

Gender differences in competitiveness and risk-taking among children, teenagers, and college students: Evidence from *Jeopardy!*

Michael Jetter (University of Western Australia)
Jay K. Walker (Old Dominion University)

Australian Gender Economics Workshop

February 8/9, 2018

Research questions

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3. the gender of opponents could influence both patterns
(e.g., see Alison Booth's studies with Patrick Nolan and others)

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1. At what age (if any) do we observe gender differences in *competitiveness*?
2. At what age (if any) do we observe gender differences in *risk-taking*?
3. Does the gender of opponents influence competitiveness and risk-taking at young ages?

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- ▶ Whoever has the highest score at end of episode takes \$\$\$ home and comes back next episode

Setup



THE "GU"	CODE NAMES	NAME THE NAMESPACE	HELLO WORLD	MOVIES	BEFORE & AFTER
\$200	\$200	\$200	\$200	\$200	\$200
\$400	\$400	\$400	\$400	\$400	\$400
\$600	\$600	\$600	\$600	\$600	\$600
\$800	\$800	\$800	\$800	\$800	\$800
\$1000	\$1000	\$1000	\$1000	\$1000	\$1000

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There are episodes exclusively for kids (aged 10-12), teenagers (aged 13-17), and undergraduate college students.

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We measure **competitiveness** by (i) winning an episode, (ii) choosing to answer a clue ('buzzing in'), and (iii) answering correctly.

Risk-taking: wager in *Daily Double* clues.

Data, Identification, and Shortcomings

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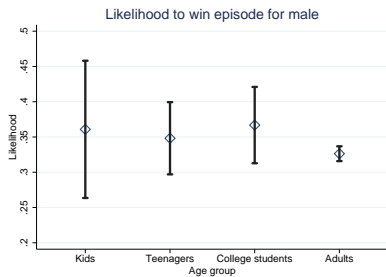
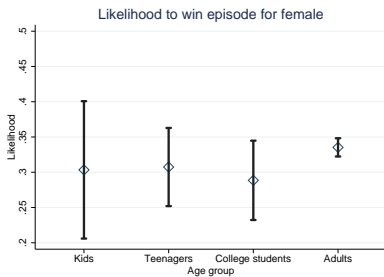
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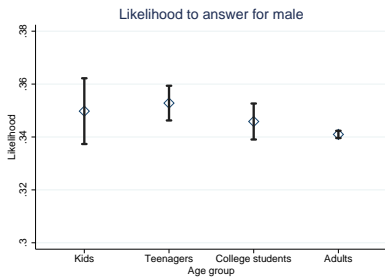
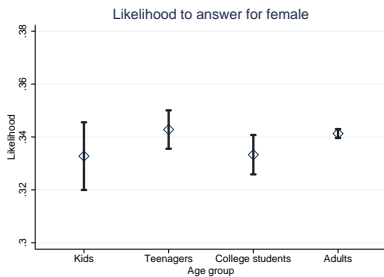
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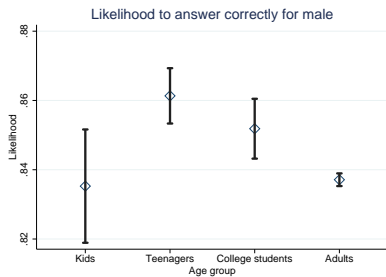
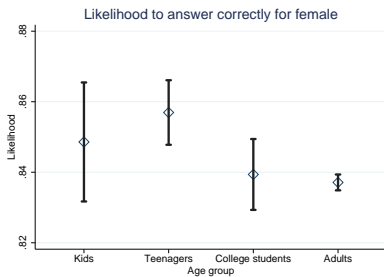
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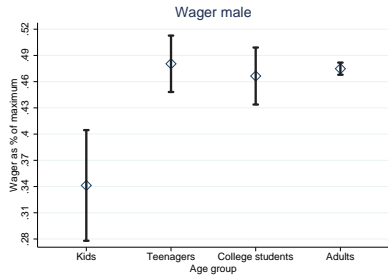
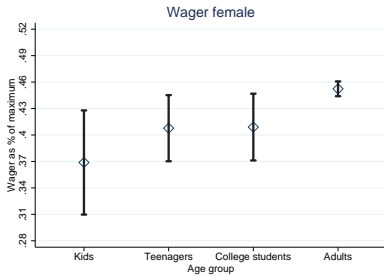
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Shortcomings: Self-selection on the show – contestants may not be representative of the average female or male in society. [similar in lab experiments?]









Winning episode and answering

Dependent variable:	Kids		Teenagers		College students	
	(1) Winning episode	(2) Answering	(3) Winning episode	(4) Answering	(5) Winning episode	(6) Answering
Female	-0.066 (0.070)	-0.023* (0.013)	-0.042 (0.039)	-0.010 (0.007)	-0.077* (0.041)	-0.011 (0.007)
Control variables ^a		yes		yes		yes
# of players	186	186	310	310	299	299
# of episodes	62	62	202	202	188	188
<i>N</i>	186	10,878	606	36,813	561	34,185

Notes: Standard errors clustered on the player level are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

^aIncludes binary indicators for black and other non-white races, as well as STEM clues and the 20 most common categories, the \$ value of the clue, and the account balance of the contestant (both individual and relative to their opponents).

Answering correctly and wager

Dependent variable:	Kids		Teenagers		College students	
	Answering correctly	Wager	Answering correctly	Wager	Answering correctly	Wager
Female	0.015 (0.014)	0.030 (0.042)	-0.006 (0.007)	-0.073*** (0.025)	-0.011 (0.008)	-0.052** (0.022)
Control variables ^a	yes	yes	yes	yes	yes	yes
# of players	186	124	310	254	299	249
# of episodes	62	62	202	202	188	188
<i>N</i>	3,716	182	12,824	606	11,630	559

Notes: Standard errors clustered on the player level are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

^aIncludes binary indicators for black and other non-white races, as well as STEM clues and the 20 most common categories, the \$ value of the clue, and the account balance of the contestant (both individual and relative to their opponents).

The gender of opponents: Females

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This result prevails for kids, teenagers, and college students in our sample.

The gender of opponents: Males

No differences in winning episode and choosing to answer.

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But:

Dependent variable:	Kids		Teenagers		College students	
	(1) Answering correctly	(2) Wager	(3) Answering correctly	(4) Wager	(5) Answering correctly	(6) Wager
# of female opponents	0.019 (0.025)	-0.049 (0.057)	-0.014** (0.007)	-0.073*** (0.022)	0.009 (0.008)	-0.055** (0.024)
Control variables ^a	yes	yes	yes	yes	yes	yes
# of players	97	64	157	138	154	133
# of episodes	62	49	189	170	181	162
<i>N</i>	1,968	91	7,153	363	6,461	346

Notes: Standard errors clustered on the player level are displayed in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

^aIncludes binary indicators for STEM clues and the 20 most common categories, the \$ value of the clue, and the account balance of the contestant (both individual and relative to their opponents).

What can we learn?

Takeaways:

- ▶ No gender differences in competitiveness among kids, teenagers, and college students in *Jeopardy!*
- ▶ Males begin to wager (= risk) substantially more as they become teenagers, leading to the emergence of the gender gap. Magnitude: teenage girls wager 7.3 percentage points less of their maximum wager than teenage boys ($\approx \$451$).
- ▶ Surprisingly, gender of opponents doesn't matter for young females
- ▶ Male teenagers and college students wager substantially *less* when competing against females