



# BADGE OF HONOR OR SCARLET LETTER? UNBUNDLING FAILURE IN VENTURE TEAMS

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Extension

# ENTREPRENEURSHIP AND ANTI-FAILURE BIAS

Research Question:

*What is the effect of founders' earlier failure on the investors' investment behavior?*

Failure inherent trait and understudied

Research devoted more attention to venture success (McGrath, 1999)

Failure is complex

Happens over time and across different stakeholders

Compound of different effects

# WHY IS FAILURE HARD TO STUDY?

*“Similarly [to business success], the threats are addressed to incompetence. But though the incompetent men and the obsolete methods are in fact eliminated [...] , failure also threatens or actually overtakes many an able man”*

J. E. Schumpeter (1950), *Capitalism, Socialism and Democracy*, p. 74



# AN EXAMPLE OF FAILURE COMPLEXITY

One observes the following outcome:

“Inter Milan lost (failed) against AC Milan in Champions League”

Why did that happen?



# 2005 — BAD PERFORMANCE

Inter Milan was losing an aggregate 3-0 in Champions League quarter finals

Supporters protested for the poor performance of the team and ended up with aggregate 5-0 for AC Milan



# 2003 — BAD LUCK

Inter Milan tied twice in the semifinals: 0-0 and 1-1

AC Milan played the second game as “away” team in the same stadium

Inter Milan did not make it to the final!



# 2010 - LEARNING



# UNPACKING FAILURE

We argue that failure is a compound of three different signals:

**Failure signal.** Just the “failed” label can lead to a discount (e.g., stigma transfer)

**Ambiguity signal.** The investor rationally discounts the venture because of expected average ability of failed founder

**Learning signal.** Under failure, there is no less learning than with success (Minniti & Bygrave, 2001; Castellaneta & Zollo, 2015)

# THE FRAMEWORK

$$N = I$$

$F$  Failure Signal

$$S = I + L$$

$A$  Ambiguity Signal

$$F_N = I + L - F - A$$

$I$  Baseline investment level

$$F_S = I - F$$

$L$  Learning Signal

# THE HYPOTHESES

Solving the simple framework we obtain.

**Hypothesis 1.** *Cost of bad performance.*

$$A = F_S - F_N$$

**Hypothesis 2.** *Cost of bad luck.*

$$F = F_S - S$$

**Hypothesis 3.** *Learning premium.*

$$L = S - N$$

# ADDITIONAL THEORIES

We argue that more experienced investors tend to discard the failure signal and give more weight to the ability signal, i.e. punishing ambiguity (Cope et al., 2004).

**Hypothesis 4.** The “cost of bad performance” is larger for more experienced investors.

# METHODOLOGY



“Lab-in-the-field experiment” (Koudstaal et al., 2015)

3x2 between subjects design

2400 participants (600 collected so far) answer a randomized survey simulating an investment decision.

Framing: Equity crowdfunding in the UK

# WHY LAB-IN-THE-FIELD EXPERIMENT?

Archival data: selection, measurement error, and omitted variable bias

Lab experiment: hard to recruit enough investors

Field experiment: hard to manipulate teams asking real money

# WHY INVESTORS?

They are key stakeholders of a startup in a seed stage

Their decision is an early key performance indicator

They react to failure more rationally



# WHY EQUITY CROWDFUNDING IN THE UK?

The closest to traditional venture investment

Human capital and uncertainty more salient (Ahlers et al., 2015)

Easier to recruit investors and replicate the investment decision

UK is the market where equity crowdfunding is the most developed

# DESIGN



Participants are presented with an investment opportunity and they will read three pages about: idea, team, and Q&A

2 anonymized ventures with different outcomes (Chen et al., 2009) on a major equity crowdfunding platform

We restrict the size of the team to two people (Coad & Timmermans, 2014) and founders had joint earlier entrepreneurial experience

# DESIGN 2

Manipulation in the Q&A section

Where investors and founders interact

Signal elicited by third party more reliable than self-reported (Gomulya & Mishina, 2016)

The reason for failure is exogenous to maximize ambiguity about the ability of the founders

## 4 MANIPULATIONS

No experience – Control group

Success – past venture was “successfully sold for £ 500,000”

Failure – past venture “ran out of business because [their] main business partner, who was key to the venture, died in a car crash”

Failure with ability signal – past venture “was growing double digit, when it ran out of business because [their] main business partner, who was key to the venture, died in a car crash”

# PROCEDURE



Investors “at risk” of investing in equity crowdfunding (they invested in the past)

Recruitment through Prolific.ac

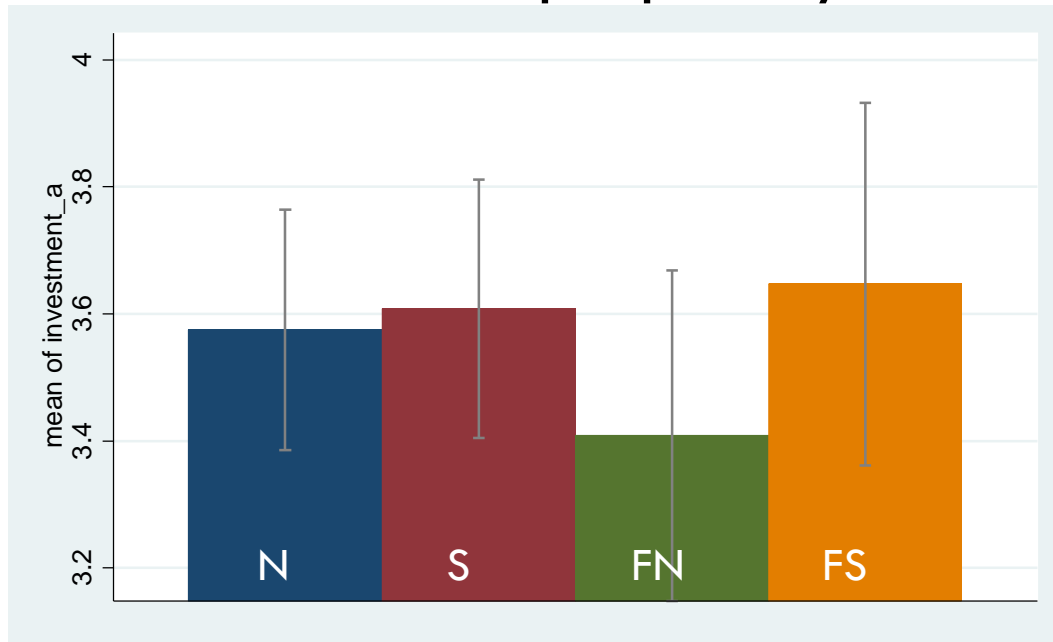
Investors are randomly assigned to an investment opportunity where the team has particular features

An attention check makes sure they understood the scenario

Investors are asked about their propensity to invest, and their opinion about the venture and the team

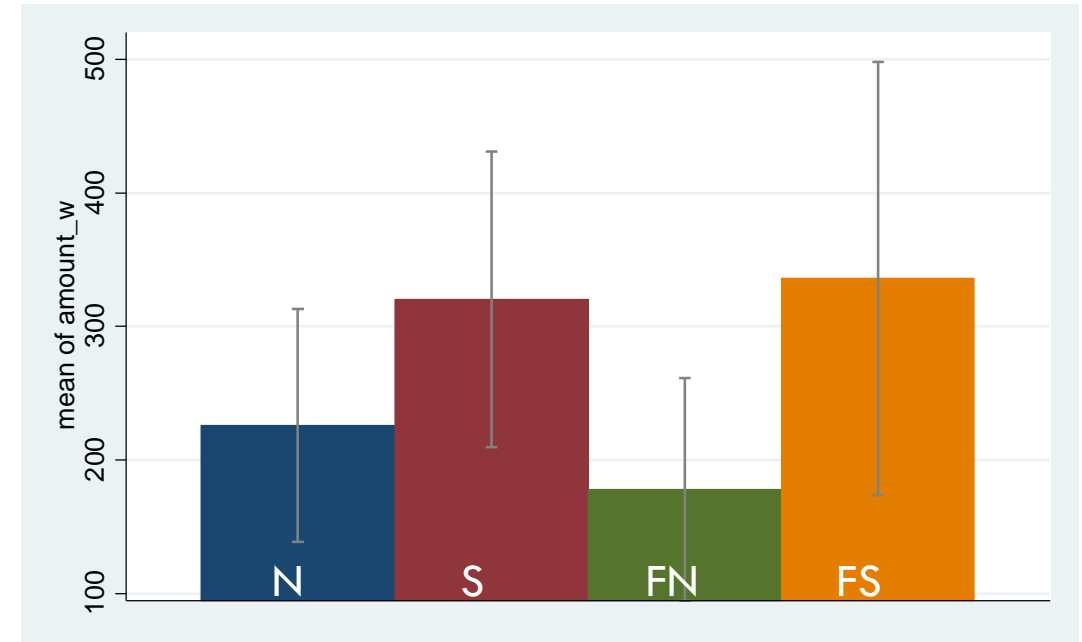
# RESULTS: H1 TO H3

## Investment propensity



	diff.	p-value
FN – FS	-0.265	0.087
FS – S	0.046	0.397
S – N	0.033	0.408

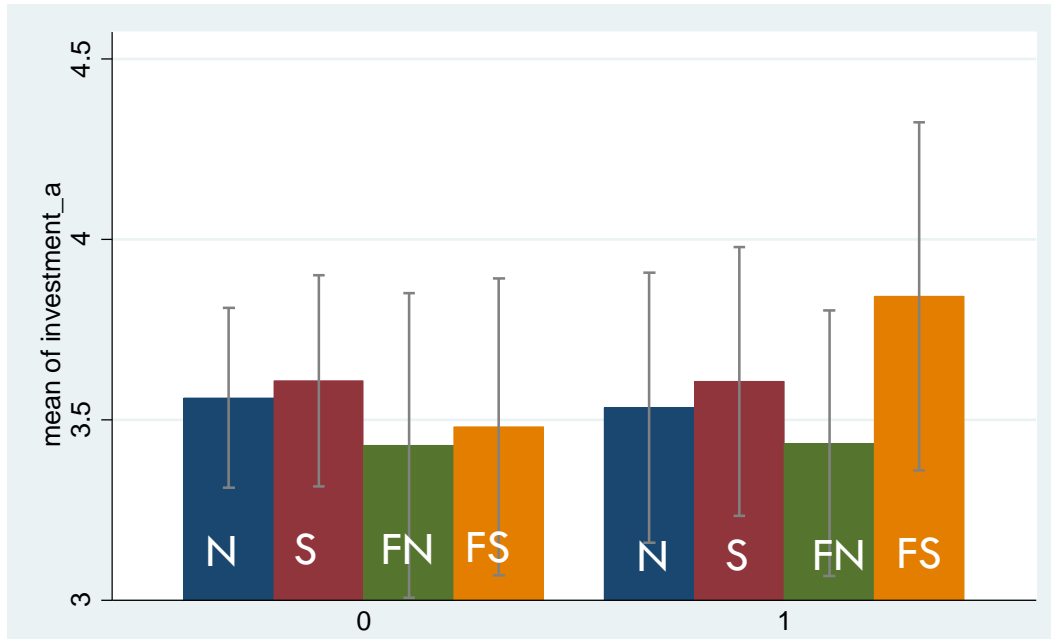
## Amount invested



	diff.	p-value
FN – FS	-173.29	0.030
FS – S	28.49	0.387
S – N	94.40	0.095

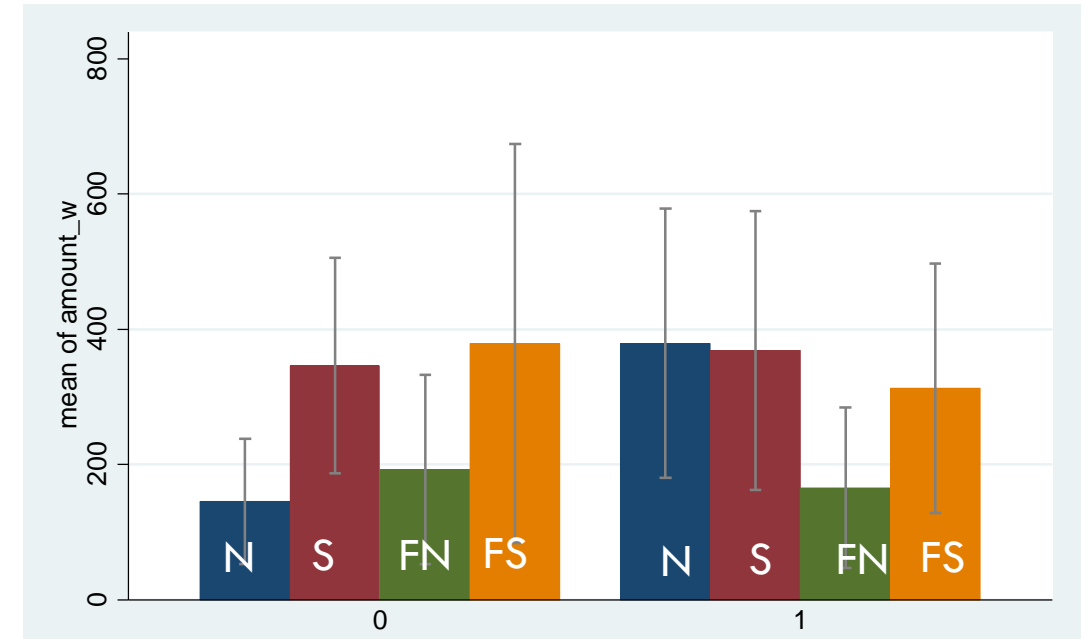
# RESULTS: H4

## Investment propensity



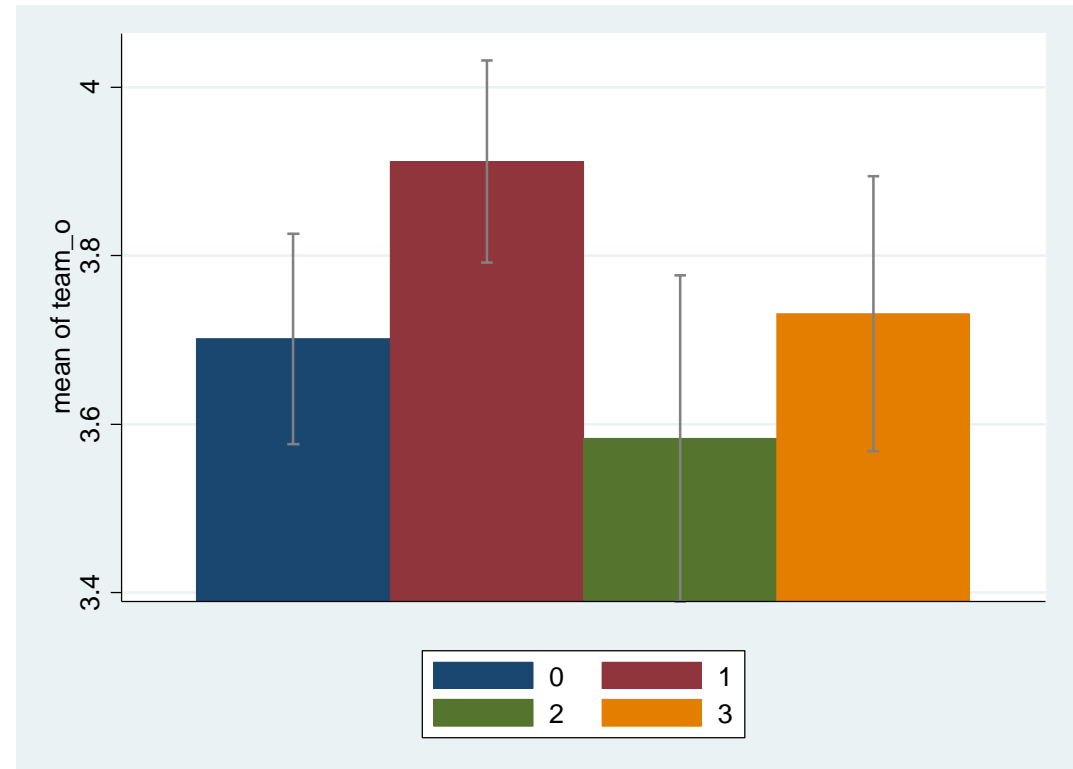
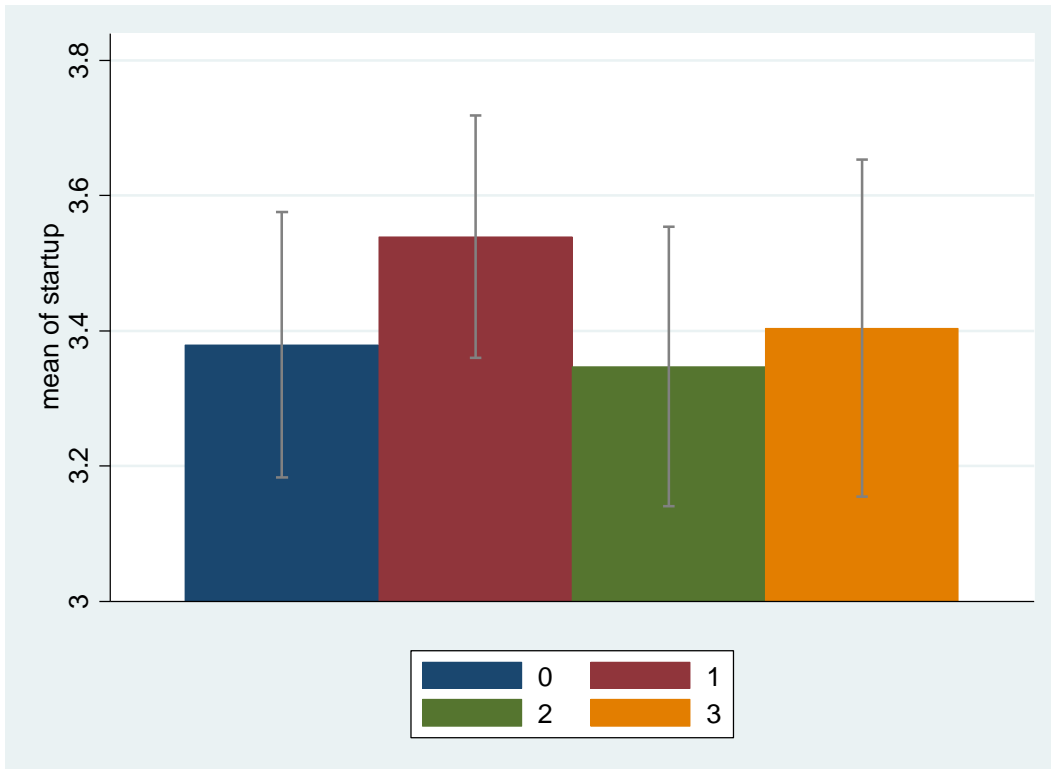
	Low	High	p-value
FN – FS	-0.12	-0.50*	0.167
FS – S	-0.10	0.28	0.199

## Amount invested

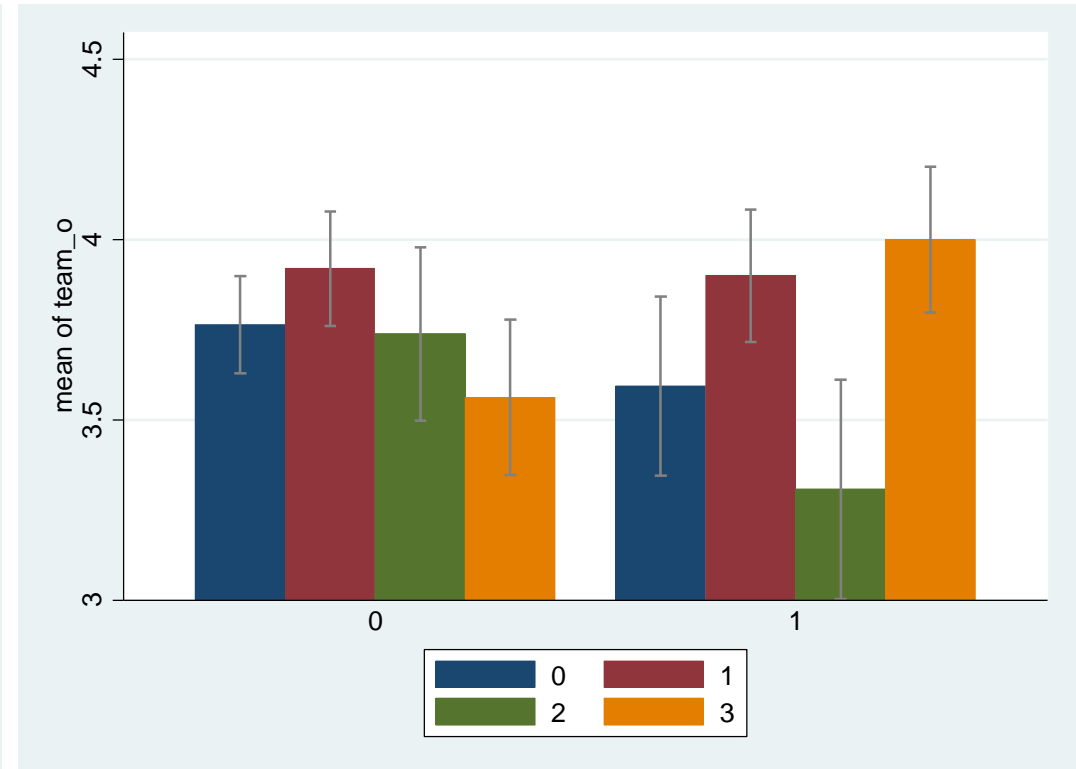
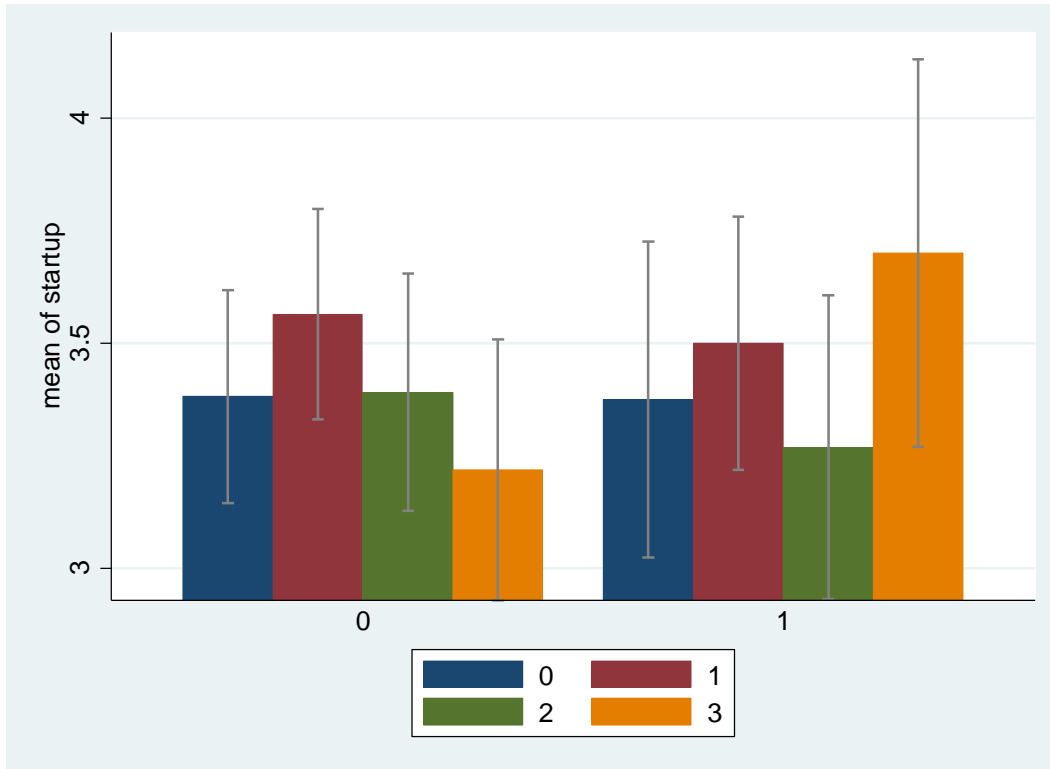


	Low	High	p-value
FN – FS	-179.19+	-165.58+	0.486
FS – S	48.18	-3.18	0.392

# ALTERNATIVE DEPENDENT VARIABLES: DIFFERENT PATTERNS.



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# ROBUSTNESS CHECKS

Controls: age, gender, risk propensity, wealth, and type of project.

Only subjects in the labor force (no retired)

Inclusion of subjects who failed attention test using their perception of the outcome.

# DISCUSSION

Overall, results show initial evidence about support of **H1**, rejection of **H2**, (partial) support of **H3** and **H4**

Investors tend to be overall rational, carrying stereotypes rather than discriminating failed entrepreneurs

For experienced investors, past failure is a “badge of honor”

# NEXT STEPS

Increase of the participants' size in order to deal with power issues

Extension of the experiment to the US in order to compare across cultures

Incentive scheme to have more attention in the answers



# THANKS FOR YOUR ATTENTION!

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