Individual Investors

- Biased beliefs
  - Overconfidence  →  Excessive trading
  - Recency bias  →  Performance chasing
  - Availability bias  →  Excessive risk / optimism

- Emotions
  - Regret  →  Disposition effect
  - Excitement  →  Bubbles

- Limited attention  →  Media coverage leads to investor buying
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BOYS WILL BE BOYS

BARBER & ODEAN, 2001

ANNUAL TURNOVER

ALL WOMEN  ALL MEN  SINGLE WOMEN  SINGLE MEN
BOYS WILL BE BOYS

ANNUAL RETURN
COMPARING TO BUY & HOLD

ALL WOMEN

ALL MEN

SINGLE WOMEN

SINGLE MEN

BARBER & ODEAN, 2001
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Mutual Funds: Money Pours into Last Year’s Winners

Source: Barber, Odean, and Zheng
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Disposition Effect in Taiwan
Barber, Lee, Liu, Odean, 2007, European Financial Management

Proportion of Gains Realized / Proportion of Losses Realized

- Individual Investors
- Corporate Investors
- Mutual Funds
- Foreign Investors
- Dealers

basketball
Individual Investors

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Bubbling with Excitement: An Experiment
Andrade, Lin, & Odean, 2016
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Limited Attention of Individual Investors

- Thousands of stocks.
- Limited attention
- Individual investors buy stocks that catch their attention.
- Selling is less dependent upon attention because
  - Individual investors own on average 4 different stocks
  - Individual investors (usually) don’t sell short
- Attention also matters for institutional traders, however, it is less often a binding constraint.

Barber and Odean (2008)
When a stock attracts individual investors’ attention

1. Individual investor trading volume goes up.
2. Individuals buy more than they sell
3. Stock price usually increases

Barber and Odean (2008)
Proxies for attention

- High abnormal trading volume
- Extreme price moves
- News

Barber and Odean (2008)
Abnormal Volume Sort Individuals
Same day Buy/Sell Imbalance

Barber and Odean (2008)
Daily Order Imbalance
Sorted by Same Day Abnormal Volume
1983-2001 TAQ & ISSM Data

Abnormal Trading Volume
Daily Order Imbalance
Sorted by **Same Week** Abnormal Volume
1983-2001 TAQ & ISSM Data

![Graph showing Daily Order Imbalance sorted by Same Week Abnormal Volume from 1983 to 2001 TAQ & ISSM Data. The graph contains two lines: one for Trades < $5,000 and another for Trades > $50,000.](image)
Simulation Return Sort

Percent Order Imbalance

Partitions Sorted on Previous Period's Return
Return Sort Individuals
Buy/Sell Imbalance

Barber and Odean (2008)
Daily Order Imbalance for Smallest Trades Sorted by Previous Day Return
1983-2001 TAQ & ISSM Data

Previous Day’s Return

% Order Imbalance = (\# buyer initiated trades - \# seller initiated trades) / (\# buyer initiated trades + \# seller initiated trades) * 100

- Trades < $5,000
- Trades > $50,000
Daily Order Imbalance for Smallest Trades
Sorted by Previous Week Return
1983-2001 TAQ & ISSM Data

% Order imbalance = (# buyer initiated trades - # seller initiated trades) / (# buyer initiated trades + # seller initiated trades) * 100

Previous Week’s Return

- Trades < $5,000
- Trades > $50,000
Buy-Sell Imbalance based on Daily & Weekly Abnormal News Sorts
ISSM/TAQ Signed Trades, 1983-2000

**Daily Data**

<table>
<thead>
<tr>
<th>Abnormal News Bins</th>
<th>No News</th>
<th>High News</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buy-Sell Imbalance</td>
<td>0%</td>
<td>8%</td>
</tr>
<tr>
<td>Large Trades</td>
<td>2%</td>
<td>6%</td>
</tr>
<tr>
<td>Small Trades</td>
<td>4%</td>
<td>4%</td>
</tr>
</tbody>
</table>

**Weekly Data**

<table>
<thead>
<tr>
<th>Abnormal News Bins</th>
<th>No News</th>
<th>High News</th>
</tr>
</thead>
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</tbody>
</table>
Read Me!
Read Me!
Read Me!
Salience or Coverage

Salience is the perceptual quality by which an object stands out from its environment.

In my dissertation I wrote that investors “overweight salient, anecdotal, and extreme information.”

What I meant was that investors “overweight salient, salient, and salient information.”

What I should have written was “the information investors overweight depends upon media coverage, media coverage, and media coverage.”
How does media choose coverage?

1. Salient news

2. Important news—journalistic mission

3. Entertaining stories—sell subscriptions

4. Entertaining presentation of stories—sell subscriptions

5. Re-reporting

6. Arbitrary cut-offs—e.g., top 10 list

7. Paid advertising

8. Stories promoted by companies and public relations firms
Mediating Investor Attention
working paper with Brad Barber & Shengle Lin

• When salience is equal, differences in media coverage determine investor attention.
  
  • The media creates salience.
  
  • No media coverage, no salience.
  
  • Media coverage can be purchased.
Coverage NOT Salience


Coverage NOT Salience


Prices & Cumulative Value of Small (Large) Buys minus Small (Large) Sells for EntreMed

![Graph showing cumulative value of buys minus sells for EntreMed from November 28, 1997 to December 98. The graph indicates a significant increase in value on May 4, 1998, and a peak on November 28, 1997.](image-url)
Coverage NOT Salience


Prices & Cumulative Value of Small (Large) Buys minus Small (Large) Sells for EntreMed

![Graph showing cumulative value of buys minus sells for EntreMed over time, with peaks on November 28, 1997 and May 4, 1998.](image)
Coverage NOT Salience


Prices & Cumulative Value of Small (Large) Buys minus Small (Large) Sells for EntreMed
Coverage NOT Salience


Prices & Cumulative Value of Small (Large) Buys minus Small (Large) Sells for EntreMed

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### Chart Description

**Small Trades**:
- November 28, 1997
- May 4, 1998

**Large Trades**
Attention of Institutions: Coverage NOT Salience

Cumulative Signed Price Change

- Front page news, positive price move within first 5 min
- Non-front page news, positive price move within first 5 min
- Front page news, negative price move within first 5 min
- Non-front page news, negative price move within first 5 min

Time since news publication

Anastassia Fedyk, 2017
Attention of Mutual Fund Investors

Mutual fund flows are discretely greater if funds make the WSJ “Category Kings” ranking list than if they just miss it. (Kaniel & Parham, 2015)

(a) Post-ranking flows in next quarter
• When salience is equal, differences in media coverage determine investor attention.

• The media creates salience.

• No media coverage, no salience.

• Media coverage can be purchased.
Media Creating Salience
Attention of Individuals

Stock recommendations on *Mad Money with Jim Cramer* lead to large overnight returns and subsequent reversals. (Engleberg, Sasseville, & Williams, 2012)
Cramer’s Positive Recommendations
Retail Daily Order Imbalance in Event Time
2007 - 2017

\[
\frac{(\# \text{ Buys} - \# \text{Sells})}{(\# \text{ Buys} + \# \text{Sells})}
\]
Attracted Attention of Individuals

Wall Street Journal’s Dart Board game (Barber and Loeffler 1993). Recommended stocks experience short-term positive abnormal returns and abnormal volumes followed by reversals.

From Nofsinger, 2002
Dartboard Column Stocks Chosen by Experts, 1988-2000

Event Time Date

Large Trades

Small Trades

Buy-Sell Imbalance

-10% 0% 10% 20% 30% 40%
Attracted Attention of Individuals

*Wall Street Week* (Beltz and Jennings, 1997). Recommended stocks experience short-term positive abnormal returns and abnormal volumes followed by reversals.

734 positive recommendations on *Wall Street Week*
• When salience is equal, differences in media coverage determine investor attention.

• The media creates salience.

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• Media coverage can be purchased.
Attention of Individuals

Local newspaper coverage of S&P 500 company earnings announcements predicts local trading

(Engelberg and Parsons 2011, Large Discount Brokerage Data)
• When salience is equal, differences in media coverage determine investor attention.

• The media creates salience.

• No media coverage, no salience.

• Media coverage can be purchased.
Advertising attracts investors

- Lou (2014) corporate advertising:
  - retail investor buying
  - returns followed by returns
  - subsequent insider sales.

- Mayer (2016): NCAA Division I Bowl games

- Fehle, Tsyplakov and Zdorovtsov (2005): Superbowls
Cumulative net small trader buying of stock of firms sponsoring NCAA games.
Cumulative net institutional buying of stock of firms sponsoring NCAA games

Mayer 2014
The Media is Changing

An increase in Google Search Volume Index for specific stock predicts higher prices in next two weeks and subsequent reversal.

High pre-IPO abnormal search volume (ASVI) predicts high first day IPO returns and subsequent underperformance (Da, Engleberg, and Gao, 2011)
Summary

When faced with multifaceted problems or many choices, what we do and don’t pay attention to may influence our decision more than beliefs or preferences.

The attention of individual investors is directed by media.

Individual investors are net buyers of attention grabbing stocks.
Thank you for your attention!