

Enlarging the Societal Pie through Wise Legislation: A Psychological Perspective

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Abstract

We offer a psychological perspective to explain the failure of governments to create what Joseph Stiglitz (1998) calls near-Pareto improvements. Our tools for analyzing these failures reflect the difficulties people have trading small losses for large gains: the fixed-pie approach to negotiations, the omission bias and status-quo bias, parochialism and dysfunctional competition, and the neglect of secondary effects. We examine the role of human judgment in the failure to find wise tradeoffs across diverse applications of citizen and government decision-making, including AIDS treatment, organ donation systems, endangered species protection, subsidies, and free trade. Collectively, we seek to offer a psychological approach for understanding suboptimality in government decision making.

South Africa is the center of the AIDS epidemic today, with approximately 28% of the population infected. The illness is sapping the government's efforts to spread the benefits of economic development to its black population. Nevirapine is the drug of choice to prevent the transmission of AIDS from mother to infant; while far from perfect, the drug has been proven to reduce the transmission rate by 50% (Lane, Folkers, and Fauci, 2005). The current South African government, under President Thabo Mbeki, has never been enthusiastic about AIDS treatment. For a while, Mbeki even challenged the science linking HIV and AIDS. As a result, the country was slow to adopt Nevirapine as a treatment method.

In 2004, Mbeki and activists in South Africa and the United States called attention to reports that Nevirapine had toxic effects, especially on the liver, and that it increased the mutation rate of the HIV virus (Lane et al., 2005). Rumors spread across the country that Nevirapine was an effort by rich countries to foist a poor treatment on poor black people.

The risks of liver damage from Nevirapine were well known, printed clearly in a black box on the drug's package insert. The finding of increased virus mutations was not new either; indeed, all anti-retroviral drugs are known to have this effect. But AIDS is a fatal disease, and effective treatment requires patients to take on greater risks than patients with other, less threatening diseases, such as diabetes or asthma, would accept. The benefits of Nevirapine far exceed the costs.

Why are inefficient government policies such as the South African government's stance against Nevirapine supported by citizens, political leaders, and government officials? Other disciplines have addressed this question, particularly the fields of political science and economics, which have examined the role of special-interest groups and the dynamics of political-pressure groups (e.g., Buchanan & Tullock, 1962; Olson, 1982). In this paper, we apply a psychological perspective to this question, with the goal of understanding the inefficient

behavior of politicians and the acceptance of these inefficiencies by their constituents.

Psychologists have a large toolkit of knowledge that can help societal decision-makers. Janis (1982) and Jervis (1976) have provided psychological accounts of errors in major government policy decisions, accounts that focus on the decision-making processes of heads of state. The part of the toolkit that we use is the area of behavioral decision research (Tversky and Kahneman, 1974; Baron, 2004; Bazerman, 2005). Behavioral decision researchers identify the specific ways in which human judgment departs from rationality, where rationality implies the acceptance of small losses in return for large gains. We will focus on current research concerning sub-optimality in decision making and the acceptance of such inefficiencies by voters.

Most citizens would agree that a fundamental goal of any government should be enlarging the pie of resources that society has at its disposal. Yet, few citizens judge their leaders according to this key attribute. Instead, voters too often focus on the narrow interests of a smaller group to which they belong (coalminers, lawyers, stockholders, soccer moms, anti-trade activists, etc.). But when government decisions are tailored to benefit small groups of constituents, valuable public resources - from tax dollars to national forests - are often misused, squandered, and ignored.

Decision research has identified judgment biases that underlie these failings. The most common of these cognitive errors concern the difficulties people have making and understanding tradeoffs. Indeed, consistent with our earlier writing (Bazerman, Baron, and Shonk, 2001), we will argue that most failed government decisions can be traced to the widespread human failure to identify and make wise tradeoffs by accepting small losses in exchange for larger gains. While most people know tradeoffs to be exchanges that result in both a gain and a loss, the human mind often overlooks wise tradeoffs - those in which gains significantly

exceed losses. As a result, they often fail to choose policies that, compared to the alternative, do a great deal of good and cause very little harm.

A Pareto-optimal policy is one that creates more benefits relative to the alternative and causes no harm; such policies help some people and hurt none. Opportunities to adopt Pareto-optimal national and international policies - where the status quo is the alternative - are rare at best. Most of the time, we must make a tradeoff, creating both a gain and a loss.

Stiglitz (1998) has argued that some tradeoffs are "near-Pareto improvements." Such policy changes will greatly benefit some people while imposing comparatively trivial losses upon others, such as a special-interest group that may have already manipulated the political system to its advantage. According to Stiglitz, "if everyone except a narrowly defined special interest group could be shown to benefit, surely the change should be made" (Stiglitz, 1998).

The case of Nevirapine in South Africa does not involve a special-interest group, because those who will be harmed by the drug - and there will be some - do not yet know who they are. Nevertheless, the adoption of Nevirapine is an example of a near-Pareto improvement, as it would improve on the status quo and create much more good than harm. The recognition of the benefit of near-Pareto improvements requires people to rationally weigh costs and benefits. Too often, however, when people are confronted with the opportunity to make a change based on a tradeoff, they fail to compare magnitudes, and choose to stay with the status quo.

One solution for the failure to make wise tradeoffs may well be a broader understanding of the idea that good, or utility, can be compared across different outcomes. It is indeed possible to say that a large reduction in the risk of an infant being born with AIDS is much better than a small reduction in the risk of a temporary illness in the mother. The insight that degrees of goodness may be

compared is fairly recent and has not spread to most cultures (Baron, 2000). Yet, it lies at the heart of most forms of utility theory, especially multi-attribute utility theory and utilitarianism (Baron, 2004).

In the following sections, we present a number of biases and discuss examples of these biases that either prevent near-Pareto improvements or causes the opposite, the abandonment of good policies in favor of worse ones. We limit our focus to only a handful of the more important barriers to near-Pareto improvements. Specifically, we examine the mythical fixed-pie, the omission bias, parochialism, nationalism, dysfunctional competition, and the tendency to ignore secondary effects, and show the relevance of each to a number of failed policy decisions. Overall, we argue that the pursuit of wise tradeoffs can be expected to lead to better government policy that expands the amount of societal resources available to us all.

In our examples, we argue for one side of policy debates that usually have two sides. Some of our examples are associated with the political left, others with the political right. Biases that impede near-Pareto optimality are not limited to one side of the political debate. Nor are biases characteristic only of foolish and shortsighted leaders, or of ill-informed and thoughtless citizens. Rather, the majority of citizens, politicians, and government officials share many of the impediments to better outcomes. In fact, many of these barriers are not even public matters of dispute.

The Mythical Fixed-Pie

Agreements in diplomatic situations are frequently blocked by the assumption that interests of the parties involved are diametrically opposed. Creative agreements occur when participants discover tradeoffs across issues - but individuals will not search for these trades if they assume the size of the pie is fixed (Neale and Bazerman, 1991). Parties tend to assume they are fighting over

a limited amount of resources whose size cannot be increased.

Environmentalists and industry leaders frequently adopt such polarized views in disputes over land and conservation.

The assumption of a "fixed pie" (Bazerman, 1983) is rooted in social norms that lead us to interpret most competitive situations as win-lose. People tend to generalize from these objective win-lose situations to situations that are not necessarily win-lose (Bazerman, 2005; Bazerman, Magliozzi, and Neale, 1985). In fact, most negotiation situations are made up of a number of issues, each of which has multiple dimensions. When parties have differing assessments about the importance of these various dimensions, they can make wise tradeoffs across issues to improve the overall quality of the agreement. For instance, if one side cares about X much more than Y, and the other side cares more about Y than X, the best outcome would be for the first side to receive X and the second side to receive Y. For both sides to achieve maximum benefit, each should make a small tradeoff in exchange for something it values much more. Because our intuition leads us to focus on losses rather than gains, we tend to ignore such opportunities (Bazerman, Curhan, Moore, and Valley, 2000).

When inefficient regulations, laws, and policies are already in place, the omission and status quo biases (which we will discuss later) combine to focus attention on losses rather than on the benefits of any change. Thus, unwillingness to accept small losses in return for larger gains prevents negotiators from achieving the best outcome for both sides.

The integrative complexity of your thought processes - the degree to which you consider a problem from multiple perspectives - may be one factor that predicts whether you will move beyond the fixed-pie mentality (Chaiken, Gruenfeld, and Judd, 2000). At the lowest levels of integrative complexity, people view negotiations in black and white: They recognize all of the advantages of the option they favor and none of its drawbacks. At higher levels, they begin to

identify the pros and cons of various options, and view the decision as a quest for the best overall balance. Negotiators who have adopted integratively complex thinking are likely to consider the advantages of the other side's proposals; when these advantages are substantial, and the disadvantages to themselves are small, they are likely to accept the proposal. This mindset reflects the ability to identify and accept wise tradeoffs. In independent work, Gruenfeld and Tetlock have argued that the wisest government policies often result from "integratively complex" thinking rather than from the intransigent positions found in most political, economic, or environmental negotiations (Gruenfeld, 1995; Tetlock, Peterson, and Lerner, 1996).

The losses that can result from fixed-pie thinking are illustrated by the story of Ben Cone (discussed in more detail by Bazerman et al., 2001). For decades, the Cone family managed their 7,200 acres in North Carolina's Pender County for wildlife by planting fodder, conducting controlled burns, and keeping timber sales low. The land was a profitable forest where songbirds, wild turkey, quail, and deer thrived. This all changed in 1991, when a wildlife biologist determined that approximately 29 red-cockaded woodpeckers, members of an endangered species, were living on the property. Acting on the authority of the 1973 Endangered Species Act, the U.S. Fish and Wildlife Service seized control of the woodpecker's habitat - 1,560 acres, or about fifteen percent of Cone's land (Baden, 1995).

In the aftermath of the seizure, Cone abandoned the moderate, sustainable practices he learned from his father. Instead of clearcutting fifty acres of land every five to ten years, he began clearcutting up to five hundred acres of forest each year. Why did Cone turn to such destructive practices? He explained: "I cannot afford to let those woodpeckers take over the rest of the property" (Stroup, 1995). By harvesting the oldest trees on the land still within his control,

Cone prevented the woodpeckers from expanding their habitat. In the process, he also destroyed vast swaths of his forest, perhaps forever.

Clearly, Cone's actions were not what the authors of the ESA had in mind. Indeed, the ESA offers its own solution to dilemmas such as Cone's: Habitat Conservation Plans (HCPs). In simple terms, HCPs allow private landowners "incidental take" of listed species in the course of lawful development activities, provided the landowner also takes certain steps to preserve the species. HCPs attempt to serve both the interests of the endangered species and the economic interests of landowners; they have resulted in many innovative agreements. The Fish and Wildlife Service repeatedly approached Cone with proposals for HCPs, but he rejected these offers, choosing to stick with his slash-and-burn strategy. Why? Cone apparently assumed that if a plan was desirable to environmentalists, it must be bad for his business. The mythical fixed-pie mentality - the belief that the pie of resources is fixed in size - is antithetical to the cooperative discovery of the types of wise tradeoffs that can improve the overall quality of negotiated outcomes.

Flexibility and creativity are the keys to satisfying economic and environmental agreements. The Unocal Corporation and the Environmental Protection Agency demonstrated such ingenuity in reducing Unocal's costs for complying with the hydrocarbon and nitrogen oxide standards in the Los Angeles basin (Bazerman and Hoffman, 1999). In 1990, rather than undertaking costly and inefficient refinery renovations, Unocal launched a program aimed at clearing the air more cheaply: The company began buying up pre-1971 high-polluting vehicles from the L.A. area for \$600 apiece and scrapping them. Estimating the number of miles the vehicle would have been driven had it not been scrapped, Unocal determined that it had prevented nearly 13 million pounds of air pollution per year from the L.A. basin. The same reductions would have cost ten times as much and taken ten times as long had they been made at the company's L.A. refinery

(Stegemeier, 1995). A mixed-motive perspective leads parties away from the fixed-pie mindset, toward a rational search for outcomes that maximize both environmental and economic gains.

The Omission Bias

Which would you prefer:

- a. If you die in an auto accident, your heart will be used to save another person's life. In addition, if you are ever in need of a heart transplant, there will be a 90 percent chance that you will get the heart.
- b. If you die in an auto accident, you will be buried with your heart in your body. In addition, if you are ever in need of a heart transplant, there will be a 45 percent chance that you will get the heart.

If you are like most people, you chose Option A (Bazerman et al., 2001). The explicitness of this tradeoff is part of what makes the choice clear for most people. Yet, as we will later show, the omissions bias leads societies, including the United States, to act in ways inconsistent with this clear preference.

Now suppose you learn that you have a ten percent chance of catching a new strain of flu virus. The vaccine available for this virus will completely prevent it, but has a five percent chance of causing symptoms identical to those it is supposed to prevent, and with the same severity. Would you get the vaccine? Many people would refuse it (Ritov and Baron, 1990). They would worry more about the risk of harm from action - the five percent risk of an adverse reaction to the vaccine - than about the risk of harm from inaction, or the ten percent risk of catching the flu without the vaccine. This is the case despite the fact that the vaccine is a better bet, reducing the chance of flu symptoms by five percent. Although this example is hypothetical, it has been observed in people's real-life

decisions about vaccination (Meszaros, Asch, Baron, Hershey, Kunreuther, & Schwartz-Buzaglo, 1996; Wroe, Turner, & Salkovskis, 2004).

The irrational preference for harms of omission over harms of action is known as the omission bias (Ritov and Baron, 1990; Baron and Ritov, 2004). When contemplating risky choices, many people follow the popular rule of thumb, "Do no harm." This principle embodies the notion that it is wrong to harm one person to benefit another, even if the benefit outweighs the harm. An admonition against harmful actions, "Do no harm" is silent on the question of harms of omission.

In most cases, harmful omissions are not as blameworthy as harmful actions because actions involve greater cost, hence greater intention. Yet people apply the distinction between intended versus accidental harm even when it is unjustified (Baron, 1996). For example, when we are evaluating public policy options in which the costs are equal, a bias toward harmful omissions cannot be excused away due to lack of intended harm. The omission bias is the cognitive error that most pervades our risk decisions in both the laboratory and the real world, and it helps to explain why many more people catch the flu than need to each year (Baron, 1998).

Returning to the organ donation question that opened this section, if most people prefer Option A, why does the United States, like most other countries, maintain an organ donation policy that resembles Option B? In 2000, more than 60,000 Americans were waiting for an organ transplant (Gibbons, Meltzer and Duan, 2000). We can expect that at least one third of them will die waiting (Smirnoff, Arnold, Caplan, Virnig, and Seltzer, 1995). In the United States, consent for donation must be obtained from the potential donor or a close family member before an organ is harvested. This system favors donors over recipients - despite the fact that the pool of donors and recipients is nearly the same. After all, few of us can predict whether we will be put in either role someday. Within the U.S., discussion of organ donation has focused on how to divide a small pie, such as

whether the available organs should be allocated on a regional or national basis. While experts debate who should receive available organs, little attention is paid to expanding the number of organs in the system.

In countries such as Belgium, Austria, and Brazil, organ shortages have been alleviated and in some cases eliminated by a simple switch in policy from "required request" to "presumed consent." Under presumed consent, organ donation, rather than burial with all of one's organs intact, becomes the default. Instead of handing out donor cards to those who consent to donation, the government gives objector cards to those who refuse. Citizens who do not object are automatically assumed to be potential donors.

This simple change in mindset has saved thousands of lives. In Belgium, donations leaped by 140 percent after a presumed consent law was introduced. After a similar law was passed in Austria in 1983, the waiting list for organs fell to a small fraction of its previous size by 1990 (Gnant, Wamser, Goetzinger, Sautner, Steininger, and Muehlbacher, 1991). Such laws may be particularly effective because they presume the consent not only of donors, but also of their families, who also must act to deny a donation. Johnson and Goldstein (2003) demonstrate that countries in Europe with an opt-in program similar to that of the United States have donation rates that fall between 4% and 28%, while European countries with opt-out programs have rates ranging from 86% to 100%.

Presumed consent laws can be expected to save thousands of American lives each year. Why hasn't the United States enacted these reforms? The relative lack of concern about failure to donate appears to result from the common intuition that harms arising from omissions are less blameworthy than those caused by acts. However, this distinction between acts and omissions is arbitrary, created entirely by the law. A system of presumed consent reverses this situation: By requiring an act to refuse donation, the do-no-harm rule works against refusal. In return for the small risk that an individual's desire not to donate

will be ignored - because of pressure to consent, for example - many lives are saved. When consent is presumed, potential donors are forced to view refusal as a harmful act.

The omission bias is usually correlated with another bias, the bias toward the status quo (Samuelson and Zeckhauser, 1988; Ritov and Baron, 1992). Risky decisions, such as changes to government policy, usually require action. Thus, when contemplating a change, people are more likely to be concerned about the risk of change than about the risk of failing to change, and will be motivated to preserve current systems and beliefs. Occurring independently of the omission bias (Schweitzer, 1994), the status-quo bias is a general source of opposition to reform even when people regard the consequences of reform as an improvement (Baron and Jurney, 1993). The status-quo bias makes us reluctant to change to an organ donation system that presumes donor consent - although, as discussed, the risks of change are much smaller than the potential benefits. Those who oppose presumed consent laws and other beneficial changes to government policy must accept that their irrational approach to risk causes real harm.

Omission biases and related biases such as the status-quo effect are impediments to the achievement of near-Pareto improvements. A switch to presumed-consent would hurt very few, such as those who follow a religion that tells them to opt out of the system but who neglect to do so, or those who feel pressured into remaining in it, but would help a great many, including those for whom it may be literally a matter of life and death. Likewise, vaccinations cause a few harmful side effects but prevent a great many cases of disease. Other examples include neglect of poverty in poor countries and the reluctance of drug regulators to approve new drugs; in such cases, errors of commission are treated more seriously than errors of omission, despite the great harm done by the latter (Bazerman et al., 2001; Baron, 1998).

Parochialism

At times, people succumb to parochialism: they are willing to sacrifice their self-interest for the benefit of a group to which they belong, but these sacrifices come at the expense of a larger group. At best, the overall benefit of such sacrifices is zero; at worst, the gains achieved by the group are far less than the costs inflicted upon broader society.

Consider a study by Bornstein and Ben-Yossef (1994), who gave subjects the opportunity to contribute money to a common pool. The contribution cost the contributing subject, helped every member of the subject's group, and hurt every member of another group to an equal extent. The net effect was the loss of the endowment. Subjects contributed more in this condition than in a control condition in which the contribution had no effect on the other group. In other words, they were more likely to sacrifice their self-interest when they could hurt another group by doing so. Other researchers have found similar results (Schwartz-Shea and Simmons, 1990, 1991).

One possible explanation for parochialism is that people judge their own outcomes by comparing them with the outcomes of others (Bazerman, Loewenstein, & White, 1992). People often prefer to receive less than they might, provided that others receive the same amount, than to receive more when others would receive more than them. Of course, the ultimate benefits of money lies in what it can buy, not where it puts one in the pecking order. Exceptions to this rule include positional goods that are limited, such as beach-front property, and hence available only to the relatively rich. But competition between two small groups is unlikely to affect the price of any such positional goods. Thus, it appears that the role of competition over perceived value is to prevent the achievement of near-Pareto outcomes in which everyone wins.

Another explanation for parochial behavior is the tendency of group members to confuse their self-interest with the interest of their group. We sometimes reason, "If I contribute, I'll help my group. And by helping my group, I help myself." But problems arise when the amount that comes back to the contributing subject is smaller than his or her contribution and when the benefit to the group is smaller than the costs to the larger society. When a person's group is competing with another group or with society as a whole, group membership is more salient, and parochialism is likely (Baron, 2001).

These experiments on parochialism are reflected in real-world conflicts in which people sacrifice their own self-interest to help their group at the expense of some other group. For example, in 1997, about 45,000 German coal miners participated in a three-day demonstration in which they blocked traffic, camped out in a stadium, and generally inconvenienced themselves and others. The issue was the timing and magnitude of the reduction in the coal-mining subsidy paid out of taxes on electricity. The subsidy increased costs to everyone because coal mining in German was mostly inefficient compared to mining elsewhere and compared to other sources of energy.

Because the numbers in dispute were "on the table," and because the miners actually won, it is possible to estimate the financial benefit to the miners that resulted from their protests, assuming that the cost to the miners was their lost wages for the time spent protesting (Bazerman et al., 2001, pp. 123-127). If each miner cared as much about every other miner as he did about himself, then his actions were financially worthwhile. In other words, the total benefit in terms of extra income for all miners was greater than the total in lost wages from the protest.

Yet, from the perspective of the narrow self-interest of each miner, participation was a loss. If the benefit was proportional to the size of the protest, then if one miner dropped out of the protest, the benefit would be $44,999/45,000$ of the total

benefit obtained a tiny loss, one much smaller than the loss in wages resulting from participation in the protest.

So far, this looks like a classic "social dilemma," in which each miner's cooperation (participation in the protest) is best for all, yet worse for himself. But, as in the experiments just described, that isn't quite the situation. The mining subsidy was a transfer from other Germans to the miners. Thus, anything the miners gained was a loss for everyone else. (And the miners wages were not especially low, so this was not a matter of transferring money from rich to poor.) The narrow self-interest of the miners coincided with the interests of the non-miners. Participation in the protest was a loss for each miner, a gain for the group of miners, and a loss for everyone else roughly equal to the group's gain. Add it all up, and what remains is the direct cost of participation in lost wages, with the rest of the outcome a wash.

Each miner, though, may have thought he was helping himself by helping his group. He may also have thought about the situation as a competition between miners and others. This kind of thinking is prevalent in international, ethnic, and religious conflicts; some even put their lives on the line for the sake of their group and at the expense of another group. It is also evident in attempts to influence government policy in favor of one's own group at the expense of other groups. In all of these cases, we can consider the parochial behavior from three points of view: that of the individual, his or her group, and the world. Political action in favor of one's group benefits the group but, in these cases, is costly to the individual and to the world. Perhaps if people understood that such behavior was not really in their self-interest, they would behave less parochially, and we would see fewer of these kinds of conflicts.

Nationalism

In psychological terms, nationalism can be viewed as a type of parochialism, or narrow loyalty to one's group. Because it reflects a preference for one group over others, nationalism also can be considered a kind of prejudice. Now that racism and sexism are widely condemned, nationalism may be the last type of prejudice to be widely tolerated. This bias often takes subtle forms. Baron (1996) asked subjects whether they would favor a trade agreement that would cause job gains in Mexico and job losses in the United States, such that the gains in Mexico would be 10 times the losses in the United States. Three-quarters of the American student subjects did not support such an agreement; they were willing to sacrifice ten Mexican jobs for every American job.

Baron (1996) also asked subjects if they would favor the hypothetical agreement if they were citizens of a third country. Three-quarters of them said they would support it. They were also asked whether they would support an agreement involving Pennsylvania (where the study was done) and another U.S. state, in which Pennsylvanians would lose a certain amount of jobs but those in the other state would gain ten times as many. Most supported this agreement. "This agreement would hurt Pennsylvania, but it would greatly help the economy of the whole country, so I would support it," said one. "I realize the implications of this last question, and it makes a valid point: If different countries could work together and look out for the benefits of the whole world, as the states of America are united, then everyone would benefit."

This is our point exactly. Most of us consider the effects of our behavior, including the effects of political action such as voting, on others. Why should this concern for others stop at the border? It is just as arbitrary to limit our concern to co-nationals as it is to limit it to people of the same race or sex. If voters considered the best interests of humanity when they voted, and if they were willing to tolerate small losses for some in return for large gains for others, all would benefit. In the long run, we will achieve greater prosperity worldwide by

taking opportunities to expand trade. To enlarge the pie of resources for all, citizens of prosperous countries must become willing to accept small and temporary costs at home.

Dysfunctional competition

In recent decades, state and local officials across America have spent billions of tax dollars on new sports facilities in the hope of luring or retaining a professional sports franchise in their region. Team owners have fueled this building boom, pitting city against city in the scramble for new sports venues with profit-generating restaurants, luxury suites, and seat licenses. From 1990-2005, stadium and arena construction and renovation projects for Major League Baseball, the National Football League, the National Basketball Association, and the National Hockey League were supported with \$10.374 billion in public subsidies (Center for Study of Responsive League, 2005). The following communities have provided at least \$250 million in subsidies for professional sports franchises: Baltimore (and Maryland), Chicago, Cincinnati, Cleveland, Denver, Detroit (and Michigan), Hartford, Houston, Milwaukee, Nashville, Philadelphia, Pittsburgh, San Antonio, San Diego, Seattle, Scottsdale, and St. Louis (Cagan and deMause, 1998; www.leagueoffans.org). These giveaways add up to one of the most extravagant corporate welfare systems in the United States today.

Team owners faced with losses or low profits have a strong incentive to demand public assistance to build or improve their stadiums. New or renovated stadiums generally increase the profits of team owners, at least temporarily (Quirk and Fort, 1997); the team's resale value soars when it moves into a new home. Because team owners band together in leagues to limit the number of teams available, more cities and states desire major league franchises than there are franchises to go around. Although teams move infrequently, the excess demand

provides team owners with strong bargaining power. Their threats of relocation drive cities into expensive bidding wars that local politicians rarely can resist.

This is true despite the fact that, according to a Media Research and Communications poll, 80 percent of Americans oppose having their tax dollars spent on sports stadiums and arenas (Rosentraub, 1997). And it's not just locals who must foot the bill: A change to the Tax Reform Act of 1986 facilitated the use of federally tax-exempt bonds in arena construction, diffusing the costs of building a stadium throughout the country.

When a team threatens to leave a city, some residents will pressure their local government to enter a bidding war with other communities. Public officials must ask themselves whether the public benefits of retaining a team justify the associated public costs. One study found that of fifteen new or renovated stadiums, only the Dodger stadium in Los Angeles generated enough tax revenue to pay for the original public assistance plus interest cost (Baim, 1990). New jobs generated by new sports facilities tend to be low-wage (janitors, concession workers, and parking lot attendants); meanwhile, the high salaries paid to players and managers typically flow out of the local economy (Rosentraub, 1997). Because public resources are finite, stadium deals reduce the amount of funding available for critical community needs, such as education or community policing.

Bad stadium deals are the product of dysfunctional competition between governments. Private-sector competition generally improves the local or national economy, creating better and more affordable goods and services. Competition can become dysfunctional, however, when organizations invest resources simply to achieve the satisfaction of winning or to hurt a competitor. Government competition can be far more destructive than private-sector competition because, unlike corporations, governments must provide public services such as highways to libraries. When competitive practices backfire, citizens suffer the

consequences in the form of service cutbacks or tax increases. In private industry, competition fuels creativity and innovation; between governments, competition fuels the flow of taxpayer funds to selected private interests. Valuable, finite resources such as tax dollars and government land are squandered in destructive competition between cities, states and regions.

Dysfunctional competition between communities and regions for professional sports teams, manufacturing plants, and corporate headquarters can be explained by a psychological mechanism known as the winner's curse. When a bidder wins an auction in which parties have made varying estimates of the prize's worth, the highest bidder is likely to have overvalued the prize commodity in comparison to other bidders (Capen, Clapp, and Campbell, 1971; Bazerman and Samuelson, 1983; Kagel and Levin, 1986). The winning bidder has failed to draw a key inference: The party who most overestimates the value of the prize often makes the winning bid. Similarly, when city leaders estimate the value of a baseball team, the "winning" city will be the one with the most overoptimistic estimate of the team's value. If a bidder assumes that her organization, city, or state will win an auction, she should recognize that she may have overestimated the value of the commodity in comparison to other bidders. The other bidders may not value the prize for reasons the winning bidder has not considered.

The creation of excess capacity in the context of sports arenas is consistent with Camerer and Lovallo's (1999) observation that overconfidence may lead too many firms to enter a market and with Zajac and Bazerman's (1991) discussion of cognitive blind spots in market-entry decisions. Even in domains where competition is generally beneficial, an excess of entrants can result from cognitive biases. In the case of competition for sports teams, the fact that taxpayers subsidize market entrance exacerbates the harms of excess capacity. It would be best if cities and firms supported regulations to prevent such practices. But backing such regulation would itself require time and money,

losses that might loom larger than the potential gain. In fact, the long-term gains of regulation or mutual agreement would far outweigh short-term losses.

Secondary Effects

Many actions have two effects: an immediate effect and a secondary effect. Usually the action is taken to bring about the immediate effect, rather than the secondary effect, even if the secondary effect is larger. Thus, for example, an increase in the minimum wage has the immediate effect of raising wages for the poor and a secondary effect of reducing employment of those same people. Similarly, the immediate effect of a state business tax may be to raise money for the state government, but the action may have the secondary effect of driving businesses into other states. In many instances, the secondary effect is so much greater than the primary one that a near-Pareto improvement could be obtained by choosing not to act, so that neither effect comes about.

When evaluating the attraction of the tax or other payment mechanism, lawmakers and voters tend to overlook or discount the significance of secondary effects. This general phenomenon has been called the isolation effect (Camerer, 2000; Kahneman & Lovallo, 1993; McCaffery & Baron, 2003; Read, Loewenstein & Rabin, 1999), but is closely related to (and perhaps identical to) what others have called the focusing effect (Idson et al., 2004; Jones et al., 1998; Legrenzi et al., 1993). The focusing effect sprang from the theory that people reason from mental models (Legrenzi et al., 1993); when possible, we use a single, simple, model that represents only the information that we are given, and ignore or discount other factors.

Returning to the issue of taxes, people often do not think through to the secondary effects of “hidden” taxes such as taxes on business profits. A tax on a business sounds relatively painless - until we consider who actually pays such taxes. Depending on the business and the alternatives available, a business

facing new taxes choose to reduce wages, raise prices, or reduce its dividends (payments to owners, often stockholders). It usually cannot undertake these actions progressively (e.g., by reducing dividends only to rich shareholders and not to the workers' pension funds). Thus, a business tax is roughly a combination of a flat wage tax, a flat consumption tax, and a flat tax on dividends.

Despite the disadvantages of business taxes, most localities, states, provinces, and national governments rely on them. Business taxes tend to retain popular support because the public fails to think through their effects. A near-Pareto improvement would require us to replace business taxes with income taxes or some other sort of progressive taxation. Replacement of a business tax with a progressive tax would reduce the burden on those least able to pay - those who will most notice the difference - in return for a higher burden on those who will feel very little effect.

In a study by McCaffery and Baron (in press, a), most of the subjects, primarily U.S. taxpayers, preferred business taxes to income taxes as a way of paying for new programs such as government health care. When subjects were prompted to consider who would pay such taxes, however, many concluded that some of the burden would fall on workers and/or consumers. (The prompt gave no hint about the direction of the secondary effects.) Because many of these subjects preferred some progressivity in the tax system, and because they believed that income taxes are more progressive than business taxes that ultimately are paid by consumers and workers, they tended to look more favorably on the income tax after they were asked what the secondary effects might be. In sum, they initially focused on the primary effects and did not think about the secondary effects until they were asked to do so.

A related example of the tolerance for detrimental secondary effects is the U.S. public's acceptance of large budget deficits that result from a combination of tax cuts and unchanged government spending. In one study, McCaffery and Baron

(in press, b) found that most subjects, when asked about appropriate levels of government taxation and spending, preferred low taxes and even lower spending, leading to a budget surplus. But these subjects were responding to questions about overall levels of taxation and spending as a proportion of the average person's income. The same subjects were then asked the spending question in a different way. Specifically, they were asked whether spending should be increased or decreased for particular programs on a list that included most of the programs supported by national governments. When the question was asked this way, the preferred net change in spending was approximately zero, even though the same subjects, on the same page, continued to support substantial tax reductions. Thus, the problem may be that people support spending cuts in the abstract but fail to think through where those spending cuts will fall. Few people are willing to advocate significant cuts to many programs, especially programs such as pensions and health care for the retired.

Many other "populist" policies also succumb to the same problems involving secondary effects. These include price controls, command-and-control regulation of pollution (as opposed to pollution taxes or cap-and-trade systems), land redistribution without compensation, strict laws concerning firing of employees, and trade restrictions to save jobs. All of these policies achieve their support on the basis of small, immediate benefits. In most cases, however, their negative secondary effects (many of which operate by causing businesses to move elsewhere) are so large that even the immediate beneficiaries of such policies lose out eventually, through higher prices, lower wages, fewer jobs, and shortages. Thus, near-Pareto improvements can be obtained by avoiding such policies, which are found in rich and poor countries alike.

Similarly, the U.S. public fails to support significant campaign finance reform, despite the potential of such reform to create many of the near-Pareto improvements discussed throughout this paper. Preventing special-interest

groups from manipulating policy through campaign donations and lobbying would threaten what some view as “freedom of speech” and might prevent one’s own favorite special interest from effective action. However, the secondary effect would be the potential to dramatically improve the quality of government decision making across many domains. As in other examples, the threat of immediate losses prevents dramatic secondary gains.

Discussion

When unaddressed, irrational individual behaviors can snowball, leading to suboptimal communal outcomes (Schelling, 1978). Political scientists have explained such suboptimality as the natural evolution of a web of political action (Brennan and Buchanan, 1985). We accept these analyses, but also argue that another means of understanding suboptimal government decisions should be explored. When applied to the behaviors of politicians and citizens, the findings of decision-making research yield new explanations for failed government policy. This research also suggests possibilities for improving government decisions.

In this paper, we have highlighted a variety of psychological mechanisms to explain a number of suboptimal government policies. Our main goal has been to begin to construct a roadmap of psychological tools that will be useful across policy arenas. What we have presented is not a comprehensive list of known biases, but a selection of those that best account for current practices in social decision-making. They all arise from the widespread human failure to make wise tradeoffs by accepting small losses in exchange for larger gains.

A general solution to all of these biases is to think quantitatively, comparing the alternatives at hand. The idea that goodness and badness (or benefits and harms) can be abstracted and compared across different outcomes is a relatively new one. Its first clear appearance was in the Port Royal Logic of 1662 (Arnauld, 1964, Part IV, Chapter 16), which includes Pascal’s famous wager as well as

other examples of decisions that involve tradeoffs of probability and utility, some of which suggest the idea of near-Pareto optimality. (For example, in relation to the low probability of events that some people fear, the book argues on p. 356: We must enlighten those persons who take extreme and vexatious precautions for the preservation of life and health by showing that these precautions are a much greater evil than is the remote danger of the mishaps feared.)

Utility theory is a major invention - a "powerful idea" on the par of statistical inference or logarithms - that must be taught to be understood. Although even young students can absorb the concept, it is not discussed in the primary and secondary school curriculum (Baron & Brown, 1991). Such education is essential. In many cases, public policies are so complex that citizens cannot be expected to understand them. However, they can come to trust experts who apply theories based on utility maximization (McCaffery & Baron, in press, b), just as U.S. citizens generally now trust the Federal Reserve to set interest rates.

Although the idea of comparing values may not come naturally, it has spread somewhat throughout the world. When political leaders themselves understand the idea and want to make decisions that accord with it, they can often appeal to this understanding as a way of gaining support. Many political reforms - at least the ones that are true reforms - have been justified in this way.

Political leaders can also better serve the public by incorporating greater insights from the field of psychology, specifically behavioral decision research. When creating policy, the logic of social science logic and the best empirical data can be used to assess what is likely to occur under different scenarios. Using quantitative tools is consistent with an economic approach, but identifying the barriers to rational thought and developing responses to these barriers are topics better addressed by the field of psychology. For far too long, economics has been the dominant social science in policy debates (Bazerman and Malhotra, in

press). We hope that this paper shows the opportunities that can be identified by understanding the true barriers to Pareto-efficient agreements.

References

Arnauld, A. (1964). *The art of thinking (Port Royal Logic)*. J. Dickoff & P. James, Trans. Indianapolis: Bobbs-Merrill. (Original work published 1662)

Baden, J. (1995, October 25). The adverse consequences of the EPA. *The Seattle Times*, p. B5.

Baim, D. V. (1990, November 26). Sports stadiums as "wise investments": An evaluation. *Heartland Policy Study*, 32. The Heartland Institute.

Baron, J., & Brown, R. V. (1991). *Teaching Decision Making to Adolescents*. Hillsdale, NJ: Erlbaum.

Baron, J., & Jurney, J. (1993). Norms against voting for coerced reform. *Journal of Personality and Social Psychology* (64), 347-355.

Baron, J. (1996). Do no harm. In D. Messick & A. Tenbrunsel (Eds.), *Codes of Conduct: Behavioral Research into Business Ethics* (pp. 197-213). New York: Russell Sage.

Baron, J. (1998). *Judgment Misguided: Intuition and Error in Public Decision Making*. New York: Oxford University Press.

Baron, J. (2001). Confusion of group-interest and self-interest in parochial cooperation on behalf of a group. *Journal of Conflict Resolution*, 45, 283-296.

Baron, J. (2004). Normative models of judgment and decision making. In D. J. Koehler & N. Harvey (Eds.), *Blackwell Handbook of Judgment and Decision Making* (pp. 19-36). London: Blackwell.

Baron, J., & Ritov, I. (2004). Omission bias, individual differences, and normality. *Organizational Behavior and Human Decision Processes*, 94, 74-85.

Bazerman, M. H., & Samuelson, W. F. (1983). I won the auction but I don't want the prize. *Journal of Conflict Resolution*, 27, 618-634.

Bazerman, M. H. (1983). Negotiator Judgment: A Critical Look at the Rationality Assumption. *American Behavioral Scientist*, 27, 618-634.

Bazerman, M. H., Magliozzi, T., & Neale, M. A. (1985). The acquisition of an integrative response in a competitive market. *Organizational Behavior and Human Performance*, 21, 39-79.

Bazerman, M. H., & Hoffman, A. (1985). Sources of environmentally destructive behavior: Individual, organizational and institutional perspectives. *Research in Organizational Behavior*, 21, 39-79.

Bazerman, M. H., Lowenstein, G. F., & White, S. B. (1992). Reversals of preference in allocation decisions: Judging an alternative versus choosing among alternatives. *Administrative Science Quarterly*, 37, 220-240.

Bazerman, M. H., Curhan, J. R., Moore, D. A., & Valley, K. L. (2000). Negotiations. In *Annual Review of Psychology*. Palo Alto, CA: Annual Reviews.

Bazerman, M. H., Baron, J., & K. Shonk. (2001). *You Can't Enlarge the Pie*. New York: Basic Books.

Bazerman, M. H. (2005). *Judgment in Managerial Decision Making* (6th Ed.). New York: Wiley.

Bazerman, M. H., and D. Malhotra. "Economics Wins, Psychology Loses, and Society Pays." In *Social Psychology and Economics*, edited by D. de Cremer, J. K. Murnighan, and M. Zeelenberg. Mahwah, N.J.: Lawrence Erlbaum Associates, forthcoming.

Bornstein, G., & Ben-Yossef, M. (1994). Cooperation in inter-group and single-group social dilemmas. *Journal of Experimental Social Psychology*, 30, 52-67.

Brennan, G., & Buchanan, J. M. (1985). *The Reason of Rules: Constitutional Policy Economy*. Cambridge: Cambridge University Press.

Buchanan, J. M., & Tullock, G. (1962). *The Calculus of Consent: Logical Foundations of Constitutional Democracy*. Ann Arbor: University of Michigan Press.

Cagan, J., & deMause, N. (1998). *Field of Schemes: How the Great Stadium Swindle Turns Public Money into Private Profit*. Monroe, ME: Common Courage Press.

Camerer, C., & Lovallo, D. (1999). Overconfidence and excess entry: An experimental approach. *American Economic Review*, 89(1), 306-318.

Camerer, C. F. (2000). Prospect theory in the wild: Evidence from the field. In Kahneman, D., & Tversky, A., (Eds.), *Choices, Values, and Frames* (pp.288-300). New York: Cambridge University Press (and Russell Sage Foundation).

Capen, E. C., Clapp, R. V., & Campbell, W. M. (1971). Competitive bidding in high-risk situations. *Journal of Petroleum Technology*, 23, 641-654.

- Center for Study of Responsive Law (1995). Stadium deals (1990-present), www.leagueoffans.org, accessed July 20, 2005.
- Chaiken, S. L., Guenfeld, D. H., & Judd, C. M. (2000). Persuasion in negotiations and conflict situations. In M. Deutsch & P. T. Coleman (Eds.), *The Handbook of Conflict Resolution: Theory and Practice* (pp. 144-165). San Francisco: Jossey-Bass Inc.
- Gibbons, R. D., Meltzer, D., & Duan, N. (2000). Waiting for organ transplantation. *Science*, 287, 237-238.
- Gnant, M. F. X., Wamser, P., Goetzinger, P., Sauthner, T., Steininger, R., & Muehlbacher, F. (1991). The impact of the presumed consent law and a decentralized organ procurement system on organ donation: Quadruplication in the number of organ donors. *Transplantation Proceedings*, 23, 2685-2686.
- Gruenfeld, D. H. (1995). Status, ideology, and integrative complexity on the U.S. Supreme Court: Rethinking the politics of political decision making. *Journal of Personality and Social Psychology*, 68, 5-20.
- Idson, L. C., Chugh, D., Bereby-Meyer, Y., Moran, S., Grosskopf, B., & Bazerman, M. H. (2004). Overcoming focusing failures in competitive environments. *Journal of Behavioral Decision Making*, 17, 159-172.
- Janis, I. L. (1982). *Groupthink: Psychological Studies of Policy Decisions and Fiascoes*. Boston: Houghton-Mifflin.
- Jervis, R. (1976). *Perception and Misperception in International Politics*. Princeton: Princeton University Press.
- Johnson, E. J., & Goldstein, D. (2003). Do defaults save lives? *Science*, 302, 1338-1339.

Jones, S.K., Frisch, D., Yurak, T. J., & Kim, E. (1998). Choices and opportunities: Another effect of framing on decisions. *Journal of Behavioral Decision Making*, 11, 211--226.

Kagel, J. H., & Levine, D. (1986). The winner's curse and public information in common value auctions. *American Economic Review*, 76, 894-920.

Kahneman, & Lovallo, D. (1993). Timid choices and bold forecasts: A cognitive perspective on risk taking. *Management Science*, 39, 17-31.

Lane, H. C., Folkers, G. K., & Fauci, A. S. (2005). Reports on nevirapone threaten public health. *Nature Medicine*, 11, 245.

Legrenzi, P., Girotto, V., & Johnson-Laird, P.N. (1993). Focusing in reasoning and decision making. *Cognition*, 49, 36--66.

McCaffery, E. J., & Baron, J. (2003). The Humpty-Dumpty blues: Disaggregation bias in the evaluation of tax systems. *Organizational Behavior and Human Decision Processes*, 91, 230-242.

McCaffery, E. J., & Baron, J. (in press a). Thinking about tax. *Psychology, Public Policy and Law*.

McCaffery, E. J., & Baron, J. (in press b). The political psychology of redistribution. *UCLA Law Review*.

Meszaros, J. R., Asch, D. A., Baron, J., Hershey, J. C., Kunreuther, H., & Schwartz-Buzaglo, J. (1996). Cognitive processes and the decisions of some parents to forego pertussis vaccination for their children. *Journal of Clinical Epidemiology*, 49, 697-703.

Neale, M. A., & Bazerman, M. H. (1991). *Cognition and Rationality in Negotiation*. New York: Free Press.

Olsen, M. (1982). *The Rise and Decline of Nations: Economic Growth Stagflation and Social Rigidities*. New Haven: Yale University Press.

Quirk, J., & Fort, R. D. (1997). *Pay Dirt: The Business of Professional Team Sports*. Princeton: Princeton University Press.

Read, D., Loewenstein, G., & Rabin, M. (1999). Choice bracketing. *Journal of Risk and Uncertainty*, 19, 171--197.

Ritov, I., & Baron, J. (1990). Reluctance to vaccinate: Omission bias and ambiguity. *Journal of Behavioral Decision Making*, 3, 263-277.

Ritov, I., & Baron, J. (1992). Status-quo and omission bias. *Journal of Risk and Uncertainty*, 5(49-61).

Rosentraub, M. S. (1997). *Major League Losers: The Real Cost of Sports and Who's Paying for it*. New York: Harper Collins.

Samuelson, W., & Zeckhauser, R. (1988). Status-quo bias in decision making. *Journal of Risk and Uncertainty*, 1, 7-59.

Schelling, T. C. (1978). *Micromotives and macrobehavior*. New York: Norton.

Schwartz-Shea, P., & Simmons, R. T. (1990). The layered prisoners' dilemma: In-group versus macro-efficiency. *Public Choice*, 65, 61-83.

Schwartz-Shea, P., & Simmons, R. T. (1991). Egoism, parochialism and universalism. *Rationality and Society*, 3, 106-132.

- Schweitzer, M. (1994). Disentangling status quo and omission effects: Experimental evidence. *Organizational Behavior and Human Decision Processes*, 58, 457-476.
- Smirnoff, L. A., Arnold, R. M., Caplan, A. L., Virnig, B. A., & Seltzer, D. L. (1995). Public policy governing organ and tissue procurement in the United States. *Annals of Internal Medicine*, 123, 10-17.
- Stegemeier, R. (1995). *Straight Talk: The Future of Energy in the Global Community*. Los Angeles: University of California Press.
- Stiglitz, J. (1998). The Private uses of public interests: Incentives and institutions. *Journal of Economic Perspectives*, 12(2), 3-22.
- Stroup, R. L. (1995, April). Endangered Species Act: Making innocent species the enemy. *Political Economy Research Center Policy Series*, Issue PS-3.
- Tetlock, P. E., Peterson, R., & Lerner, J. (1996). Revising the value pluralism model: Incorporating social content and context postulates. In C. Seligman, J. Olson & M. Zanna (Eds.), *Values: Eighth Annual Ontario Symposium on Personality and Social Psychology*. Hillsdale, NJ: Erlbaum.
- Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science*, 185, 1124-1131.
- Wroe, A. L., Turner, N., & Salkovskis, P. M. (2004). Understanding and predicting parental decisions about early childhood immunizations. *Health Psychology*, 23(1), 33-41.
- Zajac, E. J., & Bazerman, M. H. (1991). Blind spots in strategic decision making: The case of competitor analysis. *Academy of Management Review*, 16, 37-56.

