

## **Supporting Information for**

**Gender brilliance stereotype emerges early and predicts children's motivation in**

**South Korea**

**Table S1.** The questions and scale used in the screener phase in Experiments 1 and 2 (Each option's corresponding scale is displayed in parentheses).

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**“Smart” screener questions (6 items):**

[four relevant questions]

- This child can always answer even the hardest questions from the teacher.
- This child learns things really fast.
- This child can solve very difficult puzzles.
- This child figures things out really quickly.

(after each question) Is this child smart (thumbs up), not smart (thumbs down), or are you not sure (puzzled look)?

[two irrelevant questions]

- This child watches really funny cartoons.
- This child exercises all the time.

(after each question) Is this child smart (thumbs up), not smart (thumbs down), or are you not sure (puzzled look)?

**“Nice” screener question:**

[four relevant questions]

- This child likes to help other people.
- This child always shares their toys with other children.
- This child tries to make other children feel better when they are sad.
- This child likes to give hugs to family and friends.

Is this child nice (thumbs up), not nice (thumbs down), or are you not sure (puzzled look)?

[two irrelevant questions]

- This child plays on a swing.
- This child likes to listen to music.

Is this child nice (thumbs up), not nice (thumbs down), or are you not sure (puzzled look)?

Scoring: Mean of 6 items (1 = correct answer; 0 = incorrect answer; “smart/nice” to the four relevant questions, and “not sure” and “not smart/not nice” to the two irrelevant questions were coded as correct.)

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Scale used in the screener phase:



**Table S2.** The questions used in the grade task in Experiments 1 and 2. The first two questions were presented with 4 pictures of unfamiliar Asian children (Experiment 1) or White children (Experiment 2) including 2 boys and 2 girls. Participants were then asked the same 2 questions again, except this time they had to choose between 2 verbally presented options (“A boy or a girl?”) without viewing pictures.

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(1) Who do you think will get the highest score in school/kindergarten?

(2) Who do you think will be the first place in their class?

(3) Who do you think will get the highest score in school/kindergarten?

A boy or a girl?

(4) Who do you think will be the first place in their class?

A boy or a girl?

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An example of the pictures used in the first two questions:



**Table S3.** Children’s own-gender brilliance scores by tasks in Experiment 1 (standard deviations in parentheses).

Age group	Gender	Story task	Guessing task
5	Boys	0.78 (0.31)	0.54 (0.24)
	Girls	0.66 (0.40)	0.60 (0.22)
6	Boys	0.78 (0.36)	0.64 (0.21)
	Girls	0.66 (0.35)	0.56 (0.25)
7	Boys	0.81 (0.25)	0.70 (0.16)
	Girls	0.59 (0.38)	0.54 (0.14)

*Note.* We submitted children’s own-gender brilliance scores obtained from each task (the story task or the guessing task) to a linear regression model with participant gender, participant age, and their interaction as factors. For the story task, the analysis revealed a significant main effect of gender,  $B = .08$ ,  $SE = .03$ ,  $t = 2.24$ ,  $p = .028$ . Neither the main effect of participant age,  $B = -.01$ ,  $SE = .04$ ,  $t = -0.18$ ,  $p = .855$ , nor the interaction,  $B = .02$ ,  $SE = .04$ ,  $t = 0.55$ ,  $p = .585$ , was significant. For the guessing task, the analysis found a significant interaction between participant gender and participant age,  $B = .05$ ,  $SE = .03$ ,  $t = 2.13$ ,  $p = .035$ . Neither the main effect of participant gender,  $B = .03$ ,  $SE = .02$ ,  $t = 1.37$ ,  $p = .174$ , nor the main effect of participant age,  $B = .02$ ,  $SE = .03$ ,  $t = 0.91$ ,  $p = .363$ , was significant.

**Table S4.** Children’s own-gender brilliance scores by tasks in Experiment 2 (standard deviations in parentheses).

Age group	Gender	Story task	Guessing task
5	Boys	0.78 (0.31)	0.71 (0.27)
	Girls	0.72 (0.36)	0.66 (0.25)
6	Boys	0.84 (0.24)	0.69 (0.20)
	Girls	0.72 (0.31)	0.63 (0.19)
7	Boys	0.72 (0.31)	0.68 (0.14)
	Girls	0.44 (0.36)	0.56 (0.19)

*Note.* We submitted children’s own-gender brilliance scores obtained from each task (the story task or the guessing task) to a linear regression model with participant gender, participant age, and their interaction as factors. For the story task, the analysis revealed a significant main effect of participant gender,  $B = .08$ ,  $SE = .03$ ,  $t = 2.38$ ,  $p = .020$ , and a main effect of participant age,  $B = -.09$ ,  $SE = .04$ ,  $t = -2.14$ ,  $p = .035$ . However, the interaction was not significant,  $B = .05$ ,  $SE = .04$ ,  $t = 1.36$ ,  $p = .178$ . For the guessing task, the analysis found a marginally significant main effect of participant gender,  $B = .04$ ,  $SE = .02$ ,  $t = 1.79$ ,  $p = .077$ . Neither the main effect of participant age,  $B = -.03$ ,  $SE = .03$ ,  $t = -1.21$ ,  $p = .230$ , nor its interaction with participant gender,  $B = .02$ ,  $SE = .03$ ,  $t = 0.60$ ,  $p = .547$ , was significant.

**Table S5.** The four questions used to assess children's interests in Experiment 3 (Each option's numerical score is displayed in parentheses).

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(1) Imagine the modi/papu game is right in front of you. Would you want to play the modi/papu game, or would you not want to play it?

[if "*want to play*"] Then, how much do you want to play modi/papu game?

Would you sort of want to play it (= 4), want to play it (= 5), or really want to play it (= 6)?

[if "*not want to play*"] Then, how much do you not want to play modi/papu game?

Would you sort of not want to play it (= 3), not want to play it (= 2), or really not want to play it (= 1)?

(2) Do you like the modi/papu game, or do you not like it?

[if "*like it*"] Then, how much do you like modi/papu game?

Would you sort of like it (= 4), like it (= 5), or really like it (= 6)?

[if "*not like it*"] Then, how much do you not like modi/papu game?

Would you sort of not like it (= 3), not like it (= 2), or really not like it (= 1)?

(3) Imagine you are playing the modi/papu game. Does playing modi/papu game make you happy or sad?

[if "*happy*"] Then, how much playing modi/papu game makes you happy?

Does it make you sort of happy (= 4), happy (= 5), or really happy (= 6)?

[if "*sad*"] Then, how much playing modi/papu game makes you sad?

Does it make you sort of sad (= 3), sad (= 2), or really sad (= 1)?

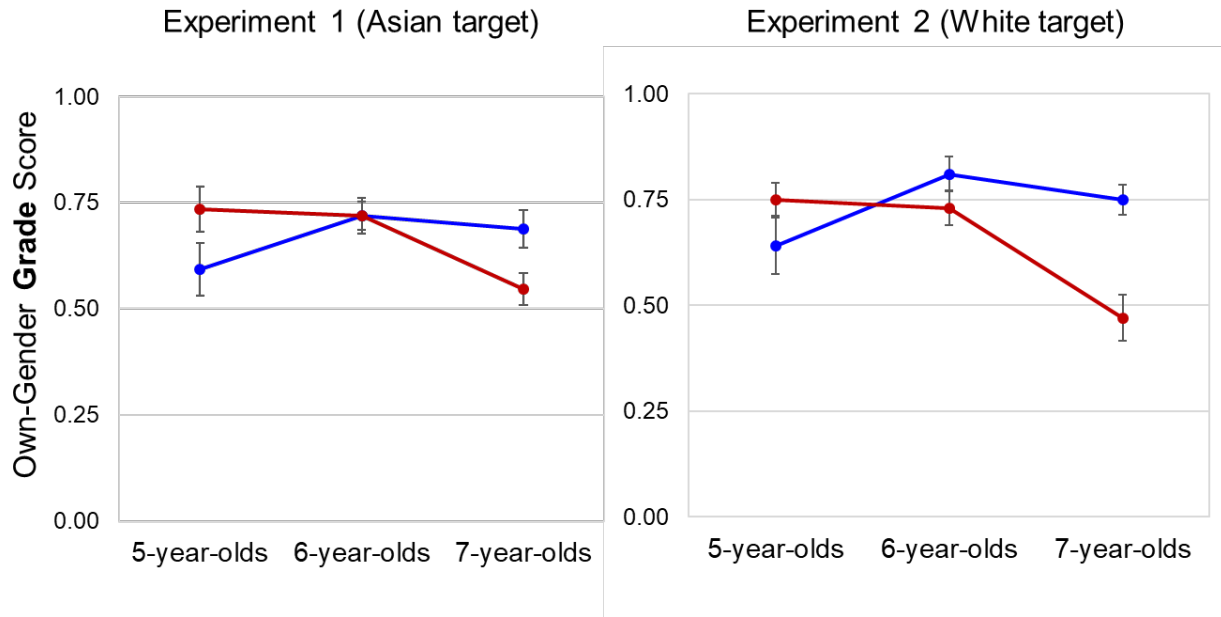
(4) If you can do something tomorrow, would you play the modi/papu game (= 1) or would you do something else (= 0)?

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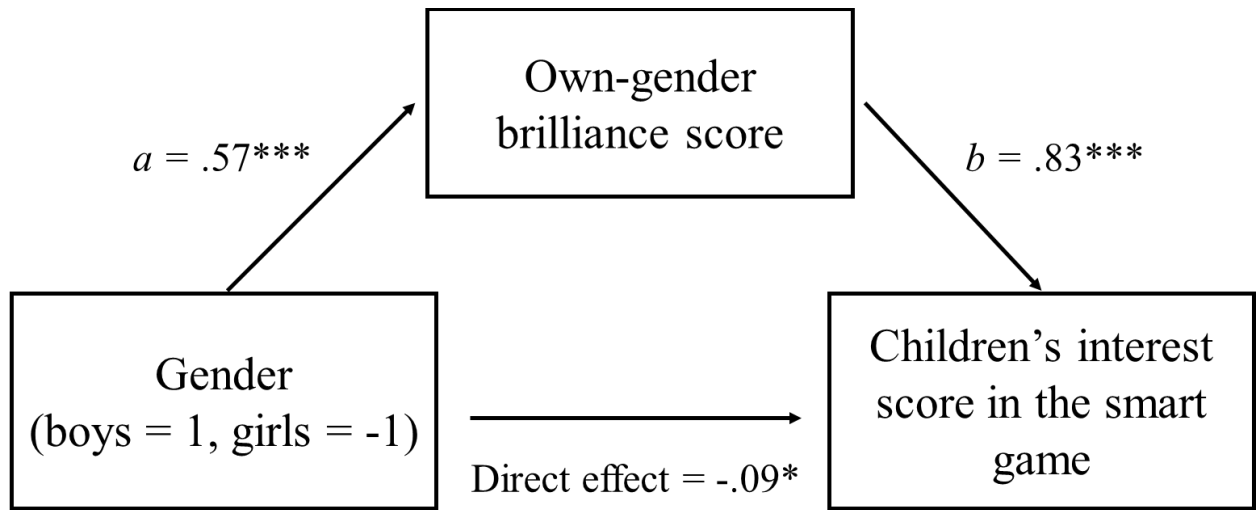


**Figure S1.** An example of adult stimuli used in the gender-neutral story task in Experiment 1.

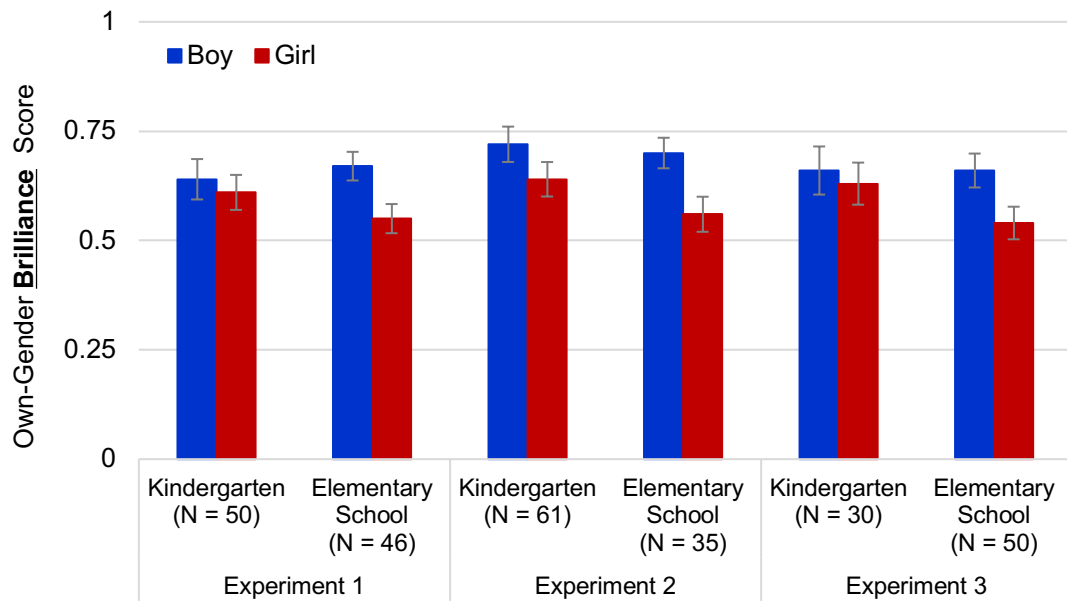




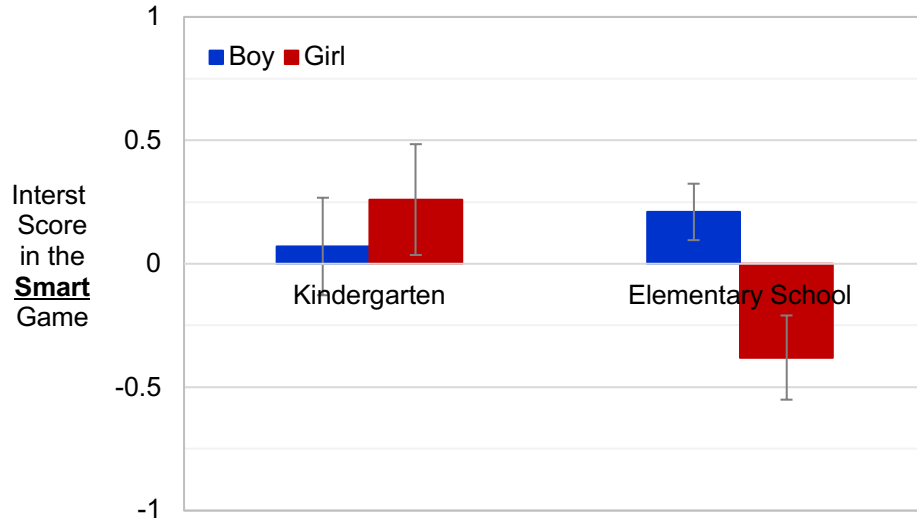
**Figure S2.** Boys' (blue) and girls' (red) own-gender grade scores in Experiments 1 and 2 by age group (5- vs. 6- vs. 7-year-olds). The error bars represent  $\pm 1$  SE.



**Figure S3.** The gender difference in 7-year-olds' interests in the smart game was mediated by their own-gender brilliance scores, indirect effect = .47, 95% CI = [.24, .74]. Unstandardized coefficients are depicted. \*  $p < .05$ , \*\*\*  $p < .001$



**Figure S4.** Children’s own-gender brilliance scores in all three experiments by institutions they are currently attending (Kindergarten vs. Elementary school). The error bars represent  $\pm 1 SE$ . There was no significant gender difference in kindergartners’ own-gender brilliance scores, Exp 1:  $F(1, 48) = 0.34, p = .565$ ; Exp 2:  $F(1, 59) = 1.82, p = .183$ ; Exp 3:  $F(1, 28) = 0.29, p = .597$ . In contrast, there was a significant gender difference in elementary schoolers’ own-gender brilliance scores, Exp 1:  $F(1, 44) = 7.58, p = .009$ ; Exp 2:  $F(1, 33) = 6.45, p = .016$ ; Exp 3:  $F(1, 48) = 5.25, p = .026$ .



**Figure S5.** Children’s smart game interest scores in Experiment 3 by institutions they are currently attending (Kindergarten vs. Elementary school). The error bars represent  $\pm 1 SE$ . There was a significant gender difference in elementary schoolers,  $F(1, 48) = 8.06, p = .007$ , but not in kindergarteners:  $F(1, 28) = 0.39, p = .536$ .