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Fair advice[☆,☆☆]

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A B S T R A C T

Millions of investors place their trust in financial advisors who may have incentives to give them bad advice. This may indicate that advisors behave more fairly than economic theory predicts. In this paper, we present results from a large-scale experiment studying advice-giving under conflicting interests. We use a binary dictator game as a baseline and transform it into a situation where the dictator gives advice that may or may not be followed. Our results show that people are averse to giving bad advice. When subjects are given the role of advisor, they behave less selfishly, even when the economic incentives and considerations remain the same as in the baseline dictator game.

1. Introduction

People do not always have the necessary knowledge to make optimal choices for themselves, and may therefore rely on expert advice in order to make better choices. This is particularly salient in the finance industry, where financial advisors constitute the connection between small investors with limited knowledge and complex financial markets. Encouraged by recent trends toward consumer autonomy, the quality of this connection has become increasingly important for household asset allocation and wealth accumulation (Müller and Weber, 2010; Collins, 2012; von Gaudecker, 2015; Stolper and Walter, 2017). A particular emphasis has therefore been put on investigating the efficiency of the client-advisor relationship (Oehler and Kohlert, 2009; Anagol et al., 2017).

One challenge in establishing an efficient client-advisor relationship is that advisors and their clients often have conflicting interests. What is good for the advisor may be bad for the client, and vice versa. This does not only apply to financial advisors. Mechanics can advise more extensive car treatments than warranted, and medical doctors may prescribe more expensive drugs than necessary. However, the conflict of interest problem seems more often explicitly acknowledged in the finance industry. For example, Brian Hamburger, president of Market Counsel, a firm that helps advisors comply with investment regulations, notes: "I have never seen an advisor construct their business in such a way as to be free of all conflicts of interest. Some financial advisors charge higher fees to manage stock than bond portfolios: That's a conflict. Advisors might also recommend that you borrow rather than use available cash to buy a property (…). That's a conflict. Many advisors charge fees on money-market mutual funds, but not on a certificate of deposit you hold at a bank (…) and that's a conflict" (Zweig, 2017).

Hamburger's statements are not merely anecdotal. Several empirical studies have documented that financial advisors often give conflicting advice that is based on self-interest rather than the interests of their clients.[1] From a theoretical viewpoint, these find-

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[1] Christoffersen et al. (2013) investigate to what extent fund flows reflect the incentives of the brokers, and find that investors are guided towards funds that tend to under-perform, but that are monetarily advantageous for the broker. Zhao (2008) finds the same positive relationship between fund loads and flows. Bergstresser et al. (2009) and Guercio and Reuter (2014) find that the broker-sold funds deliver lower risk-adjusted returns, compared to direct-sold funds, even before subtracting distribution costs. In addition, see also Egan et al. (2019) who make use of a large data set consisting of US finance and insurance employees. They find financial advisor misconduct to be a persistent problem, with about 7 percent of advisors holding misconduct records. Advocating an alternative explanation to 'bad'

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ings come as no surprise. Since the client-advisor relationship is characterized by asymmetric information, advisors behave fairly only if incentives are aligned, for example, due to reputational concerns or because of regulatory mechanisms (Inderst and Ottaviani, 2012). If advisors give bad advice, they may fear getting fewer customers in the future or being held liable. However, if advisees only interact once with the advisor and never really learn that the advice is bad, or have no means to sanction bad advisors, a good advice is an anomaly.

It is puzzling then, why people follow financial advice under such circumstances. There are, of course, informational reasons for why private investors could benefit from professional advice in an investments setting. Information acquisition can be relatively costly for private investors and they often lack sufficient knowledge about financial markets (Capon et al., 1996; Alexander et al., 1998; Müller and Weber, 2010). They are also prone to making poor investment decisions due to behavioral biases (Odean, 1998; 1999). Hence, financial advice can give real value, and thus improve welfare for both the advisor and the client.

However, conflict of interests is a central ingredient in the advisor-client game, and a potential explanation for trust in advisors may simply be that advisors behave more fairly than standard economic theory predicts. In fact, a large body of experimental investigations on individual decision-making shows that most people are willing to sacrifice some of their own material payoff in order to realize a more fair allocation (Forsythe et al., 1994; Engel, 2011). Similar investigations also document that most people trade-off the monetary benefits from lying, with the moral costs of lying (Gneezy, 2005; Sutter, 2009).

We complement this literature by investigating whether - and to what extent - people are averse to giving bad advice. In particular, we ask whether the advice situation mitigates or enhances self-interested behavior. In order to address this question, we run a large-scale online experiment studying advice-giving behavior under conflicting interests. We use a binary dictator game with certain payoffs as a baseline, which is the purest and most studied game of conflict there is. Then, we transform the game to a situation where the dictator, rather than determining the outcomes directly, advises the recipient (or advisee) on which choice to take. We reveal under which conditions advisors behave fairly, offering good advice, and under which conditions they act selfishly, offering advice that is unfavorable to the advisee.

In our experimental design, we particularly focus on two features of the advice situation. This first feature relates to the identity of the advisor and the corresponding norms of behavior (see, e.g., Akerlof and Kranton, 2000). What does it imply to be an advisor? Does the advisor's identity mitigate or increase moral behavior? The second feature relates to the delegation of responsibility. Does the advisor feel more, or less obligated to behave fairly, since the advisee is taking the final decision to follow or not follow the advice?

The theoretical answers to these questions are unclear, as there are several theories of social preferences that aim to explain variations in selfish behavior. We use the theoretical framework proposed by Konow (2000) to clarify the trade-offs. He allows both for variations in the players' entitlements (that may stem from social norms), as well as variations in the type of costs associated with behaving selfishly. The model thereby allows us to highlight two conflicting effects from moving from a dictator game to an advisor game: First, the advisor may feel less entitled to a high share, which increases the moral cost of selfish behavior. Second, it may be easier and thus less costly for the advisor to form self-serving beliefs about the fair allocation, since the advice can be overturned. In other words, the advice situation creates a "moral wiggle room" (see Dana et al., 2007) that may allow the advisor to opt for more selfish choices. The net effect of lower entitlements and lower self-deception costs is an empirical question.

In our empirical investigation, we first study a binding advice. Under a binding advice, the recipient is obliged to follow the advice. In this situation, the advisor is fully responsible for the advisee's final decision. The game is therefore identical to the dictator game, except that the decision maker is now given an advisor identity. We then study a free choice, non-binding advice, where the advisor cannot know for sure whether or not the advice will be followed. In that situation, the advisor may feel less obligated to induce a fair allocation since the advice can be overturned. On the other hand, the moral costs of giving bad advice may also increase in this situation, since a free advice fools the advisee into making a potentially bad choice for themself.

As an extension of our experiment, we also investigate the effect of risky outcomes on giving good or bad advice. Advice, and in particular financial advice, typically involves risky outcomes. A bad advice may appear good, ex-post, if the advisee (and the advisor) is lucky (and vice versa). Uncertain outcomes thus create a moral wiggle room for the advisor which may lower the moral costs of giving a bad advice. We therefore extend our binary dictator game to include risky payoffs to the recipient as well (as in Brock et al., 2013). We then follow the same steps as when payoffs for the recipient were certain and transform the dictator game into an advisor game.

The results from our main experiment with certain payoffs are as follows: First, subjects are averse to giving bad advice. The transformation from a dictator game to an advisor game significantly reduces the chance that a subject chooses the selfish option. Specifically, while there is a probability of 55,3 percent that a subject chooses the selfish option in our baseline dictator game, the probability that a subject behaves in a similar way in the free advice treatment is only 35,4 percent.

Second, it is the first step of the transformation, namely the introduction of a binding advice, that significantly diminishes selfish behavior. In particular, we find that when a subject has to give a binding advice, the chance to observe a selfish choice is reduced by 13.5 percentage points relative to our baseline dictator game. Then, when subjects give a free advice, the chance that a subject chooses the selfish option marginally decreases further by 6.3 percentage points.

Third, when payoffs are risky we also find that the transformation of the baseline dictator game to an advisor game reduces the chance that players choose the selfish option. More precisely, the probability that a subject chooses the selfish option in the baseline dictator game with risky payoffs is 56 percent, while the introduction of a free advice causes the proportion of players who choose the selfish option to drop significantly, to 41 percent.

Our results show that there are personal costs associated with giving bad advice. We find evidence of a pure identity/framing effect, i.e., once an advice frame is introduced, subjects make more fair allocations in situations identical to the dictator game. We do not find evidence of a delegation effect, i.e., there is no significant difference in selfish behavior when the advice is binding and when the advice is non-binding. Contrary to common beliefs about advisor behavior, we find no evidence of a diminished responsibility effect in the advice situation. The advisors do not feel less obligated to induce fair allocations when "it's only an advice". Rather, we find that the advice situation, through pure framing, leads to less selfish behavior.

advice is Linnainmaa et al. (2021) who show that advisors invest their own money in the same manner as they advise their clients to invest. Importantly, advisors do this not because of strategic considerations, but rather because they have misguided beliefs, meaning that they believe active management to be superior to more passive strategies. See also Chen and Gesche (2017) for experimental evidence showing that incentives to give biased advice have a persistent effect on advisors' behavior.

2. Related literature

The empirical literature on financial advice has mainly studied to what extent advisors add value to investors, i.e., the benefits of advice minus the costs of conflicting interests.[2] The empirical literature has not studied the effect of advice-giving on moral behavior itself. However, there is a huge experimental literature studying moral behavior in various conflict of interest situations, such as simple distributive situations, where one person's economic position cannot be improved without making another person's position worse off (Fehr and Schmidt, 1999; Andreoni and Miller, 2002; Charness and Rabin, 2002; Engelmann and Strobel, 2004). These investigations demonstrate that a majority of people trade off their own self-interest with a moral concern that they have for others.

Moreover, this branch of research has also documented that when the distributive situation in question involves uncertain payoffs to others, peoples' decisions still reflect a concern for others but also indicate a clear tendency to exploit uncertainty to their own advantage (Schweitzer and Hsee, 2002; Haisley and Weber, 2010; Brock et al., 2013; Cettolin et al., 2017). This finding is regarded as being part of a more general disposition in people's behavior to act more selfishly if people are unable to form a bad self-perception of having acted unfairly towards others (Dana et al., 2007; Grossman and van der Weele, 2017; Gneezy et al., 2020). Another novel contribution to this literature is Exley (2016), who shows that, when the context allows for it, i.e., situations were there is a trade off between own payoff and payoff to a charity, people use risk as an excuse not to donate to the charity.

There also exists a literature on experiments studying moral behavior and financial advice within the context of lying and deception (Gneezy, 2005; Gneezy et al., 2013; Erat and Gneezy, 2012). Differing from our experiment which studies advice-giving situations absent of explicit lies and focusing more on the effect of identity and delegation of choices, Gneezy (2005) focuses on how relative payoffs influence the decision to lie. Furthermore, these experiments (Gneezy, 2005; Gneezy et al., 2013; Erat and Gneezy, 2012) study the behavior of subjects in sender-receiver games in which one player has private information while the other takes action, determining the payoff for both players. Because incentives in these games are misaligned, theory predicts that the sender will exploit the opportunity to deceive the receiver for a personal gain by sending false messages (for a formal discussion see Crawford and Sobel, 1982). Contrarily, however, experimental findings suggest that senders are overwhelmingly adverse to doing so, indicating the existence of a moral cost for people to deceive others.

Our contribution to this literature is twofold: First, we study advice situations in a game of conflict where subjects are not induced to lie directly or produce any false statements. To the best of our knowledge, this has not been studied experimentally, neither in the deception literature nor in different framings of the dictator game.[3]

Second, we disentangle two morally relevant features of the advice situation: identity and delegated decision-making. There is a growing literature on how identity affects financial decision making. A recent example is Cohn et al. (2014), who, interestingly, find that the financial advisor identity mitigates risk-taking. There is also a growing experimental literature on delegated decision-making, but this focuses mainly on situations where the delegee's interests are partly aligned with that of the delegator. Interestingly, people tend to make more selfish decisions if they can delegate the execution to another agent (Bartling and Fischbacher, 2011). In contrast, we show that in a pure game of conflict, where the delegee suffers from the delegator's selfish behavior, delegation leads to less selfish behaviour.

3. Theory

There are several theories and models of social preferences that aim to explain behavioral variations in distributive situations.[4] Here we will apply the well-established model of Konow (2000). He allows both for variations in the players' entitlements as well as variations in the type of costs associated with choosing the selfish option. The model also allows the decision maker to form self-serving beliefs, which may be an important feature in an advice situation.

Consider two players, player X and player Y. We will mainly refer to player X as dictator or advisor, and player Y as recipient or advisee. Let $\bar{y}$ represent the total sum to be allocated to the two players, and $y \in [0, \bar{y}]$ the amount that the dictator allocates to himself. Let $\eta \in [0, \bar{y}]$ denote the decision maker's fair entitlement. A person's entitlement to a sum of money is given by the expected fair amount as perceived by a third party who has no personal stake in the outcome. These entitlements may typically be given by some form of social norms (Krupka and Weber, 2013; Chang et al., 2019).

Let $\phi \in [0, \bar{y}]$ represent the amount that the decision maker believes is the fair share to himself. If the decision maker chooses (or advises) an allocation that they do not perceive as fair, i.e. $y > \phi$, they may experience a moral cost, i.e. a disutility/displeasure of being unfair. There are several theories of why this cost arises. Konow emphasizes cognitive dissonance: "When two cognitions are inconsistent, they are said to be 'dissonant', e.g., the desire to have all the money and the wish to divide it fairly in the dictator experiment. The (dictator) is motivated to reduce dissonance and may, generally speaking, do so by altering behavior, e.g., when the dictator takes less, and/or by changing beliefs, e.g., when the dictator believes it is fair to take more than the fair amount." (Konow, 2000, p. 1076). The moral cost is represented by $f(y - \phi, \alpha)$, where α is a moral cost parameter that indicates sensitivity to (e.g.) cognitive dissonance.

Since beliefs is a choice variable, it can be optimal to find beliefs that reduce the moral costs of selfish allocations. Such self-serving biases may thus yield $\phi > \eta$. However, it is assumed that there is a cost of choosing beliefs that differ from the entitlement or one's "detached, intellectually honest view of what is fair (...). For instance, a change in belief of what is fair may take the form of a costly search for arguments to justify an adjustment in beliefs as well as the displeasure occasioned by such self-serving rationalization"(Konow, 2000, p. 1077). This cost of self-deception is assumed

[2] There is some evidence suggesting that financial advice adds value by aiding portfolio diversification (Shapira and Venezia, 2001; Kramer, 2012; von Gaudecker, 2015). Advisors can also moderate investors' behavioral biases (Hoechle et al., 2017). However, in many cases, the contribution of the advice does not fully compensate for the increased portfolio turnover, leading to higher overall fee expenses (Bluethgen et al., 2008; Hoechle et al., 2017).

[3] There are several papers studying framing effects in dictator games. Dreber et al. (2013) study social framing effects, using a sample of subjects recruited online. They find no significant effect, and conclude that behavior in dictator games is largely immune to mere labeling of games and strategies. Goerg et al. (2020) come to similar conclusions. However, Brañas-Garza (2007) finds that allusions to social or moral rules (like "note that your recipient relies on you") lead to less selfish behaviour.

[4] Important contributions have been the social preference models of Fehr and Schmidt (1999), and Bolton and Ockenfels (2000), which focus on distributive aspects. Additional proposals are Andreoni and Bernheim (2009), Konow (2010) and Krupka and Weber (2013), which are based on the hypothesis that social norms govern how people share windfall gains, and importantly how people trade off gains against adherence with the social norm. See also Camerer (2011), Sobel (2005) and Fehr and Schmidt (2006) for surveys treating models of social preferences.

to be a function of the difference between the decision maker's belief and their entitlement, and is represented by $c(\phi - \eta, \beta)$, where β is a parameter that indicates how costly self-deception is and it may vary across dictators and contexts.

Hence, the model allows for two types of costs associated with choosing an unfair allocation: moral costs (costs of cognitive dissonance) and self-deception costs. It is assumed then that the decision maker chooses allocation y and beliefs ϕ that solve the following problem:

$$\max_{y,\phi} u(y, \phi, \eta, \alpha, \beta) \equiv v(y) - f(y - \phi, \alpha) - c(\phi - \eta, \beta)$$

If we assume strict concavity of $v(y)$, and strict convexity of $f(y - \phi, \alpha)$ and $c(\phi - \eta, \beta)$ in y and ϕ, then we have concavity of $u(y, \phi, \eta, \alpha, \beta)$. Konow then shows that under reasonable assumptions, optimal allocation y^* and ϕ^* vary with ν, α and β as follows:

$$\partial y^*/\partial \eta \geq 0 \text{ and } \partial \phi^*/\partial \eta \geq 0$$
$$\partial y^*/\partial \alpha \leq 0 \text{ and } \partial \phi^*/\partial \alpha \geq 0$$
$$\partial y^*/\partial \beta \leq 0 \text{ and } \partial \phi^*/\partial \beta \leq 0$$

The model allows for the potentially conflicting effects of moving from a dictator game to an advisor game. On the one hand, this may increase the entitlements of the recipient, while on the other hand it may reduce the decision makers self-deception costs.

Take first the entitlement η. In a dictator game, entitlements to the money are not crystal clear and the dictator may search for clues as to whom is the most entitled. Since the money can be seen as a windfall gain, and the dictator's role in the experiment is a result of a random draw, one could argue that both players are equally entitled. However, the dictator may also feel entitled to the larger cut, since the dictator won the random draw and thus gets to decide the distribution of the money. In any case it is hard to reason that the recipient would be the more entitled. In an advice setting, however, there are two features that increase the entitlement of the recipient. First is the advisor identity and the corresponding norms of behavior.[5] An advisor is expected to behave fairly (Huber and Huber, 2020). The task of advising implies that the money now (to a larger extent) belongs to the recipient. Second is change in the ownership of the decision. Since, in the end, it is the recipient (advisee) who makes the final decision, (s(he) is also more entitled to the money.[6] Since entitlements to the advisor (compared to dictator), cet. par. reduce the beliefs ϕ of what constitutes a fair share, they also increase the moral costs $f(y - \phi, \alpha)$ (cognitive dissonance) of selfish behavior. Hence, cet. par. $\partial y^*/\partial \eta \geq 0$ (and $\partial \phi^*/\partial \eta \geq 0$), we will observe less selfish behavior in an advisor game than in a dictator game.

However, the story does not end here. Beliefs are also a choice variable. When the final decision belongs to the recipient, it may be easier, and thus less costly, for the advisor to form more self-serving beliefs about the fair allocation. In other words, the advice situation creates a moral wiggle room that may allow the advisor to opt for more selfish choices. The advisor may simply feel less morally obligated to induce a fair allocation since the advice can be overturned. In our model, this implies lower β, i.e., lower costs of self-deceptions. The search for arguments to justify a self-serving adjustment in beliefs may be less costly, and the disutility from such self-serving rationalization may be lower. Since $\partial y^*/\partial \beta \leq 0$ and $\partial \phi^*/\partial \beta \leq 0$, a move from a dictator game to an advisor game may thus potentially also give more selfish behavior.

We thus have two conflicting effects: Potentially lower entitlements to advisor, but also a moral wiggle room creating lower self-deception costs. The net effect is an empirical question, which may also depend on the moral cost parameter α. When the final decision belongs to the recipient, selfish behavior induces the recipient to make a bad choice for themself. Moreover, the advisor may anticipate that the recipient actually may follow the advice, and would thus like to reward (up front) the recipient's trust. Both will tend to increase the moral costs α of selfish behavior. Interestingly, we see that this may increase equilibrium beliefs ϕ^*, but at the same time reduce the selfish share y^*, i.e., it lowers selfishness, but increases self-deception. Delegated decisions in an advisor game may thus encourage the advisor to be less selfish, but still try to convince themselves that a more selfish allocation is justified.

In the experimental design that we present in the next section, we isolate the complicating effect from giving the recipient the final decision. We thus first study a "binding advice" where the recipient is obligated to follow the advice. Assuming this yields lower η, we thus expect less selfish allocation. We then study a free, non-binding advice, where the advisor cannot know for sure whether or not the advice will be followed. If the moral wiggle room effect dominates (lower β), we will see more selfish behavior from the advisor. However, if the lower entitlement (lower η) and/or higher costs (α) dominate, then we will see a further reduction in selfish behavior.

4. Experimental design

To investigate whether and when people are adverse to giving bad advice, we first elicit choices using a modified dictator game. In order to achieve a feasible design, we simplify the standard dictator game, and employ a binary dictator game where the dictator has private information and can choose between a benevolent and a selfish option. We then introduce two treatment variations. In the first treatment, we transform the dictator game into a situation in which the dictator (or advisor) is giving a binding advice to the recipient (or advisee) about which option to choose. Then, for the second treatment, we continue transforming the game such that the advisor now gives a free, non-binding advice that the advisee is free to follow or overturn.[7]

In our *Baseline*, subjects either took the role of player X or player Y. While player Y's role remains passive in the *Baseline*, player X had to choose between two options, labeled A and B. Both options divide a total of 100 points (= 1 USD) between player X and player Y, with option A representing the benevolent option of a 50/50 split, and option B embodying a relatively selfish option with an 80/20 split.[8] Importantly, player X is informed that player Y never learns about the payoff details of all available options with

[5] Providing more information about the recipient (Burnham, 2003; Charness and Gneezy, 2008), making the social norm more sailent (Eckel and Grossman, 1996), or making the participants aware of a moral rule (Brañas-Garza, 2007), are found to increase dictator generosity. Further, Grossman and Eckel (2015) show that dictator behavior is independent of framing when the recepeint is a charity.

[6] Pierce et al. (2003) proposes three mechanisms through which psychological ownership emerges: controlling the ownership target, knowing the target intimately, and investing the self into the target. Due to the nature of the standard dictator game the literature mainly relates to the latter two mechanisms. That is, knowing the target intimately, typically through possessing the endowment, and investing the self into the target, typically through earning the endowment prior to playing the dictator game. Experimental results show that dictators are less generous when they earn the endowment (Cherry et al., 2002), and considerably more generous when the recipient earns the endowment (Hoffman et al., 1994; Cherry, 2001; Cherry et al., 2002; Oxoby and Spraggon, 2008). Further, Oxoby and Spraggon (2008)) also find dictators to be more generous when they take money from the recipient's endowment, compared to giving money from their own endowment, and argue that dictator behavior is influenced by the actions and the characteristics leading up to a decision environment. For empirics related to the effect of controlling the target, we have to turn to non-dictator games. Reb and Connolly (2007) find that the endowment effect (Thaler, 1980) did not depend on factual ownership by itself, but was the result of subjective feelings of ownership induced by controlling the object through possession of the object.

[7] We present instructions used in the experiment in the appendix.

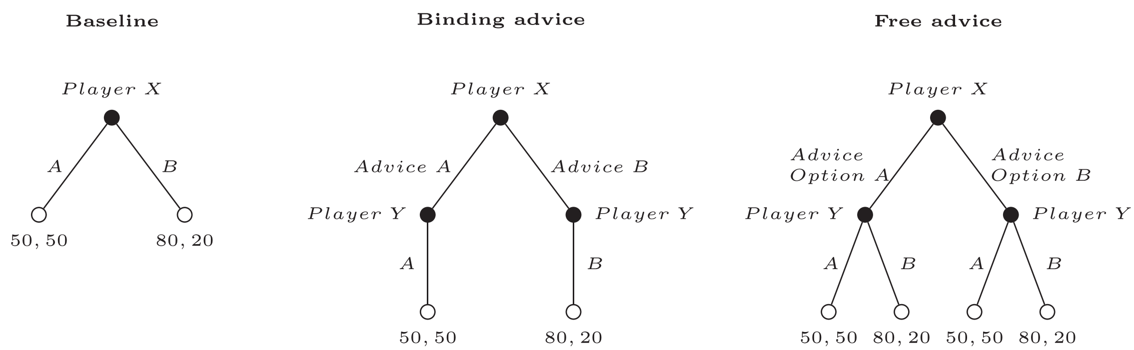

Fig. 1. Sequential form game representation *Note:* The figure shows the sequential form game representation of each treatment.

the exception of their own earnings at the end of the experiment. Specifically, we showed player X the exact message that player Y would receive for each of the two options to ensure player X knows that player Y has limited knowledge about the underlying game.[9]

On the basis of the *Baseline* design, we introduce a *Binding advice* treatment by changing the description of the action player X carries out. In particular, instead of letting player X determine the outcome for both players directly by choosing either the benevolent or selfish option, player X is giving a binding advice to player Y about which option to choose. Player Y then has to follow this advice and implement the option player X advises. Because player X's belief about which option player Y will select remains unchanged relative to the *Baseline*, the *Binding advice* treatment is identical to a dictator game except for the fact that player X takes the role of an adviser. Hence, this is essentially a framed dictator game. From the model presented in the previous section, we expect that this treatment variation yields lower entitlement η, and thus less selfish allocation.

In the *Free advice* treatment, we then allow for the possibility that player Y can choose to follow or overturn the advice player X gives. More precisely, after player X has advised option A or option B, player Y is informed about the advice and can then choose either option. Because the advice is free in the sense that it can now be overturned, the *Free advice* treatment delegates decision power from player X to player Y. The *Free advice* treatment is thus similar to how an advice typically is considered - a recommendation that can, but does not have to be followed. Importantly, while the advisor knows that the advisee will now be given the opportunity of payoffs associated with both options when the advisor makes their decision, we only reveal the payoff to player Y for the chosen option but not for the alternative, which is similar to the other treatments.

From the model we expect this treatment variation to further reduce the advisor's entitlement η. Moreover, we expect the variation to reduce the advisor's self-deception costs β. Finally, the variation is expected to reduce the beliefs of what constitutes a fair share, and this increases the moral costs α of selfish behavior. Hence, in contrast to the *Binding advice* treatment, the predicted net effect of *Free advice* treatment variation is not clear. If the effect of lower self-deception costs (moral wiggle room) dominates, we will see more selfish behavior from the advisor, while if the lower entitlement and/or higher costs (α) dominate, we will see a further reduction in selfish behavior.

Because player X in the *Free advice* treatment needs to form expectations about the effect of the advice on player Y's behavior, we elicit beliefs after the advice decision. In order to do so, we asked all players X whether they believed that player Y would follow the advice. We rewarded a correct answer to this question with 25 points (= 0.25 USD). In case any additional points were awarded, they were added to the final earnings of the experiment. Since elicitation of beliefs may influence behavior, we only announced the belief questions after the advice was made. Figure 1 gives an overview of the experimental design and shows the normal form game representation of each treatment.

5. Sample and procedures

A total of 1811 subjects participate in our experiment that we recruited online through Amazon's Mechanical Turk, henceforth MTurk.[10] Subjects responded to a job posting containing a link to an external survey website hosted on Qualtrics.[11] After reading the instructions and answering a control question about the instructions, all subjects were randomly assigned to different treatments.[12] Subjects also answered a set of general questions about age, gender, education and political orientation after having made their main decision. All subjects were informed about how their final earnings would be determined at the end of the experiment. Once all responses had been collected, subjects were randomly paired and earnings calculated.

Table 1 provides an overview of the background characteristics of subjects participating in the experiment. Subjects are, on average, 35 years old, possess a four to five year college degree and have a center-left wing political orientation. The table also shows that there are slightly more males than females in the sample. Importantly, we observe that the treatments were balanced with respect to age, gender, education and political orientation.

[8] While an advice-giving situation can also be described as a choice between a selfish action and an action in the best interest of the client (thus departing from 50/50 spilt)), recent research from the field suggests that many advisors show more fair behavior in the sense that they tend to hold the same investments as the one they recommend (Foerster et al., 2017; Linnainmaa et al., 2021). This suggests that advisors, at least to some extent, transfer their own preferences onto their clients. As such, the choice problem for the advisor could be described as a choice between selfish (fee maxmizing) behavior, and what he/she believes to be the best for the client, which can be similar to a 50/50 fair allocation.

[9] Koch and Normann (2008) manipulate recipient awareness in a dictator game, with experimenter blindness and large social distance, gifts are insignificantly smaller by about ten percent when the recipient is unaware of the game being played. See also Dana et al. (2006) who show that people are willing to pay a price in order to avoid breaking a sharing norm publicly.

[10] The experiment was designed in accordance with guidelines mentioned in a series of articles that discuss the use of MTurk in behavioral research (see Paolacci et al., 2010; Horton et al., 2011; Berinsky et al., 2012; Mason and Suri, 2012; Crump et al., 2013). This includes that measures were taken for excluding duplicate workers and workers who participated in earlier related experiments. The selection criteria for workers stipulated that subjects on MTurk needed to have a total number of 500 previously approved HITs and a HIT approval rate of 95 percent. In addition, only subjects who indicated their location as the United States were eligible for participation.

[11] Due to the randomization mechanism used, we needed to recruit more than 1800 subjects in order to attain at least 600 subjects in each treatment.

[12] We collect data on how many attempts a subject needed to answer the control question correctly, which was needed in order to proceed with the experiment.

Table 1
Background characteristics of subjects.

	Age	Female	Education	Political	
Treatment	Mean (se)	Mean (se)	Mean (se)	Mean (se)	N
Baseline	35.0 (0.44)	0.47 (0.02)	4.10 (0.06)	−0.49 (0.05)	607
Binding advice	35.4 (0.47)	0.50 (0.02)	4.19 (0.05)	−0.46 (0.06)	601
Free advice	35.5 (0.47)	0.48 (0.02)	4.18 (0.05)	−0.43 (0.05)	603
All	35.3 (0.26)	0.49 (0.01)	4.16 (0.03)	−0.46 (0.03)	1811

Note: The table reports background characteristics of subjects participating in the experiment. Subjects were recruited through the Amazon Mechanical Turk crowd sourcing platform. “Age” is a continuous variable measuring the subject's age in years; “Female” captures the proportion of females; “Education” is an ordinal scaled variable: 1 = Primary School, 2 = High School, 3 = 1 to 3 year College Degree, 4 = 4 to 5 year College Degree, 5 = Doctoral Degree; “Political” is an ordinal scaled variable for political orientation ranging from −2 = very liberal to 2 = very conservative.

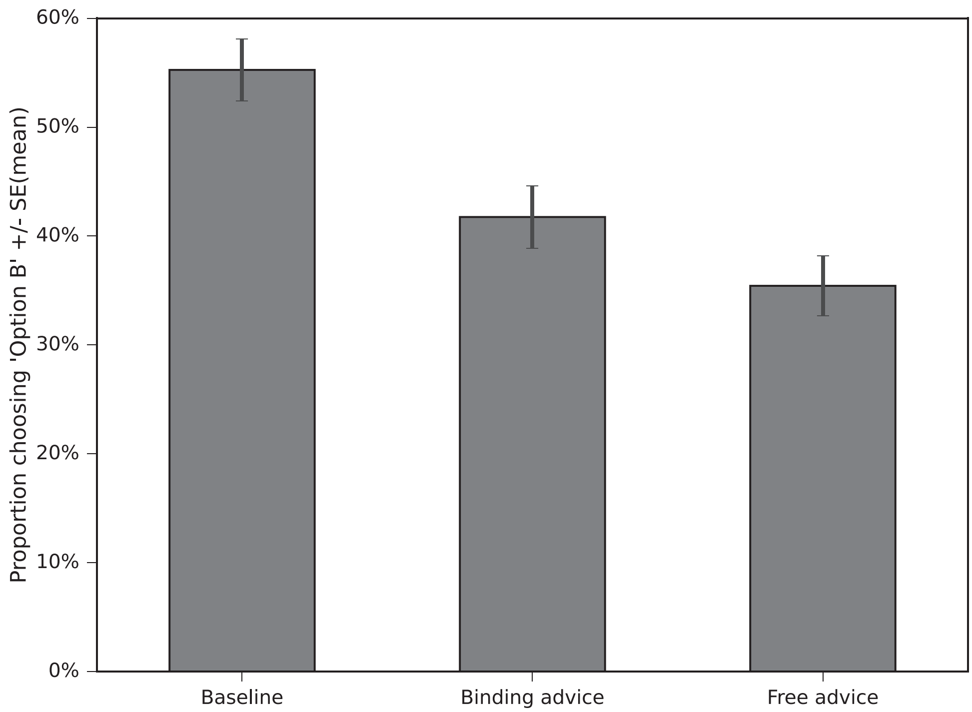

Fig. 2. Proportion of players who choose the selfish option Note: The figure depicts the proportion of player X who choose the selfish option in the experiment. The standard error of the mean is indicated as well.

Altogether, subjects spend on average four minutes to complete the experiment. Less than two percent had to answer the control questions twice. Average payments made amounted to 1.51 USD, including a 1 USD participation fee. All payments were made electronically. Participation fees were paid out immediately after the experiment. Payments based on decisions were transferred a few days after the study was conducted.[13]

6. Results

In the following main analysis, we address the issue of whether and to what extent people are averse to giving bad advice. We answer this question by focusing on the decisions of player X who could choose between a selfish and a benevolent option. Fig. 2 displays the proportion of player X who chose the selfish option in each treatment.

We observe that the introduction of a binding advice as well as a free advice has a negative effect on the proportion of player X who choose the selfish option. Relative to the *Baseline* in which 55.3 percent of all subjects pick the selfish option, the binding advice significantly reduces the proportion of players who choose the selfish option by 13.5 percentage points (two-sided proportion Z-test: $z = 3.314$, $p < 0.001$). Relative to the *Baseline*, also the introduction of free advice situation causes the proportion of players who pick the selfish option to drop significantly by 19.9 percentage points to 35.4 percent (two-sided proportion Z-test: $z = 4.903$, $p < 0.001$). On the other hand, although the proportion of players who select the selfish choices is further reduced by 6.3 percentage points, we fail to identify any statistically significant difference between the *Binding advice* and *Free advice* treatment (two-sided proportion Z-test: $z = 1.589$, $p = 0.012$).

In Table 2, we provide the corresponding linear regression analysis where we check for the robustness of our results by adding a series of control variables. We use ordinary least squares (OLS) regressions with robust standard errors using the following regression specification:[14]

$$Y_i = \beta_0 + \beta_1 Binding\ advice_i + \beta_2 Free\ advice_i + \gamma X_i + \varepsilon_i \tag{1}$$

[13] Amir and Rand (2012) studies the effect of $1 stakes in dictator games on MTurk and shows that the results obtained are similar to that in the physical laboratory, and, on average resemble the most common average transfer across many studies in the meta-analysis of Engel (2011).

[14] In the appendix we also present results of Probit regressions in Table S1. We find no qualitative differences when using Probit rather than OLS.

Table 2
Probability of player X to choose the selfish option.

Dependent variable:	p(selfish)	p(selfish)
Binding advice	−0.135***	−0.134***
	(0.040)	(0.040)
Free advice	−0.198***	−0.199***
	(0.040)	(0.040)
Age		−0.046
		(0.033)
Female		−0.126***
		(0.033)
Education		−0.003
		(0.051)
Conservative		−0.004
		(0.033)
Constant	0.553***	0.639***
	(0.029)	(0.039)
Free advice - Binding advice	−0.063	−0.065
	(0.040)	(0.040)
Observations	903	903
R^2	0.028	0.048
F	12.912	7.684
$P(>F)$	0.000	0.000

Note: The table reports linear regressions of the binary variable "Choice", measuring the chance of player X to choose the selfish option B, on a set of explanatory variables. "Binding advice": indicator variable taking the value one if player X is in the Binding advice treatment. "Free advice": indicator variable taking the value one if player X is in the Free advice treatment. "Age": indicator variable taking the value one if the subject's age is above the sample median age. "Female": indicator variable taking the value one if player X is a female. "Education": indicator variable taking the value one if the subject's education is above the sample median education. "Conservative": indicator variable taking the value one if subject self-identifies as conservative. Robust standard errors in parentheses ($*: p < 0.1$, $**: p < 0.05$, $***: p < 0.01$).

where Y is an indicator variable for players who choose a selfish option in the experiment. *Binding advice* and *Free advice* are indicator variables for players that are in the *Binding advice* or *Free advice* treatment, respectively, X_i is a vector of background characteristics for each player i and ε_i is an error term. Coefficient estimates from this linear model can be interpreted as changes in the probability that player X chooses the selfish option.

The first column in Table 2 reports average treatment effects for transforming the dictator game from the *Baseline* into a *Binding advice* game and a *Free advice* game, respectively. In line with the previous results above, the coefficient estimates reveal a significant decrease in the probability for player X to choose the selfish option in the *Binding advice* and *Free advice* treatment relative to the *Baseline*.

Estimate results presented in the second column of Table 2 show that all effect estimates are robust to the inclusion of a set of background variables including gender, age, education and political orientation. From the set of background variables, only gender is significantly associated with the probability that a player chooses the selfish option ($p < 0.001$). Specifically, across all treatments, woman are 12.6 percentage points less likely than men to pick the selfish option. The latter difference is in line with previous literature findings on gender differences in other-regarding behavior (Croson and Gneezy, 2009).

In Table 3 we explicitly interact treatment effects with the gender of the subject to separate out gender specific treatment effects from overall level effects. We again use OLS regressions with robust standard errors using the following regression specification:

$$Y_i = \beta_0 + \beta_1 Binding\ advice_i + \beta_2 Free\ advice_i + \beta_3 Female_i + \\ + \beta_4 Binding\ advice_i \times Female_i + \beta_5 Free\ advice_i \times Female_i \\ + \gamma X_i + \varepsilon_i \quad (2)$$

where all variables share the same specification as in Equation 1 with the addition of the interaction terms *Binding advice* × *Female* and *Free advice* × *Female*. The latter represents differences in treatment effects between males and females in choosing a selfish option when introducing either treatment relative to the *Baseline*. Column 1 in Table 3 shows that neither interaction term is statistically significant, while the main treatment effects remain similar in magnitude and statistically significant compared to effect estimates reported in Table 2. These results suggest that the negative effect from both the *Binding advice* as well as the *Free advice* treatment applies for both genders equally.[15]

In contrast to the *Baseline* and *Binding advice* treatment, all player X in the *Free advice* treatment need to form a belief about which option player Y is going to choose after they receive the advice. Comparing choices of players from the *Free advice* treatment to other treatments can therefore be flawed. In particular, in case player X considers the advice irrelevant to player Y or regards the advice as a signal that leads player Y to choose the opposite option, the advice choice does not reflect player X's underlying preference. We therefore check the robustness of the main results by taking account of player X's beliefs about the behavior of player Y that we elicit after the advise decision.

We address the concern that the results presented in Table 2 may not accurately reflect player X's preferences in the *Free advice* treatment by adding an indicator variable as well as interaction terms to regression specification 1. More formally, we use the following regression specification

$$Y_i = \beta_0 + \beta_1 Binding\ advice_i + \beta_2 Free\ advice_i + \beta_3 Free\ advice_i \\ \times Disbelieve_i + \gamma X_i + \varepsilon_i \quad (3)$$

where all variables have the same purpose and interpretation as in specification 1, with the exception of the *Disbelieve* indicator variable, which captures players that do not believe that their advice will be followed.

Table 4 presents corresponding estimation results. We find that all previously estimated effects remain robust to the inclusion of variables capturing differences in player X's beliefs about player Y's behavior. In particular, the added interaction term is statistically insignificant. In comparison to the estimate results presented in column 1 of Table 2, we find that the effect of introducing a free advice on the chance to observe a selfish act is 1.4 percentage points lower if we only consider players X who believe that their counterpart will follow their advice. The introduction of a free advice decreases the chance that a player X will act in a selfish manner, and remains robust to the exclusion of players who consider the advice as irrelevant or who believe that the advice will lead player Y to choose the opposite option.

Next, we check whether player X's beliefs are formed self-servingly in the experiment. Table 5 tabulates the share of player X according to their decision and the belief they hold. Altogether, we find that about 75.2 percent of all players X in the *Free advice* treatment believe that player Y will follow the advice. This proportion is significantly larger than 50 percent, indicating that the vast majority of players X consider their advice as relevant to the decision of player Y (one-sided proportion Z-test, $z = 6.76$, $p < 0.001$).[16] In addition, out of the 35.4 percent of players who chose the selfish option, the vast majority, 27.8 percent, believe

[15] Table 2 also reports linear combinations showing the effect of introducing a *Binding advice* and *Free advice* on the probability of a female to picking the selfish option relative to a female in the *Baseline*.

[16] The average belief of player X closely matches the average behavior of player Y, who follows the advice they receive in 78.5 percent of all cases. Player X's beliefs about player Y's behavior and player Y's actual behavior are statistically indistinguishable (two-sided proportion Z-test $z = 0.320$, $p = 0.749$).

Table 3
Probability of player X to choose the selfish option, by gender.

Dependent variable:	p(selfish)	p(selfish)
Binding advice	−0.110*	−0.112**
	(0.057)	(0.057)
Free advice	−0.209***	−0.211***
	(0.056)	(0.056)
Female	−0.123**	−0.120**
	(0.057)	(0.057)
Binding advice × Female	−0.049	−0.045
	(0.080)	(0.080)
Free advice × Female	0.024	0.025
	(0.079)	(0.079)
Constant	0.613***	0.636***
	(0.039)	(0.045)
Binding advice + Binding advice × Female	−0.159***	−0.156***
	(0.057)	(0.057)
Free advice + Free advice × Female	−0.185***	−0.187***
	(0.056)	(0.056)
Controls	No	Yes
Observations	903	903
R^2	0.046	0.048
F	8.976	5.825
$P(>F)$	0.000	0.000

Note: The table reports linear regressions of the binary variable "Choice", measuring the chance of player X choosing the selfish option B, on a set of explanatory variables. "Binding advice": indicator variable taking the value one if player X is in the Binding advice treatment. "Free advice": indicator variable taking the value one if player X is in the Free advice treatment. "Female": indicator variable taking the value one if the spectator is a female. Controls include indicator variables for the subject's age above sample median, education above sample median and for subjects who self identify as conservative. Robust standard errors in parentheses ($*: p < 0.1$, $**: p < 0.05$, $***: p < 0.01$).

Table 4
Probability of player X to choose the selfish option, by belief.

Dependent variable:	p(selfish)	p(selfish)
Binding	−0.135***	−0.134***
	(0.040)	(0.040)
Free	−0.183***	−0.176***
	(0.043)	(0.043)
Free × Disbelieve	−0.063	−0.091
	(0.062)	(0.063)
Constant	0.553***	0.642***
	(0.029)	(0.039)
Controls	No	Yes
Observations	903	903
R^2	0.029	0.050
F	9.043	6.845
$P(>F)$	0.000	0.000

Note: The table reports linear regressions of the binary variable "Choice", measuring the chance of player X choosing the selfish option B, on a set of explanatory variables. "Binding advice": indicator variable taking the value one if player X is in the Binding advice treatment. "Free advice": indicator variable taking the value one if player X is in the Free advice treatment. "Disbelieve": indicator variable taking the value one if the subject does not believe that their advice will be followed. Controls include indicator variables for the subject's age above sample median, education above sample median and for subjects who self identify as conservative. Robust standard errors in parentheses ($*: p < 0.1$, $**: p < 0.05$, $***: p < 0.01$).

Table 5
Player X belief about behaviour of player Y, by decision.

	Not follow	Follow	All
Selfish	7.6%	27.8%	35.4%
Fair	17.2%	47.4%	64.6%
All	24.8%	75.2%	100.0%

Note: The table cross-tabulates the share of player X in the *Free advice* treatment according to their decision and the belief they hold about whether player Y will or will not follow their advice.

that player Y will follow their advice. Similarly, from the 64.6 percent of players who pick the fair option, a large share of 47.4 percent of all player X hold the belief that player Y will follow. A χ^2-test of independence shows that there is no significant association between player X choices and the belief they hold about the behavior of player Y ($\chi^2_{dof=1} = 0.732,\ p = .392$). This result supports the notion that players X in the *Free advice* treatment who choose the selfish option do not form beliefs consistent with being able to perceive themselves in a benevolent manner.

7. Extension: Uncertain outcomes

Advice, in particular financial advice, typically involves uncertain outcomes. A bad advice may appear good, ex-post, if the advisee (and the advisor) is lucky (and vice versa). The model presented in section 3 does not have clear predictions on risky outcomes, but still may add something: From an ex ante point of view, if the players are risk averse, the recipient, who is the one exposed to risk, may be entitled to a higher share. In particular, this may be the case if the recipient could potentially end up with nothing. However, ex post, risky outcomes may both reduce moral costs and self deception costs. A bad advice may appear fair ex post, if the advisee is lucky. Uncertain outcomes may thus both reduce the cognitive dissonance of deviating from the fair allocation, as well as the costs of forming self-serving beliefs. In line with (Brock et al., 2013), we may expect ex post considerations to be present, and thus expect more selfish behavior when outcomes are risky.

Motivated by the importance that uncertainty might have for moral behavior in advice giving situations, we adjusted our experimental design to include risky payoffs to the recipient. In particular, we follow the same steps as when payoffs for the recipient are certain and transform the dictator game into an advisor game.

We change the selfish option from resulting in a certain outcome to player Y, to being the result of a risky lottery draw instead for all of the three experimental conditions that we describe in section 4. Player Y's payoff for the selfish option B changed from being 20 points (= 0.2 USD) for sure, to a lottery draw with the same expected value, namely a 25% chance of giving 80 points (= 0.8 USD) and a 75% chance of yielding nothing to player Y. The outcome of the selfish option for player X remained unaffected and resulted in 80 points (= 0.8 USD).

For the altered experimental design with risky payoffs, we recruited 1787 participants through MTurk and followed the same procedures as previously described in section 5 to conduct the experiment. Subjects share the same characteristics as for the main experiment and are, on average, 36 years old, possess a four to five year college degree, have a center-left wing political orientation and are almost equally likely to be either male or female. Table S2 in the Appendix gives an overview of the sample.

Table 3 displays the proportion of players X who choose the selfish option in each treatment when the selfish option entails a risky outcome to player Y. In comparison with the *Baseline w. risk*, in which 56 percent of players select the selfish option, the *Binding advice w. risk* treatment, with 55 percent, has an almost identical proportion of players selecting the selfish option. This suggests that the introduction of a binding advice has no significant negative effect on the chance of player X to choosing the selfish option (two-sided proportion Z-test: $z = 0.255,\ p = 0.799$).

In contrast, relative to the *Baseline w. risk*, the introduction of a free advice causes the proportion of players who pick the selfish option to drop significantly by 15 percentage points to 41 percent (two-sided proportion Z-test: $z = 3.654,\ p < 0.001$). Following the same regression analysis as outlined in Section 6, Table S3 shows that all results are robust to the inclusion of a set of background variables including gender, age, education and political orientation.

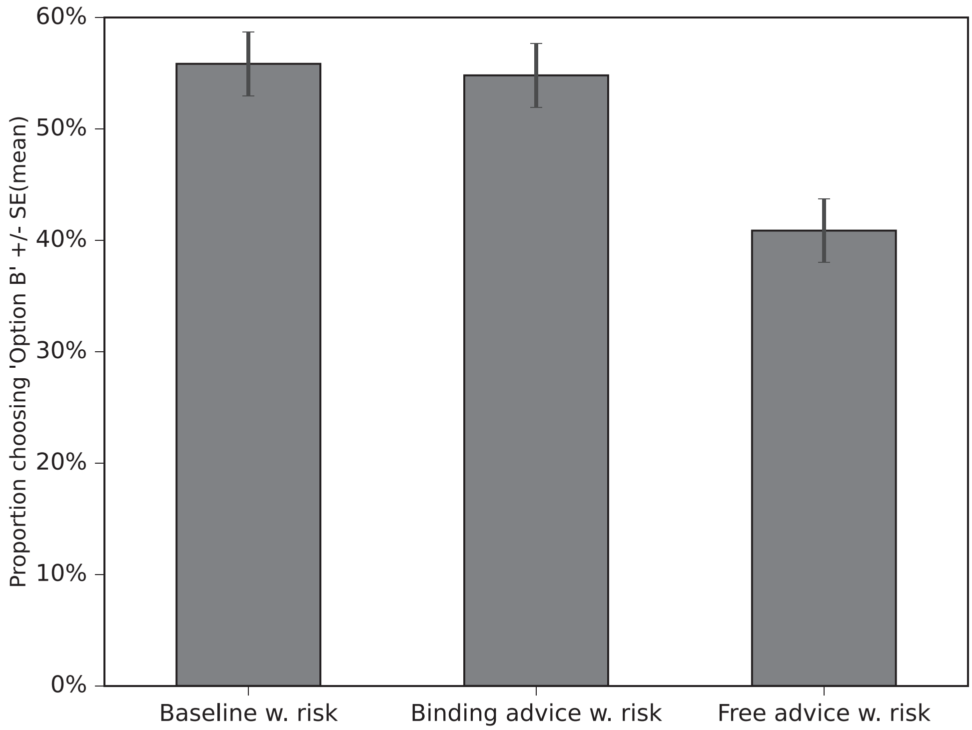

Fig. 3. Proportion of players who choose the risky selfish option *Note:* The figure depicts the proportion of players X who choose the selfish option in the experiment when the selfish option entails risky payoffs to player Y. The standard error of the mean is indicated as well.

When comparing results from the experiment with a certain payoff for player Y, to the experiment in which the payoff for player Y entails risks, it becomes apparent that the transformation of the baseline dictator game to a free advice setting has a negative effect on the chance for players to choose the selfish option in both cases. However, the mechanisms differ between certain and risky outcomes. In particular, while the binding advice was sufficient to trigger a positive fairness effect when the outcome of the selfish option is determined with certainty for player Y, there is no such effect when it involves a lottery draw instead.

8. Concluding remarks

It is well established that financial advisors in many situations have incentives to give advice that is unfavorable to their clients. Still, millions of investors consider financial advisors as the most important information source, and financial advisors often serve as the true decision makers behind their clients' investment decisions Zhao (2008). This is puzzling, and in this paper we ask: Do advisors behave more fairly than standard theory predicts? Does the advice situation place limits on people's self-interest?

In order to answer these questions, we conducted a controlled experiment investigating to what extent - and under which conditions - people give advice that is favorable to their advisees, despite incentives to do otherwise. We did this by varying the responsibility that the advisors have for the choice their advisees make. In addition, we extended our experiment to contain risky outcomes instead of certain outcomes.

We find that people are indeed averse to giving bad advice. The chance that a subject behaves selfishly is reduced by almost 20 percentage points when a pure game of conflict (the dictator game) is transformed into an (non-binding) advisor game. We identify two sources for fair behavior: advisor identity and delegation of responsibility.

The identity effect is identified by simple framing: Once participants are given the role as advisors, they behave less selfishly, even if the economic and strategical considerations remain unchanged. This effect was in line with the theoretical prediction. An advisor is expected to behave fairly, and the task of advising implies that the money now (to a larger extent) belongs to the advisee, i.e., the recipients' entitlement feels higher when subjects have to provide an advice rather than dictating an outcome.

The delegation effect is identified by comparing a binding and non-binding (free) advice. Here, the theoretical prediction was less clear, as there were two conflicting effects: Lower entitlements to advisor, as the advisee now owns the decision, but also a moral wiggle room creating lower self-deception costs. While we observe that the advisors behave less selfishly when advice is non-binding, i.e., when the final decision is delegated to the advisee, compared to when the advice is binding and the advisee is obliged to follow the advice, the difference is not significant. Thus, we do not find a delegation effect. However, we do find a delegation effect under risky outcomes, but are not able to identify the mechanism behind the differences between risky and certain outcomes. This should be investigated in future research.

One should of course be careful to not draw too bold conclusions from our experiment. As with all experimental work, we are isolating some important features in order to make causal inference, thereby neglecting other traits that may be important for the phenomenon we are studying. For example, our setup prevents the advisor from giving advice that has real value, such as providing valuable information or expertise to the clients. This may not only benefit the client, but also the advisor who builds reputation, thereby attracting more clients. Two natural extensions of our experiment would thus be to add a richer choice set for both advisors and clients, and to allow for repeated interactions.

That said, we believe our simple experiment, highlighting the conflict of interests between the parties, and bench-marking it with the canonical dictator game, provides a solid base for more experimental work on the advisor-advisee situation. Indeed, the simplicity and rather context-free nature of our experiment make our results potentially applicable beyond the financial advice setting.

9. Credit author statement for the manuscript 'fair advice'

The paper has been a close collaboration between all four authors. We developed the idea together, made the experimental design and executed the experiments together. Sebastian Fest was in charge of the empirical analysis. In the writing, Ola Kvaly had main responsibility for introduction, theory and conclusion, Kristoffer Eriksen for related literature and design, and Fest for the result section. Oege Dijk has not contributed to the revision and so offered to be last author. For the three others we use alphabetical order December 22, 2021 Kristoffer W. Eriksen, Sebastian Fest, Ola Kvaly and Oege Dijk

Appendix A. Appendix

A1. Additional tables and figures

Table S1
Probability of player to choose the selfish option, Probit model.

Dependent variable:	p(selfish)	p(selfish)
Binding advice	−0.341***	−0.343***
	(0.103)	(0.104)
Free advice	−0.506***	−0.514***
	(0.103)	(0.104)
Age		−0.119
		(0.087)
Female		−0.328***
		(0.086)
Education		−0.005
		(0.132)
Conservative		−0.009
		(0.086)
Constant	0.132*	0.359***
	(0.072)	(0.100)
Observations	903	903
Pseudo R^2	0.020	0.035

Note: The table reports scores from Probit regressions of the binary variable "Choice" on a set of explanatory variables. "Binding advice": indicator variable taking the value one if player X is in the Binding advice treatment. "Free advice": indicator variable taking the value one if player X is in the Free advice treatment. "Age": indicator variable taking the value one if subject's age is above the median age. "Female": indicator variable taking the value one if the spectator is a female. "Education": indicator variable taking the value one if subject's education is above the median education. "Conservative": indicator variable taking the value one if subject self-identifies as conservative. Standard errors in parentheses ($* : p < 0.1$, $** : p < 0.05$, $*** : p < 0.01$).

Table S3
Probability of player X to choose the selfish option, risky outcomes to player Y.

Dependent variable:	p(selfish)	p(selfish)
Binding advice	−0.010	−0.008
	(0.041)	(0.041)
Free advice	−0.150***	−0.147***
	(0.041)	(0.041)
Age		−0.000
		(0.034)
Female		−0.097***
		(0.033)
Education		0.005
		(0.048)
Political		−0.013
		(0.033)
Intercept	0.559***	0.610***
	(0.029)	(0.039)
Observations	896	896
R^2	0.019	0.028
F	8.510	4.447
$P(> F)$	0.000	0.000

Note: The table reports linear regressions of the binary variable "Choice", measuring the chance of player X choosing the selfish option B when it entails risks to player Y, on a set of explanatory variables. "Binding advice": indicator variable taking the value one if player X is in the Binding advice treatment. "Free advice": indicator variable taking the value one if player X is in the Free advice treatment. "Age": indicator variable taking the value one if subject's age is above the median age. "Female": indicator variable taking the value one if player X is a female. "Education": indicator variable taking the value one if subject's education is above the median education. "Conservative": indicator variable taking the value one if subject self-identifies as conservative. Standard errors in parentheses ($* : p < 0.1$, $** : p < 0.05$, $*** : p < 0.01$).

A2. Experimental instructions

Screen 1

[The following text applies to all subjects]

Introduction

Welcome to this research project! We very much appreciate your participation.

This is a study about the economics of decision-making. Several research institutions have provided funds for this research.

Payment

Your payment will consist of the participation fee plus the amount of bonus points that you accumulate throughout the study. The exact amount of bonus points that you receive will depend on

Table S2
Descriptive statistics: Background characteristics of subjects, treatment extensions.

	Age	Female	Education	Political	
Treatment	**Mean (se)**	**Mean (se)**	**Mean (se)**	**Mean (se)**	**N**
Baseline w. risk	35.4 (0.44)	0.48 (0.02)	4.19 (0.06)	−0.49 (0.05)	591
Binding advice w. risk	36.2 (0.48)	0.48 (0.02)	4.15 (0.05)	−0.42 (0.06)	600
Free advice w. risk	35.5 (0.46)	0.48 (0.02)	4.07 (0.05)	−0.53 (0.05)	596
All	35.7 (0.26)	0.48 (0.01)	4.14 (0.03)	−0.42 (0.03)	1787

Note: The table reports background characteristics of subjects participating in the experiment. Subjects were recruited through the Amazon Mechanical Turk crowd sourcing platform. "Age" is a continuous variable measuring participants' age in years; "Female" captures the proportion of females; "Education" is an ordinal scaled variable: 1 = Primary School, 2 = High School, 3 = 1 to 3 year College Degree, 4 = 4 to 5 year College Degree, 5 = Doctoral Degree; "Political" is an ordinal scaled variable for political orientation ranging from −2 = very liberal to 2 = very conservative.

your and/or others' decisions. At the end, each bonus points is converted into USD at a rate of 1 cent per bonus point.

Your bonus will be paid to you using the bonus system within a few weeks after the completion of this HIT. Your payment for taking the HIT will be sent to you shortly after the completion of this HIT.

Procedures

The study consists of two parts and you will be given instructions on your screen before every single part of the survey. Please always make sure to read the instructions carefully before you continue.

Participation

Participation in this research study is completely voluntary. You have the right to withdraw at any time or refuse to participate entirely without jeopardy to future participation in other studies conducted by us.

Confidentiality

All data obtained from you will be kept confidential and will only be reported in an aggregate format (by reporting only combined results and never reporting individual ones). All submissions will be concealed, and no one other than the primary investigator will have access to them. The data collected will be stored in the HIPPA-compliant, secure database until it has been deleted by us.

Verification

At the end of this survey, you will be given a completion code. You will need to copy this code to the survey code field on the AMT web page that directed you here at the beginning.

Questions about the Research

If you have questions regarding this study, you may contact: xx@xxx.xx

Screen 2

[The following text applies to all subjects]

In this study, you will be randomly matched with another person who also participates in this study. The pairing is anonymous, meaning that neither you nor the other person will ever know which person they are matched with.

Each person will be randomly assigned a role in the pair. One person takes on the role of player X, and one person takes on the role of player Y.

Depending on your assigned role, you will be asked to make a series of decisions. These decisions will have real payment consequences for you and/or the other person.

Screen 3

[The following text applies to all subjects]

The following question has the purpose to test your understanding of the previously described situation.

Will you be matched with another person who also participates in this study?

- No, I will not be matched with any other person.
- Yes, I will be matched with one other person.
- Yes, I will be matched with two other persons.

Screen 4

[The following text applies only to subjects in the Baseline treatment who are player X]

Your role will be player X.

The decision you have to make will be like the one pictured below. As player X you have to choose one of two options: "Option A" or "Option B". Player Y knows nothing about the details of these two options, only that they are called "Option A" and "Option B".

The numbers in the table below are the number of bonus points you and player Y can receive. Only you can see this table.

You choose	You receive	Player Y receives
Option A	50	50
Option B	80	20

If you choose option A, then you will receive 50 bonus points.

If you choose option B, then you will receive 80 bonus points.

After your choice of option A, player Y will receive a message saying "Player X reviewed two payment options and chose option A. This resulted in you receiving 50 bonus points".

After your choice of option B, player Y will receive a message saying "Player X reviewed two payment options and chose option B. This resulted in you receiving 20 bonus points".

Player Y will only get to know the final amount of bonus points she or he receives, but not the amount of bonus points you receive, or any other details about the two options.

Please decide whether you choose option A or option B:

- Option A
- Option B

Screen 4

[The following text applies only to subjects in the Risky Baseline treatment who are player X]

Your role will be player X.

The decision you have to make will be like the one pictured below. As player X you have to choose one of two options: "Option A" or "Option B". Player Y knows nothing about the details of these two options, only that they are called "Option A" and "Option B".

The numbers in the table below are the number of bonus points you and player Y can receive. Only you can see this table.

You choose	You receive	Player Y receives
Option A	50	50
Option B	80	80 with 25% chance 0 otherwise

If you choose option A, then you will receive 50 bonus points.

If you choose option B, then you will receive 80 bonus points.

After your choice of option A, player Y will receive a message saying "Player X reviewed two payment options and chose option A. This resulted in you receiving 50 bonus points".

After your choice of option B, player Y will, with a chance of 25%, receive a message saying "Player X reviewed two payment options and chose option B. This resulted in you receiving 80 bonus points". In all other cases, player Y will receive a message saying "Player X reviewed two payment options and chose option B. This resulted in you receiving no bonus points".

Player Y will only get to know the final amount of bonus points she or he receives, but not the amount of bonus points you receive, or any other details about the two options.

Please decide whether you choose option A or option B:

- Option A
- Option B

Screen 4

[The following text applies only to subjects in the Binding advice treatment who are player X]

Your role will be player X.

The decision you have to make will be like the one pictured below. As player X you have to advise player Y about which option, "Option A" or "Option B", to choose. Your advice is binding, thus player Y has to choose according to your advice. Player Y knows nothing about the details of these two options, only that they are called "Option A" and "Option B".

The numbers in the table below are the number of bonus points you and player Y can receive. Only you can see this table.

You advise	Player Y chooses	You receive	Player Y receives
Option A	Option A	50	50
Option B	Option B	80	20

If you advise option A, then player Y receives a message saying “Player X reviewed two payment options and advises you to choose option A. You have to follow Player X’s advice and choose option A”.

If you advise option B, then player Y receives a message saying “Player X reviewed two payment options and advises you to choose option B. You have to follow Player X’s advice and choose option B”.

After player Y’s choice of option A, you will earn 50 bonus points. Player Y will receive a message saying ”Your choice of option A resulted in you receiving 50 bonus points”.

After player Y’s choice of option B, you will earn 80 bonus points. Player Y will receive a message saying ”Your choice of option B resulted in you receiving 20 bonus points”.

Player Y will only get to know the final amount of bonus points she or he receives, but not the amount of bonus points you receive, or any other details about the two options.

Please decide whether you advise option A or option B:

- Option A
- Option B

Screen 4

[The following text applies only to subjects in the Risky Binding advice treatment who are player X]

Your role will be player X.

The decision you have to make will be like the one pictured below. As player X you have to advise player Y about which option, “Option A” or “Option B”, to choose. Your advice is binding, thus player Y has to choose according to your advice. Player Y knows nothing about the details of these two options, only that they are called “Option A” and “Option B”.

The numbers in the table below are the number of bonus points you and player Y can receive. Only you can see this table.

You advise	Player Y chooses	You receive	Player Y receives
Option A	Option A	50	50
Option B	Option B	80	80 with 25% chance 0 otherwise

If you advise option A, then player Y receives a message saying “Player X reviewed two payment options and advises you to choose option A. You have to follow Player X’s advice and choose option A”.

If you advise option B, then player Y receives a message saying “Player X reviewed two payment options and advises you to choose option B. You have to follow Player X’s advice and choose option B”.

After player Y’s choice of option A, you will earn 50 bonus points. Player Y will receive a message saying ”Your choice of option A resulted in you receiving 50 bonus points”.

After player Y’s choice of option B, you will earn 80 bonus points. Player Y will, with a chance of 25%, receive a message saying ”Your choice of option B resulted in you receiving 80 bonus points”. In all other cases, player Y will receive a message saying ”Your choice of option B resulted in you receiving no bonus points”.

Player Y will only get to know the final amount of bonus points she or he receives, but not the amount of bonus points you receive, or any other details about the two options.

Please decide whether you advise option A or option B:

- Option A
- Option B

Screen 4

[The following text applies only to subjects in the Free advice treatment who are player X]

Your role will be player X.

The decision you have to make will be like the one pictured below. As player X you have to advise player Y about which option, “Option A” or “Option B”, to choose. Player Y knows nothing about the details of these two options, only that they are called “Option A” and “Option B”.

The numbers in the table below are the number of bonus points you and player Y can receive. Only you can see this table.

You advise	Player Y chooses	You receive	Player Y receives
Option A	Option A	50	50
Option A	Option B	80	20
Option B	Option A	50	50
Option B	Option B	80	20

If you advise option A, player Y receives a message saying “Player X reviewed two payment options and advises you to choose option A. Please choose between option A and option B.”

If you advise option B, player Y receives a message saying “Player X reviewed two payment options and advises you to choose option B. Please choose between option A and option B.”

If player Y ends up choosing option A, you will earn 50 bonus points. Player Y will receive a message saying “Your choice resulted in you receiving 50 bonus points.”

If player Y ends up choosing option B, you will earn 80 bonus points. Player Y will receive a message saying “Your choice resulted in you receiving 20 bonus points.”

Player Y will only get to know the final amount of bonus points she or he receives, but not the amount of bonus points you receive, or any other details about the two options.

Please decide whether you advise option A or option B:

- Option A
- Option B

Screen 4

[The following text applies only to subjects in the Risky Free advice treatment who are player X]

Your role will be player X.

The decision you have to make will be like the one pictured below. As player X you have to advise player Y about which option, “Option A” or “Option B”, to choose. Player Y knows nothing about the details of these two options, only that they are called “Option A” and “Option B”.

The numbers in the table below are the number of bonus points you and player Y can receive. Only you can see this table.

You advise	Player Y chooses	You receive	Player Y receives
Option A	Option A	50	50
Option A	Option B	80	80 with 25% chance 0 otherwise
Option B	Option A	50	50
Option B	Option B	80	80 with 25% chance 0 otherwise

If you advise option A, player Y receives a message saying “Player X reviewed two payment options and advises you to choose option A. Please choose between option A and option B.”

If you advise option B, player Y receives a message saying “Player X reviewed two payment options and advises you to choose option B. Please choose between option A and option B.”

If player Y ends up choosing option A, you will earn 50 bonus points. Player Y will receive a message saying ”Your choice resulted in you receiving 50 bonus points”.

If player Y ends up choosing option B, you will earn 80 bonus points. Player Y will, with a chance of 25%, receive a message saying ”Your choice resulted in you receiving 80 bonus points”. In all others cases, player Y will receive a message saying ”Your choice resulted in you receiving no bonus points”

Player Y will only get to know the final amount of bonus points she or he receives, but not the amount of bonus points you receive, or any other details about the two options.

Please decide whether you advise option A or option B:

- Option A
- Option B

Screen 5

[The following text applies only to all subjects who are player X]

We ask you now to predict if player Y will follow your advice. You will receive 25 bonus points if your prediction is correct.

Will player Y follow your advice?

- Option A
- Option B

Screen 6

[The following text applies only to all subjects who are player X]

We ask you now to guess how many out of 100 Y players do you think will follow the advice of player X? You will receive 25 bonus points if your answer is less than five persons away from the actual number of Y players who follow the advice of player X.

Out of 100 Y players, how many do you think will follow the advice of player X?

References

Akerlof, G.A., Kranton, R.E., 2000. Economics and identity. Quarterly Journal of Economics 115 (3), 715–753.

Alexander, G.J., Jones, J.D., Nigro, P.J., 1998. Mutual fund shareholders: characteristics, investor knowledge, and sources of information. Financial Services Review 7 (4), 301–316.

Amir, O., Rand, D.G., 2012. Economic games on the internet: the effect of $1 stakes. PLoS ONE 7 (2), e31461.

Anagol, S., Cole, S., Sarkar, S., 2017. Understanding the advice of commissions-motivated agents: evidence from the indian life insurance market. Review of Economics and Statistics 99 (1), 1–15.

Andreoni, J., Bernheim, B.D., 2009. Social image and the 50–50 norm: a theoretical and experimental analysis of audience effects. Econometrica 77 (5), 1607–1636.

Andreoni, J., Miller, J., 2002. Giving according to GARP: an experimental test of the consistency of preferences for altruism. Econometrica 70 (2), 737–753. doi:10.1111/1468-0262.00302.

Bartling, B., Fischbacher, U., 2011. Shifting the blame: on delegation and responsibility. Rev Econ Stud 79 (1), 67–87.

Bergstresser, D., Chalmers, J.M., Tufano, P., 2009. Assessing the costs and benefits of brokers in the mutual fund industry. Rev Financ Stud 22 (10), 4129–4156.

Berinsky, A.J., Huber, G.A., Lenz, G.S., 2012. Evaluating online labor markets for experimental research: Amazon.com's Mechanical Turk. Political Analysis 20 (3), 351–368.

Bluethgen, R., Gintschel, A., Hackethal, A., Mueller, A., 2008. Financial advice and individual investors' portfolios. Technical Report. Working paper, Universität für Wirtschaft und Recht - EBS Business School.

Bolton, G.E., Ockenfels, A., 2000. ERC: A theory of equity, reciprocity, and competition. American Economic Review 90 (1), 166–193.

Brañas-Garza, P., 2007. Promoting helping behavior with framing in dictator games. J Econ Psychol 28 (4), 477–486.

Brock, J.M., Lange, A., Ozbay, E.Y., 2013. Dictating the risk - experimental evidence on giving in risky environments. American Economic Review 103 (1), 415–437.

Burnham, T.C., 2003. Engineering altruism: a theoretical and experimental investigation of anonymity and gift giving. Journal of Economic Behavior & Organization 50 (1), 133–144.

Camerer, C.F., 2011. Behavioral game theory: Experiments in strategic interaction. Princeton university press.

Capon, N., Fitzsimons, G.J., Prince, R.A., 1996. An individual level analysis of the mutual fund investment decision. Journal of Financial Services Research 10 (1), 59–82.

Cettolin, E., Riedl, A., Tran, G., 2017. Giving in the face of risk. J Risk Uncertain 55 (2), 95–118. doi:10.1007/s11166-017-9270-2.

Chang, D., Chen, R., Krupka, E., 2019. Rhetoric matters: a social norms explanation for the anomaly of framing. Games Econ Behav 116, 158–178.

Charness, G., Gneezy, U., 2008. What's in a name? anonymity and social distance in dictator and ultimatum games. Journal of Economic Behavior & Organization 68 (1), 29–35.

Charness, G., Rabin, M., 2002. Understanding social preferences with simple tests. Quarterly Journal of Economics 117 (3), 817–869.

Chen, Z. C., Gesche, T., 2017. Persistent bias in advice-giving. Working Paper.

Cherry, T.L., 2001. Mental accounting and other-regarding behavior: evidence from the lab. J Econ Psychol 22 (5), 605–615.

Cherry, T.L., Frykblom, P., Shogren, J.F., 2002. Hardnose the dictator. American Economic Review 92 (4), 1218–1221.

Christoffersen, S.E., Evans, R., Musto, D.K., 2013. What do consumers' fund flows maximize? evidence from their brokers' incentives. J Finance 68 (1), 201–235.

Cohn, A., Fehr, E., Maréchal, M.A., 2014. Business culture and dishonesty in the banking industry. Nature 516 (7529), 86.

Collins, J.M., 2012. Financial advice: a substitute for financial literacy? Financial Services Review 21 (4), 307.

Crawford, V.P., Sobel, J., 1982. Strategic information transmission. Econometrica: Journal of the Econometric Society 1431–1451.

Croson, R., Gneezy, U., 2009. Gender differences in preferences. J Econ Lit 47 (2), 1–27.

Crump, M.J.C., McDonnell, J.V., Gureckis, T.M., 2013. Evaluating Amazon's Mechanical Turk as a tool for experimental behavioral research. PLoS ONE 8 (3), e57410. doi:10.1371/journal.pone.0057410.

Dana, J., Cain, D.M., Dawes, R.M., 2006. What you don't know won't hurt me: costly (but quiet) exit in dictator games. Organ Behav Hum Decis Process 100 (2), 193–201.

Dana, J., Weber, R.A., Kuang, J.X., 2007. Exploiting moral wiggle room: experiments demonstrating an illusory preference for fairness. Economic Theory 33 (1), 67–80.

Dreber, A., Ellingsen, T., Johannesson, M., Rand, D.G., 2013. Do people care about social context? framing effects in dictator games. Experimental Economics 16 (3), 349–371.

Eckel, C.C., Grossman, P.J., 1996. Altruism in anonymous dictator games. Games Econ Behav 16 (2), 181–191.

Egan, M., Matvos, G., Seru, A., 2019. The market for financial adviser misconduct. Journal of Political Economy 127 (1), 233–295.

Engel, C., 2011. Dictator games: a meta study. Experimental Economics 14 (4), 583–610.

Engelmann, D., Strobel, M., 2004. Inequality aversion, efficiency, and maximin preferences in simple distribution experiments. American Economic Review 94 (4), 857–869.

Erat, S., Gneezy, U., 2012. White lies. Manage Sci 58 (4), 723–733. doi:10.1287/mnsc.1110.1449.

Exley, C.L., 2016. Excusing selfishness in charitable giving: the role of risk. Rev Econ Stud 83 (2), 587–628.

Fehr, E., Schmidt, K.M., 1999. A theory of fairness, competition and cooperation. Quarterly Journal of Economics 114 (3), 817–868.

Fehr, E., Schmidt, K.M., 2006. The economics of fairness, reciprocity and altruism—experimental evidence and new theories. Handbook of the Economics of Giving, Altruism and Reciprocity 1, 615–691.

Foerster, S., Linnainmaa, J.T., Melzer, B.T., Previtero, A., 2017. Retail financial advice: does one size fit all? J Finance 72 (4), 1441–1482.

Forsythe, R., Horowitz, J.L., Savin, N.E., Sefton, M., 1994. Fairness in simple bargaining experiments. Games Econ Behav 6 (3), 347–369.

von Gaudecker, H.-M., 2015. How does household portfolio diversification vary with financial literacy and financial advice? J Finance 70 (2), 489–507.

Gneezy, U., 2005. Deception: the role of consequences. American Economic Review 95 (1), 384–394. doi:10.1257/0002828053828662.

Gneezy, U., Rockenbach, B., Serra-Garcia, M., 2013. Measuring lying aversion. Journal of Economic Behavior & Organization 93, 293–300.

Gneezy, U., Saccardo, S., Serra-Garcia, M., van Veldhuizen, R., 2020. Bribing the self. Games Econ Behav 120, 311–324.

Goerg, S.J., Rand, D., Walkowitz, G., 2020. Framing effects in the prisoner's dilemma but not in the dictator game. Journal of the Economic Science Association 6 (1), 1–12.

Grossman, P.J., Eckel, C.C., 2015. Giving versus taking for a cause. Econ Lett 132, 28–30.

Grossman, Z., van der Weele, J.J., 2017. Self-image and willful ignorance in social decisions. J Eur Econ Assoc 15 (1), 173–217. doi:10.1093/jeea/jvw001.

Guercio, D.D., Reuter, J., 2014. Mutual fund performance and the incentive to generate alpha. J Finance 69 (4), 1673–1704.

Haisley, E.C., Weber, R.A., 2010. Self-serving interpretations of ambiguity in other-regarding behavior. Games Econ Behav 68 (2), 614–625. doi:10.1016/j.geb.2009.08.002.

Hoechle, D., Ruenzi, S., Schaub, N., Schmid, M., 2017. The impact of financial advice on trade performance and behavioral biases. Rev Financ 21 (2), 871–910.

Hoffman, E., McCabe, K., Shachat, K., Smith, V., 1994. Preferences, property rights, and anonymity in bargaining games. Games Econ Behav 7 (3), 346–380.

Horton, J.J., Rand, D.G., Zeckhauser, R.J., 2011. The online laboratory: conducting experiments in a real labor market. Experimental Economics 14, 399–425.

Huber, C., Huber, J., 2020. Bad bankers no more? Truth-telling and (dis) honesty in the finance industry. Journal of Economic Behavior & Organization 180, 472–493.

Inderst, R., Ottaviani, M., 2012. Financial advice. J Econ Lit 50 (2), 494–512.

Koch, A.K., Normann, H.-T., 2008. Giving in dictator games: regard for others or regard by others? South Econ J 75 (1), 223–231.

Konow, J., 2000. Fair shares: accountability and cognitive dissonance in allocation decisions. American Economic Review 90 (4), 1072–1091.

Konow, J., 2010. Mixed feelings: theories of and evidence on giving. J Public Econ 94 (3–4), 279–297.

Kramer, M.M., 2012. Financial advice and individual investor portfolio performance. Financ Manage 41 (2), 395–428.

Krupka, E.L., Weber, R.A., 2013. Identifying social norms using coordination games: why does dictator game sharing vary? J Eur Econ Assoc 11 (3), 495–524.

Linnainmaa, J.T., Melzer, B.T., Previtero, A., 2021. The misguided beliefs of financial advisors. J Finance 76 (2), 587–621.

Mason, W., Suri, S., 2012. Conducting behavioral research on Amazon's Mechanical Turk. Behav Res Methods 44 (1), 1–23.
Müller, S., Weber, M., 2010. Financial literacy and mutual fund investments: who buys actively managed funds? Schmalenbach Business Review 62 (2), 126–153.
Odean, T., 1998. Are investors reluctant to realize their losses? J Finance 53 (5), 1775–1798.
Odean, T., 1999. Do investors trade too much? American Economic Review 89 (5), 1279–1298.
Oehler, A., Kohlert, D., 2009. Financial advice giving and taking - where are the market's self-healing powers and a functioning legal framework when we need them? Journal of Consumer Policy 32 (2), 91–116.
Oxoby, R.J., Spraggon, J., 2008. Mine and yours: property rights in dictator games. Journal of Economic Behavior & Organization 65 (3–4), 703–713.
Paolacci, G., Chandler, J., Ipeirotis, P.G., 2010. Running experiments on Amazon Mechanical Turk. Judgm Decis Mak 5 (5), 411–419.
Pierce, J.L., Kostova, T., Dirks, K.T., 2003. The state of psychological ownership: integrating and extending a century of research. Review of General Psychology 7 (1), 84–107.
Reb, J., Connolly, T., 2007. Possession, feelings of ownership, and the endowment effect. Judgm Decis Mak 2 (2), 107.
Schweitzer, M.E., Hsee, C.K., 2002. Stretching the truth: elastic justification and motivated communication of uncertain information. J Risk Uncertain 25 (2), 185–201.
Shapira, Z., Venezia, I., 2001. Patterns of behavior of professionally managed and independent investors. Journal of Banking & Finance 25 (8), 1573–1587.
Sobel, J., 2005. Interdependent preferences and reciprocity. J Econ Lit 43, 392–436.
Stolper, O.A., Walter, A., 2017. Financial literacy, financial advice, and financial behavior. Journal of Business Economics 87 (5), 581–643.
Sutter, M., 2009. Deception through telling the truth?! experimental evidence from individuals and teams. Economic Journal 119 (534), 47–60.
Thaler, R., 1980. Toward a positive theory of consumer choice. Journal of Economic Behavior & Organization 1 (1), 39–60.
Zhao, X., 2008. Conflict of interests between load fund investors and brokers and financial advisors. Technical Report. Working paper, China Europe International Business School.
Zweig, J., 2017. Why your financial adviser can't be conflict free. Wall Street Journal. 2017-03-12