# Young Logicians: Toddlers' Judgments of Media Character Source Credibility on Touchscreens

Melissa N. Richards & Sandra L. Calvert
Children's Digital Media Center
Georgetown University

Background

- Children form one-sided, emotionally tinged connections known as **parasocial relationships** with characters that are meaningful to them (Bond & Calvert, 2014)
- Children learn best from characters onscreen if they have a parasocial relationship with that character (Calvert, Richards, & Kent, 2014)
- Trust may be one mechanism behind why children may learn better from characters with which they have a parasocial relationship.

- Children rely on meaningfulness of relationship when believing and trusting external sources of information (Corriveau & Harris, 2009):
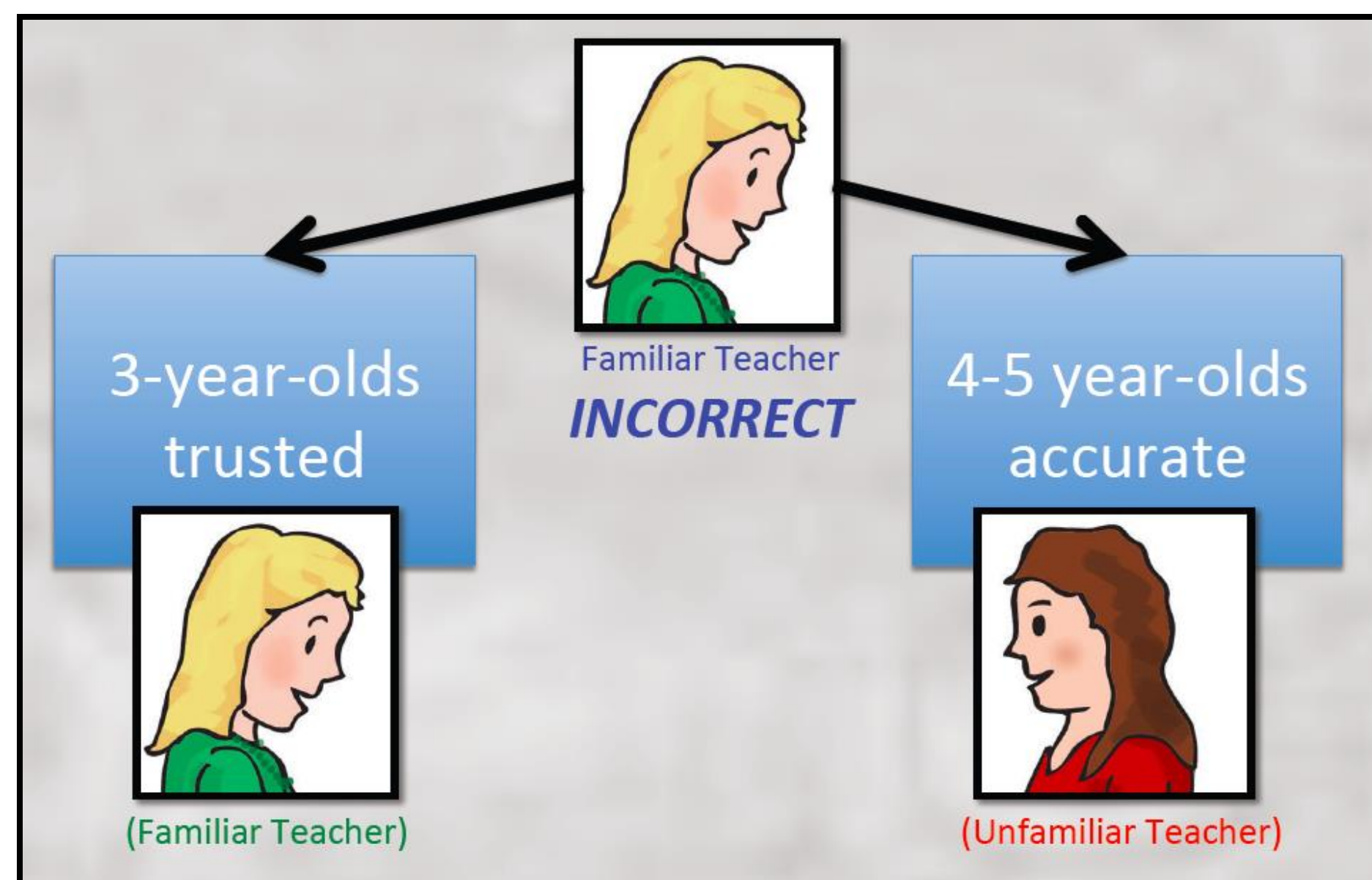
- 3-year-olds still preferred a familiar teacher's labels of novel items even if she previously incorrectly labeled familiar items.
- 4-year-olds, however, preferred the labels of novel items that came from the teacher who was previously correct in labeling familiar objects, regardless of whether or not the teacher was familiar to them.
- As children get older, they chose the accurate teacher more often.

The Current Study

- Translation of this study to media characters
- Since these teachers are credible to children, perhaps children learn better from characters like Elmo because they trust him and they are familiar with him.
- Touchscreen use increasing among children (Common Sense Media, 2013)

- Purpose: to investigate how children judge the source credibility of information presented by characters on touchscreens.

Methods

Three experiments:
- 32-month-old children ($n = 40$ for Experiment 1; $n = 36$ for Experiment 2)
- 24-month-old children ($n = 33$ for Experiment 3)

- Children judged the credibility of information presented on a touchscreen device by a familiar (Elmo) or an unknown media character (DoDo).
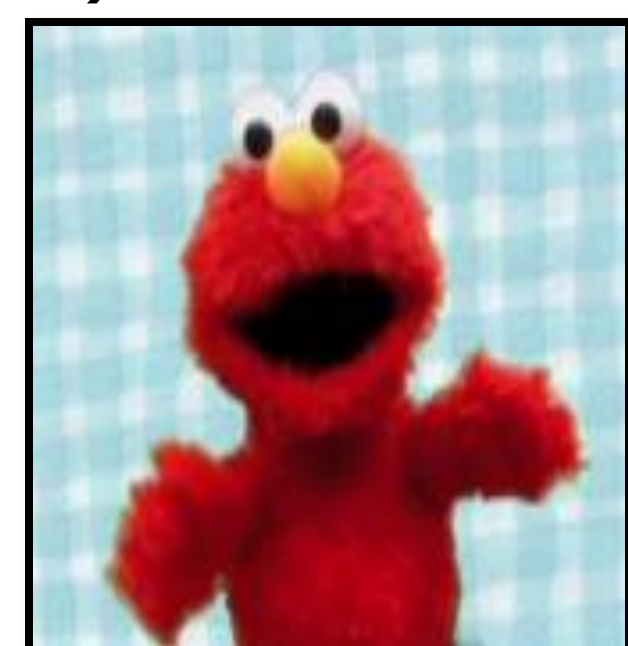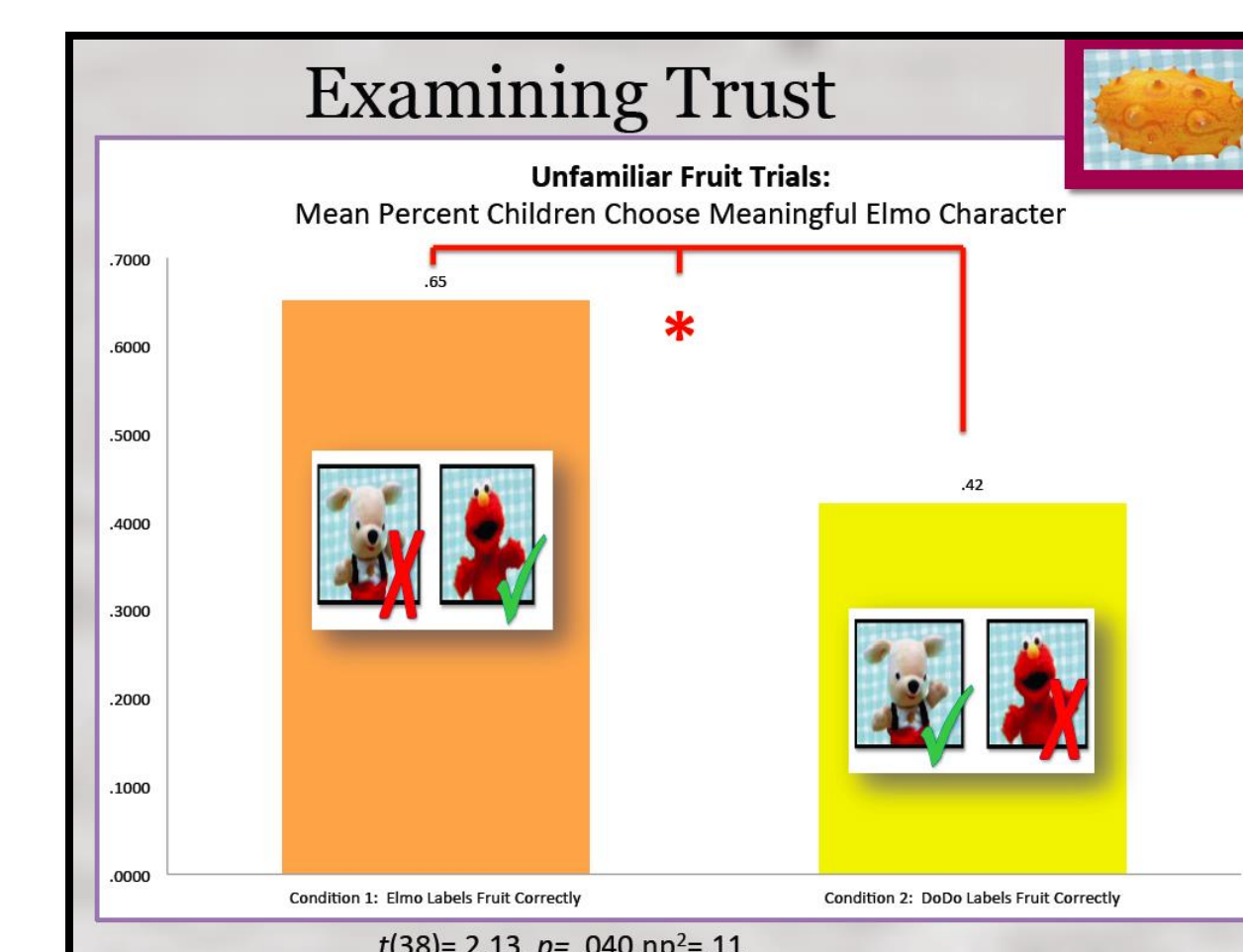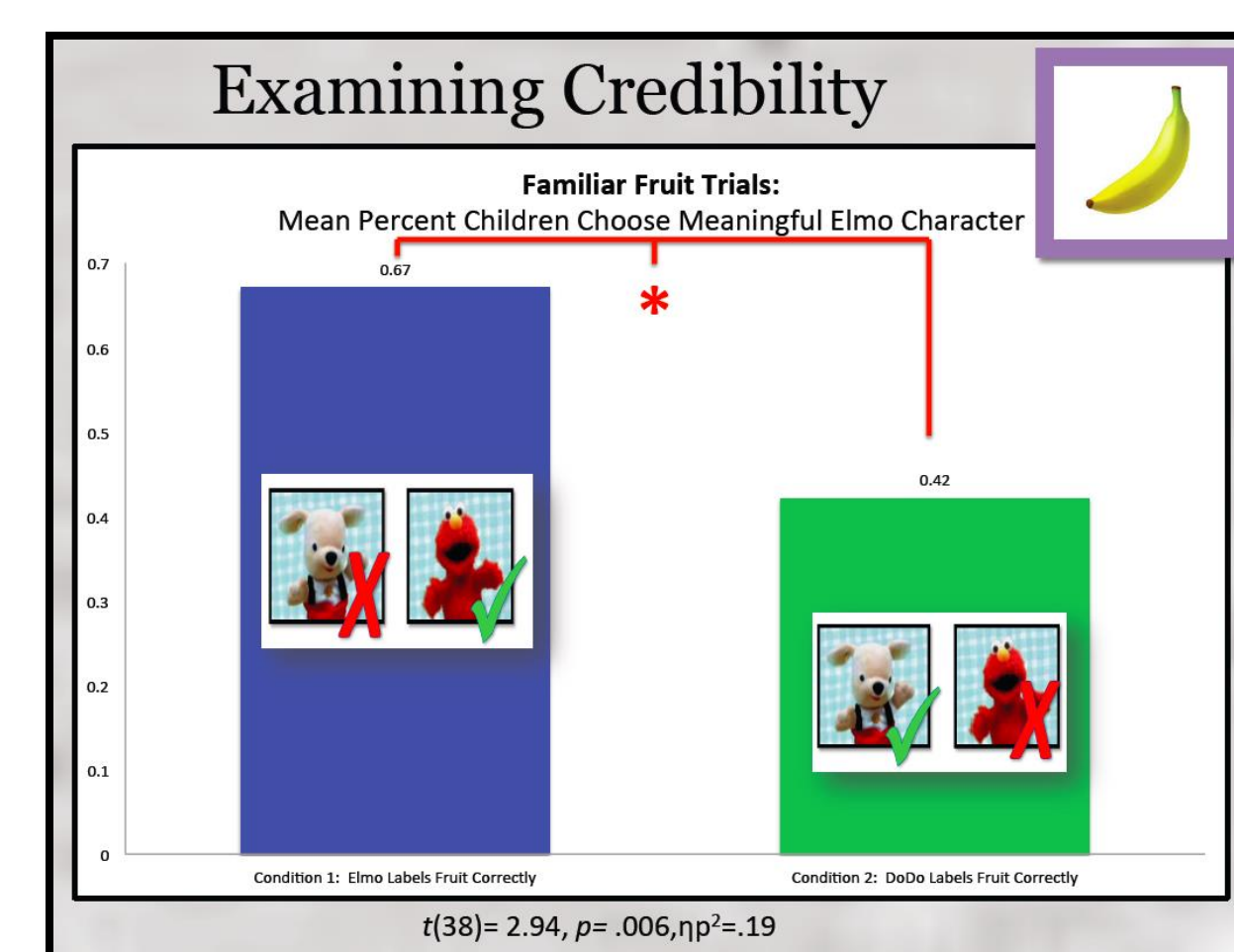

The App

- Two app conditions varied which character was consistently accurate in naming familiar fruits.

- Then both characters labeled four novel fruits with nonsense words.

- Feedback about the accuracy of the characters' labels of the familiar fruits was provided in Experiments 1 and 3, but no such feedback was provided in Experiment 2.
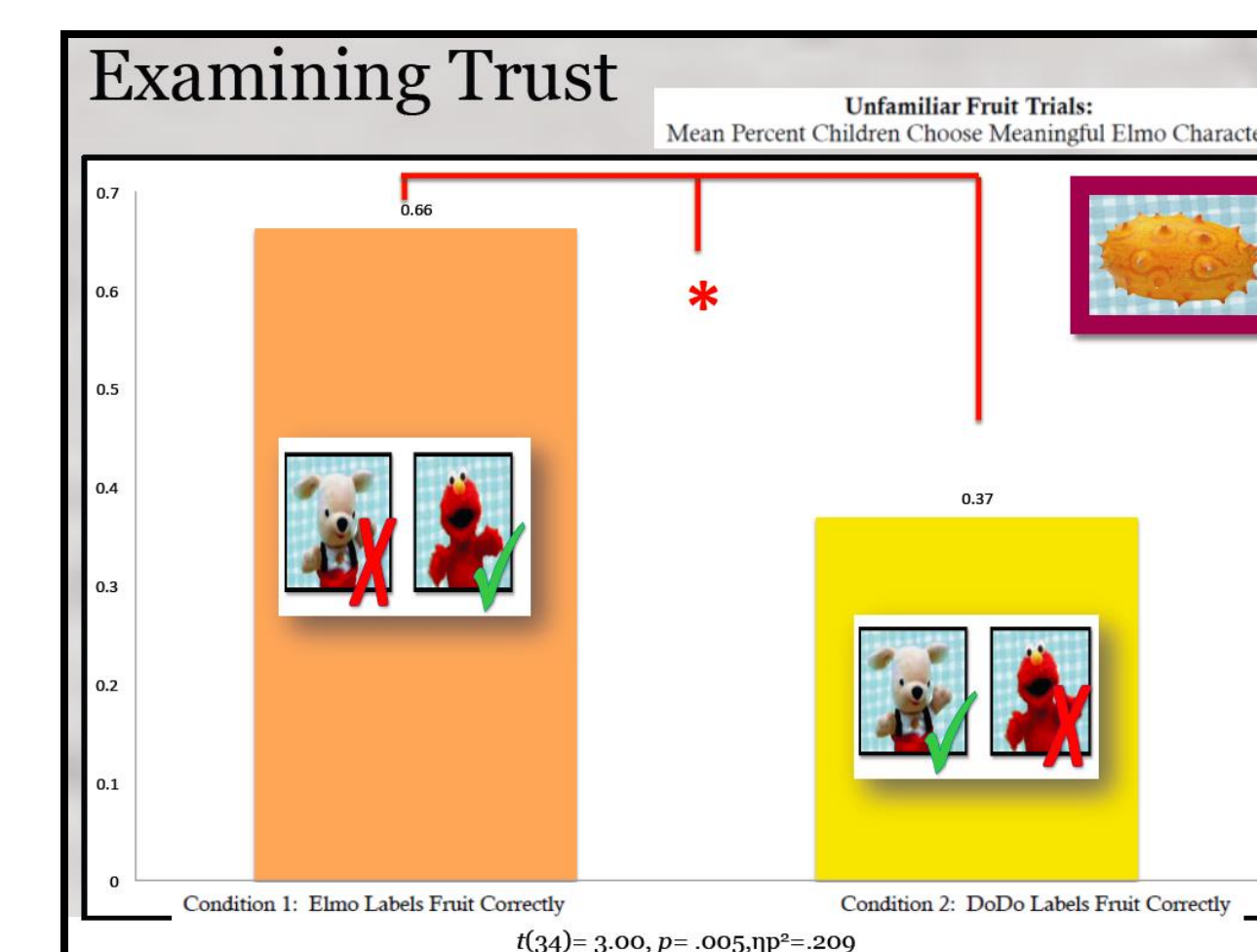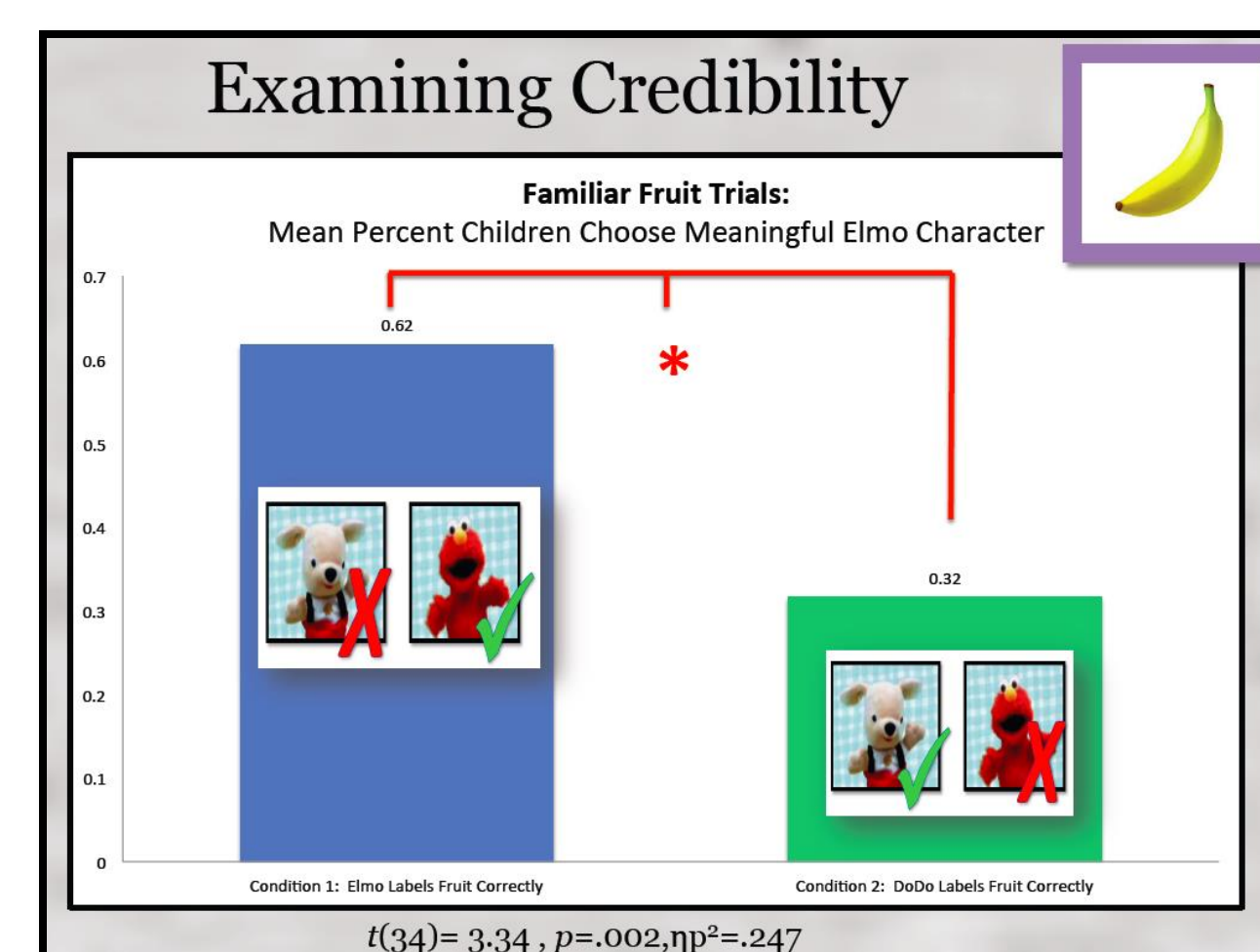
Results

Experiment 1: Feedback about Character Accuracy for Familiar Fruits

Examining Credibility
Familiar Fruit Trials: Mean Percent Children Choose Meaningful Elmo Character
$t(38) = 2.94, p = .006, \eta p^2 = .19$

Examining Trust
Unfamiliar Fruit Trials: Mean Percent Children Choose Meaningful Elmo Character
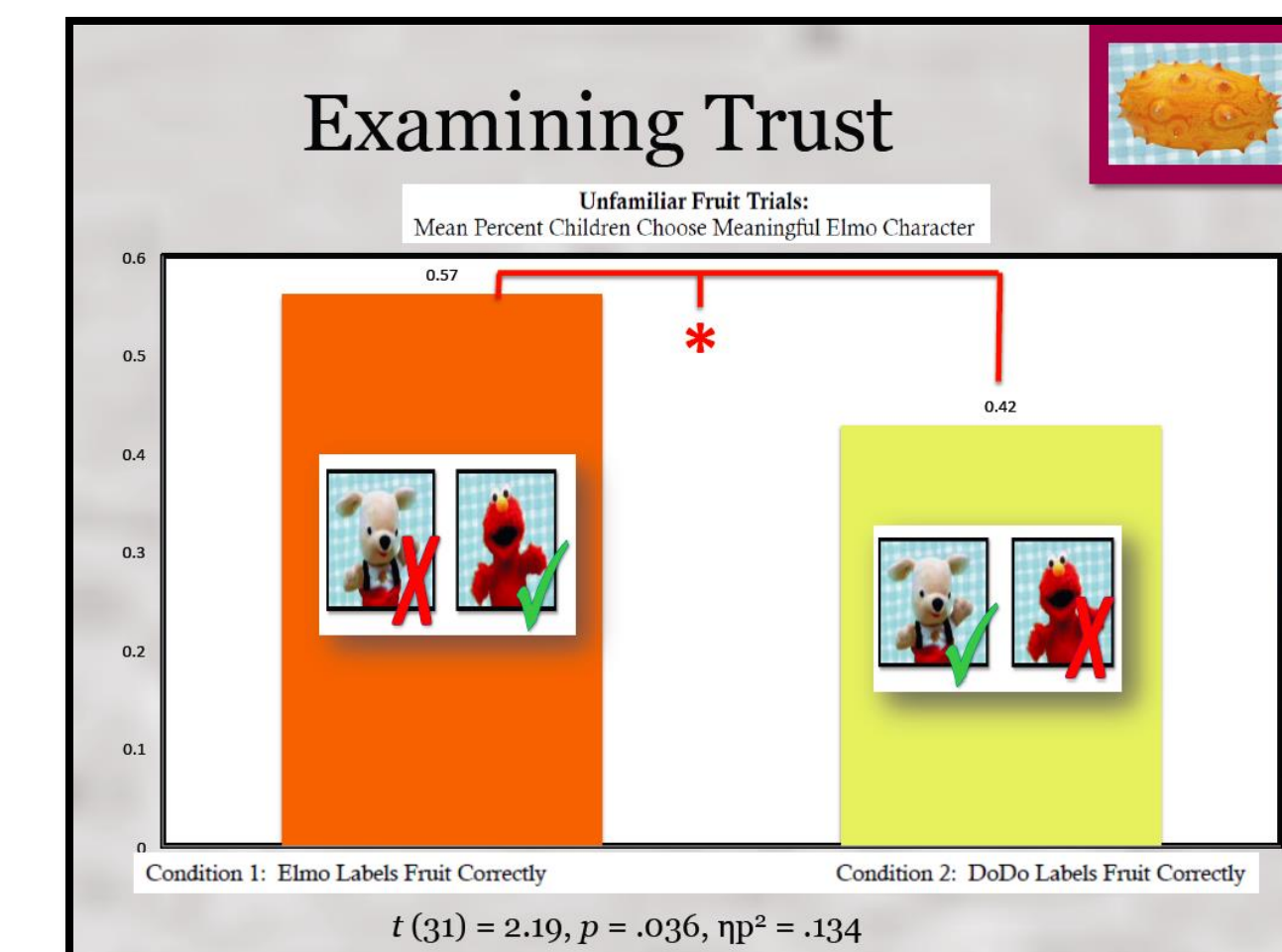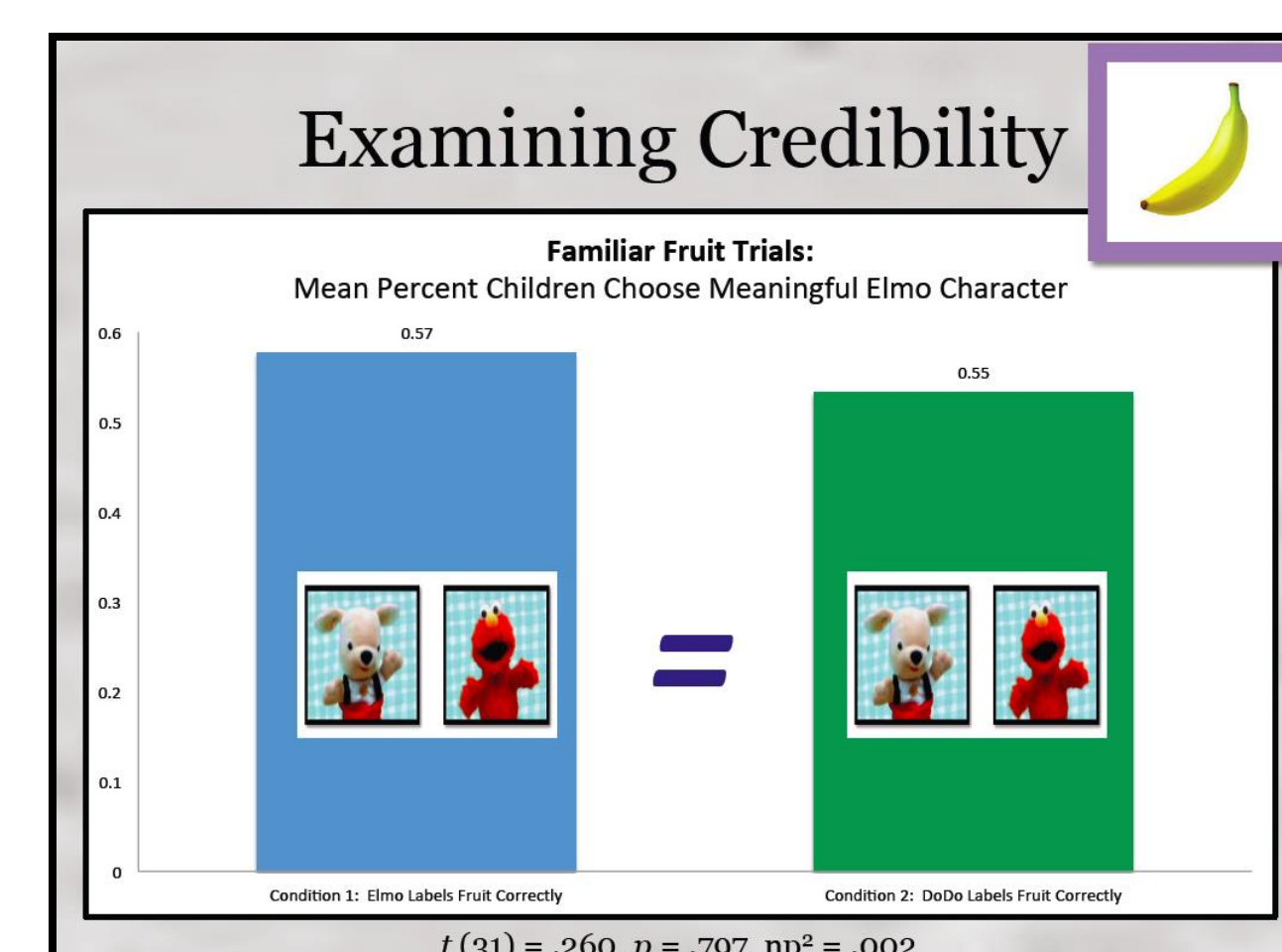$t(38) = 2.13, p = .040, \eta p^2 = .11$

- Toddlers placed credibility & their trust in accurate over familiar characters at only 32 months of age
- Not consistent with the previous findings of Corriveau and Harris who studied preschool teachers

Experiment 2: No Feedback about Character Accuracy for Familiar Fruits

Examining Credibility
Familiar Fruit Trials: Mean Percent Children Choose Meaningful Elmo Character
$t(34) = 3.34, p = .002, \eta p^2 = .247$

Examining Trust
Unfamiliar Fruit Trials: Mean Percent Children Choose Meaningful Elmo Character
$t(34) = 3.00, p = .005, \eta p^2 = .209$

- Same findings as in Experiment 1: 32-month old children chose accuracy over familiarity, *even when the feedback from the app was removed.*

Experiment 3: Feedback about Character Accuracy for Familiar Fruits

Examining Credibility
Familiar Fruit Trials: Mean Percent Children Choose Meaningful Elmo Character
$t(31) = .260, p = .797, \eta p^2 = .002$

Examining Trust
Unfamiliar Fruit Trials: Mean Percent Children Choose Meaningful Elmo Character
$t(31) = 2.39, p = .036, \eta p^2 = .134$

- 24 month olds also chose accuracy rather than familiarity of character for unfamiliar fruits
- Different pattern for familiar fruits emerged (perhaps due to initial attachment to Elmo character during first familiar fruit trial).

Discussion

- Knowledge conveyed by popular characters, with whom children may have parasocial relationships, is discounted when familiar characters have been incorrect & unfamiliar characters are correct.

- Elmo's credibility appeared to be questionable when he made errors about what children already knew to be true.

- Finding could be comforting to parents who believe their children are *too* attached to characters.

- Children perceive their relationship with these onscreen characters as horizontal—that is, as their friends—rather than as authoritative information sources that they would find in a vertical relationship with adults who are their teachers.

Conclusion

- Very young children make relatively sophisticated credibility decisions early in life.
- Interactive devices like tablets hold promise for assessing children's beliefs about what media characters know, making tablets a gateway to a world of knowledge.

References

Bond, B.J. & Calvert, S.L. (2014). A model and measure of U.S. parents' perceptions of young children's parasocial relationships, *Journal of Children and Media, 8,* 286-304.
Calvert, S.L., Richards, M. & Kent, C. (2014). Personalized interactive characters for toddlers' learning of seriation from a video presentation. *Journal of Applied Developmental Psychology, 35,* 148-155.
Common Sense Media (2013). *Zero to eight: Children's media use in America 2013.* San Francisco, CA: Common Sense Media.
Corriveau, K. & Harris, P. L. (2009). Choosing your informant: Weighing familiarity and recent accuracy. *Developmental Science, 12,* 426–437.