

Competitiveness, Cognitive Sophistication, and Speculative Behavior



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- Are these characteristics conducive for speculation?
- Can common knowledge about all competitors having these same characteristics lead to more/less speculation?

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(e.g., Weitzel et al., 2020; Cipriani et al., 2020; Huber et al., 2021, 2022)

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 - Cognitive sophistication related to market efficiency (fewer bubbles) and trading success (Bosch-Rosa et al., 2018; Corgnet et al. 2018)
 - Common knowledge about subjects' rationality is able to eliminate bubbles (Cheung et al., 2014)

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Hypothesis 3

Subjects' propensity to speculate is lower with common knowledge about being in a high-cognitive-sophistication group than with common knowledge about being in a low-cognitive-sophistication group.

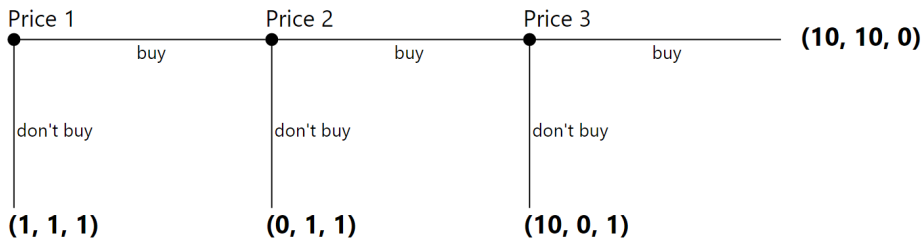
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 $P_i \in \{1, 10, 100, 1.000, 10.000, 100.000, 1.000.000\}$



- strategy method
- → individual measure for propensity to speculate (Janssen et al., 2019)

Experiment

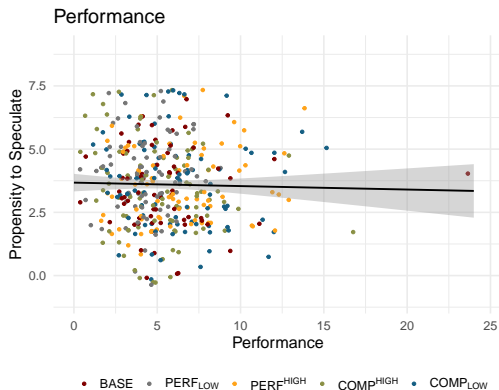
	Information level		
	none	LOW-group	HIGH-group
Information about others' willingness to compete	BASE	PERF _{LOW}	PERF ^{HIGH}
Information about others' performance		COMP _{LOW}	COMP ^{HIGH}

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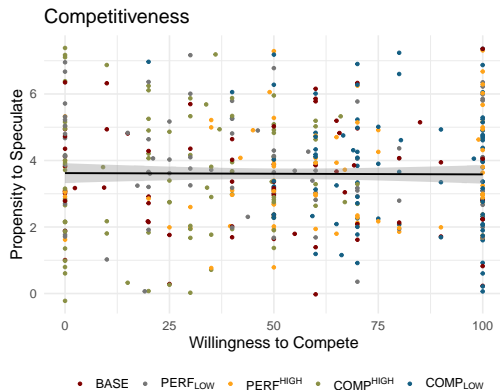
- 408 **male** participants so far (preregistered: 480, i.e., 96/treatment)
- Student participants, avg. age per lab: 22.4 - 24.7
- Since March 2022, data collection still ongoing in several labs: WU Vienna, Innsbruck, Graz, Brno

Results

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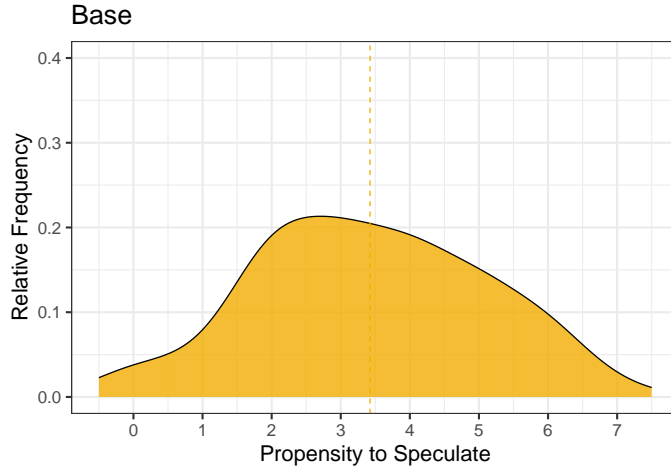
BASE: $\rho = 0.010$
 PERF: $\rho = 0.072$
 COMP: $\rho = -0.100$



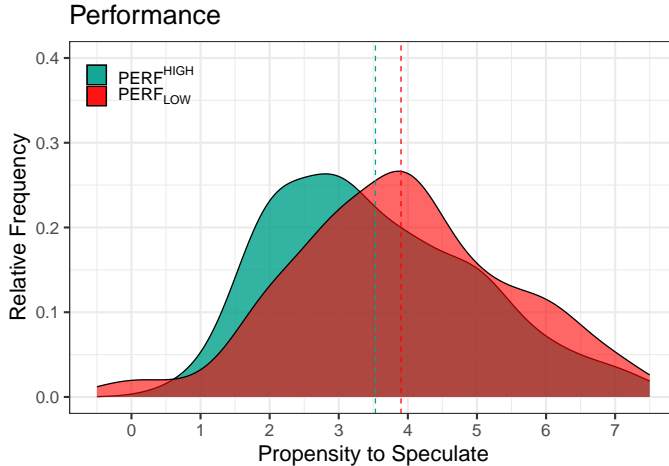
$\rho = -0.082$
 $\rho = 0.010$
 $\rho = -0.005$

Propensity to speculate across treatments

Treatment	Mean	S.d.
BASE	3.424	(1.637)
PERF ^{HIGH}	3.531	(1.441)
PERF _{LOW}	3.901	(1.538)
COMP ^{HIGH}	3.656	(1.794)
COMP _{LOW}	3.467	(1.717)

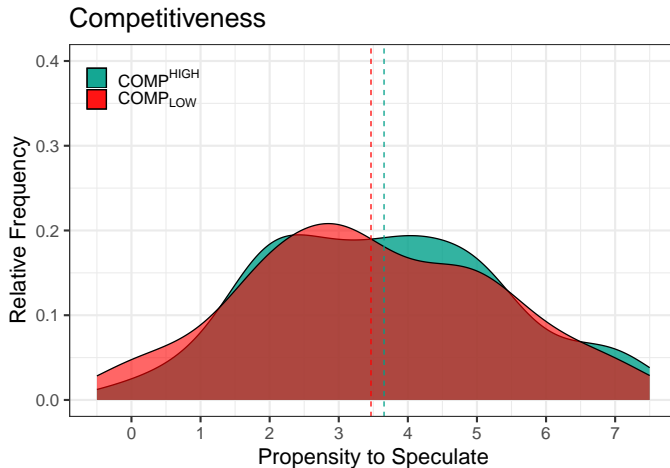


Results



t -test: $p = 0.116$

Wilcoxon ranksum test: $p = 0.068$



t-test: $p = 0.471$

Wilcoxon ranksum test: $p = 0.543$

Beliefs about *others'* cognitive soph. / competitiveness across treatments

Treatment	Spec.	Beliefs(Cog. Soph.)	Beliefs(Competitiveness)
BASE	3.424	4.697	4.303
PERF ^{HIGH}	3.531	4.759	4.704
PERF _{LOW}	3.901	4.259	4.185
COMP ^{HIGH}	3.656	4.725	5.101
COMP _{LOW}	3.467	4.696	4.362

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- What (seems to) matter:
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 - Beliefs about *others'* cognitive sophistication
- ... more data needed



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