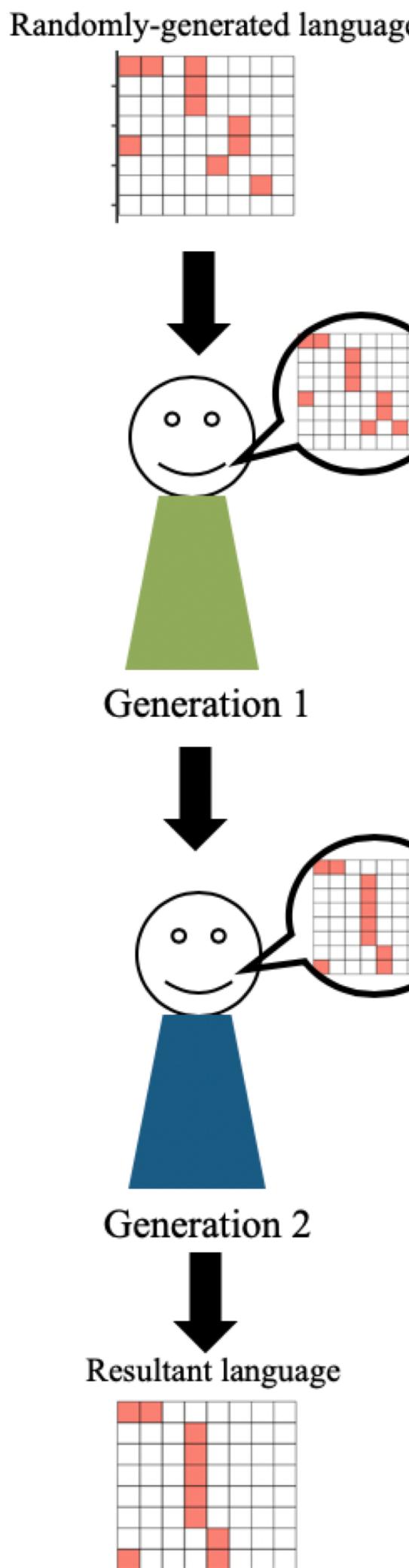


## Background

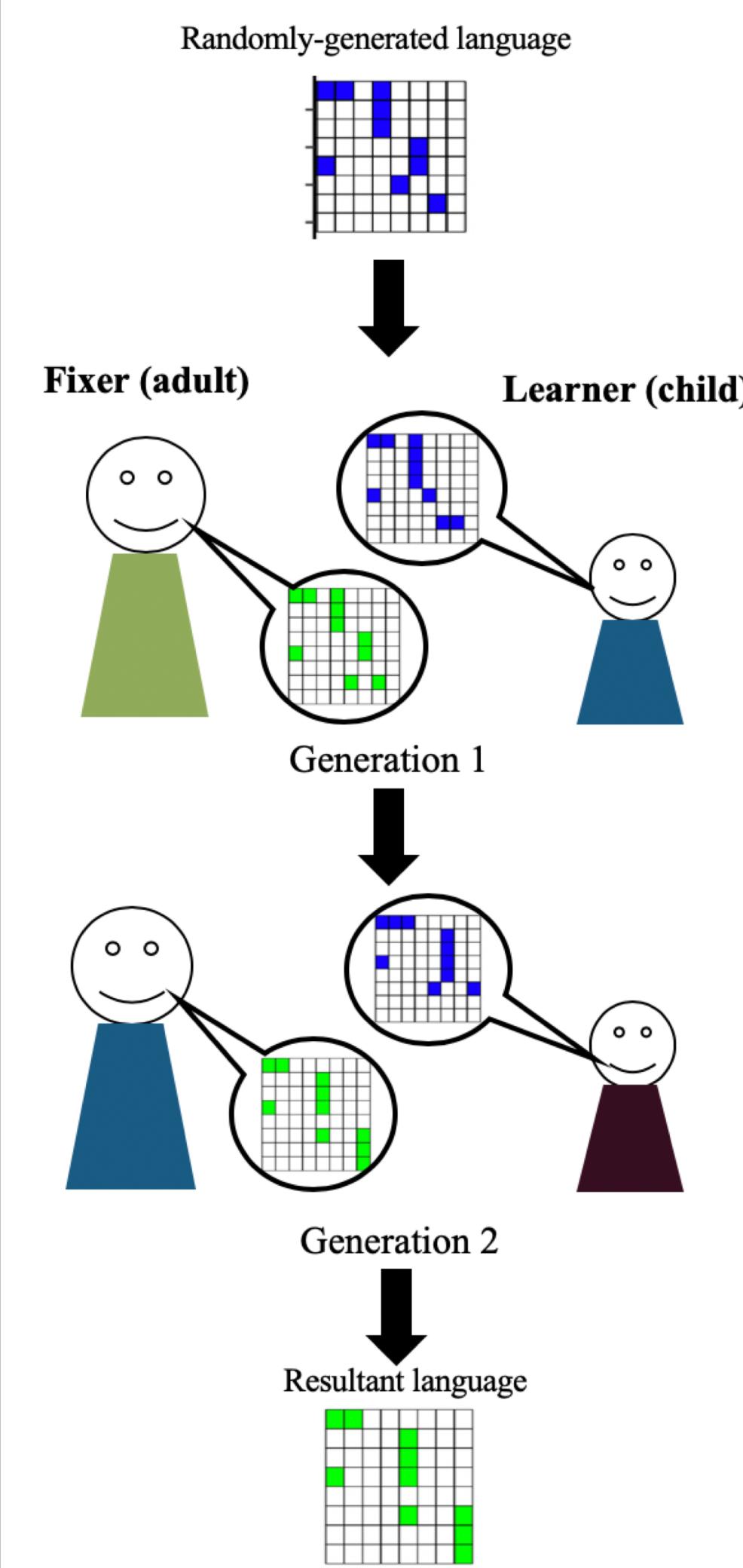
- Why do languages change and evolve, aside from acquiring new vocabulary?
- **Transmissibility** pressure: the language needs to be **learnable**, and therefore **simple**.
- Early language learners have potentially greater pressures towards **transmissibility** – what protects against oversimplification?
- Language learning is an active, social process: involving feedback from those who are more knowledgeable in the language (e.g. parents).
- We predict that the influence of these knowledgeable speakers, by way of implicit or explicit correction, protects against oversimplification in the language-transmission process.

## Iterated Learning Paradigm

### Baseline Experiment



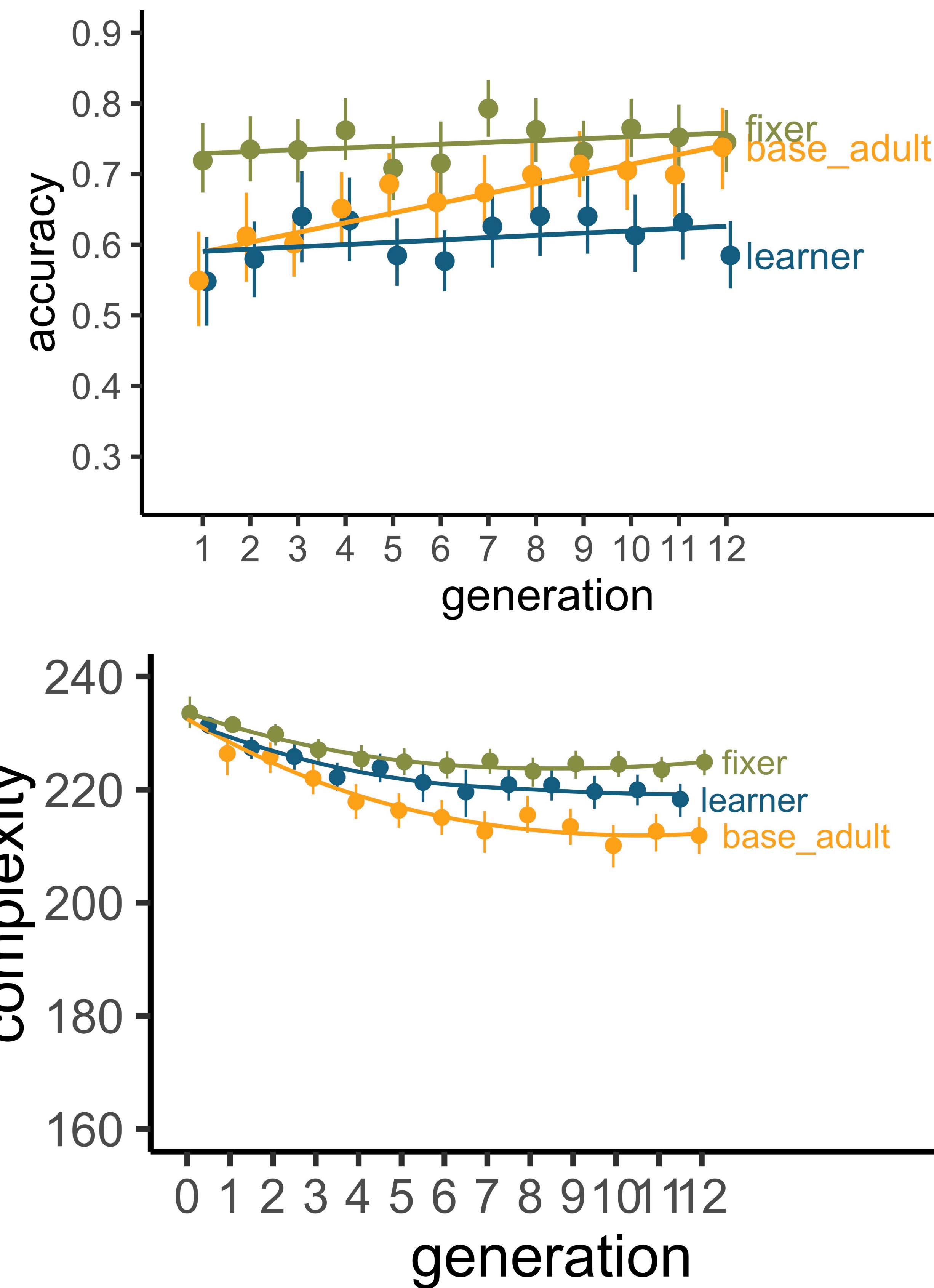
### Dyad Experiment



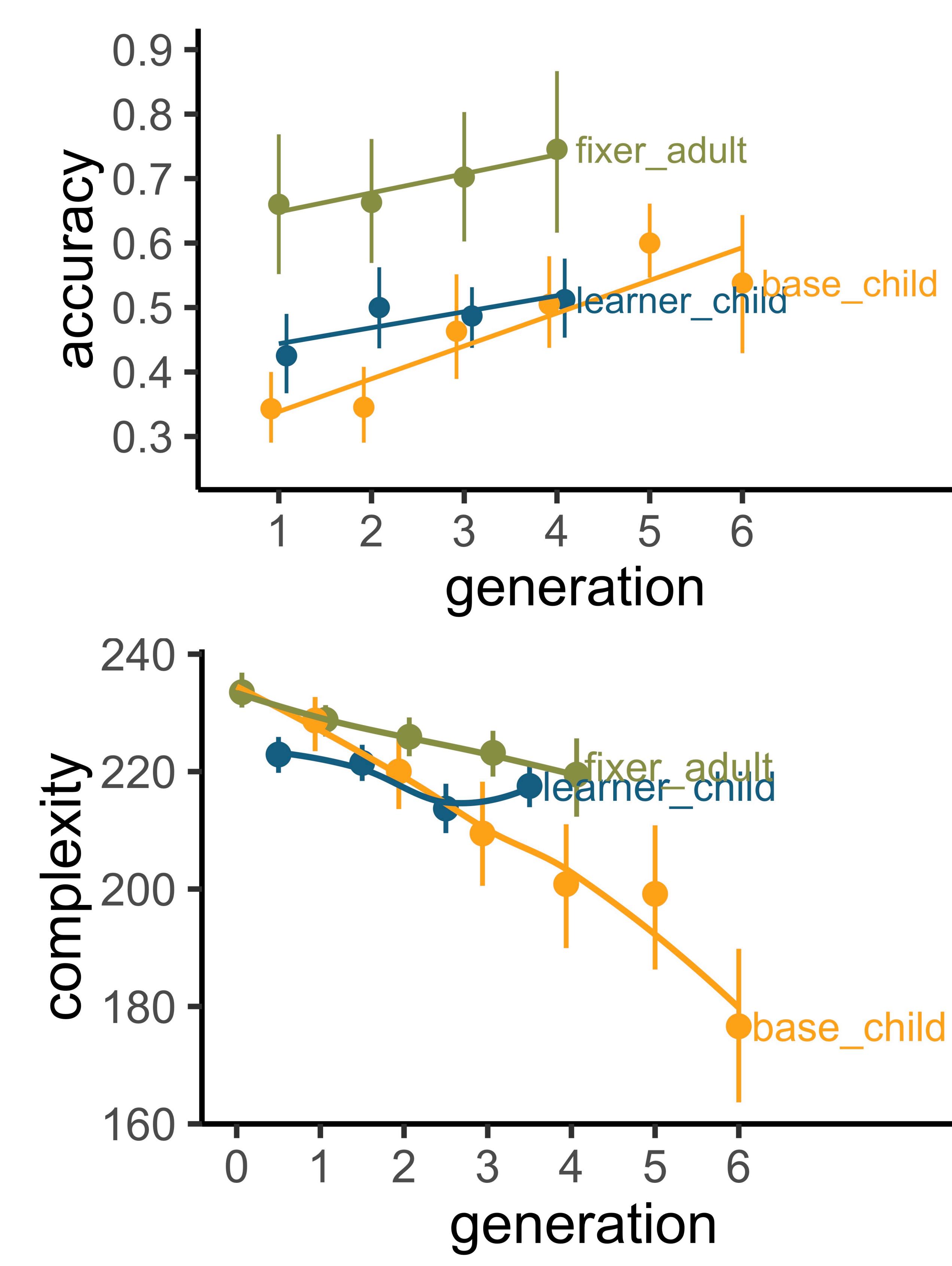
## Results

The addition of a corrective element in a novel language-learning task allows a higher degree of complexity to be retained while retaining a consistent level of percent accuracy.

### Adults



### Children & Adults

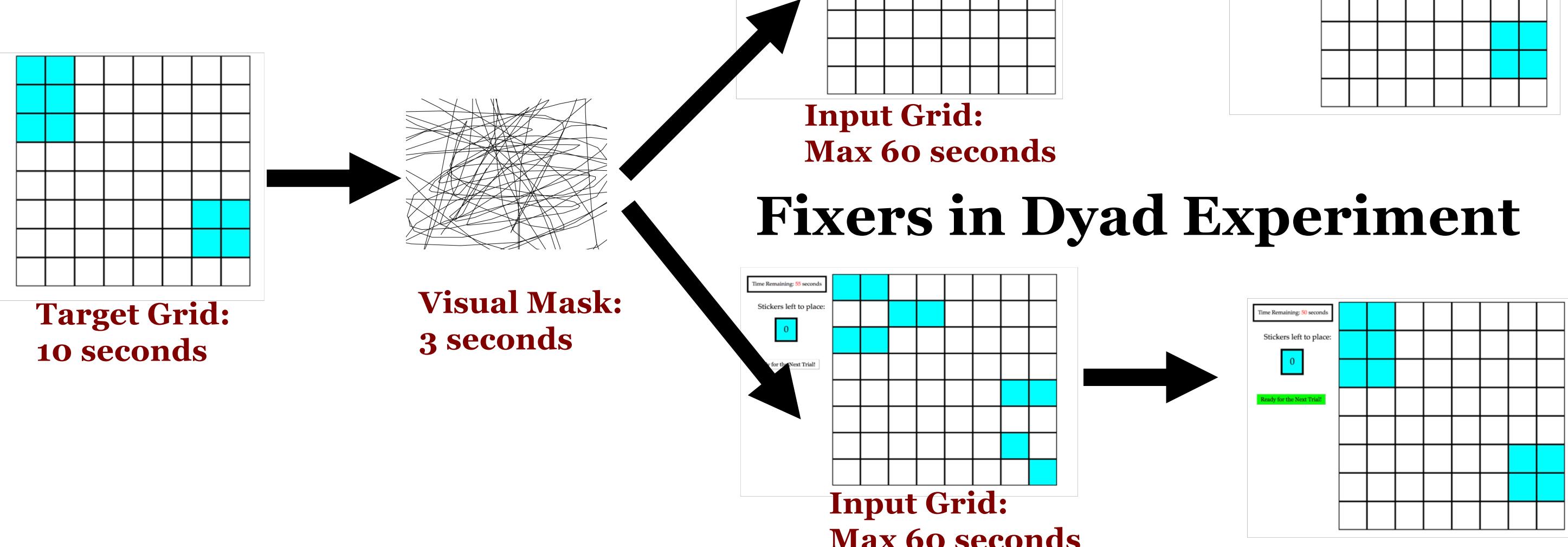


## Methods

### Baseline Experiment & Learners in Dyad Experiment

1. **Adult Baseline Experiment:**
  - 480 U.S. adults on Amazon Mechanical Turk
  - 40 chains of 12 generations each
2. **Child Baseline Experiment (in progress):**
  - 61 children ages 6-8; data collected at the Museum of Science and Industry and the University of Chicago in Hyde Park
  - 20 incomplete chains of 6 generations each
3. **Adult-Adult Dyad Experiment:**
  - 960 U.S. adults on Amazon Mechanical Turk
  - 40 chains of 12 generations each
4. **Adult-Child Dyad Experiment (in progress):**
  - 82 children (learners, ages 6-8); 82 adults (fixers, mTurk)
  - 20 incomplete chains of 6 generations each

### Fixers in Dyad Experiment



## Conclusions & Future Work

- Adults protect languages from simplification by children, reintroducing levels of complexity which match adult baseline performance
- Adding a corrective element into the language learning process—like feedback from a teacher or parent—allows a higher degree of descriptiveness to be retained in language
- Vertical and horizontal language transmission may be the mechanism by which languages are protected from degeneration
- Baseline results replicated original work by Kempe et al. (2015)
- Ongoing work is examining the nature of the errors produced by parents and children, as well as if the languages are becoming more structured over generations