Discussion of: *Disposed to be Overconfident*

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Big picture

This is a great paper

The topic is important: how **Disposition Effect** interacts with **Overconfidence**

Multiple elements, effectively combined:

brokerage data + survey + experiment + model

Roadmap

This is a mature paper: Lots of comments, many conferences and discussants

⇒

1) There ***cannot be many good suggestions left*** for me to make

2) Authors are probably tired of hearing suggestions by now

⇒ *lower* probability that any of my comments make an impact!

So, what will I do?

- Summarize key aspects of the paper
- Provide a couple of big-picture comments

Increasing role for Retail Investors

- Growth of Investor Social Media
- + brokerage apps (e.g., RobinHood)
- + COVID19 (Stimulus + GME)
- + fee-free trading (2019)

→ jump in US retail investing

→ Now more important to understand retail investor behavior

Source: FT 2023

Patterns in retail investor behavior

Now more important to understand ***systematic patterns*** in retail investor behavior

This paper focuses on:

- Disposition effect **behavior** ≈ more likely to sell winners than losers

- Overconfidence **bias** ≈ mis-calibrated view of own ability
  - Typically viewed as a *static characteristic*

- Selective recall of performance ≈ remember gains more than losses

This paper explores the **interaction** of *Disposition Effect* on *Overconfidence*

Core idea: The Disposition Effect (DE) increases overconfidence

- **Survey**: retail investors who realize more gains than losses believe they perform better (relative to others), controlling for performance
  - i.e., DE occurs together with overconfidence

- **Experiment**: participants evaluate performance based on realized gains (not actual performance) and use this to update beliefs about ability

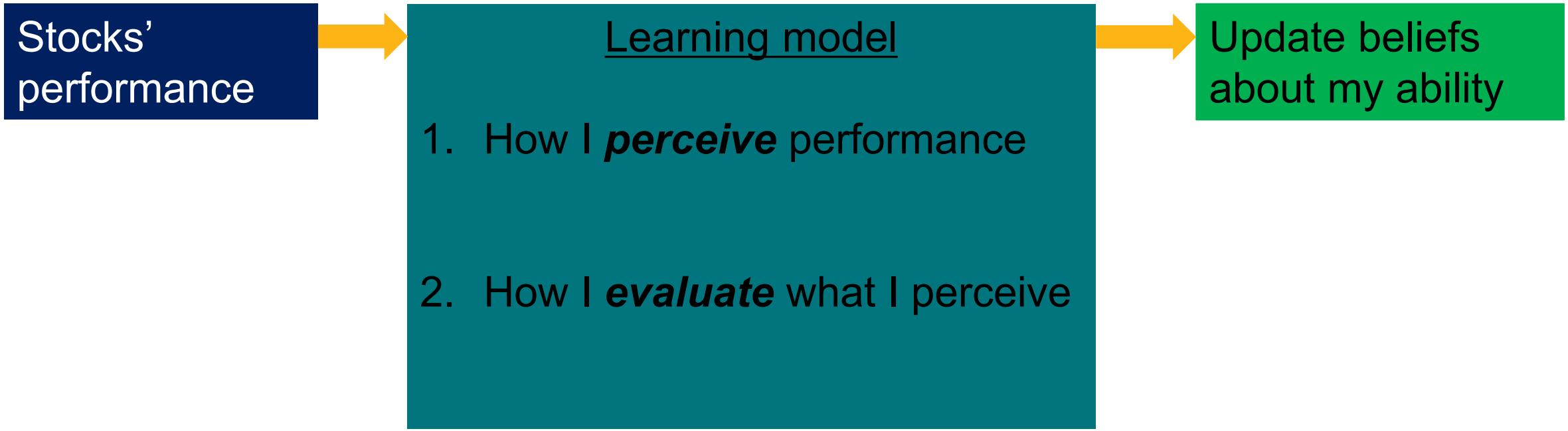
- **Model** shows that
  - if investors update beliefs about ability based on realized gains (learning model),
  - then DE→ overconfidence

How do investors perceive & evaluate performance?

Learning model may introduce a wedge between

- Actual performance
- "Experienced" performance which is a function of
  - Perception
  - Evaluation

How do investors perceive & evaluate performance?



How do investors perceive & evaluate performance?

This paper:

Stocks' performance → Learning model → Update beliefs about my ability

Learning model

1. How I ***perceive*** performance
   - N realized gainers & losers (not % return)
2. How I ***evaluate*** what I perceive
   - Count N realized gainers

Design of Experiment

Shows: **Beliefs about own investment ability = f(realized gains vs. losses)**

Experiment

- Investment game where subjects pick stocks → they learn about stocks' types (H, L)

- Sales **imposed** at end of each round:
  1. Selling gains condition [~ Disp. Effect]
  2. Selling losses condition

- Subjects see both realized and paper gains/losses in each round

- At the end, **beliefs about ability** elicited
  - If you played again, what is Pr(you would be in top half of ∼)?
  - How many H-type stocks did you pick?

Experiment: why impose sales?

Shows: **Beliefs about own investment ability = f(realized gains vs. losses)**

Experiment

- Investment game where subjects pick stocks → they learn about stocks' types (H, L)
- Sales **imposed** at end of each round:
  1. Selling gains condition [~ Disp. Effect]
  2. Selling losses condition

Imposing sales ≠ Disp. Effect

- Instead, removes channel that unknown X drives both
  - Decision to sell
  - Effect on beliefs about ability

Imposing sales leaves: Experiencing realized gains ⇒ effects on beliefs about ability (vs. losses)

Experiment: Results

Both conditions (selling gains and selling losses) have same:

- Average profits
- N of H-type stocks chosen

Result #1: **Selling Gains condition → higher belief in ability** (59% vs 47%), or 12% higher belief

- magnitude of this effect ≈ difference in confidence between men and women (8%)

Result #2: Controlling for portfolio return does not change #1 → updated **beliefs about own ability are based on realized gains and losses *not* on returns**

- Also increasing in the N of H-type stocks they *think* they picked (2.7% for each)

Result #3: **Selling Gains condition → they *think* they picked more H-type** stocks

Experiment: suggestions

Currently focused on N of realized gains & losses. **Can you provide more evidence?**

Current experiment

- Control for portfolio return could be split to provide clearer evidence
  - N of unrealized Gains, N of unrealized Losses
  - The net N of unrealized gains & losses
  - Largest gain, loss (DE depends on gain size)
- Heterogeneity by financial literacy (FL):
  - maybe low FL are “counters”
  - but high FL understand returns

Future experiment

- Currently there are 2 conditions: *Selling Gains* and *Selling Losses*. Why not add?
  - Individual chooses 1 stock to sell [closer to ‘natural’ baseline]
  - No sale [control condition]
- Explore large vs. small gains with higher variance of returns
  - V-shaped prob. of selling
- Test model prediction that low ability investors are more sensitive to main effect
- Does portfolio-level DE matter (An et al., JF 2024)?

Survey + retail brokerage data: DE & overconfidence occur together

- Investors who realize more gains than losses report higher subjective ability
  - Controlling for actual performance, each net gain assoc. with 0.36pp a higher subjective rank

- Selective recall of gains (but not losses) exacerbates this effect ~ doubles magnitude

N = 415	Mean	St. Dev.	*t*-statistic
Recalled # of Realized Gains	4.22	5.34	
Actual # of Realized Gains	2.17	4.39	
Difference (Memory Bias)	2.05	3.78	11.02
Recalled # of Realized Losses	0.82	1.77	
Actual # of Realized Losses	0.73	2.12	
Difference (Memory Bias)	0.09	2.04	0.94

- Related to Godker, Jiao, Smeets (2024)

Survey comments

- Dutch investors have very high participation (>70%)

- Does this brokerage attract a subset of investors?
  - Average return of 35%!

  - Only 5 transactions on average (median =1) = no over-trading!

  - Self-reported performance relative to other retail investors: avg = 56%, median=50%
    - Modest! Better-than-average effect for driving skills is >80%, risk of accident or illness>70%

If anything, such a well-behaved & calibrated sample may lead you to understate effects…

Conclusion

- Great paper on an important topic: the Disposition Effect *increases* investor overconfidence
  - More evidence is always preferred, but there are declining returns!

<u>One takeaway:</u>

The Disposition Effect's negative impact on welfare is likely larger

⇒ efforts to reduce the DE may now be more important, especially if social networks exacerbate the DE (Heimer, 2016)

Minor comments for the authors

- In section 2A: it might be worth explaining that you focus on 2019 because you also run a survey in 2020 which asks people to recall gains and losses from the previous year

- Selective recall: in the intro and in section 2D it is a little confusing how this is described: “testing” for recalled gains and losses. Why not put both real and recalled net gains into columns 3 and 4 of Table II? Then the recalled coefficient captures the additional effect of the difference between reality and recollection. Apologies if that is not what you want and instead you want to highlight the combined effect (which is the “experienced” one) – my core comment here is a recommendation to avoid calling what you are doing “testing for the effect” which is not clear. Maybe just show how selective recall exacerbates the positive effect on self reports regarding relative performance?

- P17: the description of exactly what the individual skill variable is could be improved: I find it confusing!

- It may be worth explaining why you tell the experimental subjects what the DGP is. This seems to bring the task further from reality than is necessary. Why not tell them there are High and Low type stocks based on average return (and if you want tell them they all have the same variance), without giving them the % that they go up, or the steps in which they go up? I could well be wrong about this (I have not run experiments), but even if I am, an explanation for the choice to tell them the DGP would help readers like me.