Inconvenient Truths:
Determinants of Strategic Ignorance in Moral Dilemmas

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Abstract

Strategic ignorance of the adverse social consequences of self-interested choices is an important source of corruption in organizations. In an experimental allocation game based on Dana, Weber, and Kuang (2007), I investigate what determines the choice to learn the payoff consequences for other people of a self-interested decision. Decision makers remain ignorant more often if a fair outcome requires a larger sacrifice, while a larger expected loss for others does not lead to significant changes in ignorance or prosocial behavior. I discuss the consequences of such avoidance of inconvenient information for social efficiency and organizational design.

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1 Introduction

People often avoid or ignore evidence about the negative social impact of decisions for which they are responsible, to reduce liability or the demands of consciousness. Such 'strategic ignorance' plays an important role in political and corporate corruption, the perpetuation of conflicts and even genocide. In his discussion of corporate and political corruption, Stone concludes that "The key to successful conspiracy is that the higher-ups do not ask what's going on, and the lower-downs do not tell them" (Stone, 1973, p. 6).

As recent examples, consider two of the largest corruption cases in U.S. history: Watergate and Enron. In an analysis of the Watergate scandal, Simon (2005, p. 4) writes "The most salient theme in the unsavory moral world of the Watergate participants is not amorality or ruthlessness, but rather aversion to accountability. The participants showed intense faith in the immunizing power of deliberate ignorance and calculated ambiguity." This came to the fore during the trial, when the treasurer of Nixon's re-election committee testified that he queried campaign finance chairman Maurice Stans on why (Watergate burglar) Gordon Liddy had been given large sums of money. Stans replied "I do not want to know, and you do not want to know."

The Enron management, when alerted to suspicions of internal fraud, asked the same lawyers that were responsible for some of the contested transactions to investigate the case. The lawyers abstained from inquiries into the accountants' practices or any employees identified as witnesses to the fraud, and consequently failed to uncover any wrongdoing (Simon, 2005). When top executives Lay and Skilling argued during the trial that they had not known of the frauds, the judge explained the concept of 'willful blindness' to the jury members: "You may find that a defendant had knowledge of a fact if you find that the defendant deliberately closed his eyes to what would otherwise have been been obvious to him..."

Recently, a series of economic experiments have demonstrated the importance of strategic ignorance in ethical dilemmas. Ehrich and Irwin (2005) show that consumers are reluctant to inquire into the ethical problems in the production of cheap products, even though some will use the information when available. Dana, Weber, and Kuang (2007, DWK hereafter) investigate a binary dictator game where there is uncertainty about whether a self-interested action will hurt the recipient's payoffs. Dictators can choose to find out free of charge what those consequences are. Almost half of the dictators choose not to find out, and the fair outcome is chosen much less often than under full information about outcomes.[1] As an explanation, DWK suggest that while under full information people feel compelled to make sacrifices in the name of fairness, they will use self-imposed ignorance as an 'excuse' to avoid such sacrifices if possible.

This paper uses the design of DWK to understand the circumstances under which people avoid ethically relevant information and the associated consequences for social welfare. The

[1] Larson and Capra (2009) and Grossman and van der Weele (2013) replicate this result.

first research question is how the choice for ignorance depends on the personal costs associated with a prosocial action. If people feel compelled to behave prosocially under full information, an increase in the cost of prosocial behavior may make information more 'inconvenient'. A person who wishes to maximize his own payoffs may therefore be more motivated to remain ignorant. The second question is whether strategic ignorance depends on the size of the loss to others that may result from a self-interested choice. An increase in this loss could raise pressures to take costly prosocial actions under full information, which may in turn motivate an increase in ignorance amongst those who wish to maximize their own payoffs. However, a larger loss may also increase motivation to find out what the true payoffs are in order to avoid a bad outcome for the recipient.

The results presented in Section 3 clearly show an asymmetrical pattern. Increasing the personal cost of implementing a fair allocation raises ignorance by 25% percentage points. Since the dictators who do inform themselves also behave more selfishly, the result is a large drop in recipients' payoffs. By contrast, I find no convincing evidence that the payoffs of others matter for strategic ignorance. In the last section, I discuss some implications of these results for policy making and organizational design.

To my knowledge, this study provides the first systematic evidence how the decision to acquire or avoid information depends on the (in)convenience of the information content. The study relates to several strands of literature. First, it extends a growing literature on strategic ignorance in economics (see Grossman and van der Weele, 2013, and references therein) by showing determinants of this behavior. Second, the paper relates to research in social psychology on "moral disengagement", the deactivation of cognitive mechanisms that inhibit unethical behavior (Bandura, 1999; Detert, Treviño, and Sweitzer, 2008; Shu, Gino, and Bazerman, 2011), and "motivated cognition", the biasing of beliefs to support and justify favored actions (Kunda, 1990). While the psychological literature focuses on subconscious changes in attitudinal self-reports and information processing, the present study shows that strategic ignorance is need not be subconscious, but can be willfully and consciously chosen when information is inconvenient.

2 Experimental Design

The experimental setup is a generalization of the "hidden information treatment" in DWK. In all treatments subjects are randomly paired in groups of two, consisting of a 'dictator' (Player X) and a 'recipient' (Player Y). Both players are paid according to the decision of the dictator. The recipient is passive and does not make any decision. The experiment features neutral language, and all payoffs are denoted in terms of experimental currency (EC), where 10 EC = 1 euro.

The experiment took place at the Frankfurt Laboratory for EXperimental economics

(FLEX). Subjects were recruited amongst the subject population of the Goethe University Frankfurt from all areas of study, using the online system ORSEE (Greiner, 2003). They received a show-up fee of €4, and made their decisions on individual computer terminals. Programming was done in z-Tree (Fischbacher, 2007), screenshots containing the instructions and the experiment can be found in Appendix B.

In the *Baseline* treatment, the dictator is facing the following situation. She can choose between two actions A and B, resulting in a payoff for the dictator of 100 or 60 EC respectively. Both players were told that before the start of the experiment a computer randomly determined the payoffs of the recipient associated with the dictator's actions. Table 1 replicates the presentation of the possible payoffs given to the subjects in the instructions (see also the screenshots in Appendix B). Players were told that Game 1 and Game 2 were equally likely to be chosen by the computer. In the remainder of this paper, I will refer to Game 1 as the "Conflicting Interests Game" (CIG), since the dictator faces a trade-off between his own and the recipients' payoff, and to Game 2 as the "Aligned Interests Game" (AIG), since A implements the highest payoffs for *both* players.

Player X chooses	Player X receives	Player Y receives
A	100	10
B	60	60

(a) Game 1

Player X chooses	Player X receives	Player Y receives
A	100	60
B	60	10

(b) Game 2

Table 1: The experimental games. Each game has been chosen with 50% probability.

The dictator makes two choices. First, she has to decide whether to find out which game is being played. She faces a screen with a payoff matrix that shows her own payoffs, but where Player Y's payoffs are replaced by a question mark. The screen features two buttons saying "Reveal game" or "Don't reveal". If the dictator decides to reveal the game she moves to the next screen where the full matrix is shown, as well as two buttons for choosing A and B. If she decides to not reveal, the question marks remain on the next screen. Thus, ignorance is not a default option as in DKW, but has to be chosen actively.[2] Once the information decision is made, the subject proceeds to choose A or B. There are no costs attached to remaining ignorant or acquiring information. To mimic most real-world information decisions, and in keeping with the previous experiments on this topic, the decisions in the experiment are made anonymously. Most importantly, the recipient does not learn the dictator's decision to reveal, and the dictator knows this.

The experiment features three treatment variations. The *Cheap Fairness* treatment is

[2]Grossman (2010) finds that changing from the default of ignorance to an active choice roughly halves the ignorance rate.

designed to test whether people are more or less likely to acquire information when it is cheaper to act prosocially. This treatment is equivalent to the *Baseline* treatment, except that the payoff of Player X associated with action A is now 70 EC (instead of 100), so that the dictator has to give up less to implement an equal distribution in the CIG.

The remaining two treatments are designed to test whether subjects are more or less likely to remain ignorant when the expected loss to the other party of a self-interested choice increases. In the *Increased Loss* treatment, I vary the potential effect of self-interested behavior on the recipient. Payoffs are equivalent to the *Baseline* treatment, except that the worst possible outcome for Player Y is -20 EC (instead of 10), i.e. the recipient may lose part of her show-up fee.

In the *Likely Loss* treatment, payoffs are the same as in the *Baseline* treatment, but the CIG is now likely to be selected with a probability of 0.8 instead of 0.5. This probability is explicitly mentioned a few times throughout in the instructions.

Results

In the *Baseline* treatment, 31% of the subjects remained ignorant, as indicated by the light grey area in Figure 1 (descriptive statistics of the four experimental treatments are presented in Table 3 in Appendix A). In the *Cheap Fairness* treatment, this drops to 6% ($P = 0.014$, 2-tailed Fisher exact test (FET)). There is a small drop in the ignorance rate to 17% in the *Increased Loss* treatment ($P = 0.253$, FET) and to 29% in the *Likely Loss* treatment ($P = 1.00$, FET).

A more complete measure of the pursuit of self-interest compares the share of subjects who do not behave in a way consistent with a desire to implement a fair outcome. To this end, we add to the ignorance rate those who knew they played the CIG and chose A, as a fraction of all dictators (the dark grey areas in Figure 1). In the *Baseline* treatment, 53% behaves in a way inconsistent with a desire for an equal distribution. This drops to 22% in the *Cheap Fairness* treatment ($P = 0.012$, FET). The levels in the *Increased Loss* treatment (47%) and the *Likely Loss* treatment (53%) are not significantly different from the Baseline.

Table 2 summarizes the choices for ignorance and the resulting payoffs. Comparing the *Baseline* with the *Cheap Fairness* treatment shows that an increase in the cost of prosocial behavior delivers a 'double whammy': it increases the ignorance rate fivefold *and* it doubles self-interested behavior by informed dictators in the CIG. As a result, the payoffs of the recipient in the *Baseline* treatment are only about half those in the *Cheap Fairness* treatment, and efficiency drops by 40 percentage points.

Second, while the ignorance rate in the *Increased Loss* treatment decreases relative to the *Baseline*, the rate of choosing A amongst informed dictators does not decrease. Therefore, the increased loss associated with the A choice is met by only a small increase in prosocial

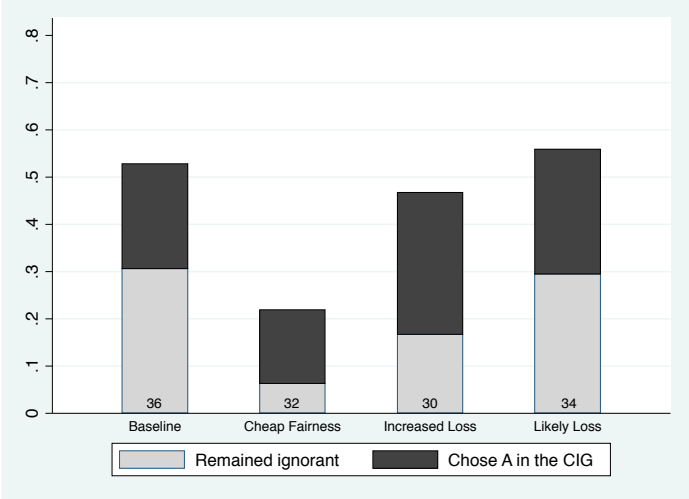

Figure 1: Ignorance and self-interested behavior by treatment. "Remained ignorant" is the fraction of subjects choosing "Don't Reveal". "Chose A in CIG" is the fraction of subjects who knew they played the CIG and chose A. The total height of the bar measures all subjects whose behavior is not compatible with a desire to implement a fair outcome. The total number of observations in each treatment is at the bottom of the bar.

	Baseline	*Cheap Fairness*	*Increased Loss*	*Likely Loss*	Informed subjects	Ignorant subjects
Ignorance (CIG + AIG)	31%	6%	17%	34%	0%	100%
A choices (CIG informed)	62%	31%	64%	50%	49%	-
Avg. dictator payoff (CIG)	9.00	6.35	8.75	8.46	7.78	9.61
Avg. recipient payoff (CIG)	2.25	4.24	0.50	2.92	3.02	0.94
Efficiency (CIG)	25%	65%	31%	38%	49%	6%

Table 2: Behavior and average payoffs in euros. The first row shows the choices of ignorance as a proportion of all choices, the second row reports the choices of A as a percentage of the subjects who acquired information and learned they were in the CIG. The middle two rows show average payoffs (net of the €4 show-up fee) of those who played the CIG, either knowingly or not. The final row shows the number of B choices as a percentage of all choices in the CIG. The last two columns include data from all treatments.

behavior, resulting in a lower payoff for the recipient and increased inequality. In the *Likely Loss* treatment we see roughly the same ignorance level as in the *Baseline* and a small increase in prosocial behavior conditional on being informed, leading to somewhat higher efficiency. Note however that this does not compensate for the higher probability of being in the CIG, so ex-ante the recipient has lower expected payoffs compared to the *Baseline*.

Finally, when we compare behavior by the informed and the uninformed dictators over all

treatments (the final two columns of Table 2), we see that 49% of informed dictators choose action B. By contrast, all subjects who remained ignorant - except one - chose A.[3] Inequality therefore increases with ignorance: whereas informed dictators earn about 2.6 times as much as the recipient, ignorant dictators earn almost 10 times as much. Moreover, the ignorant dictator earns 22% more on average than the informed dictator.

Discussion

The results show that subjects in the experiment are more motivated to look away if prosocial behavior is costly, supporting the constructivist conclusion that people avoid more 'inconvenient' facts. By contrast, I do not find that changes in the payoffs of others significantly affect the decision for ignorance or prosocial behavior.

In the experiment, the choice not to know is made explicitly and consciously. This may lead one to wonder whether it is the product of some deliberate or 'rational' decision making process. Standard economic models of decision making predict that people like to have more information to have better informed decisions and cannot explain the current results.[4] A thorough comparison of theoretical explanations is beyond the scope of this paper, but it is interesting to note that the results of the experiment in this paper are in line with the self-image model by Grossman and van der Weele (2013).[5] These authors show that strategic ignorance can be explained as a strategy to avoid the stark trade-off between self-image concerns and material desires that arises under full-information.

Assuming some external validity, these results have implications for corporate governance and policy making in general. First, the results of the *Increased Loss* and *Likely Loss* treatments suggest that large (expected) negative consequences for outsiders are not by themselves enough to deter strategic ignorance. This may help explain why even large-scale frauds in organizations and state-sponsored atrocities carried out with the involvement of many may nevertheless remain 'secret' for a long time (Cohen, 2001).

Second, the results of the *Cheap Fairness* treatment show that the rewards for self-interested behavior affect information acquisition. Thus, organizational incentive schemes that reward on the basis of narrow performance criteria may induce strategic ignorance with respect

[3] In addition, all those who informed themselves and played the AIG choose A. This indicates that there was a low amount of 'noise' in the experiment and that all subjects understood the game well.

[4] Although the ignorance documented here may be due to indifference, the finding that ignorance responds to cost and benefit considerations suggests otherwise, as do other results in the literature (Dana, Weber, and Kuang, 2007; Grossman and van der Weele, 2013).

[5] Explicit proofs to this extent appear in van der Weele (2012). In particular, the theory predicts that the drop in ignorance in the *Cheap Fairness* treatment occurs because obtaining a good self-image is now cheaper, and information therefore less threatening. The model also predicts a drop in ignorance in the *Increased Loss* treatment, since dictators now feel more guilty when choosing self-interestedly. The results of the current study show such a drop although this result is not significant.

to ethical violations that may distract from these criteria.[6] Conversely, incentive schemes that reward actions in the common interest will not only have a direct influence on behavior, but also make individuals more perceptive towards opportunities for doing good.[7]

Finally, direct measures against strategic ignorance may be desirable where there is a potential tension between company executives and the public interest. One such measure is to make managers responsible for the quality of the information they have (and report) about the organization. In fact, one of the provisions in the Enron-inspired Sarbane-Oxley Act places the responsibility for the accuracy of information in financial reports with the executives themselves (Simon, 2005). Similarly, legal doctrines like "willful blindness" (as invoked in the Enron case) may incentivize information acquisition by reducing the effectiveness of an ignorance-based defense in court.

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[6] This idea is epitomized in Upton Sinclair's famous saying "It is difficult to get a man to understand something, when his salary depends upon his not understanding it."

[7] Similarly, in the consumer domain, subsidies that lower the price of 'ethical' (e.g. fair-trade or eco-labeled) goods may make people more willing to learn about the social benefits of such products. An interesting example of such processes comes from beliefs about climate change. Norgaard (2006) conducts participatory sociological research, media analysis and in-depth interviews to study attitudes to climate change in Norway, a country that derives much of its wealth from oil revenues. She finds that non-responsiveness to climate change stems in large part from self-interested denial, and that not-knowing serves to maintain Norwegian global economic interests.

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Appendix A: Summary Statistics

Treatment	N	Chose ignorance	Chose B		
			Ignorant	AIG	CIG
Baseline	36	31% (11/36)	0% (0/11)	0% (0/12)	38% (5/13)
Cheap Fairness	32	6% (2/32)	0% (0/2)	0% (0/14)	69% (11/16)
Increased Loss	30	17% (5/30)	0% (0/5)	0% (0/11)	36% (5/14)
Likely Loss	34	29% (10/34)	10% (1/10)	0% (0/6)	50% (9/18)
Total	132	21% (28/132)	4% (1/28)	0% (0/43)	49% (30/61)

Table 3: Dictators' decisions.

Appendix B: Instructions and screenshots [NOT FOR PUBLICATION]

Translated instructions for the *Baseline* treatment (original was in German). The instructions for the other treatments differ only in small and predictable details, and are omitted.

Introduction

INSTRUCTIONS: PLEASE READ VERY CAREFULLY. IF YOU HAVE A QUESTION, PLEASE RAISE YOUR HAND AND WAIT FOR ASSISTANCE.

Welcome! You will participate in an economic experiment, funded by several research institutitons. In what follows we will use male pronouns to shorten the text. We ask for your understanding.

Please read the instructions carefully. They contain everything you need to know for the experiment. If you have questions, please raise your hand and we will come to your seat to answer your question. During the experiment it is forbidden to talk to the other participants.

Every participant receives a show-up fee of 4 euros, which will be paid at the end of the experiment. During the experiment you can earn additional money. During the experiment we do not speak of money, but of points. Your payoffs will be represented in points, where

1 Point= 0,10 Euro

At then end of the experiment you will receive the money that you made during the experiment plus the 4 euro show-up fee in cash. The payment will be made privately, and no other participant will see how much you are paid.

OK

Instructions

Description of the game

During the experiment you are matched with another participant in a group of two. The other participant is assigned randomly by the computer. Neither before nor after the experiment do you learn the identity of the other participant. Nor does the other participant learn your identity. The choices in this experiment are made anonymously.

Each of you is assigned a role in the experiment. You are either player X or player Y. In each pair there is one player X and one player Y. The difference between these roles will be described below.

The game that you play in pairs, looks as depicted below. Player X will choose one of two options "A" or "B". Player Y will not make any choice. The payments both players receive depend only on the choice of player X.

The numbers in the table are the payments players receive. The payments in this table were chosen only to demonstrate how the game works. In the actual game, the payments will be different. For example, if player X chooses "B", then we should look in the bottom square for the earnings. Here, Player X receives 3 points and Player Y receives 4 points.

Player X chooses	Player X receives	Player Y receives
A	1	2
B	3	4

OK

Control questions

Please answer the following control questions. Your answers only serve to establish if you understood the game and do not influence the payments you will receive.

Player X chooses	Player X receives	Player Y receives
A	1	2
B	3	4

In this example, if Player X chooses "B" then:

Player X receives

Player Y receives

In this example, if Player X chooses "A" then:

Player X receives

Player Y receives

OK

Instructions

In the actual experiment you will play one of the two games pictured below. The payment of player X is the same in both games. The only thing that distinguishes both games is the income of Player Y, which has been swapped between the games. If Player X chooses "A" he receives the highest payment of 100 points in both games. In the first game, Player Y will then receive a payment of 10 points. In the second game Player Y will receive a payment of 60 points. If Player X chooses "B" he receives the lowest payment of 60 points in both games. In the first game, Player Y will then receive a payment of 60 points. In the second game Player Y will receive a payment of 10 points.

Which game you will actually be playing will not be revealed publicly. The payoffs of Player Y will initially be represented by a questionmark. The actual game is determined randomly by the computer before the start of the experiment. Both games have an equal probability (50%) of being played.

Before Player X chooses "A" or "B", he can find out which game is actually being played, by clicking a button "REVEAL GAME". Player X can also click a button "DON'T REVEAL", in which case he does not learn anything. This choice will be made anonymously, Player Y does not know whether Player X knows which game is being played. Player Y will not have a possibility to find out which game is being played.

While Player X makes his choice, Player Y will be asked to answer a few questions.

Game 1

Player X chooses	Player X receives	Player Y receives
A	100	10
B	60	60

Game 2

Player X chooses	Player X receives	Player Y receives
A	100	60
B	60	10

OK

Control questions

Please answer the following control questions. Keep in mind that both games are equally likely to be played.

Which option gives Player X his or her highest payment in both games?
- A
- B

If Player X chooses B, then Player Y receives
- 60 points
- 10 points
- either 60 or 10 points

OK

Player X chooses	Player X receives	Player Y receives
A	100	10
B	60	60

Player X chooses	Player X receives	Player Y receives
A	100	60
B	60	10

Instructions

Time remaining 114

Summary:

If you are player X, you will decide in one of the two games below.

The actual game was randomly decided before the experiment by the computer. Each game has a 50% probability of being played.

You choose whether to find out which of the games is actually being played.

Subsequently you will choose "A" or "B".

At the end of the experiment we will pay both players privately.

50% Probability

Player X chooses	Player X receives	Player Y receives
A	100	10
B	60	60

50% Probability

Player X chooses	Player X receives	Player Y receives
A	100	60
B	60	10

OK

Experiment

DON'T REVEAL

Please choose if you wish to reveal which of the two games is actually being played. Player Y will not observe this decision.

REVEAL

Player X chooses	Player X receives	Player Y receives
A	100	?
B	60	?

Experiment

A

Please make your choice.

B

Player X chooses	Player X receives	Player Y receives
A	100	10
B	60	60