



TEXAS TECH UNIVERSITY
College of Human Sciences

School of Financial Planning™

Janus Henderson
— INVESTORS —

Helping Investors Understand the Relationship Between Our Mind and Our Money

It's more complicated than you think

The relationship between our mind and our money

Agenda

The psychology of decision-making

01

Seven deadly “biases”

02

Straight talk about gender differences,
family dynamics, and more

03



The psychology of decision-making

A test

But only for fun

A bat and a ball cost \$1.10 in total. The bat costs \$1.00 more than the ball. How much does the ball cost?

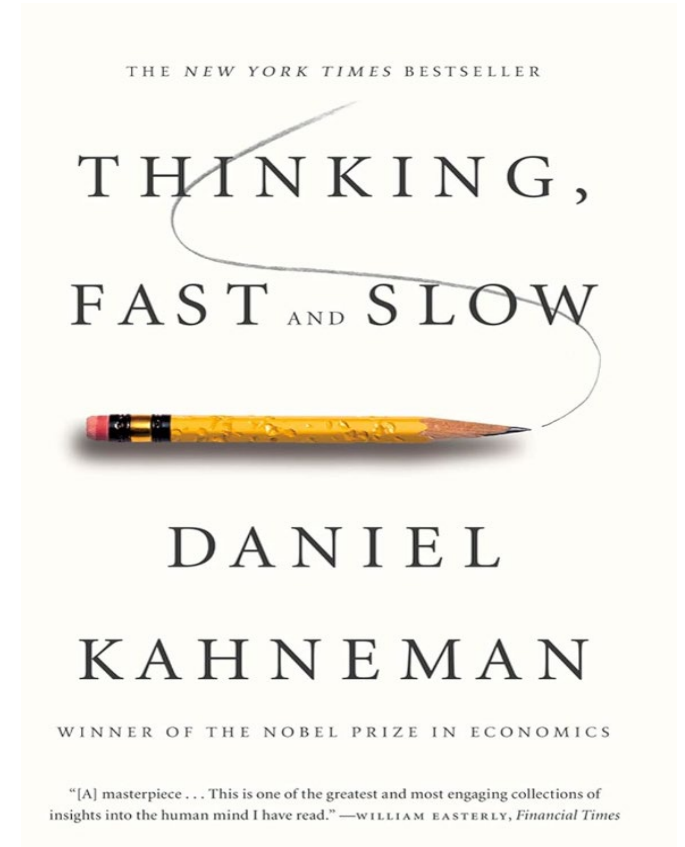
If it takes five machines five minutes to make five widgets, how long would it take 100 machines to make 100 widgets?

In a lake, there is a patch of lily pads. Each day, the patch doubles in size. If it takes 48 days for the patch to cover the entire lake, how long would it take for the patch to cover half the lake?

Daniel Kahneman

(1934-2024)

Thinking, Fast and Slow



Kahneman, Daniel. "Thinking, Fast and Slow." October 25, 2011.

System 1 and System 2

How decisions are made

SYSTEM 1

Operates automatically and quickly, with little or no effort

Examples

- Detecting that one object is more distant than another
- Completing the phrase “bread and...”
- Solving for $2 + 2 =$



SYSTEM 2

Allocates attention to the effortful mental activities that demand it, including complex calculation

Examples

- Bracing for the starter gun in a race
- Filling out tax forms
- Parallel parking

System 1 and System 2

Key implications for financial decision-making



System 1 and System 2 thinking often work in harmony, but when we use System 1 thinking to make complex choices, mistakes often occur



Neither System 1 nor System 2 can be turned on or off voluntarily; this is how we are wired. We have as much control over Systems 1 and 2 as we do over an elephant.



Kahneman, Daniel. "Thinking, Fast and Slow." October 25, 2011.

Can't we exert more self-control?

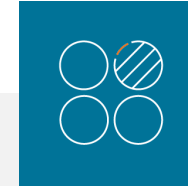
Think again



High performers and successful people (you!) are generally really good at self-control



The challenge with self-control is that, over time, people get tired and make mistakes



Imaging confirms that the area of the brain responsible for decision-making and executive functioning (dorsolateral prefrontal cortex) becomes less active after extended periods of self-control

Source: Dr. Sonya Lutter, April 2024.

System 1 and System 2

Let's revisit the "bat and the ball"



Computation warning! Many people miss the following problem because they do not take the time to check their answer.



Comprehension warning! Many people miss the following problem because they read it too quickly and answer a different question than the one that was asked.



Source: Keer, Lucy. The Bat and Ball Problem Revisited. LessWrong.com. December 13, 2018.

A word about financial stress

Stress hinders brain activity, leaving System 1 in charge



Making decisions under stressful conditions may lead individuals to not thoroughly consider all available options and rush to make a final decision.



Acute stress releases dopamine, noradrenaline, and cortisol, thus impairing the normal function of the prefrontal cortex.

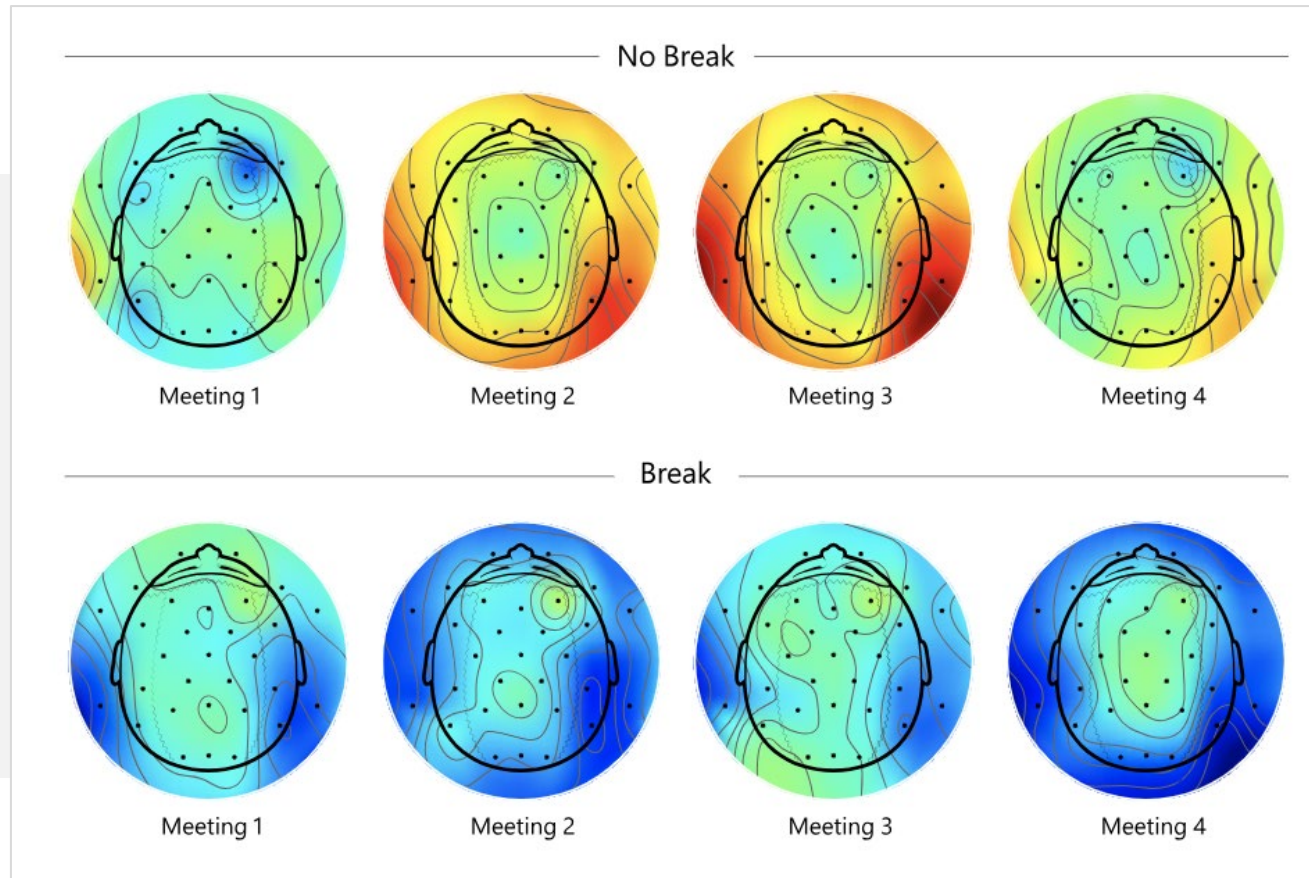


Cardiovascular, hormonal, and neural reactions may also impact the ability to accurately assess risk and evaluate complex problems.



Measure of brain activity

Breaks vs. no breaks



An EEG cap to monitor electrical activity in the brain



Average beta activity across research subjects during four meetings

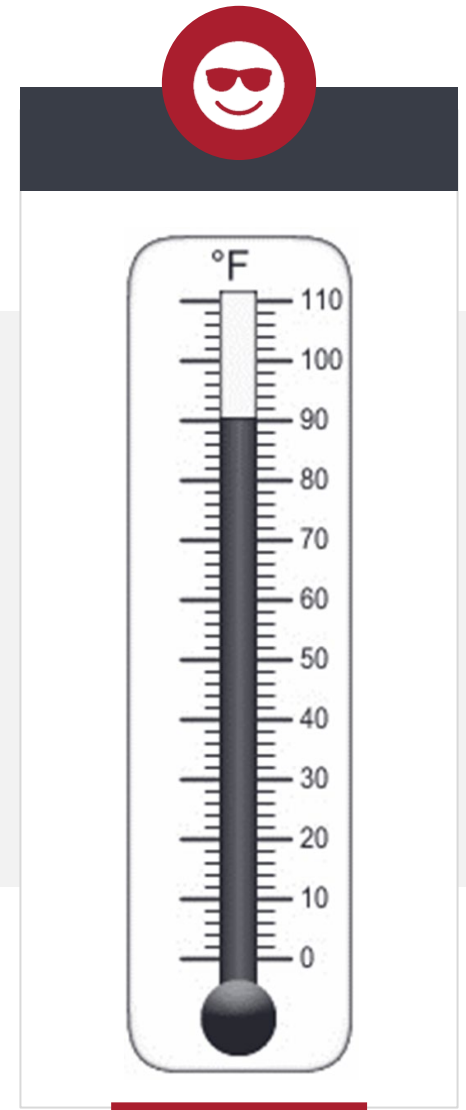
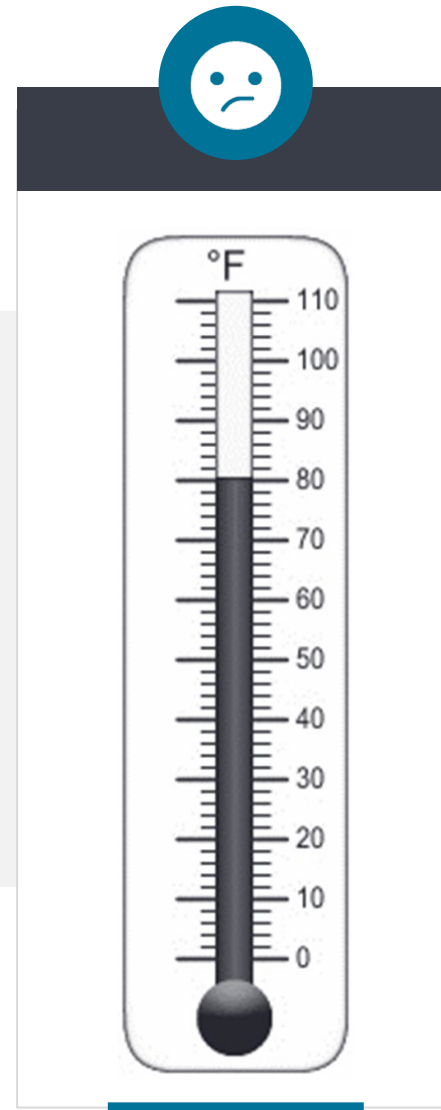
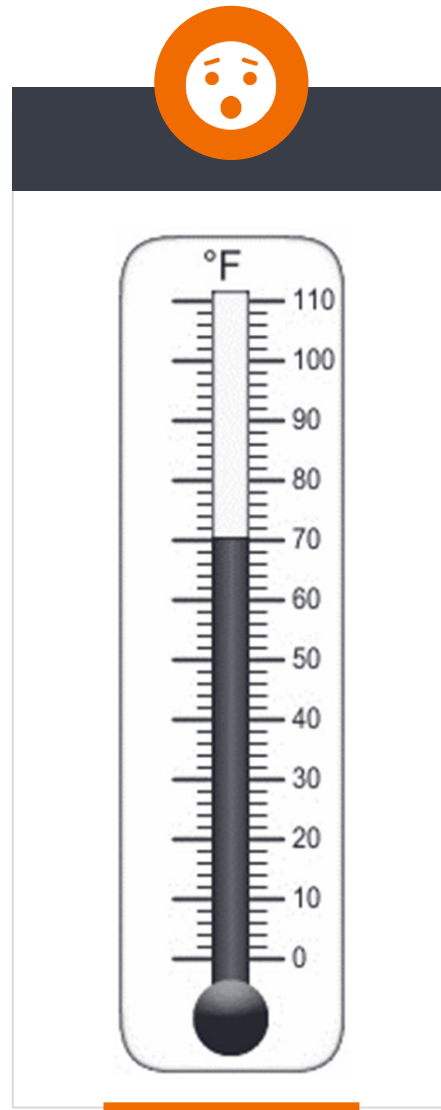


Source: Illustration by Brown Bird Design

"Research Proves Your Brain Needs Breaks: New options help you carve out downtime between meetings." Work Trend Index Special Report. Microsoft WorkLab. April 20, 2021.

A proxy for brain activity

Are your hands cold?



Source: Dr. Sonya Lutter, April 2024.

Stress is on the rise in America

Money concerns and family issues are the most often-cited causes

Pre-and post-pandemic stress level comparison by age

% of adults who rate their average stress between 8 and 10*



*Respondents were asked to rate their average level of stress during the past month on a scale of 1 to 10, where 1 means “little or no stress” and 10 means “a great deal of stress”

Source: “Stress In America 2023: A nation recovering from collective trauma.” American Psychological Association. November 2023.

Money issues are impacting everyone

Thinking about money makes me feel...



Janus Henderson Investors. "Investor Survey: Insights for a Brighter Future." November 2023.

The psychology of decision-making

Key points



People do not make money mistakes because they lack intelligence; mistakes happen “naturally” because our brains apply a System 1 solution to a System 2 problem



Almost all Americans are feeling some level of financial stress, but the root causes are likely to differ based on socioeconomic status



Making financial decisions when stressful feelings are present will only exasperate the System 1 “take over”



Next, we will turn our attention to specific money mistakes most common among individual investors, as self-awareness can help mitigate errors



Seven deadly “biases”

Seven deadly “biases”

Anchoring



What is it?

People often make a financial decision based on an arbitrary reference point (aka, “anchor”), which may be based on the first piece of information received and is weighted more heavily than newer, more updated information.

Example



An investor purchases a stock at \$10.00. After six months the stock is trading at \$8.00 as the most recent quarterly earnings report fell short of expectations. The investor is advised to sell the stock and take a \$2.00 loss. She responds, “I need the stock to hit \$10.00 first, then I will sell.”

Seven deadly “biases”

Attachment bias



What is it?

An emotional predisposition that causes an individual to act irrationally toward people or objects to which they have an emotional attachment.

Example



An individual inherited a family vacation home after his parents passed away. Although he does not use the vacation home often and pays substantial property taxes and insurance premiums, he is reluctant to sell the home. He says, “The home was so important to my parents, I just cannot imagine giving it up.”

Seven deadly “biases”

Cognitive dissonance



What is it?

The discomfort that can be created when newly acquired information does not match previously held knowledge.

Example



Seeing opportunity in energy, an investor purchased several stocks and funds in that sector. The investor was right, and energy prices soared and company profits have never been stronger. The stock prices, however, remained flat since the purchase and some of the holdings have declined in value. The investor feels confused and stressed, asking his friends, “How could this be?”

Seven deadly “biases”

Confirmation bias



What is it?

The tendency for individuals to seek out information that supports their preexisting beliefs and avoids information that could contradict their already held beliefs.

Example



An individual is considering a major renovation to her home. The home does not carry a mortgage, and in fact, the individual is debt-free. When she asked for a sizable withdrawal, her bank suggested she consider a home equity loan. Hating debt, she immediately said “no.” Later that night, she searched the internet for blogs that supported the dangers of assuming debt.

Seven deadly “biases”

Herding (FOMO)



What is it?

When individuals follow the behavior of large groups rather than acting individually, even when the behavior may not be in their best interest (otherwise known as Fear of Missing Out, or “FOMO”).

Example



During a recent golf outing, an individual heard many people talk about how they made a “killing” in a particular stock. Despite already having a financial plan in place and not knowing much about the stock discussed, he instructed his advisor to make a purchase first thing Monday morning. When asked by his advisor why he wanted to buy the stock, he responded, “From what I hear, it seems like a good investment to own.”

Seven deadly “biases”

Loss aversion



What is it?

Tendency of financial decision-makers to prefer sure gains over potentially larger gains when the possibility of a loss occurs.

Example



An individual makes an investment in her IRA as a long-term holding. After one year, the investment has doubled. Wanting to cash in on her good fortune, she sells the investment. When her friend asked why, she responded, “I would not be able to live with myself if I didn’t sell and the stock went down.”

Seven deadly “biases”

Recency bias



What is it?

Tendency for financial-decision makers to overweight recent events and discount historical trends or averages.

Example



After the markets declined by 30% in one year, an investor in his 40s decided to sell all his stocks and remain in cash. “The economy is a mess, the stock market is bad, and I just want out,” he explained to friends.

Seven deadly “biases”

Key points



We discussed seven of the most prominent investor biases, but there are many others.



In any given situation, investors may fall victim to several biases simultaneously, or none at all – it all depends on the person.



These biases cannot be “turned off” thanks to System 1, but self-awareness can help investors identify their presence before critical decisions are made.



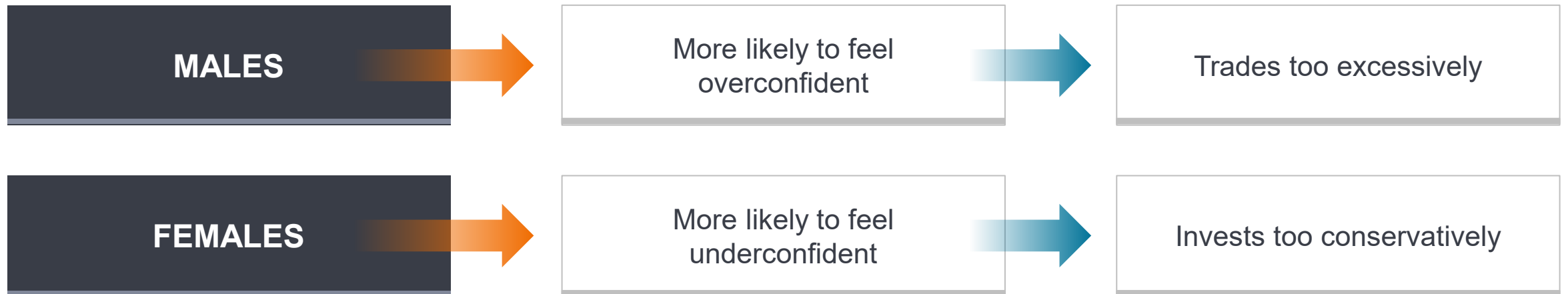
Next, we will have an honest conversation, grounded in academic research, about how to apply better decision-making to everyday financial matters.



Straight talk

Straight talk

Gender differences: Do men and women have different levels of confidence in their investment abilities?



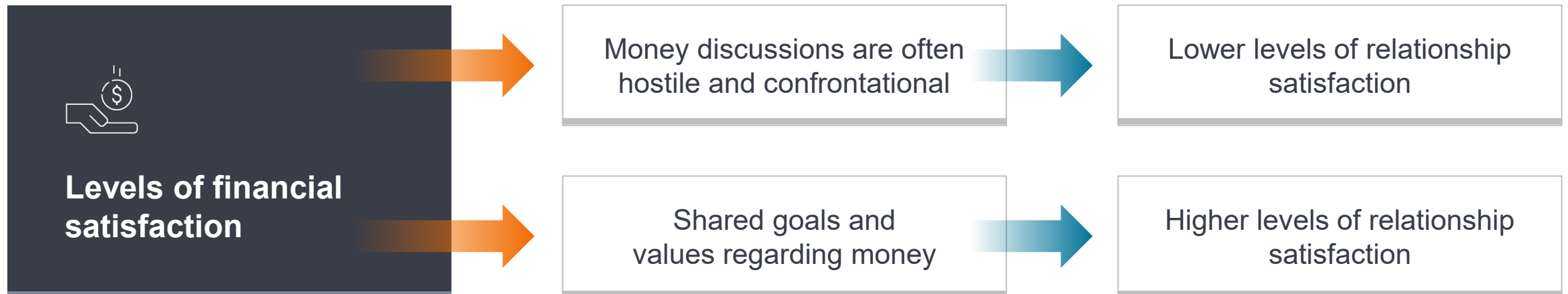
Fun Fact

In a 2022 survey of 1,000 investors, we found that 13% moved from stocks and bonds to cash because of market performance and persistent inflation. Interestingly, 15% of males moved out of stocks and bonds compared to only 10% of females.

Janus Henderson Investors. "Retirement Confidence Report 2022." November 2022. Sommer, M., McCoy, M., & Lim, H. "An Investigation of the Relationship Between Gender and Investment Behavior During the 2022 Market Meltdown" (working paper)

Straight talk

Couples: Do higher levels of financial satisfaction lead to higher levels of relationship satisfaction?



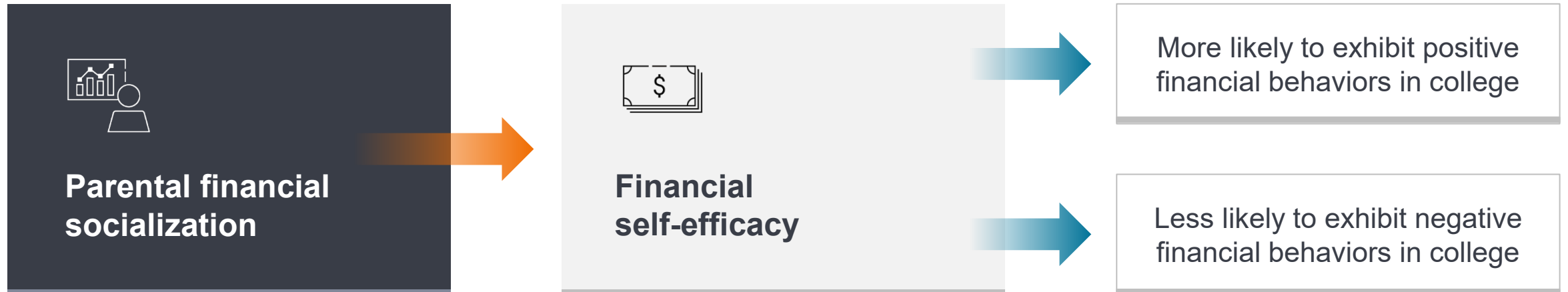
Fun Fact

The more joint accounts couples have, the happier they are. This finding may be tied to having more conversations about money and discussing what each partner wants out of life.

Archuleta, K., Grable, J., and Britt, S. "Financial and Relationship Satisfaction as a Function of Harsh Start-up and Shared Goals and Values." Association for Financial Counseling and Planning Education. 2013.
Olson, Rick, Small, and Finkel. "Common Cents: Bank Account Structure and Couples' Relationship Dynamics." Journal of Consumer Research. December 2023.

Straight talk

Children: Does financial socialization at a young age lead to better behaviors later in life?



Fun Fact

84% of all wealth transfers happen as an inheritance. Lifetime gifting gives children with little to no experience handling money the opportunity to make meaningful financial decisions, perhaps for the first time in their life.

Lim, H., Antonoudi, E., and Harris, J. "College Generation Status and Financial Socialization Processes and Outcomes: Implications for First-Generation College Students" (working paper). 2024.

Wolff, E., and Gittleman, M. "Inheritances and the distribution of wealth or whatever happened to the great inheritance boom?" Journal of Economic Inequality. November 2013.

Straight talk

Advisors: Do advisors offer anything other than investment recommendations?



**Having a financial advisor
vs. not having a financial
advisor**

More likely to be very or somewhat confident in meeting financial goals

Less likely to have made an investment mistake within the last 5 years because of emotional decision-making

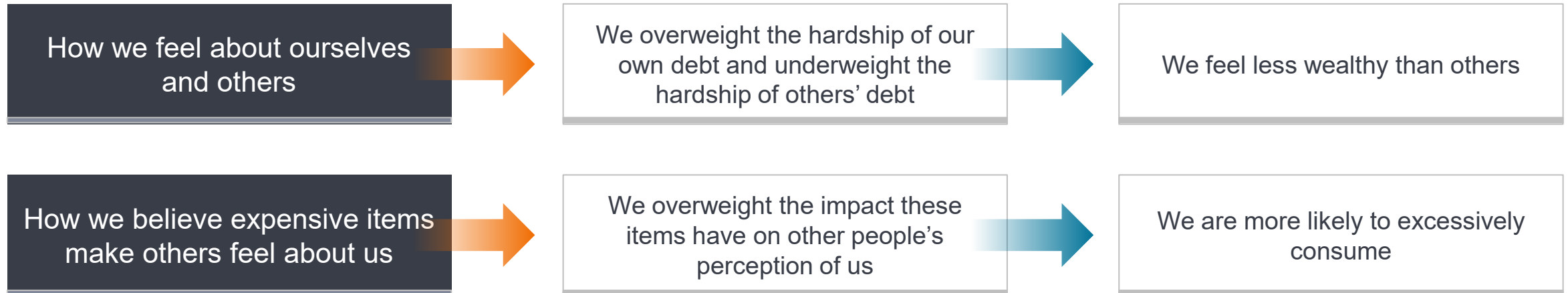
Fun Fact

Our 2023 research found three items separated investors who were “very satisfied” with their advisor vs. investors who were “somewhat satisfied” with their advisor: 1) provides peace of mind that I’m on track to reach my goals; 2) cares about me as a person, beyond my financial situation; 3) keeps my emotions in check during periods of elevated market volatility.

Janus Henderson Investors. “Investor Survey: Insights for a Brighter Future.” November 2023.

Straight talk

Friends: Why is “keeping up with the Joneses” nearly impossible?



Fun Fact

If your friend is happy, there is a 15% increase in the odds of you being happy. And, if a friend of a friend of a friend is happy, there is a 6% increase in the odds of you being happy. An unhappy friend, however, decreases the odds of your happiness by 7%.

Batista, R., Sussman, A., and Trueblood, J. “Self-other differences in perceptions of wealth. *Journal of Experimental Social Psychology*.” November 2021.

Fowler, J., and Christakis, N. *Three Degrees of Influence Theory*. 2007.

Straight talk

Key points



Money decisions are very personal, and there is hardly ever one right or wrong answer.



The key over the long run is not necessarily to maximize your returns, but rather to minimize mistakes caused by System 1.



You have a support system in place, led by your financial advisor – the more you share, the more they can help.

The relationship between our mind and our money

It's more complicated
than you think



It's not you, it's me.

*Best of luck,
Your Brain*



About the authors



**Dr. Sonya
Lutter, CFP[®],
LMFT**

Content Contributor

Dr. Sonya Lutter is a CERTIFIED FINANCIAL PLANNER™ professional and licensed marriage and family therapist. She serves as the inaugural Director of Financial Health and Wellness with Texas Tech University's School of Financial Planning where she leads curriculum and continuing education opportunities in the areas of financial psychology, financial therapy, and financial behavior.

Dr. Lutter is also the owner of ENLITE where she helps bridge the gap between mental health and financial planning. Dr. Lutter served on the editorial advisory board that produced the CFP Board's newest book, *The Psychology of Financial Planning*. Her developmental work in financial therapy is summarized in *Financial Therapy: Theory, Research, and Practice* with co-editors and she is the author of *A Couples Guide to Love & Money: 15 Exercises to Strengthen Your Relationship*.





**Matthew
Sommer, Ph.D.,
CFA, CFP®**

*Author
Head of Specialist
Consulting Group*

Matt serves as Janus Henderson's lead behavioral finance researcher and wealth strategist, where he and his team provide clients with insights regarding several topics related to practitioner best practices, regulatory and legislative trends, and wealth planning strategies.

He received his bachelor's degree in finance from the University of Rhode Island and an MBA with a concentration in finance from Pace University, Lubin School of Business. He received a doctorate degree (dissertation: Three Essays Investigating the Bequest Intentions and Expectations of Older Adults) from Kansas State University. His doctoral candidacy research was selected for publication in the Journal of Financial Planning and the Journal of Personal Finance. Dr. Sommer is a frequent guest on CNBC and Bloomberg TV and has been extensively quoted in various industry publications including the Wall Street Journal, Barron's, and Investment News. He has 30 years of financial industry experience.



Contact us

janushenderson.com



Important information

The information contained herein is for educational purposes only and should not be construed as financial, legal or tax advice. Circumstances may change over time so it may be appropriate to evaluate strategy with the assistance of a financial professional. Federal and state laws and regulations are complex and subject to change. Laws of a particular state or laws that may be applicable to a particular situation may have an impact on the applicability, accuracy, or completeness of the information provided. Janus Henderson does not have information related to and does not review or verify particular financial or tax situations, and is not liable for use of, or any position taken in reliance on, such information.

A retirement account should be considered a long-term investment. Retirement accounts generally have expenses and account fees, which may impact the value of the account. Non-qualified withdrawals may be subject to taxes and penalties. For more detailed information about taxes, consult a tax attorney or accountant for advice.

In preparing this document, Janus Henderson has relied upon and assumed, without independent verification, the accuracy and completeness of all information available from public sources.

This material is for information purposes only. There is no guarantee that the information supplied is accurate, complete or timely, nor is there any warranty with regards to the results obtained from its use. This material may not be reproduced in whole or in part in any form, or referred to in any other publication, without express written permission.

Janus Henderson Investors is not affiliated with Texas Tech University.

Janus Henderson is a trademark of Janus Henderson Group plc or one of its subsidiaries. © Janus Henderson Group plc.

FOR MORE INFORMATION CONTACT JANUS HENDERSON INVESTORS

151 Detroit Street, Denver, CO 80206 | www.janushenderson.com

W-0524-613151-05-30-2026

400-25-613151 05-24
