The Lion, the Witch, or the Schoolkid?
The Effects of Different Fantasy Elements on Children's Comprehension of Moral Lessons in Picture Books

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Introduction

- Starting at ages 5-6, children can identify the moral content of fictional stories with minimal prompting [1, 2]

- Previous research indicates **children are less likely to understand moral lessons** in stories with anthropomorphic **animal characters** than human characters [3, 4, 5]

- Some research on children's reading preferences indicates children prefer books about animals [4], but this is conflated by research suggesting children prefer realistic stories [6]

- No research has compared different fantasy for differences in adolescent moral understanding, such as human characters and impossible setting (e.g. superpowers, magic).

Hypotheses

1. Children in condition C (impossible fantasy) will have higher moral comprehension scores on average than children in condition B (animal fantasy).

2. Children in condition A (realistic) will score the highest moral comprehension scores on average than either fantasy book.

3. Children prefer to read realistic stories over fantastical stories.

Participants

- Forty-one 5 and 6 year olds from the Travis County area (20 boys, 21 girls)
- Demographics
  - 80.5% Caucasian or white
  - 7.3% Asian
  - 4.9 % American Indian or Alaskan Native
  - 2.4% African American or black.

Materials and Method

	Condition A	Condition B	Condition C
Title	Peyton McGee wants to be Tall	Peyton Mouse wants to be Big	Peyton Mighty gets Tiny
Fiction Type	Realistic	Animal	Impossible
Variables Manipulated	Human characters Normal events	Fantasy characters (animals) Normal events	Human characters Fantasy events (superpowers)
Sample page for comparison (page 2)	Peyton is in elementary school. Every morning, Daddy McGee takes Peyton to school on his way to work, and every afternoon Mommy McGee takes Peyton home. Peyton is in Ms. Mendel's class, where [he/she] loves to learn with all the other kids [his/her] age. But, the one thing Peyton hasn't learned is how to be tall.	Peyton goes to Animal Elementary School. Every morning, Daddy Mouse takes Peyton to school on his way to work, and every afternoon Mommy Mouse takes Peyton home. Peyton is in Ms. Sheep's class, where [he/she] loves to learn with all the other animals [his/her] age. But, the one thing Peyton hasn't learned is how to get big.	Peyton goes to school at the Superhero Academy. It is school for kids with superpowers. Every morning, Mighty Dad flies Peyton to school, and every afternoon Mommy McGee takes Peyton home in their superhero car, the Mighty Mobile. Peyton is in Super Teacher's class, where [he/she] learns all kinds of things from Super Teacher. But, the one thing Peyton hasn't learned is how to be tall.

Three books were created with the same general plot and moral lesson, but varied slightly to implement fantasy elements A, B, or C. Likewise, all illustrations were created with similar poses and backgrounds to minimize undue differences that could alter the plot or moral content.

Participants met with a researcher for a 30-minute Zoom session, where the researcher and participant went through a Qualtrics survey together. Each Qualtrics survey contained the following:

I. Magical Thinking Assessment

II. One of three picture books (A, B, or C) and its moral comprehension questions
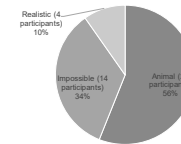
III. Fiction Preferences Survey

Results

I. Magical Thinking Assessment

- Participants were asked to categorize objects as "real" or "pretend".
- Magical thinking score = # of objects labelled "real" (8 points possible)
- n = 41, M = 5.05, SD = 1.55
- **No significant correlation between magical thinking score and moral comprehension**, r = -.141 and p = .379

Object								
	Elves	Fairies	Germs	Mermaids	Oxygen	Santa	Tooth Fairy	Vitamins
Pretend	25	30	1	35	1	10	16	2
Real	16	11	40	6	40	31	24	39
Total	41	41	41	41	41	41	40	41

II. Moral Comprehension

IIa. Reading Comprehension Score

- 10 true-false questions = 10 possible points
- Serves as attention check; if less than 5 correct, excluded from analysis
  - Condition A
    - n = 15, M = 9.33, SD = 1.05
  - Condition B
    - n = 14, M = 9.71, SD = 0.47
  - Condition C
    - n = 12, M = 9.25, SD = 1.06
- **No significant difference between reading comprehension for each condition**, F(2, 21.0) = 1.51, p = 0.243
- Indicates all books have understandable surface content to participants

IIb. Moral Comprehension Score

- Open-response (2) + theme selection (1) + vignette selection (1) = 4 possible points
- Questions and analysis inspired by Narvaez et al. (1999) scaffolding technique[1]
  - Condition A
    - n = 15, M = 1.47, SD = 1.19
  - Condition B
    - n = 14, M = 0.72, SD = 1.14
  - Condition C
    - n = 12, M = 1.50, SD = 1.17
- **No significant difference between moral comprehension for each condition**, F(2, 24.8) = 1.99, p = 0.157
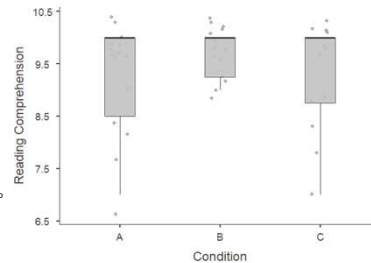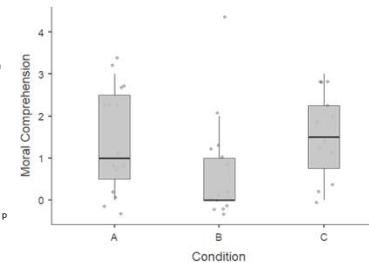

III. Fiction Preferences

- Participants were surveyed for enjoyment of picture book and asked to select a book cover with the same title, but artwork corresponding to study conditions
- **Participants were more interested in fantasy covers than realistic covers**, indicates innate interest in fantasy elements.

Realistic (4 participants) 10%
Impossible (14 participants) 34%
Animal (23 participants) 56%

Conclusion

- While there are no significant differences in reading comprehension based on condition, there were also no significant difference between moral comprehension scores and conditions A, B, or C.

- There was no correlation between baseline magical thinking and moral comprehension, meaning children's belief in fantastical objects does not affect critical thinking.

- Children are more interested in fantasy than realistic book covers, indicating an inherent interest in fantasy

Future Directions

- Including more moral comprehension questions could create a greater range of moral comprehension scores. This may find statistically significant differences not apparent in this study.

- Polls on children's interest in literature could differentiate between stories and nonfiction, such as an animal fact book instead of an animal story. This could show if children's interest in animal stories is due to the fantasy of talking animals or an interest in animals as a subject.

Acknowledgements

References

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