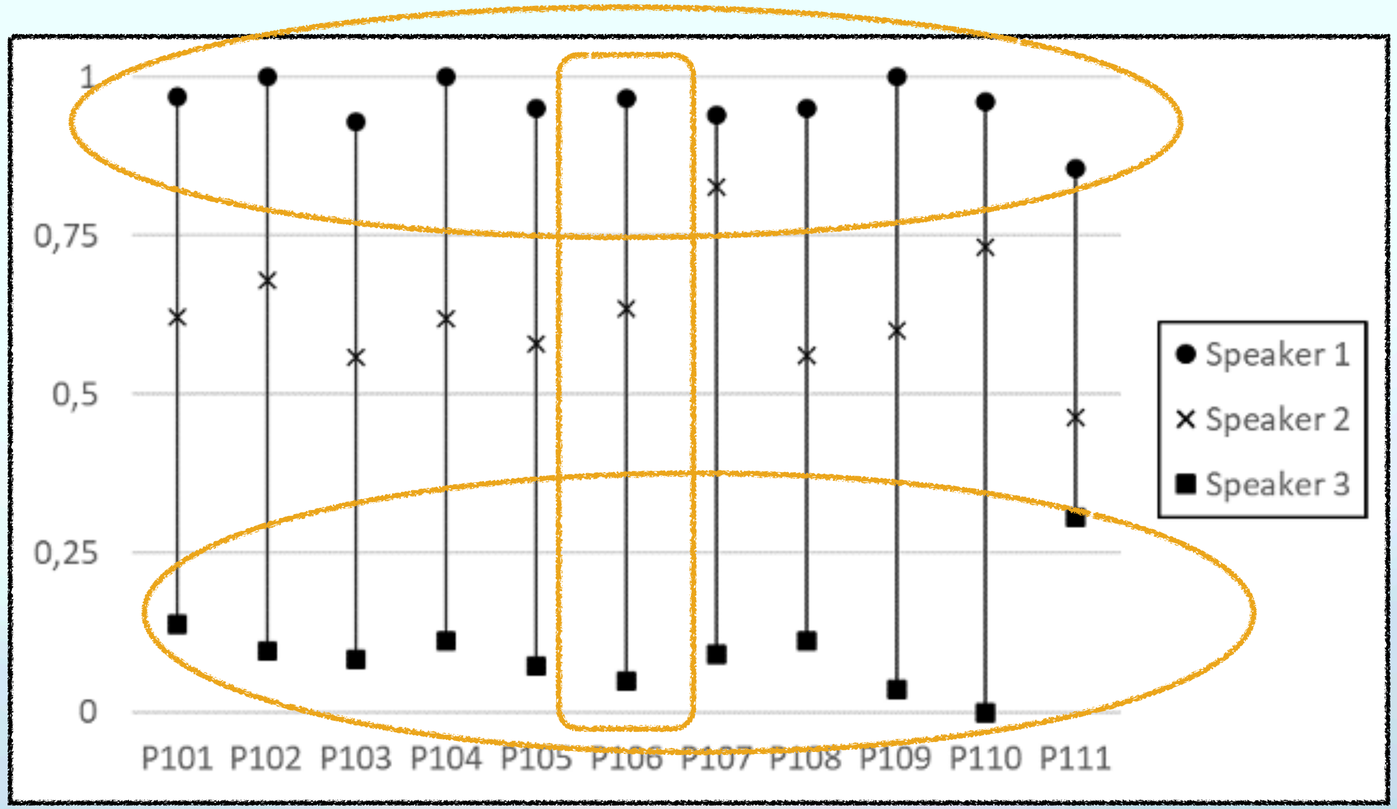
Speaker Relational Coherence Training

Phase 2

Rule Coherent Response

50/50

Rule Incoherent Response



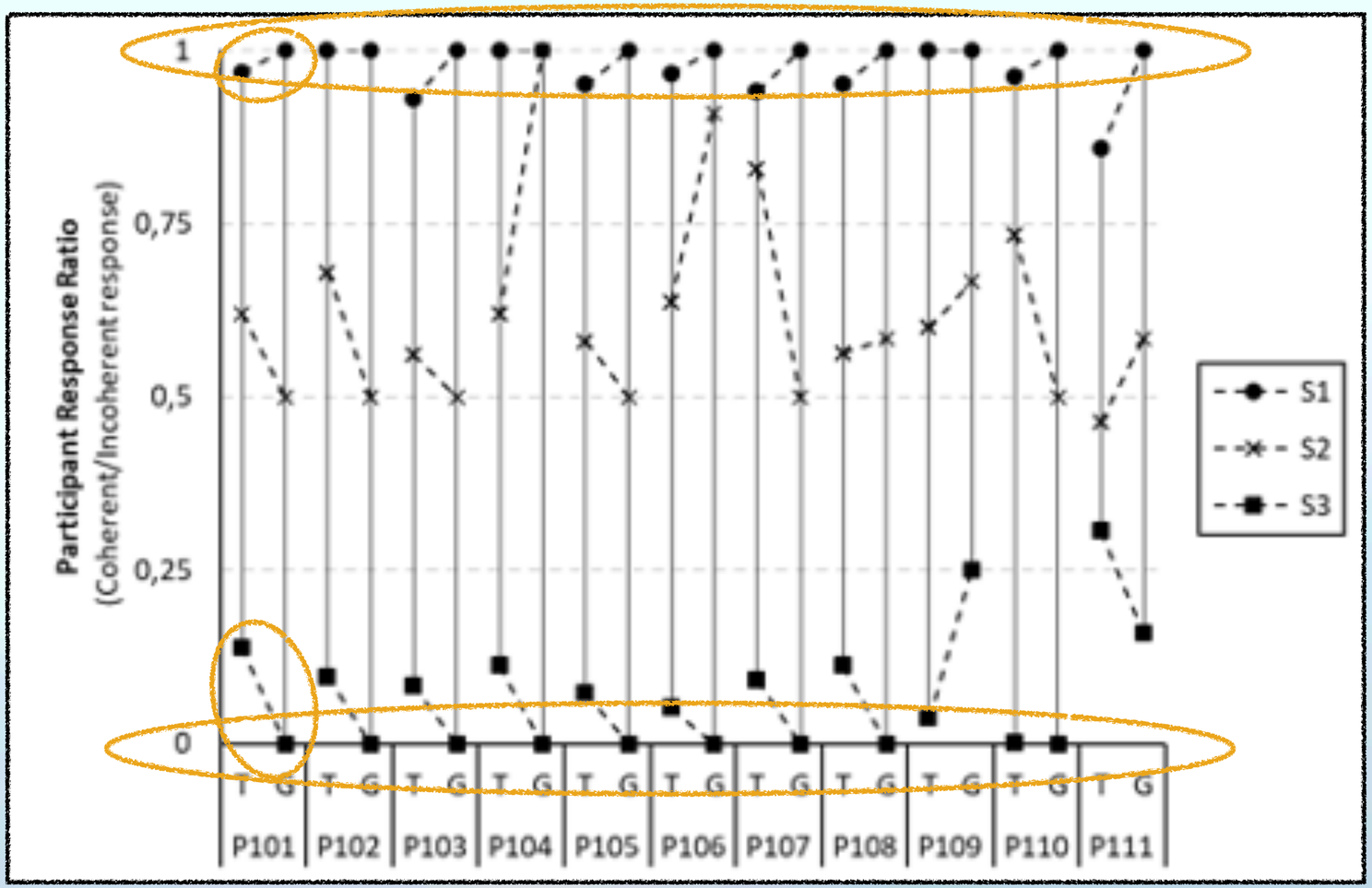
Generalisation Test

Phase 3

Rule Coherent Response

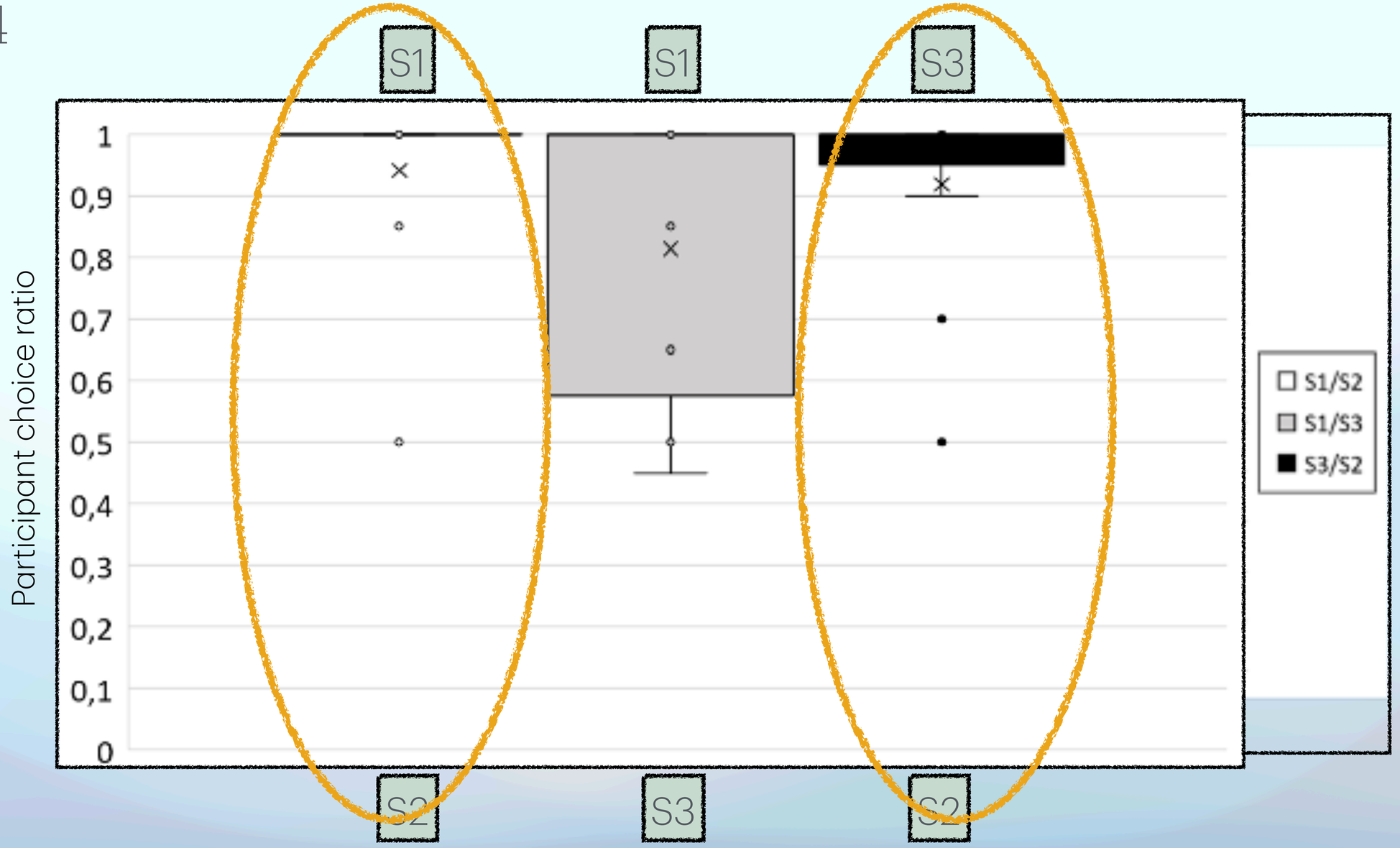
50/50

Rule Incoherent Response



Speaker Preference Test

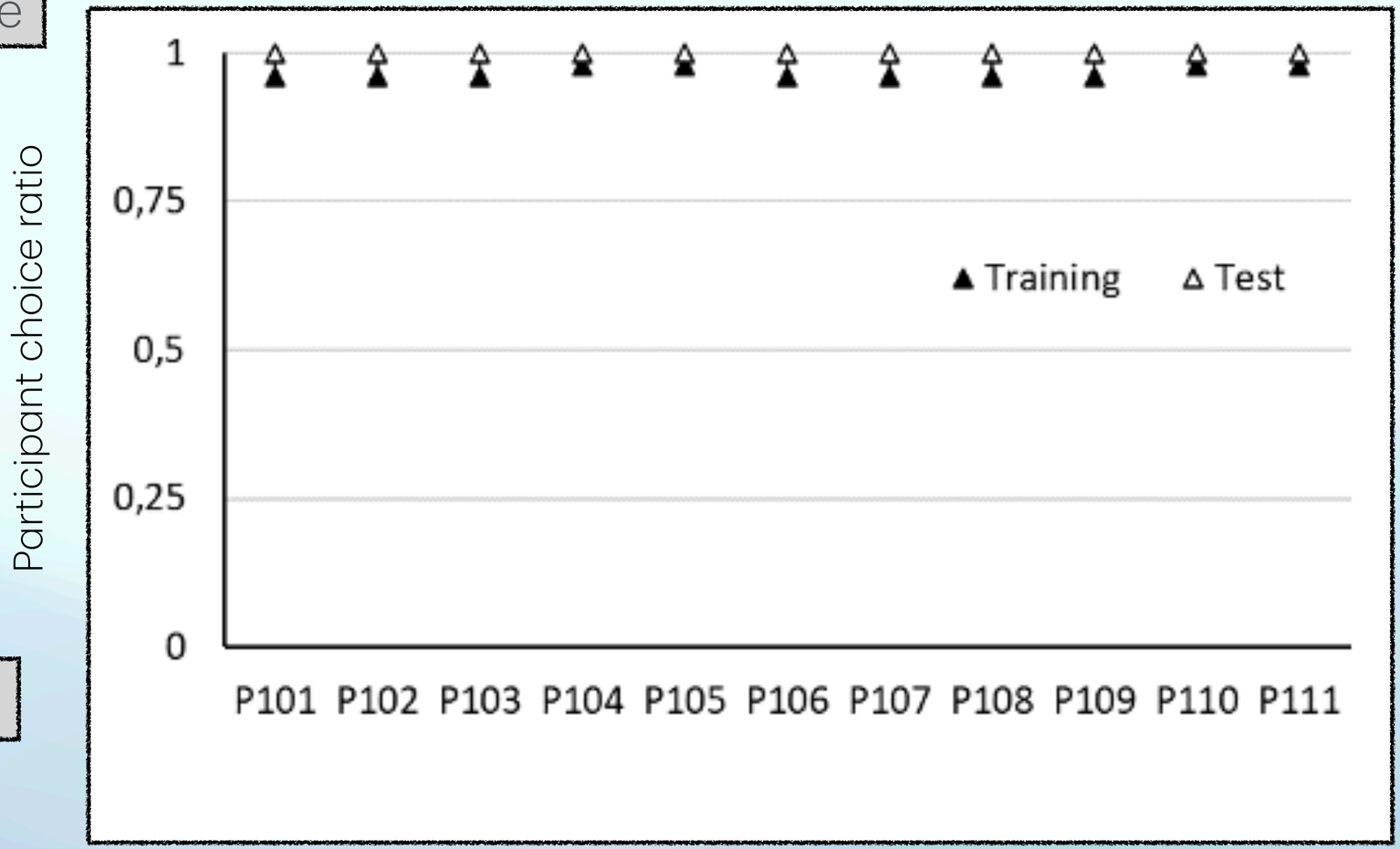
Phase 4



Simple Discrimination Maintenance Test

Phase 5

Choosing the triangle



Choosing the circle

Summary

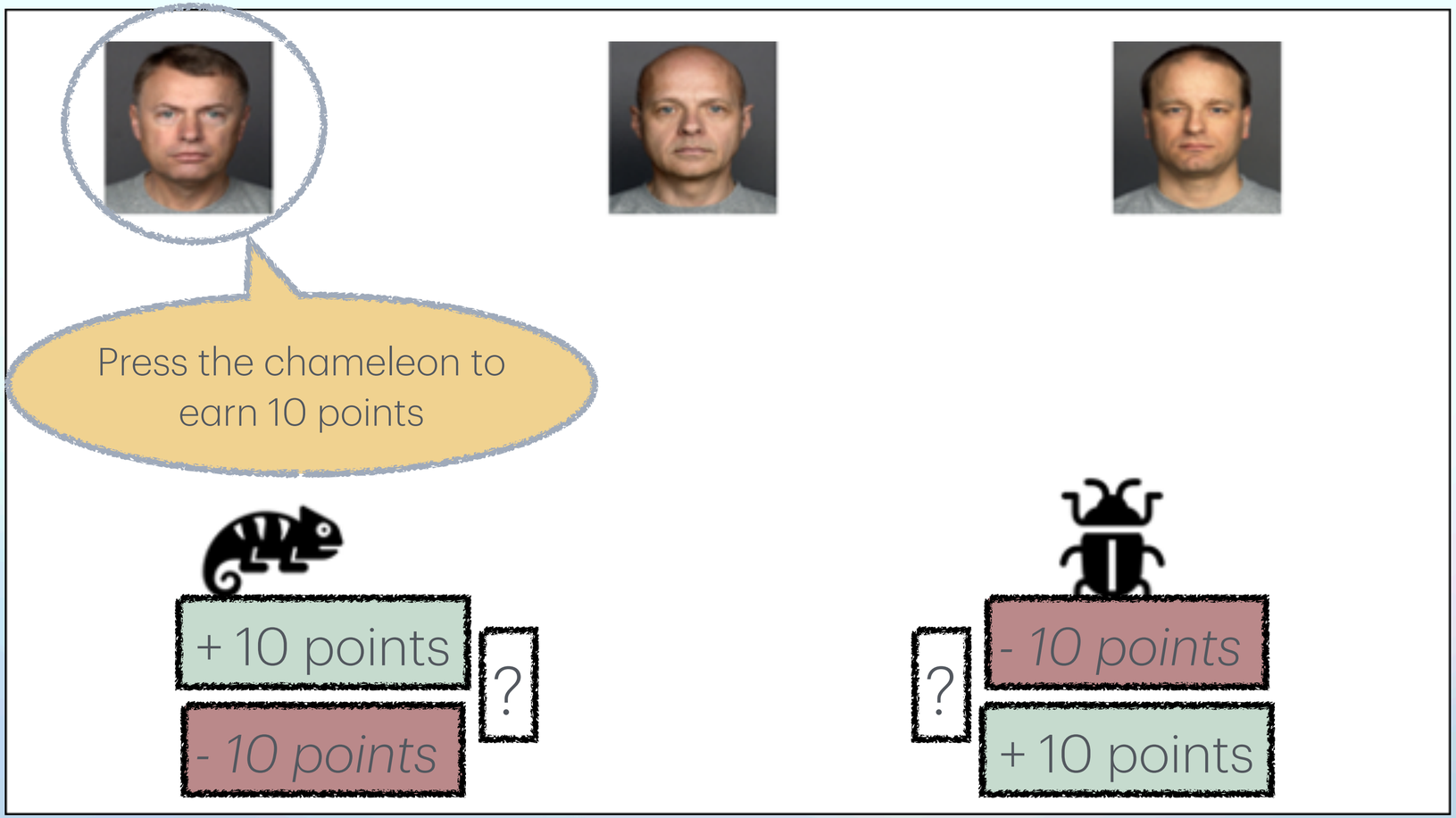
Experiment 1

- Results were relatively consistent across participants in that they:
    - Tended to follow the rules provided by the coherent speaker but not the incoherent speaker (in the absence of feedback and with new stimuli)
    - Vacillated between following and not following the rule for the 50% coherent speaker
    - Demonstrated preference for the coherent over incoherent speaker (even though they could obtain the same amount of points with each)
    - Interestingly, participants preferred the consistent liar (S3) than the occasional truth teller (S2)
- However, in the natural environment, speakers rarely provide accurate rules 100% vs 0% of the time
- Experiment 2 sought to partially replicate Experiment 1 but varying the accuracy of the rules provided by the speakers

Experiment 2

Phase 2

Speaker Relational Coherence Training



Speaker 1:
80% correct

Speaker 2:
50% correct

Speaker 3:
20% correct

Mastery Criteria

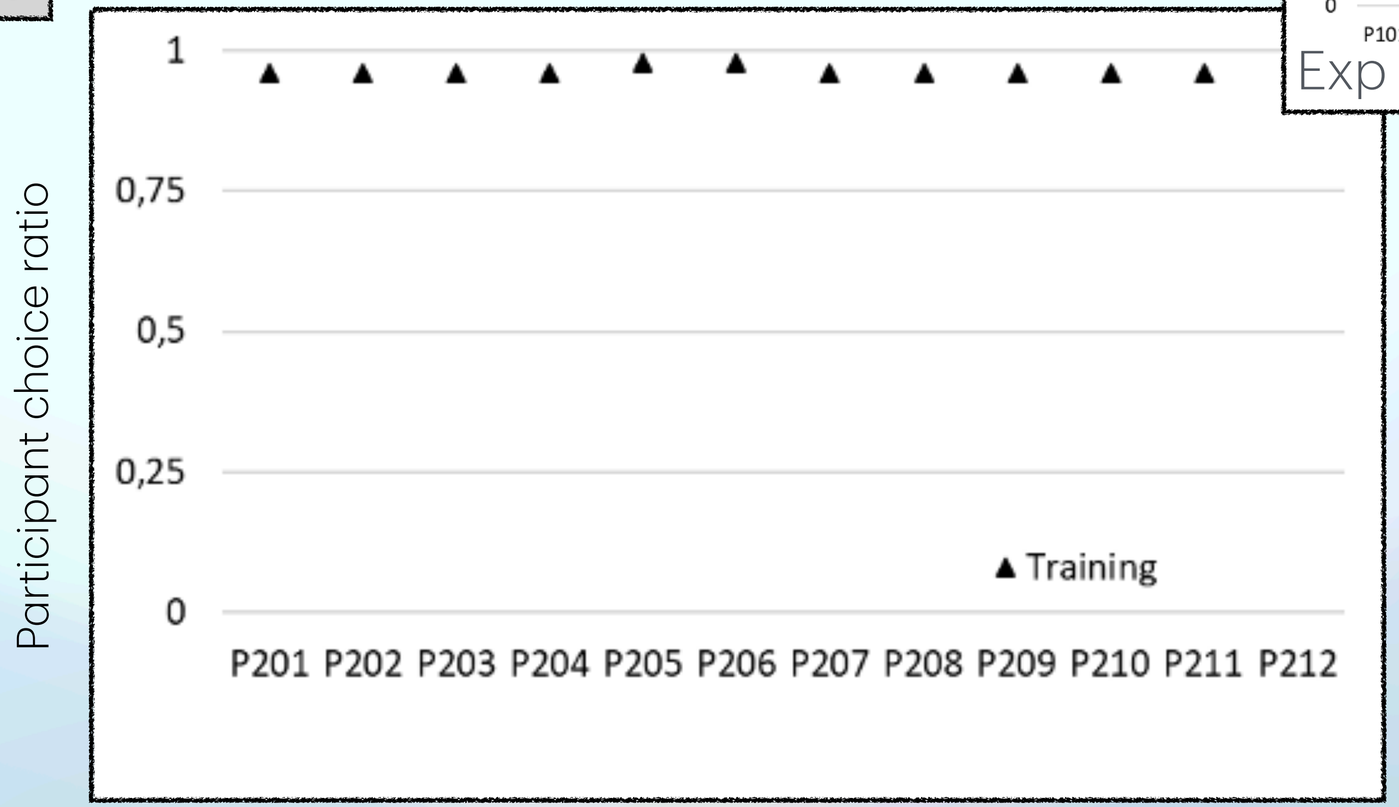
450 points

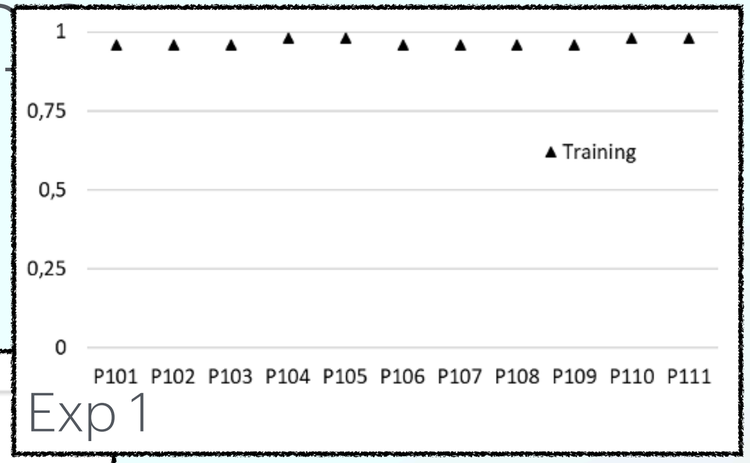
Results

Simple Discrimination Trainin

Phase 1

Choosing the triangle



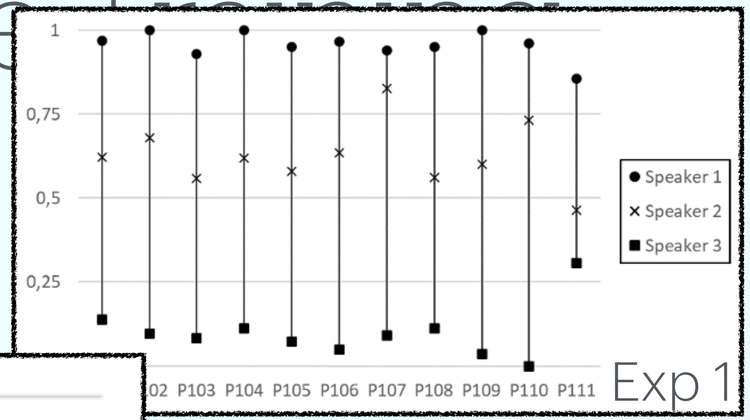


Exp 1

Choosing the circle

Speaker Relational Coherence Tracings

Phase 2

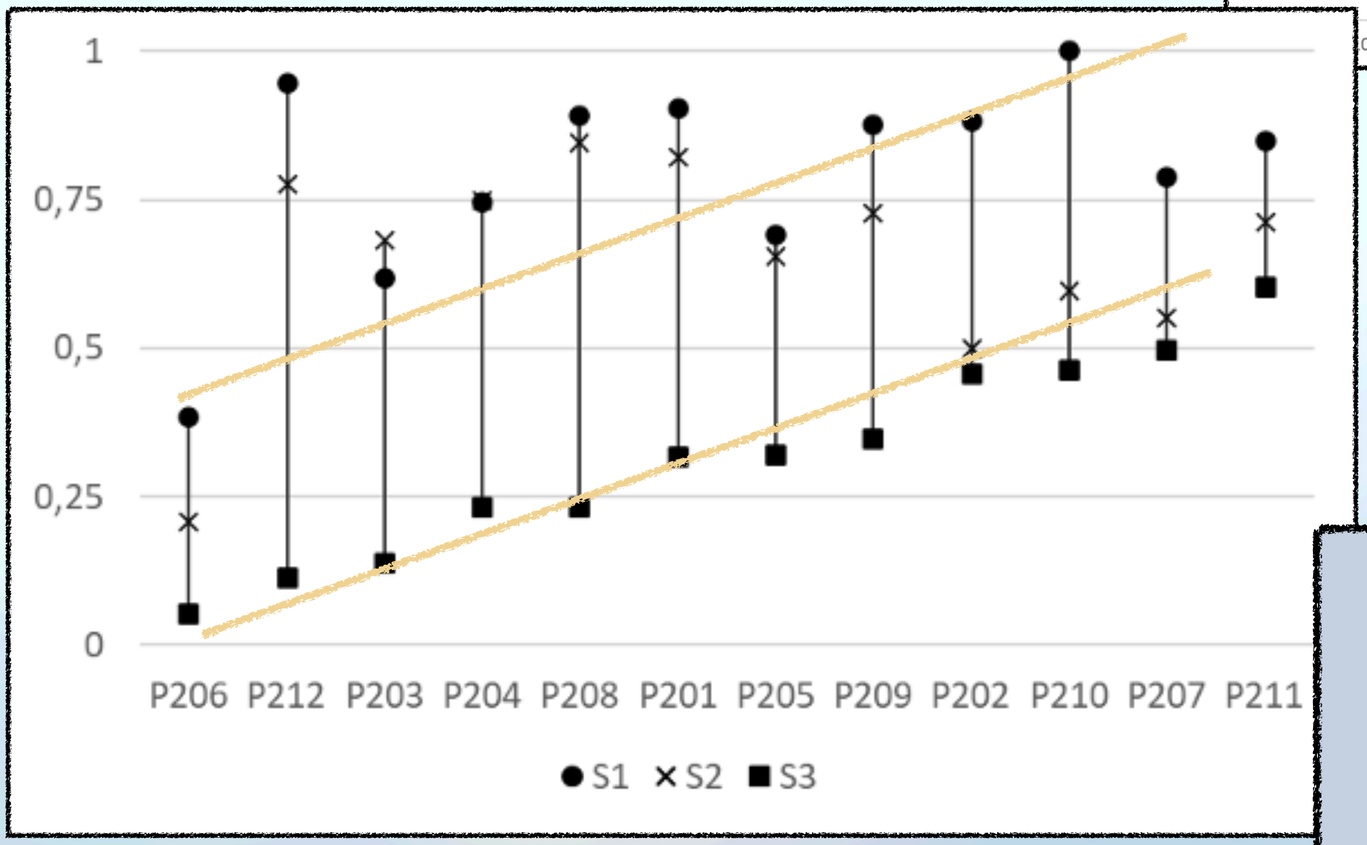


Exp 1

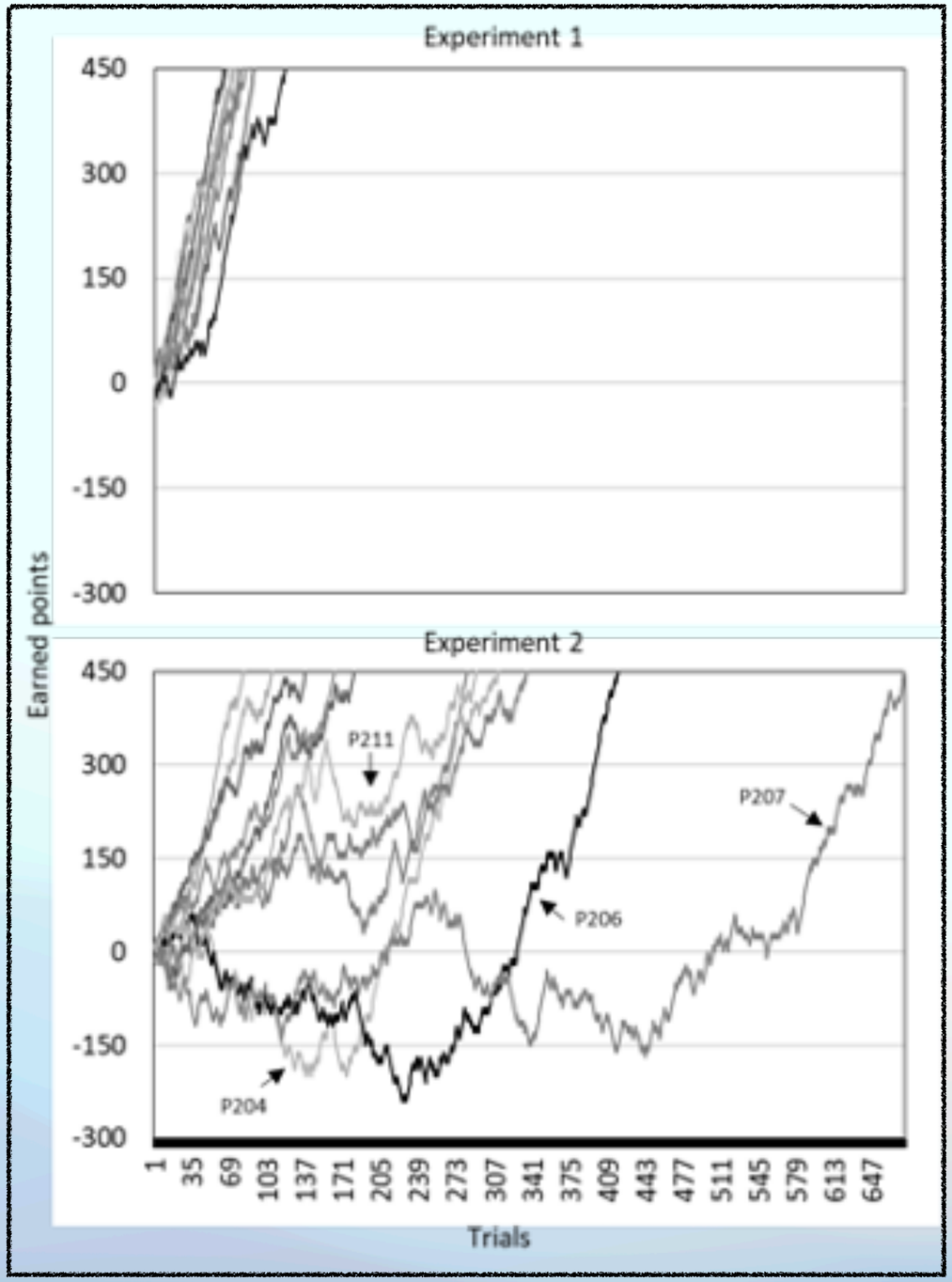
Rule Coherent Response

50/50

Rule Incoherent Response



While a difference is still clearly evident between speakers, there is much more variability than before

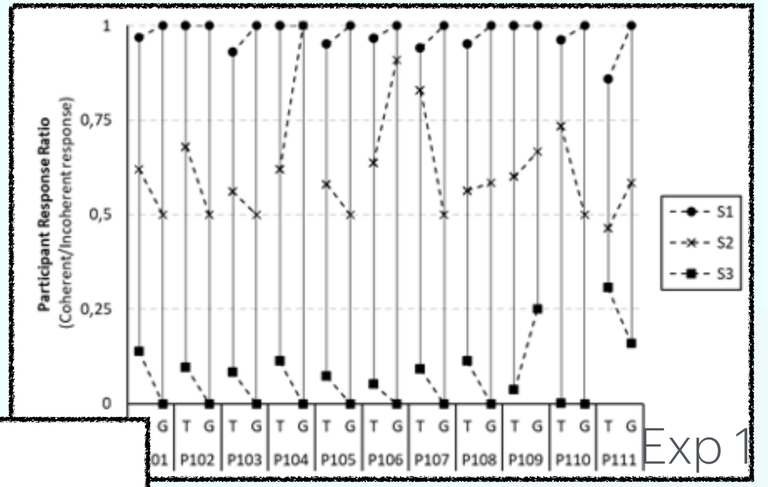


- Extent to which responding varied by experiment — — one really tight and the other much more scattered

- Just to get a sense of what a big difference it made to go from 100% vs 0% to 80% vs 20%

Generalisation Test

Phase 3

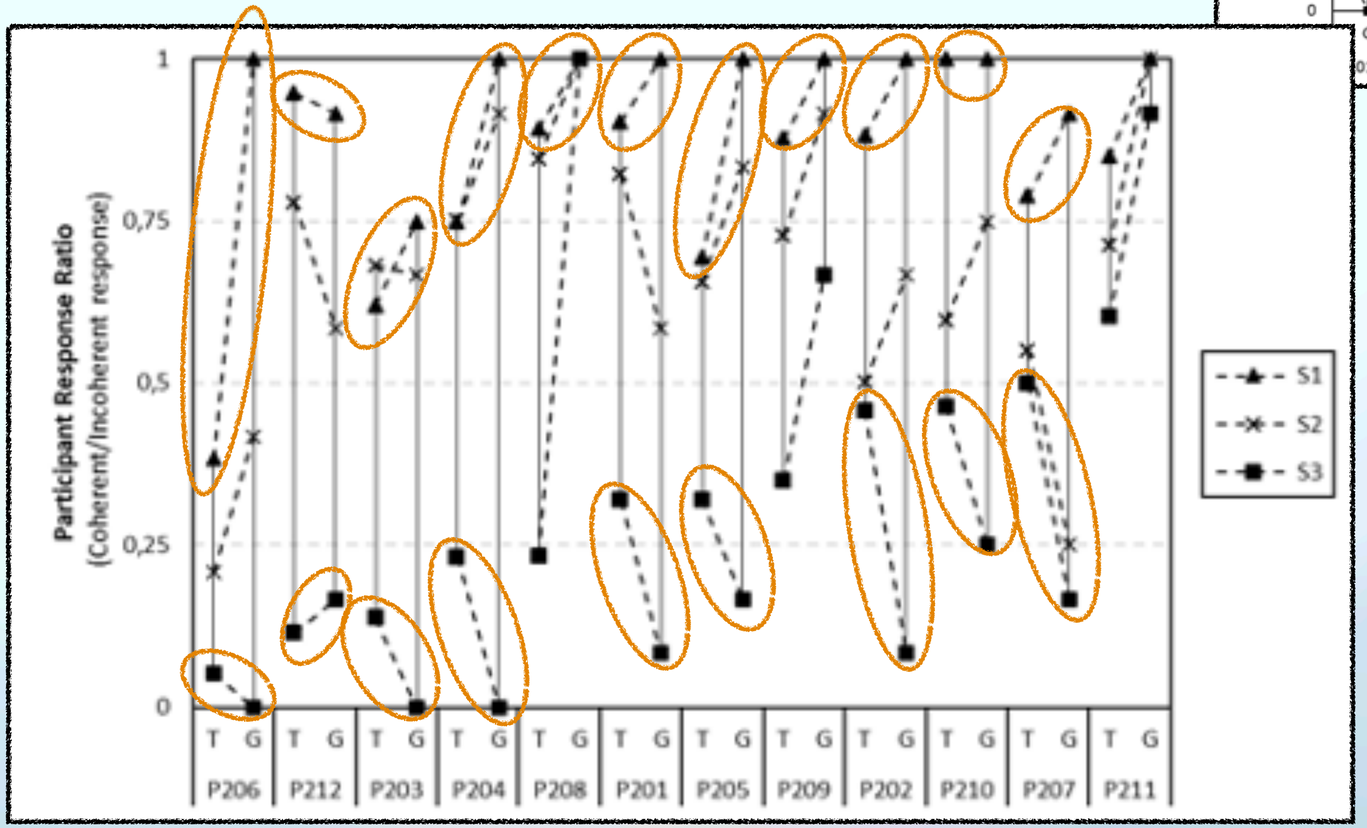


Exp 1

Rule Coherent Response

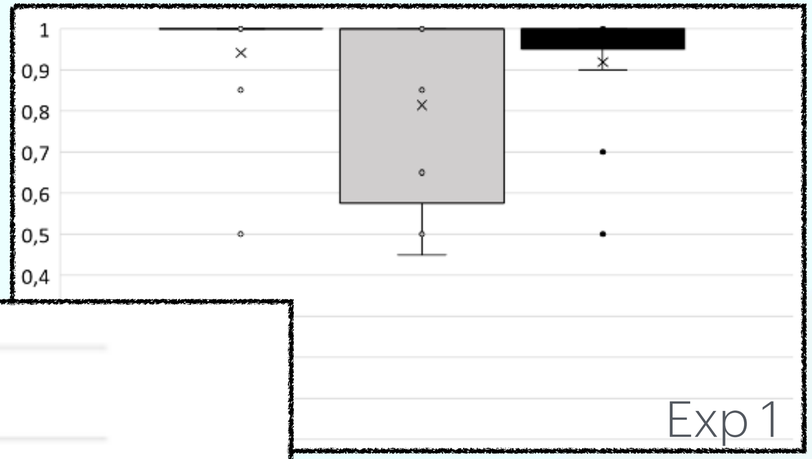
50/50

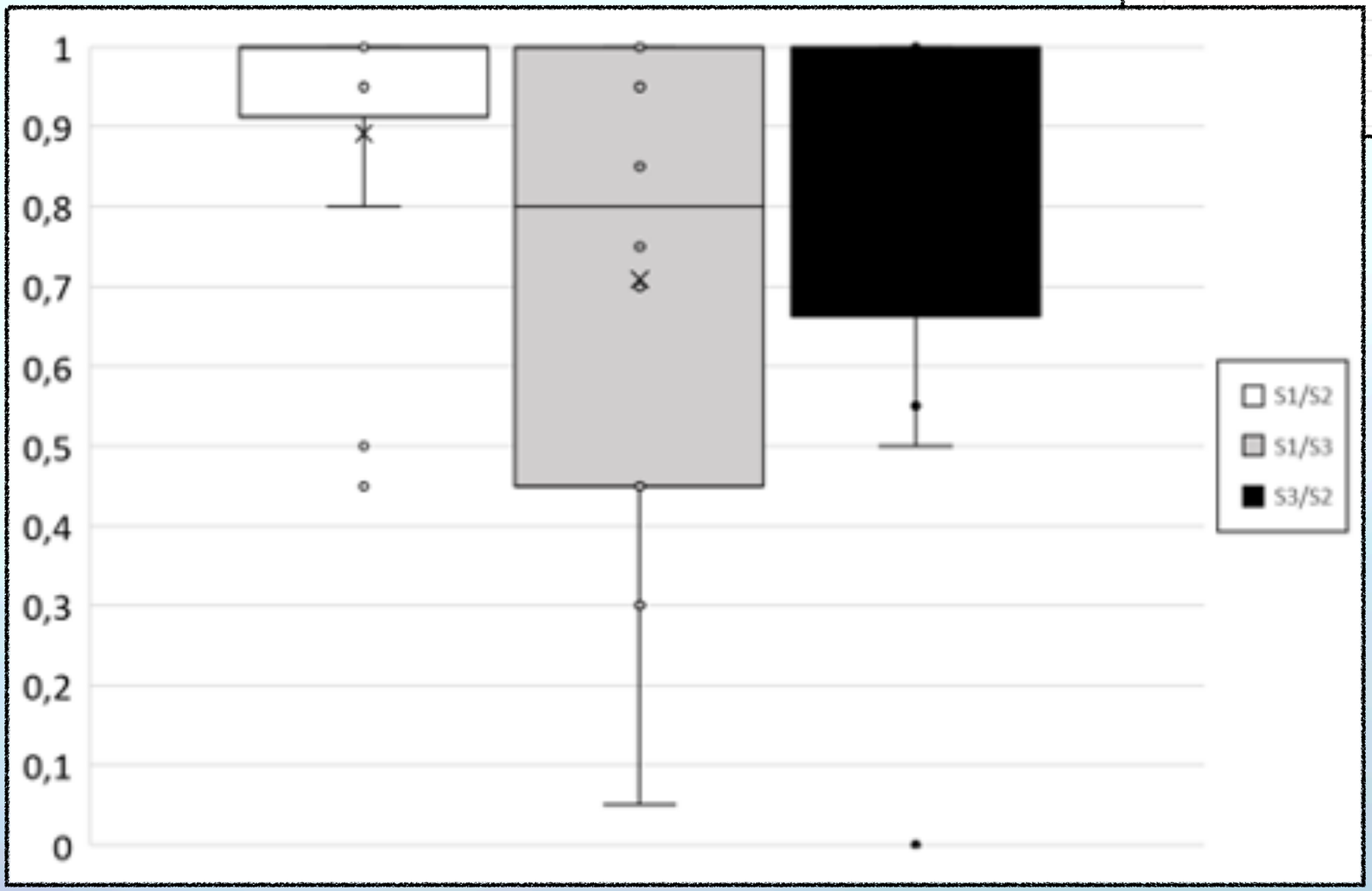
Rule Incoherent Response



Speaker Preference Test

Phase 4



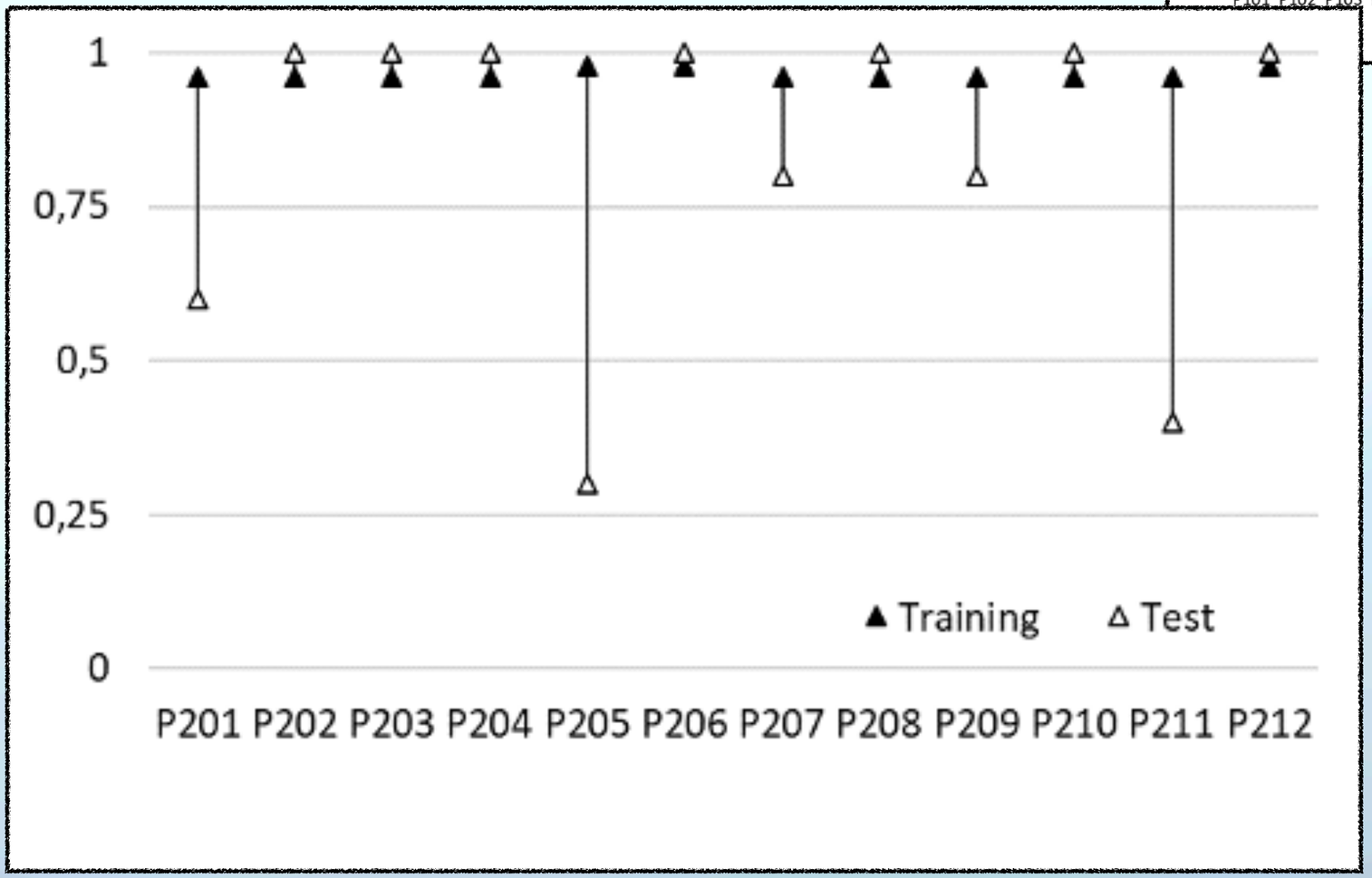


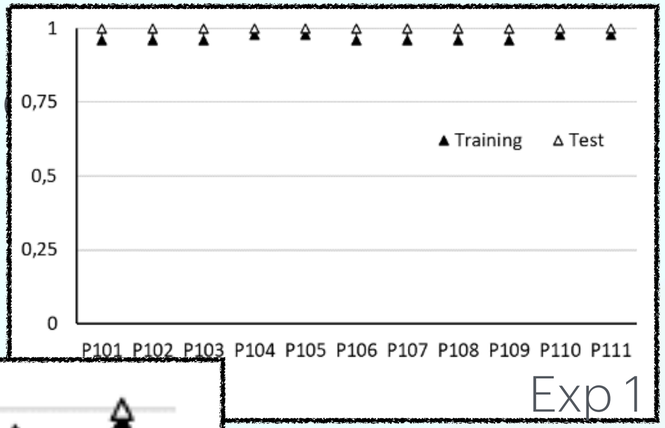
Simple Discrimination Mainten

Phase 5

Choosing the triangle

Choosing the circle





Exp 1

Summary

Experiment 2

- Replicated results of Exp 1 in that:
    - Participants tended to follow rules provided by a speaker when those rules cohered with the feedback contingencies (and when these were discontinued)
    - Participants rarely followed the rules provided by Speaker 3
    - A distributed pattern was observed for Speaker 2
    - Participants generally appeared to prefer Speaker 3 over 2
- However, there was more variability in responding which suggest sensitivity to changes in speaker relational coherence
- Probability of following the rule seemed to reduce when coherence was reduced (in both training and testing)
- Changes in relational coherence may have affected the generalisation of rule-following and speaker preference for some participants

Discussion

- Overall, participants demonstrated a tendency to follow coherent speaker rules and avoid following incoherent speaker rules during training and testing
- It appears that following or not following the rules provided by identifiable speakers generalised to novel stimuli and were maintained in the absence of differential reinforcement
- Participants did not consistently prefer speakers with higher relational coherence over lower — consistent liars (100% inaccurate or 80% inaccurate) were preferred over occasional truth tellers (50% accurate/ inaccurate)
- In one sense, a consistent liar may obtain some of the functions of a consistent truth teller in that the participant can obtain every point by just not following their rule
- Interestingly, participants preferred the coherent speaker in both experiments even though in principle they could receive a similar amount of points from each
- Preference, therefore, was not determined simply by number of points to be earned, but perhaps also by a pre-experimentally established preference for verbal coherence over incoherence

Discussion

Moving forward…

- The current study was also about developing an experimental paradigm for analysing the impact of speaker relational coherence on rule following and subsequent speaker preferences
- Still, limited ecological validity
- What about removing punishment contingencies? In real life situations, people do not receive punishment every time they do not comply with a rule
- What if we increase the complexity of the relating involved?
    - What about when the speakers themselves participate in derived relations with other speakers?
    - Could this contribute toward developing a more complete model of rule-following in the natural environment and speak to domains such as social prejudice (are people more likely to follow advice or rules provided by a stranger if they belong to an in- rather than out-group?)?

Thank you!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