

Chapter 11

Behavioural Aspects of Financial Advice



Daniel Richards

11.1 Introduction

Many parts of the world have experienced deregulation of financial systems and a decrease in state-provided pensions (Holzmann, 2013). These changes have increased the complexity of financial products and also an individual's responsibility for planning and funding their own retirement. In light of these changes, people are seeking financial advice to guide them through the large financial decisions that they must make. Thus, demand for financial advice, especially in Australia, has increased over the past two decades. Concurrently, the financial planning vocation emerged as the leading discipline to provide financial advice to clients (Cull, 2009; Richards et al., 2022a). Financial planning is in the process of becoming a profession and it separates itself from cognate professions, such as accounting, and occupations, such as stockbroking. To professionalise, financial planning needs to build a body of knowledge about financial advice to create a clear jurisdiction of expertise. To this end, financial planning professional bodies, educators and regulatory authorities are incorporating aspects of financial planning into their curriculum.

In this chapter, I review pertinent behavioural research, which can be applied to financial planning or the process of providing financial advice. This is completed in two sections. The first section focuses on financial planners' knowledge of clients. Financial planning is defined as "the process that takes into account [a] client's personality, financial status and the socio-economic and legal environments and leads to the adoption of strategies and use of financial tools that are expected to aid in achieving the client's financial goals" (Warschauer, 2002, p. 204). This quote illustrates that financial planning incorporates the client's personality into the finan-

D. Richards (✉)

School of Administrative Studies, York University, Toronto, ON, Canada

e-mail: danrich@yorku.ca

cial advice recommended. Accordingly, knowledge in financial planning curricula is being built on insights from behavioural research to understand exactly what a client's personality entails. The first section of this chapter reviews behavioural finance and behavioural economics research, which highlights behavioural biases that influence people's financial decision making.

The second section of this chapter investigates behavioural research on the adviser (financial planner) and advisee (client) relationship. This area of research area receives less attention from financial planning curricula and, therefore, is less likely to be incorporated into developing the financial planning profession. However, behavioural research in this area shows great potential as it researches common practices adopted by financial planners when interacting with clients. Some of the specific topics that behavioural research highlights are conflicts of interest, disclosure, and persuasion in the adviser to advisee relationship. For financial planning to professionalise, these concepts need to be addressed by a body of knowledge and behavioural research offers considerable insights on these concepts.

11.2 Behavioural Research on Financial Decision Making

There are many books and articles that currently offer behavioural insights into financial decision making and financial planning (Baker and Ricciardi, 2014; Chaffin and Fox, 2018; Pompian, 2011; Statman, 2017). Some of the insights offered by these books focus on inferences of behavioural research to financial decision making. In this chapter, I limit the focus of behavioural concepts to those that meet two criteria. First, there is evidence of the behaviour occurring in behavioural research, such as psychological experiments, and second, there is evidence of the behaviour occurring in real-world data, such as individuals' financial records. The review below covers the disposition effect, home bias, and mental accounting.

11.2.1 Disposition Effect

Imagine you purchase shares in two companies; one purchase is a large financial institution and the other is a large supermarket chain. Following a period of three months, the COVID-19 pandemic occurs, and one share has seen a large increase in price (the supermarket) while the other has an equivalent decrease (the financial institution). Due to the COVID-19 pandemic, you need money and choose to sell one stock. Which stock do you sell? Well, people who chose to sell the supermarket shares because they have increased in price are illustrating a bias called the disposition effect.

The disposition effect is a bias where investors hold shares trading at a loss longer than those trading at a gain. Colloquially defined, the disposition effect is a behaviour where investors "sell winners too early and ride losers too long" (Shefrin

and Thaler, 1988, p. 777). The bias piqued the interest of academics when Odean (1998) analysed investors' brokerage accounts in the US. His research showed that the disposition effect was prevalent among investors and that investors who had more disposition effect experienced worse returns. Specifically, Odean showed that the stocks investors sold at a gain subsequently outperformed the stocks investors continued to hold at a loss. Since Odean's research, additional research using the entire Finland stock market from 1995 to 2003 confirmed a relationship between individual investors' amount of disposition effect and reduced investment returns (Seru et al., 2010).

A key question for financial planners is why do people do this? One argument is that the disposition effect is related to Prospect Theory (Kahneman and Tversky, 1979), which illustrates that people have different risk tendencies depending on whether they face gains or losses. For losses, people increase their risk-taking attitudes (a concept often referred to as loss aversion). When faced with a loss in the share market, investors will continue to hold and take the risk to recuperate this loss. The opposite occurs for gains where risk-taking attitudes decrease and people will sell that stock to crystallise the gain. An alternative and complementary explanation is the emotion involved in making investment decisions (Richards et al., 2018; Shefrin and Statman, 1985; Summers and Duxbury, 2012). When people purchase a share that subsequently decreases in value, regret is invoked, and this emotion inhibits the action of selling a stock (Summers and Duxbury, 2012).

There is a lot of evidence of the disposition effect occurring throughout the world. Research has shown that this bias occurs in many culturally different countries, from Taiwan (Shu et al., 2005) and the United Kingdom (Richards et al., 2017) to Estonia (Muhl and Talpsepp, 2018). It is also observed in trading experiments run by researchers at universities (Summers and Duxbury, 2012; Weber and Camerer, 1998). Academics are now turning their attention away from proof of this concept and focusing on the factors that make a person more or less susceptible to this bias. This new wave of research offers further insight relevant for those who work in financial planning or provide financial advice.

Some research suggests that investors can learn to reduce their own susceptibility to this bias. However, learning to avoid this bias is a very long and gradual process (Seru et al., 2010) that can be accelerated by turbulent market conditions (Muhl and Talpsepp, 2018) or among highly educated investors who trade frequently (Vaarmets et al., 2019). Other research suggests that investors who are better able to regulate their emotions, and therefore handle the ups and downs of investing, have less disposition effect (Kim and Ha, 2016; Richards et al., 2018). The research suggests that experience, combined with emotional awareness, can lead an investor to alleviate this bias. For those more prone to the disposition effect, a direct method to inoculate against the disposition effect is the use of stop losses (Fischbacher et al., 2017; Richards et al., 2017). Stop losses are automatic trading devices that sell stocks when they decrease in value. These are free to use and have been shown to be very effective at eliminating this bias. Finally, those investors who receive advice from experienced financial advisers show less disposition effect than those who do not (Shapira and Venezia, 2001). The financial adviser needs to have experience, as

inexperienced advisers have been shown to increase the disposition effect (Hermann et al., 2019).

11.2.2 Home Bias

A common recommendation that financial planners offer their clients is to diversify their investments. This recommendation is rooted in traditional finance, which shows that diversification is a method of reducing risk. An effective method to diversify and reduce risk is to invest in stock markets in a different country. As different countries will be in different stages of their business cycles, international diversification can offer a reduction of risk compared to investing solely in ones' home country. However, Huberman (2001) identified that investors are very reluctant to do this. Instead, investors invest where they currently live; a bias called the home bias. The home bias has roots in the familiarity heuristic where people favour phenomena they are familiar with to phenomena that they are not familiar with. Research has shown the home bias occurs and that investors are more likely to invest in firms that share the investor's country, culture, or language (Grinblatt and Keloharju, 2001).

This bias can occur due to several different factors, some of which are economic, and others that are behavioural in nature (Riff and Yagil, 2016). The economic reasons include asymmetric information (investors have more accurate and comprehensive data about the firms in their home country), exchange rate volatility, and government regulations that impede international investment. However, behavioural reasons play a prominent role in why this bias occurs, because experimental research that removed the economic factors demonstrated a strong home bias in investment decision making (Lin and Viswanathan, 2016). Riff and Yagil (2016) find that the familiarity bias plays a substantial role in the home bias, where investors who feel acquainted with an asset are more likely to invest in it. This is similar to 'homophily', where people will have social networks that are homogeneous because we connect with other people who share similar sociodemographic, behavioral, and intrapersonal characteristics (McPherson et al., 2001). In addition, Riff and Yagil (2016) found that fluency, which is the extent which to the name of the stock is easy to comprehend, increased the home bias as investors. In summary, the home bias shows that investors are unlikely to invest internationally but are more likely to invest in home stocks because they are familiar with these stocks and the investor can comprehend the stock's name.

The importance of home bias for financial planners is that it illustrates a client's willingness to invest in different products. Research shows that investors believe home assets to be less risky (Wang et al., 2011). That is, when investors have knowledge and comprehension of an investment, they are less likely to view it as risky. This is important for financial planners as it highlights the importance of a client's understanding when recommending certain financial products or advice. If a planner recommends something not understood by clients, the client

will perceive the advice as a risky endeavour. Instead, a financial planner may recommend international diversification through companies with a strong global brand. A strong global brand ameliorates the home bias because they are easily recognised, familiar, and understood by investors (Riff and Yagil, 2021). Second, research shows that this bias is related to investor confidence and competence. When investors feel competent, they are more likely to reduce their home bias and diversify internationally (Graham et al., 2009). Also, investor confidence, which can be influenced by market movements, affects the home bias. The home bias occurs more frequently in a declining bear market (low confidence) than an increasing bull market (high confidence) (Riff and Yagil, 2016). This aspect of the home bias highlights the need for financial planners to offer financial advice within the scope of understanding of a client so they can feel competent and confident about the financial decisions undertaken.

11.2.3 *Mental Accounting*

The concept of mental accounting was developed by Thaler (1980, 1985) to outline how people categorise money into separate cognitive accounts. Money is fungible, or, in other words, it is a transferable commodity across many aspects of our lives (Thaler, 1999). For example, we use the same money to pay for holidays, buy food and donate to charity. To make financial decisions easier, people create categories for money and assess decisions within categories. These categorisations of money create barriers to fungibility, where certain money is earmarked for the intended purpose (such as funds for children's education) and cannot be used in other areas. Mental accounting is the behavioural economics term used to the categorisation of money and shows unique insights into financial decision making (Zhang and Sussman, 2018a,b).

Mental accounting can be attributed to a broader concept of choice bracketing (Bland, 2019; Read et al., 1999). When faced with decisions, people can choose to *broad bracket* where they assess all consequences of decisions, or *narrow bracket* where each choice is made in isolation. Narrow bracketing is far more common because of the cognitive complexity of weighing multiple consequences across multiple decisions. The use of narrow bracketing can have positive consequences (it increases efficiency), and negative consequences (important facets are not considered). Likewise, mental accounting in personal finance can be an effective and detrimental way of organising money and making decisions. Mental accounting can be a powerful budgeting tool for a financial planner's client as it allows them to make simple decisions and develop a behaviour of saving.

The key determinant of whether mental accounting is positive or detrimental is how money is categorised. One categorisation is by the source of funds; that is, whether the money comes from wages, investments, inheritance, etc. Some money can come from personal exertion or from investment decisions and feel like regular income. Other funds can be perceived as a windfall gain (Zhang and Sussman,

2018b), where the money is not expected or treated like a bonus. Research has found that if money is a windfall gain, then people are more likely to spend it easily and on luxury goods and services (Milkman and Beshears, 2009; Zhang and Sussman, 2018a). As money can come from many sources, a person's categorisation of it as regular income or as a windfall gain has a big influence on whether that money is spent or invested. The Save More Tomorrow campaign (Thaler and Benartzi, 2004) undertook a behavioural intervention where employees committed to putting future pay rises into retirement savings. This serves as an apt example of using windfall gains to increase savings behaviour.

A second categorisation in mental accounting is the purpose of the money. When money is categorised for a specific purpose, money within this category can be spent up rather than transferred to other sources. Hastings and Shapiro (2013) found that when petrol prices decreased, households in the US would buy more expensive petrol (higher octane), rather than utilising any left-over fuel money for a different purpose. That is, people had a certain mental account for petrol money and would spend that money rather than transfer that money. These results highlight a key ramification of mental accounting in financial planning, which is mental accounting use for budgeting. Mental accounting can be used as an effective budgeting tool as it increases self-control and simplicity of how much to spend (Shefrin and Thaler, 1988). However, once set in place, it can lead to suboptimal financial decision making when situations change. Research has found, for instance, that money intended as savings is not utilised in times of a financial crisis and instead people opt for high-interest debt (Sussman and O'Brien, 2016). Financial planners can advise clients of mental accounting techniques for budgeting but should also review the use of these techniques in follow-up sessions with clients to assess if the strategy is still suitable.

A third categorisation of money in mental accounting is a time preference and whether the money is categorised as being in the past, present, or future. A concept related to this is temporal discounting, where people place more value on something being available now rather than in the future (Frederick et al., 2002). The curriculum taught in financial planning is built on the time value of money principle, so the ideology that future money (e.g., savings for retirement) has less value than current money (current expenditure) may be common knowledge among financial advisers. However, behavioural research shows that people vary in the amount they temporally discount, and this is related to how much a person values the perceived reward (Tsukayama and Duckworth, 2010). When it comes to retirement planning, research has shown that people who discount the future heavily and engage in less healthy behaviours will place more emphasis on current gratification (e.g., smoking and sensation seeking) and save less for retirement (Finke and Huston, 2013). This aspect of mental accounting has important implications for financial planning. A financial planner needs to understand how their client discounts the future, or in other words, to what extent the client values future money. This will help the financial planner to develop strategies adapted to the client's preferences. For example, a client who heavily discounts future money may need an investment

product where the money is difficult to access, but a client who discounts less heavily may benefit from the flexibility in easily accessed savings.

11.3 Behavioural Research on the Adviser and Advisee Relationship

This section of the chapter focuses on behavioural research that investigates the adviser and advisee relationship, and I apply the findings to the financial planner to client relationship. This research topic is not specifically included in some financial planning curriculum but offers unique findings into financial planning practices. The review below aims to highlight some behavioural insights into conflicts of interest, disclosure, and persuasion and show how behavioural research on these concepts are applicable in financial planning.

11.3.1 Conflicts of Interest

An aspect of financial planning that falls under scrutiny is conflicts of interest. Financial planners have a duty to act in the interests of their clients and thereby ensure that advice provided is based on the client's circumstances and fulfilling the client's needs (Richards and Morton, 2020). However, financial planners are often working for, or remunerated by, financial institutions that have different interests (Bruhn and Miller, 2014). A fundamental interest of financial institutions is a need for consumers of the financial products they create. Thus, some financial institutions encourage financial planners to recommend their products to clients using various incentives, including commissions. This creates a conflicted market for financial advice, where a financial planner must weigh the interests of their clients on one hand and the interests of financial institutions and their own interests on the other. This is a simplistic depiction of conflicts of interest, and it is important to note that these conflicts vary in different jurisdictions throughout the world (Angelova and Regner, 2013; Chen and Richardson, 2018; Richards et al., 2022b). Nonetheless, behavioural research offers insights into conflicts of interest relevant for financial planning.

Experimental research on financial advice, in addition to other types of research (Chater et al., 2010; Bruhn and Miller, 2014; Richards and Morton, 2020), show that these conflicts of interest are detrimental in financial advice settings. Conflicts of interest are detrimental for the advisee because advisers work in their own interest rather than the advisee's interest (Chen and Richardson, 2018). A common issue is that financial planners will not be honest about their own interests when providing advice. Angelova and Regner (2013) investigate how paying for advice can influence conflicts of interest and how this might affect an adviser to act truthfully. In financial planning, some advisers choose to receive their income by charging

clients (called a fee-for-service model) and others choose to receive commissions from product providers. Thus, Angelova and Regner (2013) investigate differences between voluntary payments and obligatory payments made by clients. They find that larger voluntary payments made by advisees both before and after receiving advice increases adviser truthfulness in advice. Furthermore, advisees are more likely to act on the advice when they make a voluntary payment. Overall, this research suggests the benefits of a fee-for-service model in financial planning where clients pay for the advice they receive. These findings are consistent with field research, which finds that independent financial advisers' advice offers better returns than financial advisers employed by a bank (Hackethal et al., 2012) and that a small percentage of clients take up offers of free, unbiased financial advice with even fewer acting on the advice provided (Bhattacharya et al., 2012).

11.3.2 Disclosure

A common method of handling conflicts of interest in financial planning is disclosure, where a financial planner will inform a (potential) client of the incentives they receive (Richards and Safari, 2021). Advisers disclosing information to advisees became a research topic of interest in behavioural research following a seminal paper by Cain et al. (2005). Cain et al. (2005) found that even though conflicts of interest are disclosed by advisers to advisees, advisees fail to discount the impact of these conflicts on the advice given. That is, advisees failed to adjust their behaviour appropriately in light of the disclosure. This implies that clients of financial planners do not reject the financial advice when conflicts of interest are disclosed. Furthermore, Cain et al. (2005) found that when advisers knew they had to make a disclosure, they would increase the bias in their advice because they thought advisees would adjust their views due to disclosures. This increase in bias due to disclosure is referred to as strategic exaggeration and Cain et al. (2005) suggested that disclosure offered advisers a 'moral license' to bias their advice. However, it is important to note that results on strategic exaggeration and moral licensing are inconsistent. Chen and Richardson (2018) failed to find that strategic exaggeration and moral licensing occurred in an advice-giving experiment. Chen and Richardson (2018) did find that conflicts of interest impeded the advisee's interests and disclosing conflicts of interest reduced adviser's returns in their experiment.

An interesting question to ask is what impact does the practice of disclosing conflicts of interest have on the relationship between the adviser and advisee? Does disclosure build strong relationships between advisers and advisees when information asymmetry has been reduced? Sah et al. (2013) investigated the influence of adviser disclosure on advisee's perceived trust and compliance with the advice provided. The results revealed that when an adviser discloses a conflict

of interest, then the advisees have less trust in that adviser. Interestingly, the results showed that an advisee is more likely to comply with the advice when a conflict is disclosed. Sah et al. (2013) refer to this as the burden of disclosure where advisees feel obliged to comply with advice because the disclosure places the responsibility on the advisee to provide an incentive for the adviser. Similarly, Chen and Richardson (2019) found that disclosure of conflicts of interest did not increase the advisee's rejection of the advice. Thus, even though financial planners disclose conflicts of interest, their clients may still engage with that financial advice.

The context in which disclosure occurs is also a key factor to consider when understanding the influence disclosure has on advisee trust (Richards et al., 2022b). Is trust influenced differently if disclosure occurs in person, through formal documentation, or a combination of both? When disclosure occurs online by an adviser, an advisee's trust in an adviser increases because the disclosure acts as a cue of integrity (Sah et al., 2018). The findings of Sah et al. (2018) appear to contradict earlier research that shows that disclosure decreases advisee's trust in an adviser (Sah et al., 2013). Sah et al. (2018) investigated why the inconsistent results occurred and found disclosure increases trust when the amount of information that advisees receive is high. That is, when advisees have a lot of information to process, disclosure of conflicts of interest acts as a heuristic of trust and therefore persuasion to accept advice. When advisees receive little information, then disclosure of conflicts of interest is salient and the advisee focuses on this, which, in turn makes them sceptical of the adviser. In financial planning, where a high volume of information is provided to clients, disclosure could increase the trust clients have in financial planners as it acts as cue for trust.

Finally, it is worthwhile considering the impact of disclosure of conflicts of interest on the advisers themselves. That is, by disclosing conflicts how do advisers change their behaviour and when does this help improve financial planning? Sah and Loewenstein (2014) show some insights into this topic when they investigate if advisers would avoid conflicts of interest. Participants acting as advisers in their experiment could choose to accept or avoid conflicts of interest and were either forced to disclose or could voluntarily choose to disclose these conflicts of interest (or lack of) to advisees. The results showed the majority of advisers chose to avoid conflicts of interest when forced to disclose these conflicts but also when disclosure was voluntary. This occurred even when accepting a conflict of interest led to a better payout for the adviser. Furthermore, Sah and Loewenstein (2014) found that advisers who chose to avoid the conflict of interest subsequently chose to disclose this absence of conflicts to advisees. Advisees rated advisers as more trustworthy when they chose to disclose the absence of conflicts of interest. Overall, the results show that the practice of disclosure could influence financial planners beneficially when they can choose to avoid conflicts of interest but not when the conflicts of interest are unavoidable. Also, clients may increase their trust in their financial planners if they disclose an absence of conflicts of interest.

11.3.3 Persuasion

A key concept in financial planning is the concept of persuasion. Persuasion is vital in many aspects of financial planning as it can be used by financial planners to obtain clients and then encourage clients to enact the advice financial planners provide them. The concept of persuasion is also of interest to researchers in behavioural sciences. Persuasion can be defined as when a person chooses to change their attitude or behaviour as a result of communication they receive (Hoffmann et al., 2020). Hoffmann et al. (2020) investigated how persuasion changes in the adviser and advisee relationship depending on whether the advice provided is difficult or demonstrable. It is worth reviewing difficulty and demonstrability in more depth.

Difficulty in advice occurs when an adviser has incomplete information and is unable to provide guaranteed advice because they do not have a correct solution to give. A difficulty that occurs in financial planning is investment market returns are never guaranteed, so the solution a financial planner provides to clients cannot be sure to succeed. Demonstrability is the ability to show that your advice provides a correct solution. Hoffmann et al. (2020) reveal how persuasion is influenced by the amount of difficulty and demonstrability in advice. In particular, they show if you can demonstrate your advice, then persuasion increases but if the advice is difficult, persuasion decreases. The authors explain that their results occur because advisers providing advice on difficult topics lack confidence and do not have objective success criteria to fulfil promises.

This research highlights two important elements for providing financial advice. First, financial planners should have mastery of the topics on which they provide advice because this is essential to persuade clients to accept the advice. Additionally, financial planners should not provide advice that is outside of their remit as this will increase the difficulty of advice and decrease persuasion. A second element is to improve the demonstrability of advice, where financial planners need to demonstrate the effectiveness of their advice for clients. Hoffmann et al. (2020) identify three factors involved with demonstrability: the ability to compare advice to alternatives, the ability to logically reason if advice is sound, and the adviser and the advisee sharing the same criteria to identify success in advice. To increase persuasion, financial planners could offer comparisons between their advice and alternatives, explain reasons for the advice given, and engage with clients about how they will assess the value of the advice. Adoption of these factors should lead to financial planners being more persuasive with clients.

11.4 Summary

The focus of this chapter was to highlight how behavioural research can inform financial planning. Financial planning is a vocation moving towards a profession (Richards et al., 2022a) and is building knowledge to establish itself from other

types of financial services. An aspect of creating an area of jurisdiction is knowledge of how people make financial decisions. To this end, behavioural research from behavioural finance and behavioural economics has identified ways that people diverge from rational economic decision making. Financial planners value insights from these fields of research to help understand their clients. This chapter highlighted behavioural insights into a client's way of making financial decisions, including the disposition effect, home bias, and mental accounting. Behavioural research offers more insights into financial planning on topics that are currently not adopted across all financial planning curricula. These additional insights involve the relationship between an adviser and advisee. Thus, this chapter highlighted how behavioural research has investigated conflicts of interest, disclosure, and persuasion. Each of these topics bears relevance for financial planning as it continues to professionalise and should be incorporated more comprehensively while educating financial planners of the future.

References

- Angelova V, Regner T (2013) Do voluntary payments to advisors improve the quality of financial advice? an experimental deception game. *J Econ Behav Organ* 93:205–218
- Baker HK, Ricciardi V (2014) *Investor behavior: the psychology of financial planning and investing*. Wiley, London
- Bhattacharya U, Hackethal A, Kaesler S, Loos B, Meyer S (2012) Is unbiased financial advice to retail investors sufficient? Answers from a large field study. *Rev Financ Stud* 25(4):975–1032
- Bland JR (2019) How many games are we playing? An experimental analysis of choice bracketing in games. *J Behav Exp Econ* 80:80–91
- Bruhn A, Miller M (2014) Lessons about best interests duty. *Australas Account Bus Financ J* 8(4):23–44
- Cain DM, Loewenstein G, Moore DA (2005) The dirt on coming clean: perverse effects of disclosing conflicts of interest. *J Legal Stud* 34(1):1–25
- Chaffin CR, Fox JJ (2018) Client psychology. *Client Psychol* 1–9
- Chater N, Huck S, Inderst R (2010) Consumer decision-making in retail investment services: a behavioural economics perspective. Report to the European Commission/SANCO
- Chen P, Richardson M (2018) Conflicted financial advice: disclosure revisited. *Appl Econ Lett* 25(12):826–829
- Chen P, Richardson M (2019) Conflict of interest, disclosure and vertical relationships: an experimental analysis. *Econ Papers: A J Appl Econ Policy* 38(3):167–181
- Cull M (2009) The rise of the financial planning industry. *Australas Account Bus Financ J* 3(1):4
- Finke MS, Huston SJ (2013) Time preference and the importance of saving for retirement. *J Econ Behav Organ* 89:23–34
- Fischbacher U, Hoffmann G, Schudy S (2017) The causal effect of stop-loss and take-gain orders on the disposition effect. *Rev Financ Stud* 30(6):2110–2129
- Frederick S, Loewenstein G, O'donoghue T (2002) Time discounting and time preference: a critical review. *J Econ Lit* 40(2):351–401
- Graham JR, Harvey CR, Huang H (2009) Investor competence, trading frequency, and home bias. *Manag Sci* 55(7):1094–1106
- Grinblatt M, Keloharju M (2001) How distance, language, and culture influence stockholdings and trades. *J Financ* 56(3):1053–1073

- Hackethal A, Haliassos M, Jappelli T (2012) Financial advisors: a case of babysitters? *J Bank Financ* 36(2):509–524
- Hastings JS, Shapiro JM (2013) Fungibility and consumer choice: evidence from commodity price shocks. *Q J Econ* 128(4):1449–1498
- Hermann D, Mußhoff O, Rau HA (2019) The disposition effect when deciding on behalf of others. *J Econ Psychol* 74:102192
- Hoffmann R, Chesney T, Chuah SH, Kock F, Larner J (2020) Demonstrability, difficulty and persuasion: an experimental study of advice taking. *J Econ Psychol* 76:102215
- Holzmann R (2013) Global pension systems and their reform: worldwide drivers, trends and challenges. *Int Soc Secur Rev* 66(2):1–29
- Huberman G (2001) Familiarity breeds investment. *Rev Financ Stud* 14(3):659–680
- Kahneman D, Tversky A (1979) Prospect theory: an analysis of decision under risk. *Econometrica* 47(2):263–291
- Kim YD, Ha YW (2016) Who is afraid of disposition of financial assets? The moderating role of regulatory focus in the disposition effect. *Marketing Lett* 27(1):159–169
- Lin M, Viswanathan S (2016) Home bias in online investments: an empirical study of an online crowdfunding market. *Manag Sci* 62(5):1393–1414
- McPherson M, Smith-Lovin L, Cook JM (2001) Birds of a feather: homophily in social networks. *Annu Rev Sociol* 27(1):415–444
- Milkman KL, Beshears J (2009) Mental accounting and small windfalls: evidence from an online grocer. *J Econ Behav Organ* 71(2):384–394
- Muhl S, Talpsepp T (2018) Faster learning in troubled times: how market conditions affect the disposition effect. *Q Rev Econ Financ* 68:226–236
- Odean T (1998) Are investors reluctant to realize their losses? *J Financ* 53(5):1775–1798
- Pompian MM (2011) Behavioral finance and wealth management: how to build investment strategies that account for investor biases, vol 667. Wiley, London
- Read D, Loewenstein G, Rabin M (1999) Choice bracketing. *J Risk Uncertain* 19
- Richards D, Morton E (2020) Conceptualizing financial advice in Australia: the impact of business models and external stakeholders on client's best interest practice. *Financ Serv Rev* 28(2)
- Richards DW, Rutterford J, Kodwani D, Fenton-O'Creevy M (2017) Stock market investors' use of stop losses and the disposition effect. *Eur J Financ* 23(2):130–152
- Richards DW, Fenton-O'Creevy M, Rutterford J, Kodwani DG (2018) Is the disposition effect related to investors' reliance on system 1 and system 2 processes or their strategy of emotion regulation? *J Econ Psychol* 66:79–92
- Richards DW, Safari M (2021). Disclosure effectiveness in the financial planning industry. *Qual Res Financ Markets* 13(5):672–691. <https://doi.org/10.1108/QRFM-04-2020-0060>
- Richards DW, Ukwatte JSL, Senarath YPW (2022a), The professionalization of financial planning in Australia: an institutional logics perspective. *J Public Budg Account Financ Manag* 34(2):238–256. <https://doi.org/10.1108/JPBAFM-11-2020-0182>
- Richards DW, Ahmed AD, Bruce K (2022b). Ethics in financial planning: Analysis of ombudsman decisions using codes of ethics and fiduciary duty standards. *Aust J Manag* 47(3):401–422. <https://doi.org/10.1177/03128962211022568>
- Riff S, Yagil Y (2016) Behavioral factors affecting the home bias phenomenon: experimental tests. *J Behav Financ* 17(3):267–279
- Riff S, Yagil Y (2021) Home bias and the power of branding. *J Behav Financ* 22(1):1–9
- Sah S, Loewenstein G (2014) Nothing to declare: mandatory and voluntary disclosure leads advisors to avoid conflicts of interest. *Psychol Sci* 25(2):575–584
- Sah S, Loewenstein G, Cain DM (2013) The burden of disclosure: increased compliance with distrusted advice. *J Pers Soc Psychol* 104(2):289
- Sah S, Malaviya P, Thompson D (2018) Conflict of interest disclosure as an expertise cue: differential effects due to automatic versus deliberative processing. *Organ Behav Hum Decis Processes* 147:127–146
- Seru A, Shumway T, Stoffman N (2010) Learning by trading. *Rev Financ Stud* 23(2):705–739

- Shapira Z, Venezia I (2001) Patterns of behavior of professionally managed and independent investors. *J Bank Financ* 25(8):1573–1587
- Shefrin H, Statman M (1985) The disposition to sell winners too early and ride losers too long: theory and evidence. *J Financ* 40(3):777–790
- Shefrin HM, Thaler RH (1988) The behavioral life-cycle hypothesis. *Econ Inquiry* 26(4):609–643
- Shu PG, Yeh YH, Chiu SB, Chen HC (2005) Are Taiwanese individual investors reluctant to realize their losses? *Pacific-Basin Financ J* 13(2):201–223
- Statman M (2017) *Finance for normal people: how investors and markets behave*. Oxford University Press, Oxford
- Summers B, Duxbury D (2012) Decision-dependent emotions and behavioral anomalies. *Organ Behav Hum Decis Processes* 118(2):226–238
- Sussman AB, O'Brien RL (2016) Knowing when to spend: unintended financial consequences of earmarking to encourage savings. *J Market Res* 53(5):790–803
- Thaler R (1980) Toward a positive theory of consumer choice. *J Econ Behav Organ* 1(1):39–60
- Thaler R (1985) Mental accounting and consumer choice. *Market Sci* 4(3):199–214
- Thaler RH (1999) Mental accounting matters. *J Behav Decis Making* 12(3):183–206
- Thaler RHH, Benartzi S (2004) Save more tomorrow: using behavioral economics to increase employee saving. *J Polit Econ* 112(S1):S164–S187
- Tsukayama E, Duckworth AL (2010) Domain-specific temporal discounting and temptation
- Vaarmets T, Liivamägi K, Talpsepp T (2019) How does learning and education help to overcome the disposition effect? *Rev Financ* 23(4):801–830
- Wang M, Keller C, Siegrist M (2011) The less you know, the more you are afraid of—a survey on risk perceptions of investment products. *J Behav Financ* 12(1):9–19
- Warschauer T (2002) The role of universities in the development of the personal financial planning profession. *Financ Serv Rev* 11(3):201
- Weber M, Camerer CF (1998) The disposition effect in securities trading: an experimental analysis. *J Econ Behav Organ* 33(2):167–184
- Zhang CY, Sussman AB (2018a) Perspectives on mental accounting: an exploration of budgeting and investing. *Financ Plan Rev* 1(1–2):e1011
- Zhang CY, Sussman AB (2018b) The role of mental accounting in household spending and investing decisions. *Client Psychol* 65–96