

# Competitiveness 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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  - → more speculation / more bubbles?  
(e.g., Fellner/Maciejovsky, 2007; Breaban/Noussair, 2015; Eckel/Füllbrunn, 2015; Holt et al., 2017)
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  - → less speculation / fewer bubbles?  
(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.



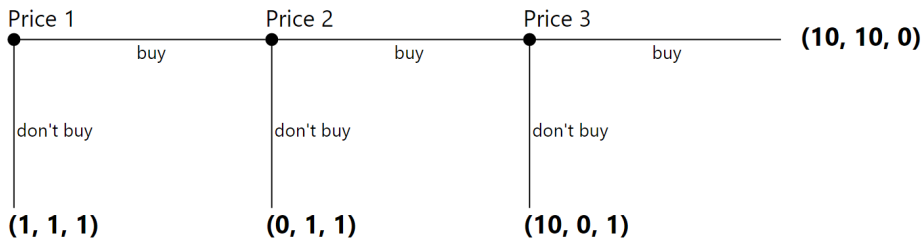
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 $P_i \in \{1, 10, 100, 1.000, 10.000, 100.000, 1.000.000\}$



- 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 <sub>LOW</sub>	PERF <sup>HIGH</sup>
Information about others' performance		COMP <sub>LOW</sub>	COMP <sup>HIGH</sup>

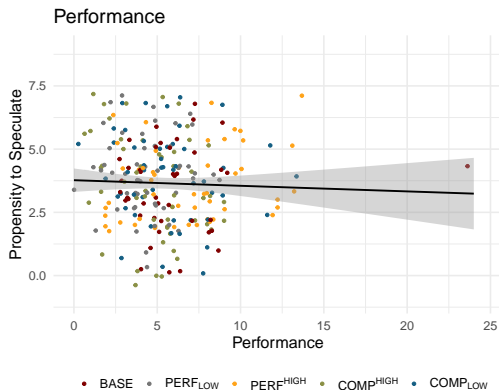
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	none	LOW-group	HIGH-group
Information about others' willingness to compete	BASE	$PERF_{LOW}$	$PERF^{HIGH}$
Information about others' performance		$COMP_{LOW}$	$COMP^{HIGH}$

- 246 **male** participants (so far; preregistered: 480, i.e., 96/treatment)
- Student participants, avg. age: 22.8 - 24.7
- Since March 2022, data collection still ongoing in several labs: WU Vienna, Innsbruck, Graz, Brno

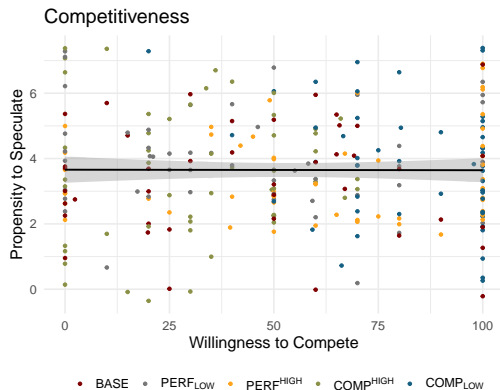
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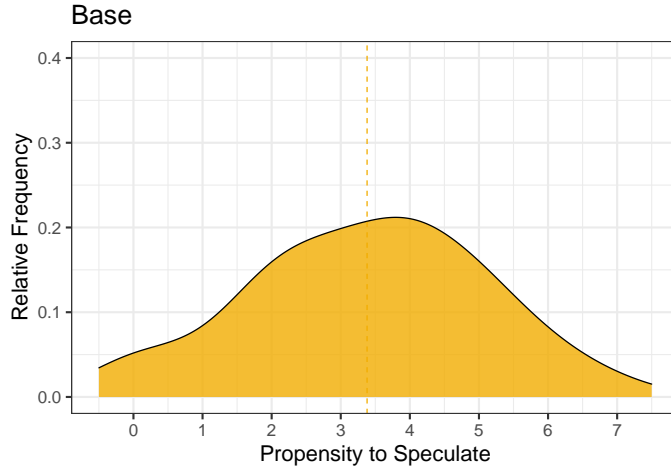
BASE:  $\rho = 0.060$   
 PERF:  $\rho = 0.081$   
 COMP:  $\rho = -0.184$



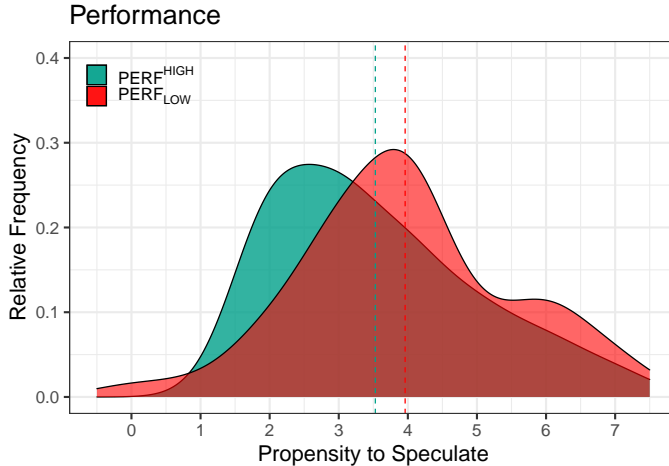
$\rho = -0.035$   
 $\rho = -0.017$   
 $\rho = 0.004$

## Propensity to speculate across treatments

Treatment	Mean	S.d.
BASE	3.381	(1.696)
PERF <sup>HIGH</sup>	3.529	(1.433)
PERF <sub>LOW</sub>	3.961	(1.523)
COMP <sup>HIGH</sup>	3.824	(1.786)
COMP <sub>LOW</sub>	3.510	(2.014)

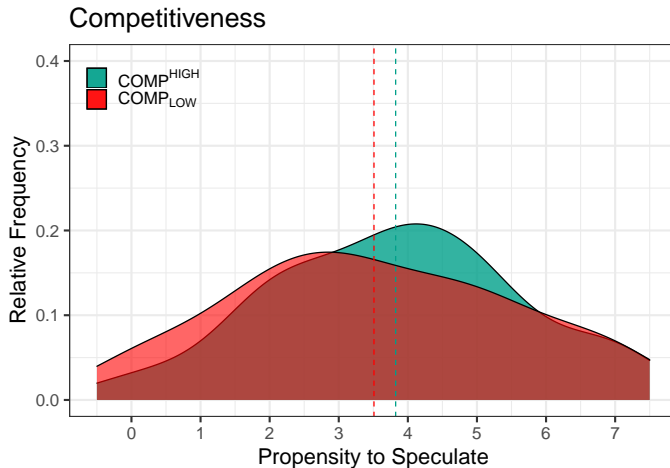


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$t$ -test:  $p = 0.144$

Wilcoxon ranksum test:  $p = 0.075$



$t$ -test:  $p = 0.407$

Wilcoxon ranksum test:  $p = 0.401$

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

Treatment	Spec.	Beliefs(Cog. Soph.)	Beliefs(Competitiveness)
BASE	3.381	4.738	4.476
PERF <sup>HIGH</sup>	3.529	4.667	4.708
PERF <sub>LOW</sub>	3.961	4.167	4.292
COMP <sup>HIGH</sup>	3.824	4.267	5.000
COMP <sub>LOW</sub>	3.510	4.800	4.533

## Beliefs about *others'* performance/competitiveness across treatments

Treatment	Spec.	Beliefs(Performance)	Beliefs(Competitiveness)
BASE	3.381	4.738	4.476
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PERF <sub>LOW</sub>	3.961	4.167	4.292
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- What (seems to) matter:
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  - Beliefs about *others'* cognitive sophistication
- ... more data needed



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