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# DEVELOPMENT OF FAKE NEWS DETECTION DURING ADOLESCENCE

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## BACKGROUND & OBJECTIVES

- Although previous studies in adults converged to show that the ability to differentiate between fake and real news involved to overcome reasoning biases (Pennycook & Rand, 2019), no study has investigated how media truth discernment develops during adolescence.
- The familiarity of news stories – such as their repetition on social media – increases their perceived accuracy. This effect, known as the **Illusory truth effect**, has been observed in children (Fazio et al., 2015) and adults (Pennycook et al., 2018), but should be explored during adolescence.
- In this study, we investigated :
  - the development of media truth discernment from adolescence to adulthood
  - the role of the resistance to cognitive biases in fake news detection
  - the effect of familiarity (illusory truth effect) of the news on the perceived accuracy

## METHOD

- 564 participants :
 

110	108	109	105	132
6th grade	7th grade	8th grade	9th grade	Adults
- Online Tasks : Illusory truth effect paradigm (Pennycook et al., 2018), cognitive reflection test (CRT, Frederick, 2005), syllogisms (Evans et al., 1983)

FAKE NEWS ITEM

REAL NEWS ITEM

Example of news headlines used during the experiment

Familiarization stage

DV : Interest level rating  
Half fake news – Half real news  
28 items

Distractor stage

Demographic questions

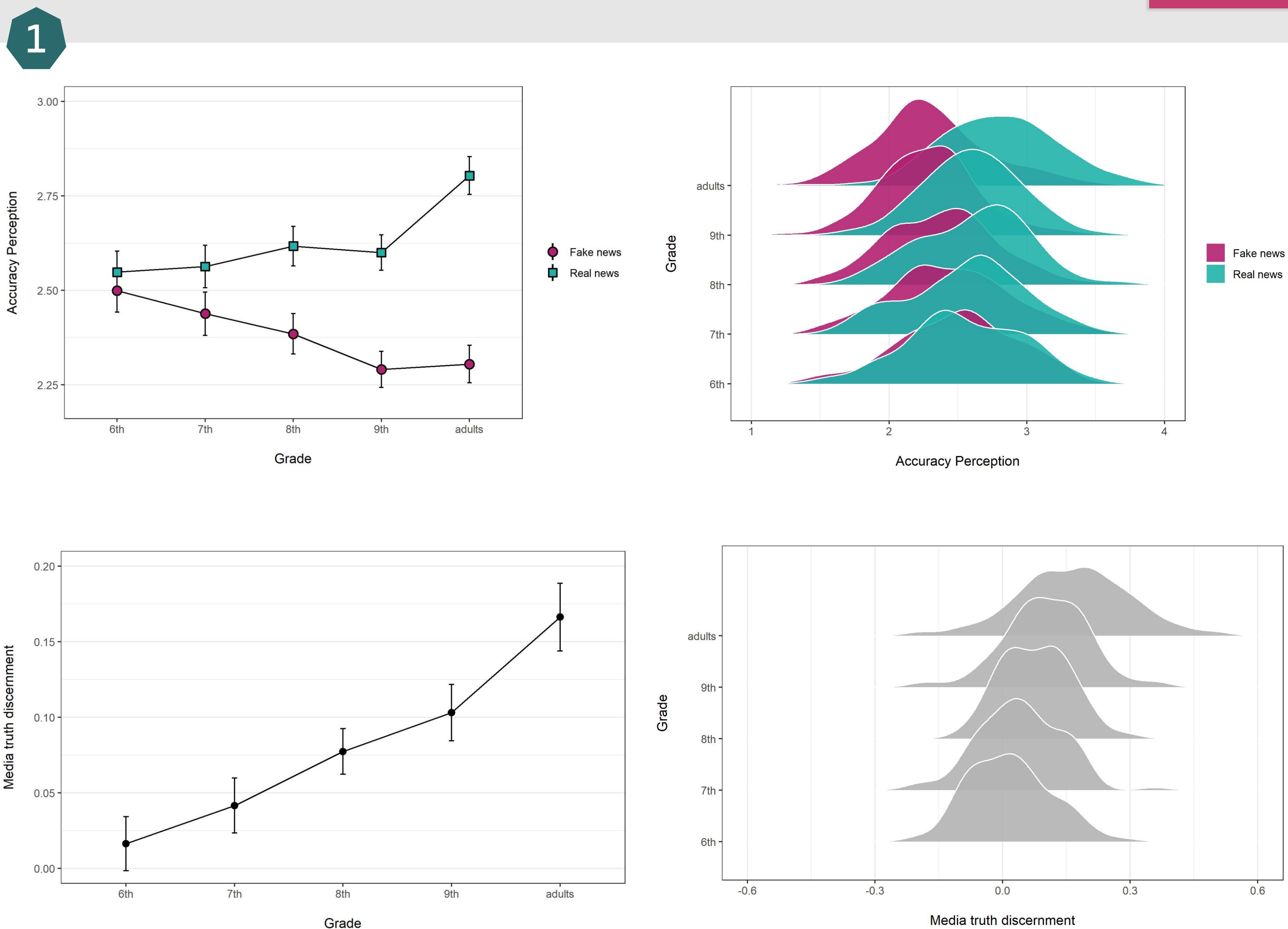
Assessment stage

DV : perceived accuracy rating  
28 familiar news + 28 novel news  
Half fake news – Half real news

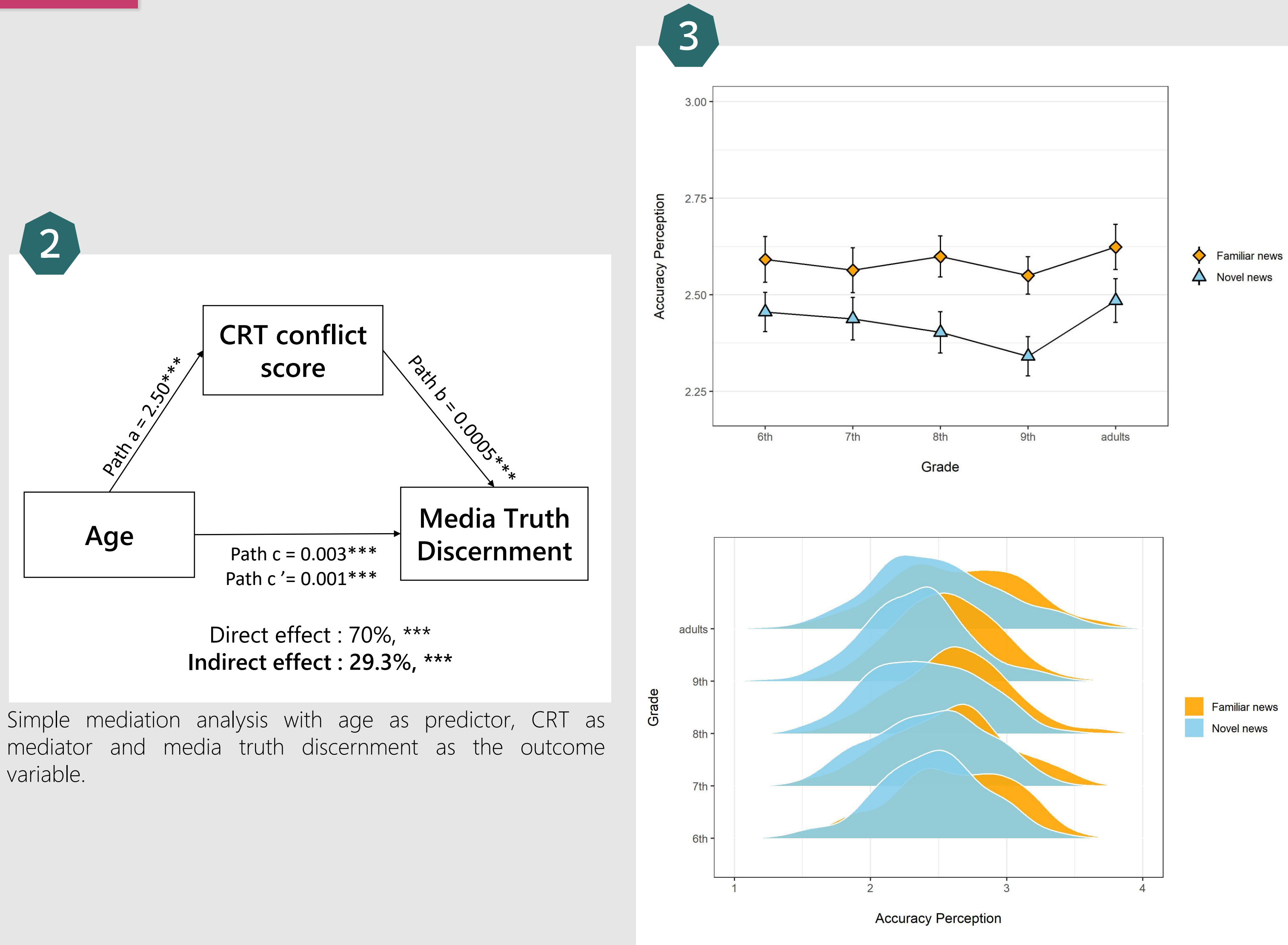
- Illusory truth effect =**  
Familiarized - Novel items
- Media truth discernment =**  
Real news - Fake news

The three stages of the illusory truth effect paradigm

## RESULTS



Perceived accuracy means of real news and fake news per group and distributions (top). Media truth discernment means per group and distribution (bottom). All error bars indicate 95% confidence intervals.



Perceived accuracy means of familiar and novel news per group and distributions. All error bars indicate 95% confidence intervals.

## CONCLUSION

- Media truth discernment develops linearly with age during adolescence
  - The relation between age and media truth discernment is partially mediated by the ability to overcome biased responses
  - The illusory truth effect exists at all age given that familiar news were perceived as more accurate than novel news
- Taken together, these results could provide new cues to help the development of media truth discernment in adolescence through specific pedagogical interventions.