

Background

Pragmatics in autistic people:

- Often believed to be different
- Traditionally explained by a deficit in Theory of Mind

Past literature:

- reporting both over- and under-informativity in referential expressions
- Non-interactive designs

Do autistic and neurotypical speakers differ in referential informativity levels across varying contextual demands?



Size (As) ←----- small large

Color (Ac) ←---- yellow red blue green

Noun (N) ←---- calendar car paint box

Experiment 1

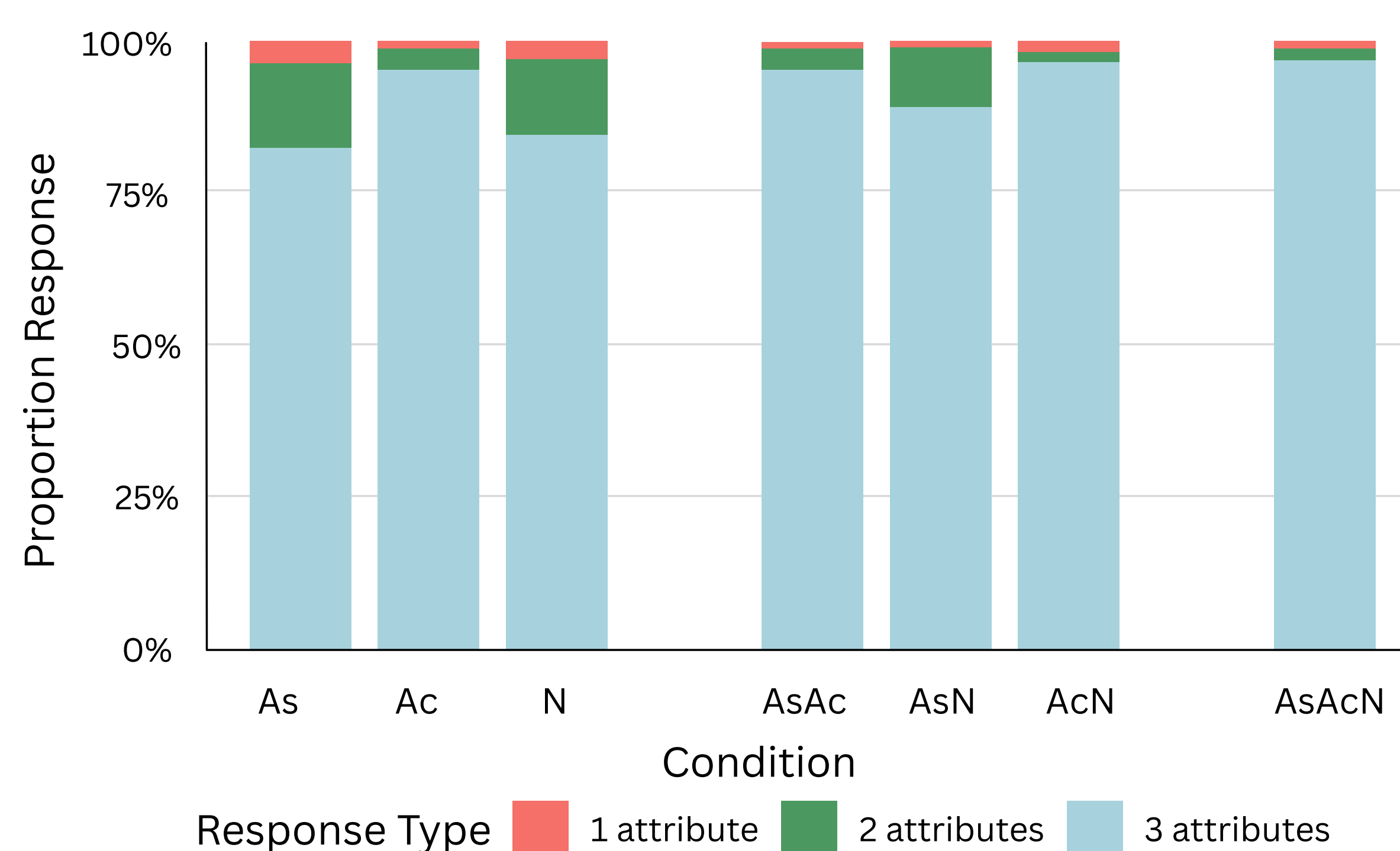
Informativity ~ Group x Context

Methods

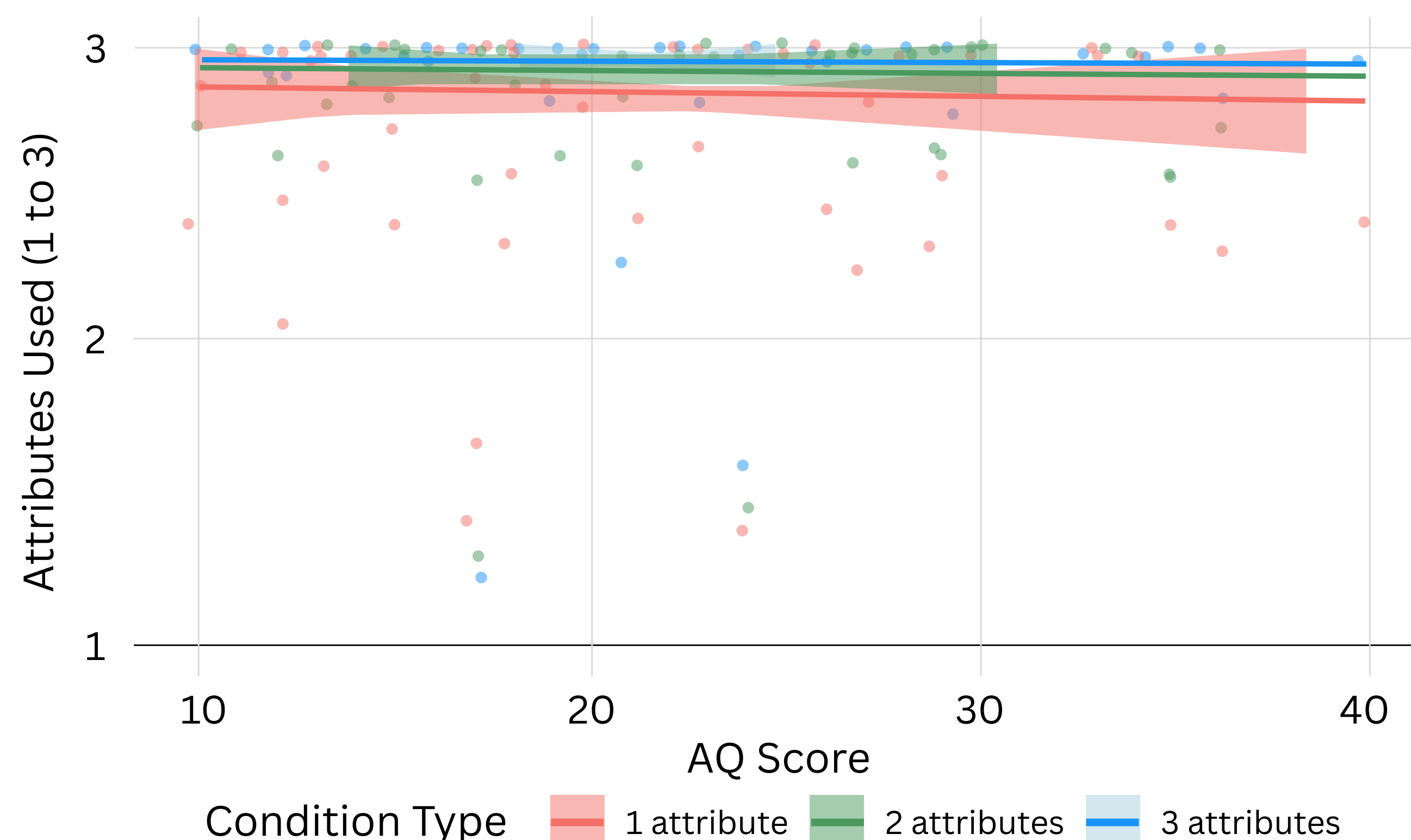
- Online director task
- **Participants:** N = 96 English-speaking adults (88 NT, 8 ASD), recruited from UCSD SONA
- Attributes: Size, Color, Noun
- 36 trials manipulating required descriptive attributes (1, 2, or 3 attributes needed)

Results

Experiment 1: Response Type Composition by Condition



Experiment 1: AQ Score vs. Mean Number of Attributes Used



- No effect of AQ → Unequal sampling?
- Effect of context
- No interaction between AQ and context
- **Overinformativity across the board**
 - Tendency of overinformativity
 - Experimental design → Experiment 2

Selected References:

- Malkin et al., 2018. Autism and Developmental Language Impairments.
- Baron-Cohen, 1995. Mindblindness: An essay on autism and theory of mind.
- Baron-Cohen et al., 2001. Journal of Autism and Developmental Disorders.
- Degen et al., 2020. Psychological Review.
- Icons in this presentation and the study were generated from <https://icons8.com/>

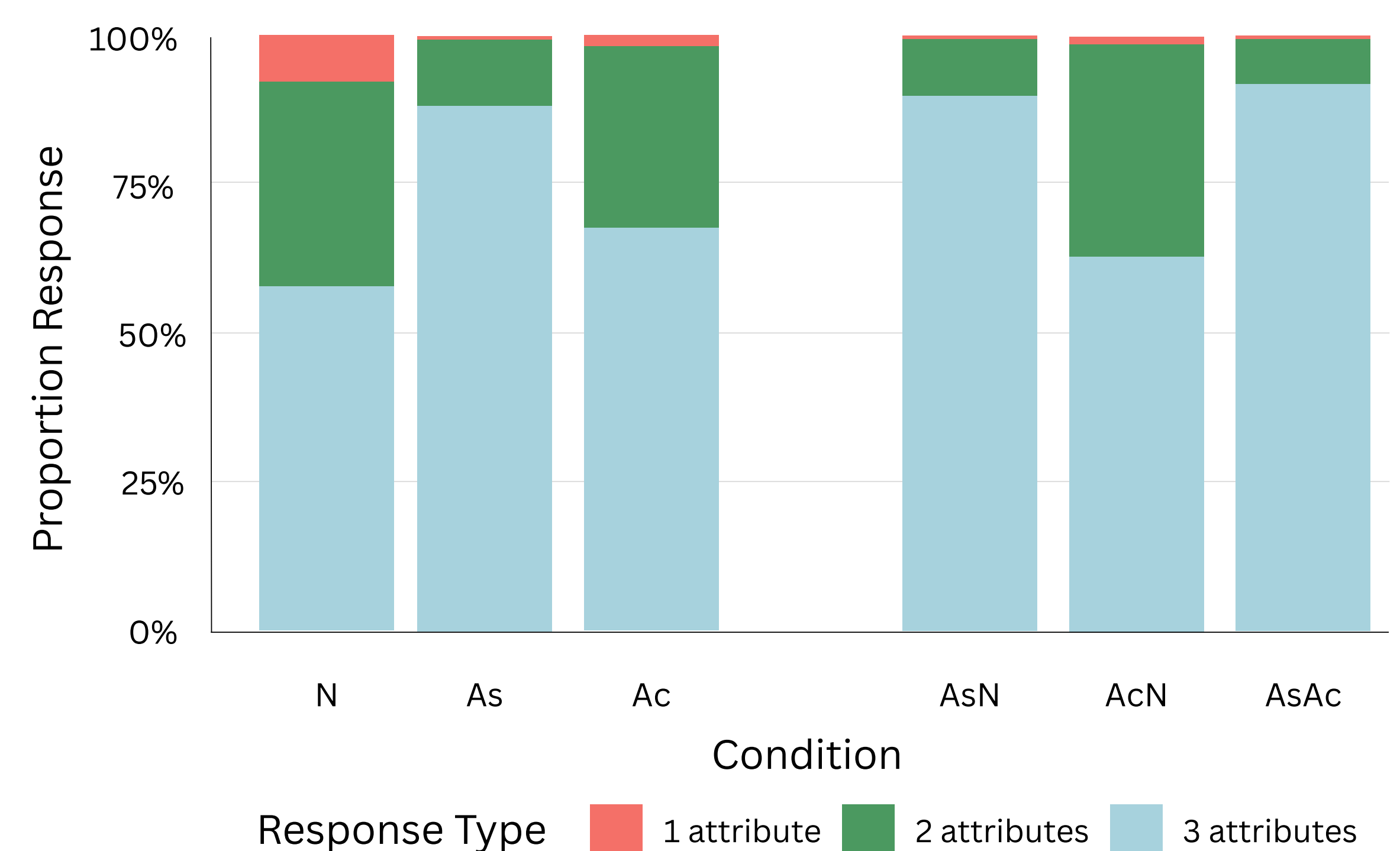
Experiment 2

Methods

- Changes:
 - Removed 3-attribute trials
 - Shuffled label order
 - Removed portions of instructions that highlighted color and type attributes
- **Participants:** N = 96 English-speaking adults (92 NT, 4 ASD), recruited from UCSD SONA

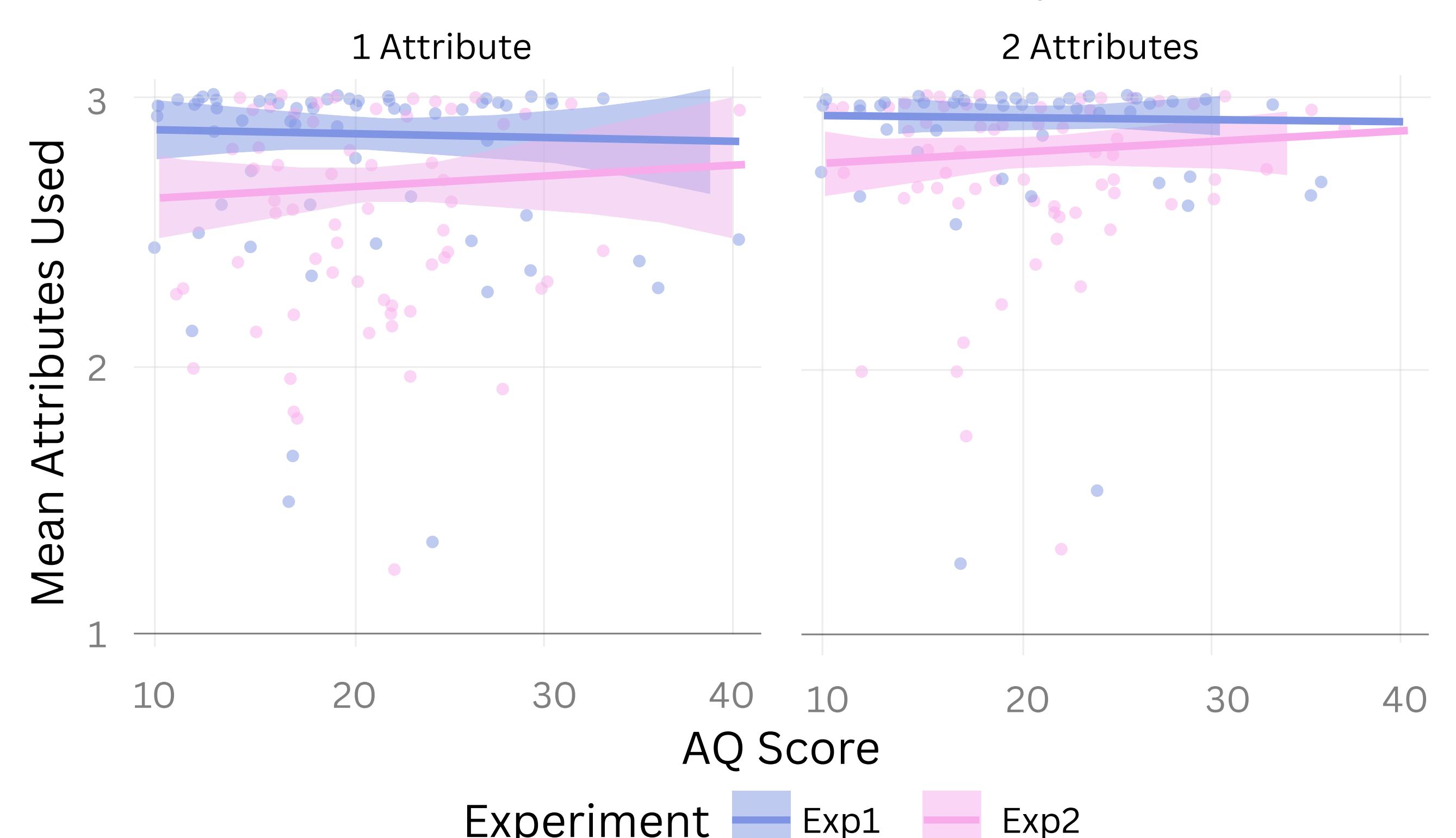
Results

Experiment 2: Response Type Composition by Condition



- No effect of AQ; Effect of context; No interaction between AQ and context

AQ Score vs. Mean Attributes Used by Experiment



General Discussion

- AQ x Experiment Interaction
- Overall overinformativity

Future Directions: Sources of partner information

- Introduce top-down information about partner
- Introduce bottom-up information on partner's behavior
- Prediction: differences in information processing in neurotypical and autistic groups

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