

## Looks Aren't Everything: 10-Month-Olds Also Categorize By Function

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### Abstract

Appearance and function are both important for categorizing objects. Infants' ability to use these features appears to change with development. We examined 10-month-old infants' ability to categorize dynamic displays of objects. Infants formed both appearance-based and function-based categories, but their attention to these features varied with the familiarization context. Thus, 10-month-old infants can form both appearance-based and function-based categories, but their attention to these types commonalities appears to depend on familiarization how deeply infants have processed the information.

### Background

- Appearance and function are both important features for categorizing objects
- In an object-examining task, 10-month-old infants can attend to differences in object appearances, but not differences in object functions (Madole, Oakes & Cohen, 1993)
- Infants may categorize objects differently depending on the context of the task (Younger and Furrer, 2002)
- This research examined whether 10-month-old infants could attend to both objects' appearances and functions in visual habituation tasks.

### General Method

Habituation procedure with infant-controlled trials



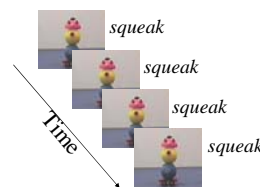
### Experiment 1:

*Can infants notice a change in an object's appearance and in its function?*

- 20 ten-month-old infants
- 30 second (max) trial length
- 8 familiarization trials with a single object
- Test phase immediately following the familiarization phase

### Design

#### Familiarization Phase

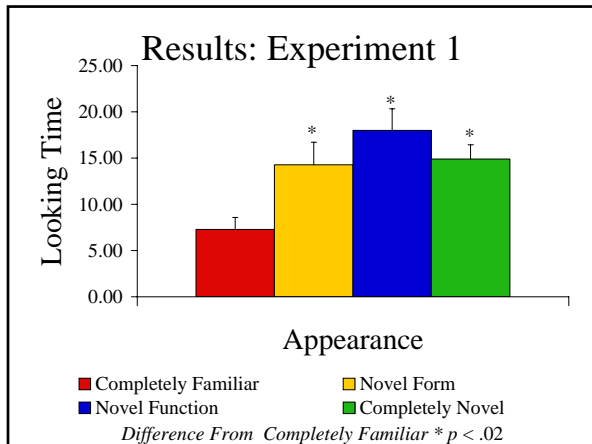


8 trials with a single object

#### Test Phase



Infants are tested with both a Familiar appearance/novel function & Novel appearance/familiar function

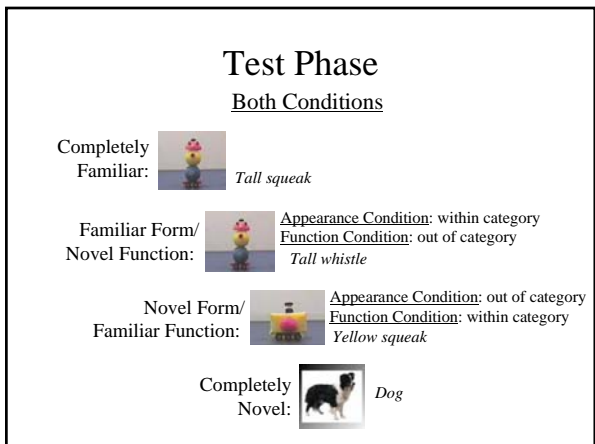
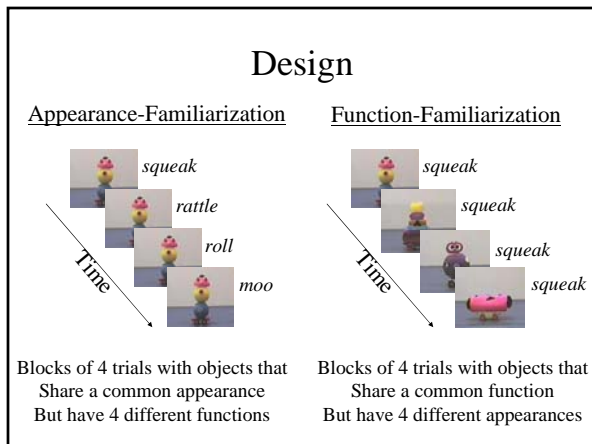


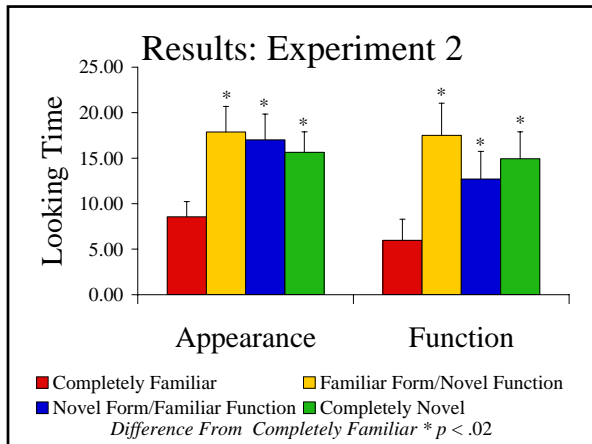
- Infants noticed changes in the object's appearance and function

### Experiment 2:

*Can infants form categories of objects based on appearance and function?*

- 24 ten-month-old infants
- 30 seconds (max) trial length
- Familiarized with 4 different objects until habituated (i.e., looking on non-overlapping blocks of 4 trials was half of looking on first block of 4 trials) or until 24 trials completed
- Test phase immediately following familiarization phase



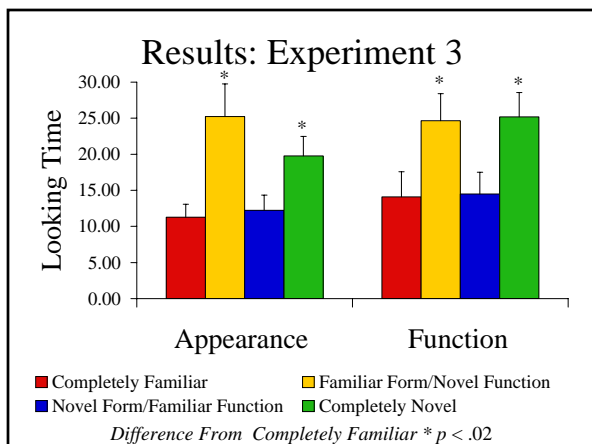


- Infants in both conditions attended to differences in both object appearance *and* function

### Experiment 3:

*If we change the task parameters can infants still form categories based on appearance and function?*

- 36 ten-month-old infants
- 45 seconds (max) trial length
- Same design as Experiment 2
- Familiarized with 4 different objects until habituated (i.e., looking on overlapping blocks of 4 trials was half of looking on first block of 4 trials) or until 16 trials completed
- Test phase immediately following familiarization phase



- Infants in both conditions attended to differences in object functions, but not object appearances

