

Economics Wins, Psychology Loses, and Society Pays

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Abstract

Economics is the social science that dominates public policy debate and formulation. Economic assumptions lay the foundation for policy initiatives and economic principles provide the framework for design of regulations that govern our society. We argue that other social sciences, and in particular psychology, have a great deal to offer, and that our failure to incorporate the lessons from other social sciences leads to inferior public policy. The chapter outlines five predominant myths, adapted from pervasive economic assumptions, which serve as guiding policy principles and destroy value in society. We elaborate on the consequences of our over-reliance on these myths, and demonstrate how psychological lessons and insights might inform policy decisions.

Our friend and colleague Al Roth, one of the world's leading economists, has noted in conversations with psychologists that the United States has a Council of Economic Advisors, but no Council of Psychological Advisors. Consistent with his observation regarding which advisory boards exist and which do not, we would agree that economists have had greater influence on both law and public policy formation than any other social science. Economic research appears much more regularly in the media than does other social science research, and economic norms and language have been adopted by society more so than the norms and languages of other social sciences. Indeed, economics has had a greater influence on government policy not only in Washington, but also in other state capitals around the world. Ferraro, Pfeffer, and Sutton (in press) offer the provocative argument that the field of economic research has achieved theoretical dominance in the social sciences, in the marketplace, and in government policy by institutionalizing its norms and language. Unfortunately, this dominance has resulted in the exclusion of useful ideas and insights stemming from other social sciences and to the adoption of policies that are often extremely deficient, or even dangerous.

We are interested in how to make society better, and in particular, how to help society through better policy formulation. Public policies and government initiatives are often inefficient (Bazerman, Baron and Shonk 2001), and this paper explores the ways in which the dominance of economics contributes to or causes these inefficiencies. Our goal is to be both specific about the inefficient policies that exist, and to identify the underlying economic assumptions which have guided policy formulation and led to these inefficiencies.

Unfortunately, there is no lack of evidence regarding deficiencies in public policy and law. Recent history has witnessed the financial distress of companies such as Enron, Adelphia, Global Crossing, Haliburton, Xerox, Worldcom, and Tyco. Millions of jobs and tens of millions

of retirement plans have been lost. Shortcomings in United States security policy were at least partially responsible for the tragedies involved with 9/11. Eleven of the seventeen major fisheries in the world are commercially extinct. The United States needlessly allows thousands of people to die each year because of an ill-conceived organ donation system. Behind each of these disasters is the hand of economic logic, the dominance of this logic to the exclusion of other useful social sciences, and inefficiency and ineffectiveness in government policy and practice.

In this chapter, we identify five predominant myths, adapted from pervasive economic assumptions, which serve as guiding policy principles and serve to destroy value in society.

These myths include:

- 1) Individuals have stable and consistent preferences
- 2) Individuals know their preferences and they pursue known preferences with volition
- 3) Individuals make decisions based on all of the evidence available to them
- 4) Free markets solve economic problems
- 5) Credible empirical evidence consists of outcome data, not of mechanism data

Myth 1: Individuals have stable and consistent preferences

President George Bush argued that his tax cuts would stimulate the struggling U.S. economy. Many have taken issue with Bush's choice of tax-cut recipients, and have questioned whether sinking the country into greater debt is worth the potential stimulus effect. Setting these criticisms aside (which is very hard to do), psychologists might criticize the way in which Bush presented his tax cuts to the public. Bush announced a "rebate" – a return to taxpayers of what they had already paid. Does the term "rebate" matter? The same action could be labeled a

rebate, a bonus, or many other terms. If individuals are rational and have stable and consistent preferences, they will be unaffected by the framing of the tax money given to them; labels should not matter. But psychologists have shown that framing does matter – a lot (Kahneman and Tversky 1979)! If Bush really wanted to make sure that the tax return stimulated the economy, perhaps he should have considered the work of psychologists Epley, Idson, and Mak (2004).

Epley et al. (2004) argue that if the government had labeled the tax return “bonus” instead of “rebate”, more citizens would have spent the money instead of saving it, thus creating a greater stimulus to the economy. Epley et al. (2004) gave Harvard undergraduate student participants \$50, described as either a tuition “rebate” or a “bonus”. In a follow-up one week later, they asked the students how much of the \$50 they had saved and how much they had spent. On average, “rebate” participants reported spending \$10 and saving \$40, while “bonus” participants reported spending \$22 and saving \$28; “bonus” participants spent more than twice as much as “rebate” participants. Since the students’ recollections could have been inaccurate, the researchers conducted a follow-up study in which they gave Harvard undergraduates a \$25 windfall, framed either as “bonus money” or “rebate money.” They then set up a “lab store” and offered products for sale at discounted prices (approximately 20% off standard prices). On average, “rebate” participants spent only \$2.43, while “bonus” participants spent \$11.16, more than four times as much!

In another study involving U.S. taxpayers, conducted shortly after President Bush’s tax refund had been put into effect, Epley et al. (2004) showed that rebate and bonus frames create very different mental states regarding the use of money. The researchers reminded all participants that the federal government had recently sent checks to taxpayers. One group, the “rebate” participants, read this statement:

“proponents of this tax cut argued that the government collected more tax revenue than was needed to cover its expenses, resulting in a tax surplus” that should be returned to taxpayers “as withheld income.”

The “bonus” participants read:

“proponents of this tax cut argued that the costs of running the government were lower than expected, resulting in a budget surplus” that should be returned to taxpayers “as bonus income.”

Both groups of participants were then asked what percentage of their checks they remembered spending and what percentage they had saved. “Rebate” participants remembered spending 25% and saving 75%, while “bonus” participants remembered spending 87% and saving 13%. These data further suggest that people associate “bonus” with spending and “rebate” with saving.

Epley et al. argue that the word “bonus” creates an impression of surplus cash, while “rebate” conveys the image of money that simply returns you to the appropriate status quo. Obviously, in this recall task, participants were randomly assigned to one of the two conditions, and there is no reason to believe that the two groups actually differed in their spending pattern.

Collectively, these studies show the amazing power of framing, the importance of knowing how you can be affected by framing, and the relevance of framing to important decisions and policy formulation. Clearly, the U.S. government could have stimulated the economy far more with a bonus campaign instead of a rebate initiative. If President Bush’s linguistic approach had been psychologically informed, his own professed goals would more likely have been achieved.

Ignoring the fact that preferences can be unstable, sometimes inconsistent, and often malleable can lead to more tragic policy formulation than simply failing to boost the economy.

In the U.S., the waiting list for organs has grown from 13,000 in 1987 to 44,000 in 1996; meanwhile, the number of potential donors has decreased. Over one-third of those on the waiting list will die before an organ is found. Why do so few people bother to opt into organ donation programs? Is it simply that they have a preference not to donate? Few people see it as immoral if they choose not to donate their organs upon death or release the organs of deceased family members. Since people are allowed to make their own choices regarding their body, perhaps people are making the right decision, consistent with their preferences. According to Baron (1998), however, the issue is more complicated than that. Baron (1998) points out that the *omission bias* leads people to believe that they are being completely moral even if they pursue their narrow self-interest, as long as they obey a list of prohibitions. This explains the interesting finding that people tend to feel bad if they do something that causes harm, but do not feel so bad if they fail to do something that would have kept harm from occurring. Clearly, this suggests that individual preferences are not entirely consistent. Furthermore, this suggests that a change in how our organ donation system operates could save countless lives while still allowing individuals to make unconstrained choices that are consistent with their view of their own preferences.

In the current organ donation system, the default is that a person's organs will not be donated. Those who wish to donate need to "opt-in" to the donation system. If the United States switched to a system in which all eligible Americans donated their organs by default unless they noted otherwise ("opt-out"), we could reduce unnecessary deaths due to organ shortages virtually overnight (Bazerman, Baron and Shonk 2001; Johnson and Goldstein 2003). Indeed, this simple policy change could save the lives of 6,000 U.S. citizens every year, twice the number who died as a result of the attacks on 9/11. The evidence for this is striking: Johnson and Goldstein (2003)

document that European countries with an opt-in program similar to that of the United States have donation rates that fall between 4% and 28%. In contrast, European countries with opt-out programs have rates ranging from 86% to 100%. Even if changing the U.S. organ donation system resulted in an increase only half the size of what is suggested by the European experience, no organ shortage in the United States would exist.

Myth 2: Individuals know their preferences and they pursue known preferences with volition

Central to the scores of corporate disasters in recent years has been the failure of auditors to fulfill their core function as public watchdog. The federal government, the media, lawyers, economists, and the auditing industry itself have all viewed the accounting scandals as a problem of corruption. We are sure that this is part of the story. But the bigger story is one of psychological bias – the domain of psychologists. While a minority of auditors is likely to be corrupt, all auditors are human, and therefore subject to psychological bias. Bazerman, Morgan, and Loewenstein (1997; Bazerman, Loewenstein and Moore 2002) argue that a system in which accountants audit the very firms to whom consulting services are sold, and who are in a position to rehire them as auditors, and who in some cases might even offer employment, creates an environment in which even the most honest auditor is likely to fall prey to *self-serving biases* that disable him or her from detecting error in a client's accounting methods. Social psychologists and decision researchers have contributed the basic science that could have anticipated this problem.

The broad argument is that parties with an interest in viewing data in a certain light are not capable of independent and objective judgment (Moore, Lowenstein, Tanlu and Bazerman 2003). This finding is relevant to doctors who recommend drugs promoted to them by

manufacturers (Kassirer 2005), lawyers who recommend legal action from which they may profit (Issacharoff 2005), investment bankers who recommend investments in firms that they are courting as potential clients (Moore et al., 2003), and accounting firms who audit clients to whom they wish to sell consulting services (Bazerman et al., 2002). Thus, the solution to conflict-of-interest problems must go beyond dealing with how people make explicit trade-offs between engaging in sleazy behavior and the fear of prosecution. If bias persists even when the auditor does not intend for it to affect judgment, then the assumption that individuals always pursue known preferences with volition is put seriously in question. More importantly, this suggests that potential solutions to conflict-of-interest problems need to deal with the psychological aspects of the conflict. This leads to a very different set of prescriptions.

The explicit view, based on people knowing their preferences, leads to policies such as imposing penalties on violations of professional standards, disclosure of conflicts of interest (discussed further in the next section), and other interventions that change the cost / benefit calculation of the decision maker who might be tempted to act dishonestly. But, if most of the problem is implicit, with people being out of touch with what guides their own behavior, these explicit barriers to corruption will have limited impact. Penalties for unethical behaviors are not enough if people do not know that they are acting unethically. Rather, the psychological perspective makes it clear that true independence requires that the auditor has no motivation to please the client. This means that auditors audit, and provide no other services. This means that auditors serve for one fixed term, and that the auditing firm cannot be rehired in the future. And, it means that auditors, across all levels, should not be allowed to take jobs with their client's firm.

Research on the psychology underlying conflict of interest (Moore and Lowenstein 2004) is just one example of what Chugh, Bazerman, and Banaji (2005) refer to as “bounded unethical behavior”. Bounded unethical behavior consists of unethical behaviors that occur without the protagonist even being aware of their unethicality. Recently, a number of investment banks have reached multi-million dollar out of court settlements. At the core of these settlements is the accusation that white, male investment banking executives discriminate against others often without their own awareness. Commenting on the 2004 settlement of a sex discrimination lawsuit by against Morgan Stanley, Hydie Sumner (a recipient of a \$2.2M award for sex discrimination from Merrill Lynch) said: “They really don’t believe that are discriminating...If you come in and you look like they want you to look – probably a while male profile – they’ll project success on you. They have a specific view of what a successful broker or manager will look like, and it is not usually a woman or a black or Hispanic.” (McGeehan 2004). A similar logic was offered by social psychologist Susan Fiske years ago regarding the classic 1989 decision on Price Waterhouse vs. Hopkins (Fiske, Bersoff et al. 1991). Fiske was the first to make courts aware of the possibility that discrimination could result from implicit processes, rather than explicit discrimination. Nonetheless, the problem remains.

Research on implicit attitudes (attitudes we hold without our conscious awareness) has quickly made an important contribution to legal disputes involving race and gender (Banaji and Greenwald 1995; Banaji, Bazerman and Chugh 2003). This research has found that even individuals who hold no explicit hostile attitudes toward women, African-Americans, or other groups, may still hold implicit associations consistent with common stereotypes, and that these implicit attitudes predict managerially relevant behavior.¹ One important legal implication of

¹ These attitudes are typically measured through computer mediated cognitive association tasks (see www.implicit.harvard.edu for examples).

this work is that holding firms only responsible for not having the intention to discriminate will be insufficient in stopping discrimination. Organizations can discriminate without an individual being aware of the discrimination. Since the bias is outside our awareness, most training to act fairly or objectively will have limited impact. Banaji et al. (2003) argue that research on implicit attitudes provides a clear logic for some form of affirmative action: if organizations are biased in predictable directions, affirmative action is needed to counter the effects of this bias. This research has captured the attention of the legal community, and has implications for management, the marketplace, and national policy debates on race and gender.

Myth 3: Individuals make decisions based on all of the evidence available to them

Many economists have argued that the answer to conflict of interest problems is disclosure. That is, it is cheap and efficient to simply tell people when a professional has a conflict of interest, and then let people adjust their behavior and expectations accordingly (Healy and Palepu 2001). This is exactly what the Big Five auditing firms convinced the SEC to do when it was holding hearings and considering serious changes to the regulations governing the auditing industry in 2000. Unfortunately, we are all confronted with disclosure forms in a lot of situations, and it has little impact on our judgment. Real estate agents for the buyer and the seller clearly disclose that their commission is based on a percentage of the sale price. Every real estate agent is working for the seller, but many buyers really believe that their real estate agent is giving them objective advice and acting in their best interest.

Cain, Loewenstein, and Moore (2005) demonstrate that disclosure may not only fail to solve the problem, it may actually increase auditor bias. They argue that auditors who expect that disclosure will lead investors to discount or otherwise make adjustments for auditors'

analyses may feel less duty bound to be impartial. Cain et al. paired study participants and assigned one member of each pair to the role of “estimator”, and assigned the other to the role of “adviser”. The estimator looked at several jars of coins from a distance, estimated the value of the money in each, obtained advice on her estimate from an adviser who was allowed to study the jars close up, and was paid according to how close her final estimates were to the jars’ true values. While the estimator was paid more when the estimate was accurate, the adviser was not paid according to the accuracy of the estimator, but according to how high the estimator’s guesses were; in other words, advisers had an incentive to mislead the estimators into guessing high. They then manipulated whether the estimator was made aware of the adviser’s conflict of interest. Half of the estimators were told about the advisers’ pay arrangement; the other half was not told about it. The results were unsettling: Advisers whose incentives were disclosed to estimators provided much more biased advice (i.e., higher estimates of coin value) than did advisers whose motives were not disclosed. Furthermore, disclosure of the conflict of interest did not lead estimators to substantially discount their advisers’ advice. In other words, not only did disclosure fail to improve estimator judgment, but it also increased bias among advisers. As a result, with disclosure, advisers made much more money and estimators made much less. This suggests that merely increasing the amount of information available to decision makers is not the easy solution it seems to be; we have to consider whether and how people actually use available information.

Recent research in social and cognitive psychology has documented the tendency of the human mind to focus on specific information while failing to incorporate other information that is both relevant and readily available (Gilbert, Jones and Pelham 1987; Simons and Chabris 1999; Bazerman and Chugh 2005). Bazerman and Chugh (2005) argue that humans have

“bounded awareness,” and as a result, fail to consider and use accessible and perceivable information.

Bounded awareness can lead to shocking, and sometimes tragic, occurrences that have been called “predictable surprises” (Bazerman and Watkins 2004). One such predictable surprise, they suggest, is the attacks of September 11, 2001. They point out that prior to 9/11 the United States knew that terrorists were willing to become martyrs for their cause, that their hatred toward the United States was increasing, that they had previously bombed the World Trade Center, that they had hijacked an Air France airplane and made an aborted attempt to fly it into the Eiffel Tower, and that they had failed in an attempt to simultaneously hijack twelve U.S. commercial airplanes in Asia. Dozens of federal reports and Vice President Al Gore's aviation security commission provided comprehensive evidence that the aviation security system was full of holes. Everyone knew how simple it would be to board an airplane with small items (such as knives) that could be used as weapons. Finally, in August 2001, National Security Advisor Condoleeza Rice and President Bush were handed a CIA report entitled, “Bin Laden Determined to Strike in U.S.” The relevant pieces of information were all available, but the surprise somehow remained outside of our bounded awareness.

Similarly, United States policy makers knew that independent evaluation was the only reason for the auditing industry to exist. Yet, ample data existed before the fall of Enron and Arthur Anderson that the auditors in the United States were not independent. Auditors wanted to be rehired by the companies they audited. They wanted to sell consulting services to the companies they audited. And, many auditors looked forward to the prospect of being offered a job by the companies they audited. Social psychologists knew decades ago that people with a bias to see data in a certain light are incapable of objective judgment (Messick and Sentis 1983).

Furthermore, these arguments (Bazerman et al., 1997) were actually presented to the SEC years before the auditing scandals surfaced. The SEC still failed to act. Of course, other factors (e.g., political) may also help to explain the failure of the SEC to prevent the fallout. But, a large part of the problem lies in the failure of policy makers to appreciate the magnitude and impact of their own bounded awareness.

The inability to objectively consider all the available evidence stem not only from a desire (however tacit) to please others. The desire to self-justify prior actions and expectations can also lead to what psychologists call “confirmation bias” (Wason 1960). Individuals are motivated to see their own beliefs and expectations as rational, and to see the various decisions they make as consistent. As a result, they fail to sufficiently consider evidence that disconfirms their prior beliefs or expectations. Perhaps the kindest interpretation one can offer of the Bush Administration’s decision to initiate the Iraq war in 2003 is that they fell prey to the confirmation bias: they wanted to believe that Saddam Hussein was linked to Al Qaeda and had weapons of mass destruction (WMDs) so they relied on scant evidence that helped support this belief, and ignored the voluminous data that firmly stated otherwise. The administration somehow was able to ignore the historical fact that Bin Laden had for years tried to topple Saddam Hussein’s government, that the two had wildly opposing worldviews and interests, and that Saddam Hussein had absolutely nothing to do with the attacks on 9/11. With regards to WMDs, the Bush Administration chose to rely on the testimony of a small group of Iraqi dissidents who clearly had ulterior motives in the overthrow of Saddam Hussein, and to bits of evidence that were already discredited and disavowed by U.S. intelligence (i.e., the claim that Saddam Hussein had sought nuclear materials from Niger). Furthermore, in prematurely terminating weapons inspections, the Administration went out of its way to put a stop to processes that could have

yielded the information and evidence that might disconfirm their beliefs. The decision to go to war in Iraq clearly suggests that decision makers do not consider all of the available evidence. While the degree to which this is due to personal political agendas and to corrupt decision processes is difficult to gauge, the powerful effects of confirmation bias are also likely to play a critical role.

Across all of these public policy decision failures, government leaders and policy makers failed partly because of human limits on awareness and rationality, and partly as a result of predictable, systematic biases that lead individuals to selectively attend to information that confirms their beliefs and expectations. Yet, surprisingly, the economic assumption that (uncorrupt) individuals will make objective analyses and utilize all of the information available to them survives.

Myth 4: Freely operating markets solve economic problems

The belief in the power of free markets to solve problems is the core organizing principle of many of the top economic think tanks. While economists have written about market failures, externalities, etc., at a policy level, far too often, we blindly trust the market. Politically left leaning economists will argue for government intervention based on the observation that self-interested, rational behavior will lead to market failures. We embellish this perspective by arguing that there exist a variety of psychological factors that further prevent free markets from solving economic problems. And, far too often, these psychological factors are not part of policy debates.

One of the more amazing economic failures over the last 30 years has occurred at sea. In fact, this failure has even led to regular and sustained violence between nations. Recently,

Canadian fishers have blockaded a U.S. ferry and shot at a Spanish boat, Russians have shot at Japanese fishers, Iceland has forced a Danish boat from its waters, Australian forces have seized Indonesian boats, and the Portuguese Navy has fired on a Spanish boat. Amazingly, they are fighting over fish! Supported by high-tech equipment and government subsidies, fishers have depleted the oceans of once-plentiful species. Too many boats are chasing too few fish, leading to international skirmishes over borders and poaching. Why do we assume that the free market will solve this problem? At least one problem here is the psychological tendency to *overly discount the future*. Thus, decision-makers often greatly underweight costs that are to be incurred in the future and act in ways that are beneficial in the short-run but disastrous in the long-run.

While economics and political scientists are well aware of the defections that occur in social dilemmas of such type, it has been psychologists and sociologists who have offered new ideas for solving such conflicts (Dawes 1980; Ostrom 1998; Atran, Medin et al. 1999). Ostrom (1998) and Atran, Medin et al. (1999) show that increasing the stability and long-term viability of a group or community can change the focus of decision-makers to be on the outcomes to the community, and to environmentally sustainable behaviors, rather than to the short-term gain of the individual. This implies that incentives should be given to long-term players who will help maintain the stability of a fishing basin, not to fishers who will harvest in the short-term and move on. The more the community “owns” the public resources and values the long-term use of the resource, the greater the level of cooperation that can be expected. This idea applies to sustaining fisheries, as well as other public goods such as forests and the environment.

Pursuing a different solution, but with an application to over-fishing, Wade-Benzoni, Tenbrunsel, and Bazerman (1996) argue that at least a large part of the challenge in having the

affected parties reach an agreement is that parties (nations, fishing interests, boats, etc.) have biased and self-serving views of what a fair settlement entails. When reductions in harvesting are discussed, negotiations often break down because each party believes that they deserve more than they are to be allotted and that others are negotiating in bad faith. A potential solution to such disputes may require the involvement of informed but uninterested parties that can lend objective weight to judgments of fairness and vouch for the legitimacy of proposed agreements.

Judgment biases and errors are not always detrimental. Ironically, the tendency of individuals to overly discount the future yields tremendous opportunity for legislators and policy makers to adopt effective policies even in the face of political opposition. For example, consider the possibility of changing regulations in an effort to save Social Security (SS). The current age for SS eligibility is 65, and is set to gradually increase to 67 for those born after 1959. However, life-expectancy is growing at a faster rate (especially when you consider those who reach 65 years of age), and the number of workers who will have to fund SS for the soon to retire baby-boom generation is too small. The problem with implementing reasonable and critical changes to the system (e.g., increasing the retirement age further) is that such changes are opposed by a powerful voting block: the elderly. While this group represents a small percentage of the total population, it represents a disproportionately large percentage of the voting public. However, if policy makers want to stifle opposition to proposed changes, they might be wise to propose laws that only affect people who are currently not close to retiring (e.g., anyone who is 55 or younger). Because individuals overly discount the future (and because this younger group is not as politically mobilized), such laws are likely to gain more support and less opposition.

In an entirely different context, while there have been many complaints aimed at the use of electoral voting in presidential elections, it is difficult to change the federal voting system

because residents of smaller states benefit from the disproportionate clout they receive from it. However, if a change in policy (e.g., eliminating the Electoral College, or dividing electoral votes in the state in accordance with the popular vote of that state) was proposed to take effect in twenty years, it may be deemed more acceptable. Those who find the proposal reasonable, but who are self-interestedly perpetuating the current system, may find the change easier to support if its effects will not be felt for years to come.

Indeed, there is historical evidence for the power of such policy initiatives. The most divisive (and potentially devastating) issue debated in 1787 by the framers of the U.S. Constitution was slavery. Representatives from the north and south were at an impasse: in particular, Georgia, South Carolina, and North Carolina were opposed to any change in rules concerning the slave trade, slave ownership, or slave recapture. These three states threatened to leave the Constitutional Convention if an end to the slave trade was enacted. What helped to end the impasse was a proposal that gave Congress the power to end the slave trade, but not until 1808. While the very fact that such a compromise was necessary, or that an opposition to entirely and immediately ending slavery existed at all, is disgraceful, the process does highlight the power of leveraging the tendency of people to overly discount the future.

The number and variety of problems that society faces, and which are made more difficult due to our tendency to overly discount the future suffering, is astounding. National debt, global warming, solvency of Social Security, depletion of natural resources, etc., all present us with challenges that require effective policy restructuring. While we are avid fans of the free market system and believe that it is the *sin qua non* of our policy toolkit, over-reliance and misapplication are serious possibilities. These possibilities become more real when we

systematically ignore psychological tendencies that thwart rational assessments pertaining to future costs and benefits.

As a final point, the belief in the limitless power and beneficence of free markets has unfortunately also extended to legitimizing the market for lobbying and influencing political decisions. Billions of dollars are spent each year by those seeking to influence politicians. There is little doubt that the lobbying efforts of the airlines played a critical role in preventing the Clinton/Gore administration from securing cockpit doors in every airplane prior to 9/11 (Bazerman and Watkins 2004). There is also little doubt that the Big Five auditing firms effectively spent millions and millions of dollars to prevent us from creating a truly independent auditing institution, and that the failure of auditor independence has played a critical role in the many financial scandals in recent years (Bazerman, Loewenstein, and Moore, 2002; Bazerman and Watkins, 2004). Similarly, the auto industry has lobbied successfully to block regulations aimed at strengthening emission standards, farmers have lobbied successfully for subsidies, the steel industry has lobbied successfully for import tariffs, and lobbyists themselves have lobbied to defeat or weaken campaign finance laws. The amazing thing is that citizens accept the dysfunctional role of special interest groups, and that they place this issue low on their list of priorities when they vote for politicians. Why? We argue that at least part of the answer lies in the fact that people over-generalize the idea that freely operating markets solve economic problems and that the freedom of expression implies a free market for buying politicians. The fact that the consequences of these decisions are often not observed for many years makes it all the more easy for individuals to remain passive.

Myth 5: Credible empirical evidence consists of outcome data, not of mechanism data

In interdisciplinary seminars with psychologists and economists in attendance, it is common for psychologists to present data that describe how psychological processes affect dependent variables (e.g., survey data about attitudes), sometime to the exclusion of studying actual decisions or outcomes. Our experience is that it is common for economists to be uninterested in research that does not have outcome data. Similarly, in the policy arena, policy makers often request evidence that the problem being discussed actually matters in practice – not just in theory. They want the smoking gun. Put another way, too often, the “dangerous intersection” sign only goes up after a pedestrian is killed at that particular intersection.

George Loewenstein and Max Bazerman testified before the SEC in 2000. We argued that the structure of the U.S. accounting industry made auditor independence an impossible goal. The SEC asked us, and others, to produce the smoking gun of a specific audit corrupted by conflicts of interest – they wanted evidence of the economic effect of psychological bias, and without one, they refused to institute needed reforms. After the financial disasters of 2001 and 2002 started, former SEC Chairperson Arthur Levitt (2002) admitted that this insistence on finding a smoking gun was a key failure of his tenure. He now calls for an application of the lessons of social science, even when economic (or other) outcome data is unavailable. We concur, and only wish he had reached this understanding in 2000, when his commission was searching for the smoking gun and had the capacity to prevent billions of dollars in financial loss.

Similar risks abound in a variety of other policy contexts. For example, there has been, in recent months and years, growing awareness of the potential for bias among doctors who receive gifts (e.g., free vacations, theater tickets, dinners, etc.) from pharmaceutical company representatives (“pharm reps”). Some laws geared towards limiting the amount and types of

gifts that pharm reps can offer to doctors have been enacted. These have not always been popular among doctors or pharmaceutical firms. Doctor claim that they are professionals, and that they have sworn to always act in the interest of patients, and that they would never sacrifice the wellbeing of patients in return for a kick-back. There is no reason to doubt their integrity. There may, however, be plenty of reason to doubt their ability to avoid falling prey to the powerful effects of psychological bias. Doctors who have received gifts may come to see the medical products of their benevolent pharm rep the same way that auditors view their client's accounting practices: subjectively biased in the favor of their benefactor. Psychologists have long demonstrated that reciprocity norms are powerful instigators of behavior: people will often reciprocate uninvited and even unwanted gifts (Cialdini 1993). Furthermore, feelings of obligation, and their effects on reciprocity may not be subject to conscious awareness. The solution is to eliminate any possibility of bias or tacit obligation among doctors. Strict and sweeping rules restricting pharm rep gift-giving (including seemingly benign tokens of appreciation such as free dinner and drinks at the marketing presentation) should be enacted and enforced before we find the smoking gun, which would have to be in the form of patient suffering.

The search for outcome data, and the unwillingness to rely on inferences from mechanism data, also affects judicial decisions. In April, 2001, The FTC filed a complaint against Schering-Plough and Upsher-Smith for restricting trade (Clark 2001). After Upsher-Smith was ready to go to market with a generic pharmaceutical product, Schering-Plough had filed a lawsuit against Upsher-Smith accusing Upsher-Smith of violating their patent. Rather than fight the patent infringement case in court, the two pharmaceuticals reached an out-of-court settlement stating that Upsher-Smith would delay their entry into the market, and that Schering-

Plough would pay Upsher-Smith \$60M for five unrelated products. The FTC filed a lawsuit based on the argument that the \$60M was a sham payment (essentially a kick-back) to keep Upsher-Smith out of the market, and to reduce competition, at the expense of the consumer. The administrative law judge hearing the case ruled against the FTC, largely arguing that the FTC had not produced evidence connecting the market delay to the \$60M payment. He apparently expected to see the email or telephone recording which demonstrated the intent to collude in order to reach an agreement in favor of the FTC. From our perspective, this is a prime example of the judiciary seeking outcome data (the memo demonstrating the intent to restrain trade) rather than inferring from obvious and clear mechanisms². Fortunately, the FTC commissioners had the wisdom to overrule the administrative judge in a 4-0 ruling, based on the observation that these two hostile firms would not have reached the two agreements independently.

More generally, in many situations psychological research on *mechanisms* predicts crises more efficiently than economic or other research on outcomes. Thus, the myth that outcome data is the only reasonable guide for action can be disastrous. The tendency to wait until tragedy strikes is compounded as a result of the omission bias described earlier: policy makers are not held accountable for negligent inaction in the way that they are held accountable for negligent action.

Towards Getting the other Social Sciences More Involved

We want to emphasize that the primary target of our argument is not economists, but governmental leaders, policy makers and the public at large, to whom the message is that an over-reliance on (often mythical) economic assumptions and the overgeneralization and over-

² Bazerman, the first author of this paper, was an expert witness for the FTC, and there is no claim of unbiased inference in our analysis of this case.

extension of economic principles in a variety of policy domains can have detrimental, if not disastrous consequences. It should be emphasized that our goal is to refine, and not to reject economic assumptions and models. In this chapter, we have identified five predominant myths, adapted from pervasive economic assumptions, which serve as guiding policy principles. We have also provided evidence that helps to debunk these myths, and have argued that this evidence should be incorporated into the models that guide policy formulation. For example, the assumption that individuals have stable and consistent preferences ignores the impact of framing effects, the omission bias, and the status quo bias. The assumption that individuals know their preferences and pursue them with volition ignores the impact of self-serving biases and implicit attitudes. The assumption that individuals make decisions based on all of the evidence available to them ignores the fact that decision makers are boundedly aware and subject to the confirmation bias. The assumption that free markets solve economic problems ignores the fact that individuals tend to overly discount the future and make decisions myopically. Finally, the assumption that credible empirical evidence consists of outcome data, not of mechanism data ignores the fact that psychological mechanisms predict behavior and outcomes. Unfortunately, all too often, all of this evidence is entirely ignored and society is worse off as a result. Effective and efficient policy formulation demands that this evidence be considered, evaluated, and incorporation into the models that govern policy debates and guide policy makers.

Our other target is our fellow social scientists to whom the message is that we have allowed one social science to dominate public policy, to win the influence game, and as a result, to shepherd society and our nation towards far too many avoidable disasters. To change this, non-economists need to learn from economists. Academic economists often spend time in Washington, without causing their colleagues to speculate on whether they have given up on

their academic career. Academic psychologists, in contrast, rarely spend time in Washington, and if they do, colleagues might well perceive such behavior as a transition away from a career in scholarly research. We need new ideas in government, and we believe that psychologists are one group who can provide these new ideas. But, this requires that psychologists be willing to move across traditional career boundaries and constraints, to take the risk of cross-disciplinary exchange, and to invest in the public policy-making process.

One direction for such an interdisciplinary approach is outlined by Bazerman et al. (2001). This research agenda advocates what economists call “Pareto improvements”— changes in policy that make some people better off and no one worse off. When you are dealing with 280 million people, true Pareto improvements are all but impossible; most policy changes will require sacrifices from some members of society. But, Bazerman et al. (2001) argue that psychologists can play a crucial role in finding what economist Joseph Stiglitz (1998) refers to as “near-Pareto improvements”: policy changes that create large benefits for some and trivial losses for others. Stiglitz examines economic barriers to near-Pareto improvements. Bazerman et al. (2001) argue that the cognitive limitations of citizens and government decision-makers may be an even greater barrier. This is a domain in which the two disciplines can work together towards addressing one of the most serious problems facing any democracy: Improving the decision processes of voters and politicians.

Perhaps the greatest barrier to psychologists having influence is the unwillingness of many psychologists to use prescriptive frameworks. One key exception is the work of behavioral decision researchers (Bazerman 2005). Behavioral decision research delineates the systematic ways in which people psychologically deviate from rational behavior. This field examines departures from rationality, clarifying mistakes for humans to avoid. These departures

are often measured against economic models, and this structure allows for a clearer understanding of the mistakes that are being made and the changes that can make the world a better place. Our point is simply that for psychologists to have an impact, they must go beyond mere descriptions of behaviors and processes, and be willing to articulate and clarify prescriptions. At the same time, when they do, and economists in power ignore their insights, society pays. The solution again requires cooperation between the two disciplines.

Finally, we want to clarify that we are agnostic about who the people are that bring psychology to public policy debates and decisions. It could be psychologists who enter the policy realm. It may also be the growing breed of behavioral economists who integrate psychological insight into economic frameworks and policy recommendations. The critical issue is for psychological lessons and insights to inform public policy so that society no longer has to pay the price of economic domination.

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The difference between psychology and economics is that economics study how humans behave in markets. Whether it be the computer market, technology market, cosmeti. Continue Reading. This psychologist won the Nobel prize for economics. Classical economics is clearly very different from the modern school of behaviourist economics pioneered by the chap above and popularised by Levitt and Dubner, Dan Ariely and others. It doesn't model money but instead focuses on motivation, the reasons why people do the things they do. Southerners believed they would lose money if slavery ended, and they had to pay the workers on the farms. Southerners argued that ending slavery would be economically a disaster for the South. Stefano DellaVigna Psychology and Economics: Evidence from the Field, *Journal of Economic Literature* 47, no.22 (May 2009): 315-372. <https://doi.org/10.1257/jel.47.2.315>. Sonya Sachdeva, Rumen Iliev, Douglas L. Medin Sinning Saints and Saintly Sinners, *Psychological Science* 20, no.44 (Apr 2009): 523-528. Deepak K. Malhotra, Max H. Bazerman Economics Wins, Psychology Loses, and Society Pays, *SSRN Electronic Journal* (Jan 2005). <https://doi.org/10.2139/ssrn.683200>. Richard P. Larrick, George Wu Claiming a Large Slice of a Small Pie: Asymmetric Disconfirmation in Negotiation, *SSRN Electronic Journal* (Jan 2005). Economics is the social science that dominates public policy debate and formulation. Economic assumptions lay the foundation for policy initiatives and economic. Malhotra, Deepak K. and Bazerman, Max H., Economics Wins, Psychology Loses, and Society Pays (2005). Available at SSRN: <https://ssrn.com/abstract=683200> or <http://dx.doi.org/10.2139/ssrn.683200>. Deepak K. Malhotra. Economics Wins, Psychology Loses, and Society Pays. In *Social Psychology and Economics*, D. de Cremer, J.K. Murnighan and M. Zeelenberg (Eds.), Mahwah: Lawrence Earlbaum Associates. 263-280. Camerer, C.F. (2003). *Behavioral Game Theory: Experiments in Strategic Interaction*. Princeton: Princeton University Press. Camerer, C.F. (2006). *Behavioral Economics*. World Congress of the Econometric Society, London. Social psychology research shows that positive illusions are overall beneficial, specifically for motivation and achievement. Beliefs about oneself are motivated toward accuracy, consistency, and enhancement, with selfenhancement being the strongest goal (Sedikides, 1993). People have unrealistically high self evaluations, perceptions of control over events, and optimism for future events (Taylor and Brown, 1988). Economics wins, psychology loses, and society pays. *Negotiation, Organizations and Markets Research Papers*. Harvard NOM Research Paper No.0507.SSRN. Malmendier, U., & Tate, G. (2008).