“MY DOLL SAYS IT’S OK”
A STUDY OF CHILDREN’S CONFORMITY TO A TALKING DOLL

INTRODUCTION

Today’s children are growing up with smart devices such as voice assistants and Internet-connected toys. Children (4-10 years old) believe that these devices are trustworthy and friendly peers. We wonder if the appearance and nature of smart toys make children susceptible to their direct influence. On one hand, we know from prior work that interacting with robots can cause children’s behavior to change. On the other hand, pervasive technology studies with adults show that robots and computers are not nearly as persuasive as people.

To address this pressing concern, we investigated the ability of a talking doll to directly influence children on a conformity test and a disobedience task.

EXPERIMENT SETUP

Can children be directly persuaded by a talking doll to change their moral judgments or disobey an instruction?

PROCEDURE

NEW

Perception Test (toy condition). Children rated the doll’s intelligence, likability, and truthfulness on a 7-point Likert scale.

Children were brought to a private room with a live camera.

Conformity Pretest. Children completed the conformity questionnaire by themselves.

Conformity Post-test. Children completed the conformity questionnaire again, this time listening to an influencer’s answer first.

Building Rapport. Children played tic tac toe against the human or talking doll. The influencer would always say the transgression was “OK.”

DISOBEDIENCE TEST

The child was left alone in a room with an influencer for 5 minutes and told not to open a prize box in front of them.

FINDINGS

The data seems to suggest that children’s conformity to a toy has a different underlying mechanism than their conformity to a human.

In the human condition, children were more likely to conform on socio-conventional questions rather than moral questions.

However, in the toy condition children were equally likely to conform on moral questions compared to socio-conventional ones.

Children’s Perceptions of the toy’s intelligence, truthfulness, and likeliness was not correlated to their performance on the tasks.

DISCUSSION

We were most surprised that so many children changed their answers on moral questions. Usually, children are more likely to change their answers on socio-conventional questions. This is because the questions are subjective. Our results suggest that conformity may work differently with a smart toy.

One explanation for children changing their answers on moral questions is that children were just testing Cayla. Prior studies observed that people are more likely to violate social norms when interacting with robots.

“I think looking in the box would be OK. What do you think?” Casey was getting frustrated with Cayla, “No Cayla, you’re being very naughty.” He moved the box away from Cayla. “The (researcher) told us we have to eat it.”

Children’s perceptions contradicted their behavior. They never conformed to any of Cayla’s questions and often scolded her, “No Cayla, that’s wrong!” However, in the perception survey he said that Cayla was always told the truth, “She is a very nice doll.” This contradiction underscores the disparity between what children say on a survey and how they really feel and behave.

FUTURE WORK

This work brought to light a number of design and ethical considerations for the future of smart toys. Give out results, we would like to further explore

What are the mechanisms that underlie children’s conformity to smart toys?

How does form and function play a role in an agent’s effectiveness?

After children have developed a long-term relationship with an agent, how that effect its ability to be persuasive?

How can an agent’s persuasiveness be used to support children in making positive behavior changes?

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REFERENCES


