

New Directions for IPE: Drawing from Behavioral Economics

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Abstract:

Many of the research approaches currently under investigation by behavioral economists are even better suited for international political economy research. The three research ideas illustrated in this article—framing and loss aversion, myopic time horizons, and fairness—highlight concepts of considerable utility for IPE researchers. This article uses previously published *International Organization* articles, reformulated to consider the same puzzles from a different angle, to illustrate the application of these concepts. Incorporating more of the knowledge drawn from psychology and current economics will yield superior explanations for political economy research questions that are more accurate, generalizable, parsimonious, and testable.

International political economy (IPE) scholars study a wide range of subjects. At its heart, however, most IPE analysis seeks explanations for decisions made by individuals over economic issues. It is highly puzzling, then, that a discipline devoted to understanding decisions has largely failed to follow research in related disciplines like psychology or economics that focus attention on the processes of decisionmaking. This article highlights three research trends—framing and loss aversion, myopic time horizons and fairness—drawn from political psychology and behavioral economics that are even better suited for IPE scholars. To make the point, I take several outstanding recent articles from *International Organization* and reformulate them to consider the same research puzzles from a behavioral perspective. This should both demonstrate the relevance of concepts drawn from behavior economics and political psychology for IPE and suggest interesting new directions for research.

Most analysis in IPE today draws assumptions, explicitly or implicitly, from classical economics. We assume that individuals have fixed and stable preferences over outcomes, that individuals will take these coherent preferences and rationally make choices to maximize subjective expected utility. These assumptions have been beneficial in developing a rich knowledge of economic and political insights over human behavior. Yet continuing evidence drawn from psychology suggests that individuals rarely, if ever, actually behave like our models suggest. In many cases, in fact, individuals behave completely opposite from our assumptions. Economists have been steadily incorporating this information into their research, but IPE scholars have not.

Why Limited Change in IPE?

Why have we been so slow to incorporate change? There are at least three reasons—normative, methodological, and isolation—for our failure to consider insights drawn from political psychology and behavioral economics.

The broadest normative reason for why we ignore new research on individual decisionmaking stems from our confidence and comfort with rational behavior. While we do not argue that all individuals are always rational, we do assume that rationality is a viable baseline for measuring behavior. Without some

sense of what we “expect” to happen, we cannot make judgments about what we actually observe taking place. Without rational assumptions of human behavior drawn from classical economics, we cannot determine an appropriate baseline. Without an appropriate, mutually agreed-upon baseline, we cannot move forward with our quest for knowledge.

So we assume that individuals behave “as if” these assumptions about rational individual decisionmaking were true. We know that the strict conditions for “economic man” are rarely upheld in the field. But we believe that studying behavior as if these assumptions were accurate results in some vital understandings in important arenas of study.

In addition, we assume that individual departures from rationality will “wash out” in the aggregated settings we study in IPE. Even if individuals do not demonstrate stable and consistent preferences in simple decisions, in the main, individual behavior in the stock market or in inflationary times will wash out or smooth out and produce large-N outcomes that better reflect our basic assumptions about behavior. Hence, individual deviations from standard assumptions are not important in our field.

To the extent that we observe any deviations by individuals, we attribute this largely to “mistakes” by individuals (like problems accurately assessing probabilities) that are not common across individuals. If there is a pattern of consistent “mistakes,” however, these are generally assumed to take place only in insignificant choice problems. When the stakes are greatest, the possibilities of mistakes are minimized. In situations of high stakes outcomes, individuals most closely follow the careful thought processes demanded of them by the rational calculator models.

Second, we discount psychological insights about human behavior for reasons of methodology. We favor parsimony over chaos. If individuals deviate from our rational baseline in multiple ways, we fear that our models and explanations will become too convoluted to be helpful. We know that individuals behave differently from one another. Explanations that satisfy our mothers will not suffice with our bosses. If we attempted to take these differences into account, we could go nowhere. We could become so obsessed with describing each tree that we can no longer observe any forest at all.

Even if we found some way to incorporate psychological information and still remain fairly parsimonious, we would be creating a world that is impossible to model effectively. With each new complication, we risk losing the ability to effectively discuss the forest and not each tree. International relations and IPE scholars want to develop generalizable insights about the broader forest.

Third, IPE has become very insular. Most of our own research relies on other IPE scholarship. We rarely examine economics journals and never interact with psychologists. Most of the references provided in leading journal articles are to other IPE scholars. Few panels at APSA or ISA bring together political scientists with economists or psychologists. In all of the articles written for the 2004 volumes of *International Organization*, for example, authors provided 121 citations to economics journals.¹ In percentage terms, this amounts to just over six percent. Even here, most of these citations were confined to one or two articles per issue.

None of these challenges, however, should prevent us from taking advantage of new and increasingly sophisticated understandings of human behavior. Normative considerations (and particularly the privileging of rationality) should give way to better understandings of decisions.² As Robert Jervis (1998) noted in the review of *International Organization at Fifty*, the dominance of rational choice approaches has stunted the continued development of IPE (989-990). Douglass North noted that, “The tendency of economists to carry over the rationality assumption in undiluted form to more complex issues involving uncertainty has been a roadblock to improving our understanding of the human landscape” (2005, 23-24).

Using a false baseline is not helpful for international political economy scholars and IPE research. We can construct a non-rational baseline just as easily as a rational one. Accuracy, not rationality, ought to drive our choice of models. The relevant criteria ought to be whether the incorporation of psychological insights on individual decisionmaking leads to greater understanding or more accurate predictions of behavior

¹ My thanks to Ivy Goh for this calculation.

² This point was also made by John Odell (2002).

than the alternatives. Jonathan Mercer (2005a) has recently provided a stinging rebuttal to the argument about the importance of rationality as the appropriate baseline measure.³

The “as if” and the “it washes out” assumptions are simply false. As the research outlined below demonstrates, individuals do not behave as if they were simple rational utility calculators. They frequently (or even always) make decisions in ways that contravene our standard explanations. Many of these deviations are consistent.

Markets do not wash out the individual level effects. Even economists studying finance now incorporate insights of political psychology (c.f., Shiller 2003). There are other ways to judge outcomes beyond simple market efficiency that require a deeper understanding of human behavior. In the real world settings of IPE, markets are never perfectly competitive. In less-than-perfect marketplaces, strong assumptions of rational, consistent individual behavior do not hold. Individuals frequently fail to maximize their utility, adopt inconsistent time horizons, throw money after losing stocks, or consider sunk costs in making new decisions. Many of the insights generated in behavioral finance, for example, actually show the exaggeration of individual behaviors in the market setting (Haltiwanger and Waldman 1985, and Russell and Thaler 1985). Decentralized markets can be viewed as an aggregation of minor activities, so if individuals behave differently in their daily interactions with the marketplace than predicted, the net effect can be quite substantial.

The forces of competition can reduce the impact of mistaken decisions, but this can only be determined by looking at individual cases, not assumed a priori. If everyone or nearly everyone is making the same “mistake,” then aggregating outcomes will not “correct” the outcome (Arkerlof and Yellen, 1985). In addition, basic problems in individual decisionmaking are not likely to be corrected even with a better focus

³ Matthew Rabin (2002, 677) argues that economists are subject to a similar rejection—classical economics models are maintained as the “null” hypothesis until sufficient evidence accumulates to suggest that it is demonstrably false.

on “properly aligning incentives.”⁴ Repeated experiments indicate that even in situations of high stakes, individuals do not always make the “correct” choices.

The problems of methodology are real. Each deviation from our basic assumptions complicates the models we develop to explain events. My response to this concern is twofold: slightly less parsimony does not automatically equal chaos and a deeply flawed or inaccurate parsimonious model is much worse than a more complex, more accurate model of human behavior. The more realistic our assumptions about human behavior, the better our models and theories will be at explaining outcomes or predicting future behavior.

Many IPE explanations are no longer parsimonious. Each new issue of *International Organization* includes new and more complex mathematical or statistical models designed to test an ever greater array of variables of interest. In some cases, revising assumptions or developing alternative research designs to incorporate behavioral insights will create less complex models of behavior. Adding in political psychology does not make research intractable.

As for final problem of insularity, the remainder of this article highlights some central insights of this literature on human behavior that are directly applicable to IPE research. I cover issues of framing and loss aversion, myopic time horizons, and fairness concerns. In the interest of clarity, I have described behavioral economics research in text, without incorporating the mathematical and economic models that lie beneath the

⁴ For example, problems of an inability to accurately calculate probabilities are likely to remain (Grether 1980 and Tversky and Kahneman 1983) as are the inconsistency problems in choice (Grether and Plott 1979). Furthermore, individuals rarely are able to “learn” from past experiences and produce more rationally consistent decisions, as repeated experiments by Kahneman, Tversky and others have made clear. Even when “experts” are given repeated problem sets, they make similar “errors” in decisionmaking—in fact, experts are often worse than novices.

concepts. Readers are advised to examine the original articles for the more formal demonstrations of these broader theoretical concepts.⁵ I have provided an extensive bibliography to assist in this task.

After briefly reviewing some of the most important insights of each concept, I then apply the ideas to a variety of research questions drawn from *IO* articles. I am interested in exploring the same puzzles that motivated the author from a different perspective. I have chosen a range of outstanding articles to highlight the importance of these theories of human behavior from related disciplines that are critical to advancing our own research in IPE. The remainder of this article provides an opportunity for scholars to examine traditional explanations of political economy behaviors directly with those drawn from behavioral economics.

Political Psychology and Behavioral Economics Concepts for IPE Research

Loss Aversion

If the standard assumptions about IPE behaviors drawn from classical economics hold, individuals are not swayed by the framing of issues. Under the principle of invariance, individuals should be indifferent between two choices with identical outcomes. It should not matter if I win \$5 and leave the carnival with \$15 in my pocket or if I lost \$5 and left the carnival with \$15. The net outcome is identical.

Yet research indicates that individuals are not indifferent between these two outcomes. The framing of the problem plays a role in shaping our responses in ways not incorporated into most scholarship. Viewing the issue as a loss or a gain, in particular, leads to regular and predictable responses that routinely violate our assumptions of rationality in decisionmaking. This central insight of prospect theory has been taken up by some international security and a few comparative politics scholars, but has not, to my knowledge, been incorporated into IPE work to date.

⁵ One of the best introductions to the field can be found in Camerer, Loewenstein and Rabin (2003).

A focus on framing effects is not new. E.E. Schattschneider (1960, 69) said, “The definition of the alternatives is the supreme instrument of power.” Thomas Schelling discussed the manipulation of risk in 1966. Many scholars in American and comparative politics have studied agenda setting and issue definition, which is largely about how the framing of issues and ideas affects outcomes in politics.⁶ Explicit framing discussions are less common in IPE, although John Odell, Susan Sell and Aseem Prakash (2003, 2004) have examined how a shift in framing is essential to understanding the recent debates over a portion of the Trade-Related Aspects of Intellectual Property Rights (TRIPS) in the World Trade Organization (WTO).

Individuals do not deliberately choose to allow frames to alter their decisions. Given the cognitive processes of individuals, editing of decisions based on order of presentation is a natural response to making choices. Framing is certainly open to manipulation by others--if I know that you will make decisions based in part by the order they are presented, I may choose to present options in a way that favors my preferred outcome.

⁶ See, for example, Cobb and Elder (1972) on issue expansion and creation, Goffman (1969) and Jervis (1970) on the use of framing in security, Stone (1989) on the movement of causal ideas into the realm of social control, Baumgartner and Jones (1993) on agenda manipulation in American politics, Druckman (2001) and Druckman et.al. (2004) on framing effects on candidates for elections, or Jupille (2004) on the use of framing to alter the policy arenas in play in the European Union. Mastanduno (1993) examines the development of special negotiating arrangements with Japan evolved. See also Kahneman and Tversky (2000), Gilovich, Griffin and Kahneman (2002), and Kahneman, Slovic and Tversky (1982). The focus on framing has even given rise to panels on the topic at American Political Science Association (APSA) Annual Meetings, like the one in Washington, DC in September 2005.

But a focus on the importance of framing does not go far enough.⁷ Recall the example above of gaining or losing \$5 at the carnival. One standard economic assumption, often incorporated into IPE research, is that individuals have preferences over final outcomes, but are indifferent to changes. In other words, my preference for an extra \$10 in my pocket remains the same regardless of whether my bank account holds \$1 or \$100.⁸ Yet repeated investigation into this assumption reveals that individuals are actually highly sensitive and acutely aware of changes. (Helson 1964, Kahneman and Tversky 1979, and Rabin 1998 and 2002). Preferences are not simply over absolute outcomes. Individuals have diminishing sensitivity relative to a reference point (Kahneman and Tversky 1979, and Tversky and Kahneman, 1986).⁹

In particular, people react differently to situations of loss than they do to one of gains. In a position of gains (i.e., I will be better off tomorrow than I am today) individuals are largely risk adverse. They are less likely to throw down money on the final race at the horse track if they have been winning. The unexpected finding of Nobel prize-winning Daniel Kahneman and Amos Tversky's work on prospect theory is that

⁷ Kanner (2004) has developed a formal model that connects framing directly to prospect theory. His model demonstrates how one actor in a bargaining situation can alter the frame for a second actor and successfully alter the frame for negotiations to one of loss. Kahneman and Tversky's original (1979) articulation of prospect theory highlighted two phases of the choice process: framing and editing, followed by evaluation. Berejikian (2004) is an extended application of prospect theory and framing in international relations.

⁸ This is true to a point. Most economists, following Daniel Bernoulli's work on risk measurement from the early 1700s, assume a concavity of wealth function. As wealth increases, individuals have diminishing marginal utility for each additional unit of wealth.

⁹ The slope of the utility function over wealth is flatter farther out from the reference level. The rational model assumed individuals are interested in states of wealth, but Tversky and Kahneman (1986, S259) have shown that the effective carriers of values are changes in wealth, as noted by gains and losses. The S-shaped value curve, therefore, violates a critical assumption in expected utility theory.

people are also risk acceptant in situations of loss (i.e., I will be worse off tomorrow than I am today).¹⁰ They bet differently on the last race if they have been losing all day. The value function, which had been assumed to be independent of a reference point, actually shows a clear difference between losses and gains, as shown in Figure 1. The function is steeper in the domain of losses (lower left quadrant) than in the domain of gains (upper right quadrant).

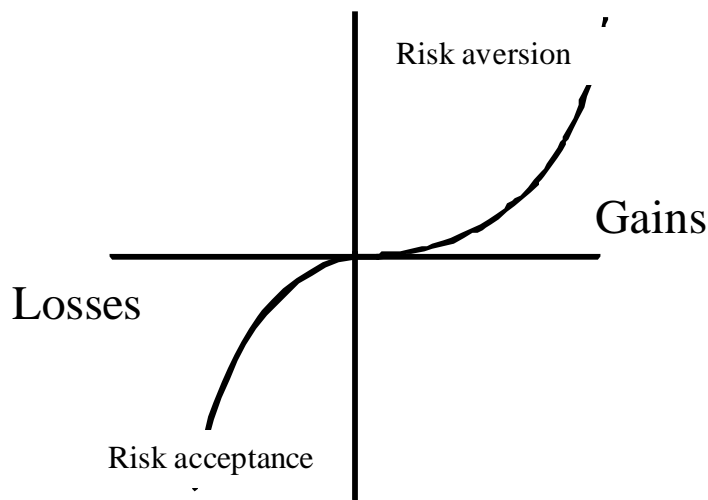


Figure 1: A Typical Value Function for Prospect Theory

The value of any change is a function of both the position of the reference point and the magnitude of the change from that reference point. The graph in Figure 1 shows concave utility functions in the domain of gains and convex curves in the domain of losses. But the utility curves are not strictly concave or strictly convex. Instead, the pattern highlights the reflection effect of the reference point.¹¹ Individuals are less

¹⁰ Amos Tversky died before the Nobel prize was awarded, but it was given to Kahneman in recognition of the work pioneered by the two men.

¹¹ If the reference point shifts, the value function will also shift. Kahneman and Tversky, 1979, 268.

sensitive to changes in asset position the farther they move away from the reference point in both directions.¹² It is harder to distinguish between a gain of \$100 to \$110 than it is to notice a change of similar magnitude from \$0 to \$10. A loss from 10 to 0 is more evident than a similarly scaled loss from 110 to 100. This may seem an obvious point to anyone who has discovered she is suddenly broke with \$0 after losing the last \$10, but our IPE theories have largely discounted this difference.

The framing of an issue into one of gains or losses from a reference point (usually the status quo) can make a tremendous difference in outcomes.¹³ Individuals who have been losing at the horse races, for example, will frequently place large bets on the final race of the day in a risky attempt to recoup their losses and go home victorious. Economists frequently warn against sunk costs, but individuals often stick with losing investments and even intensify their commitments in the hope of making them “turn around.”

Losing bothers us. I will notice the sting of losing \$5 at the carnival far longer and with greater intensity than I will feel happiness over winning \$5, even if I leave the carnival at the end of the day with exactly the same amount of money in my pocket on both days. I will probably remember—even a year later—that I lost money at this carnival, while I might not recall going to the carnival at all if I had won. Given the choice of taking a risky step to recoup my losses—say betting on the number of jelly beans in a jar as I leave the carnival—I will place a bet on the day when I have lost money and likely avoid the bet on the day when I have won. Avoiding making the bet on a “winning” day is true even though I could improve on

¹² The value functions may break down for very small probabilities or for catastrophic losses. I note below that propensity for risk depends on both domain and a probability assessment.

¹³ Thaler (1980) provided interesting evidence about the reference point. Individuals respond much more warmly to receiving a discount for using cash rather than being charged a surcharge for using credit. A discount implies a gain and a surcharge a loss. Schelling (1981) notes a similar effect in tax policy between tax exemptions or tax premiums for childless couples.

my status quo position if I continued to gamble. Experimental evidence suggests that individuals value losses twice as much as they value gains.¹⁴

The relative riskiness of options comes from the situation, not the decisionmaker. In other words, I am not arguing that risk-seeking individuals will choose more risky strategies than risk-adverse individuals. Instead I am suggesting that the situation itself drives risk seeking or risk avoiding behaviors.¹⁵

The frame becomes so embedded in the choice problem that individuals cannot separate the two. Repeated experimental evidence, in fact, has shown that even people who have been taught about framing effects continue to respond to framing. Doctors that have been educated about the impact of surgical techniques versus radiation on lung cancer patients (one that emphasizes survival rates and one that highlights deaths or morbidity rates even though the final outcomes of living versus dying patients is identical) will still select the option presented as survival rates.¹⁶ Statisticians skilled in understanding probabilities routinely select outcomes based on frame instead of on straight calculations of probabilities.

Prospect theory is one of the most developed approaches in behavioral economics today. It has also been used to study a variety of situations in international security and comparative politics.¹⁷ For example, McDermott (1998) examined the decisionmaking of President Carter during the Iranian hostage crisis and

¹⁴ The disutility of a loss of \$100 is twice the utility of gaining \$100. This experimental result holds for small to moderate gains and losses of money. See Tversky and Kahneman, 1992.

¹⁵ For more discussion of situational versus dispositional (character) attributes, see Mercer, 1996.

¹⁶ Likewise, MBA students that have been taught about the dangers of emphasizing losses, will continue to make choices consistent with prospect theory. Individuals seem incapable of separating out the effects of frame from their decisions. See, for example, Tversky and Kahneman, 1986, and McNeil et.al, 1982.

¹⁷ Mercer (2005b) provides a careful review of the applications of prospect theory in political science research. See also Boettcher (1995), Jervis (1992), Levy (1992b), O'Neill (2001), and Wakker (2003).

Prime Minister Eden during the Suez crisis.¹⁸ Farnham (1992, 1997) carefully studied Roosevelt's changing reactions to the unfolding events in the Munich crisis. Nincic (1997) examined the interplay between military intervention decisions and domestic opinions. Schaub (2004) provides an elegant argument using prospect theory to show why deterrence is generally perceived to be "easier" than compellence. This is in large part because the adversary assesses the stakes differently in deterrence and compellence situations and this leads to different propensities for risk. Weyland (1996, 2002) used risk acceptance and risk aversion to explain the pace and timing of domestic economic reforms in Latin American countries.

The Importance of Domain

The primary challenge faced by most of these applications, however, has been determining domain. Without an accurate assessment of the status quo and a clear sense of how key decisionmakers viewed a situation, it is impossible to determine if the situation is one of losses or gains. For example, if A threatens to pull out of an alliance with B, does this represent a loss or gain? B might feel terribly vulnerable and experience profound loss. But it is also possible that B will welcome the opportunity to create a new alliance structure, unencumbered with A, and so views the situation as a gain from the current status quo. Given the central nature of a reference point in the theory, it is critical to find a non-tautological definition.

This is partly why prospect theory seems an excellent match for many of the subjects examined by IPE scholars. Since many of the issues of concern in IPE are over issues of markets, determining the status quo and accurately locating the domain is less problematic for researchers. It may also make the lessons of prospect theory more salient for policymakers. If C knows that sanctions threats from D will result in a probable loss of \$150 million, C can easily define the situation as one of loss from the current status quo. In this situation, C should take risks that would be unexpected, without an understanding of decisionmaking drawn from prospect theory. If the scale of the sanctions threat varies (\$150 million represents half a state's foreign earnings for one year or \$150 million represents one day's worth of imports for a particular sector),

¹⁸ McDermott also provides one of the best, clearest reviews of the theory. See p. 15-44.

negotiator perceptions of losses will also vary. The greater the economic impact, *ceteris paribus*, the greater the magnitude of the loss/gain effects on decisionmaking.

Defining risks in advance and without reference to outcomes is also critical. In other words, I cannot merely argue that because E is in a loss, whatever decision E makes must therefore be a risky choice.

McDermott (1998) argues that risky choices are those with a wider variation in outcomes. A bet to gain or lose \$100 is inherently riskier than one to gain or lose \$5. Failure to define risks in advance is a problem that plagues many of the prospect theory applications to date.

People also over-react to changes in their current position (Rabin 2002, p. 663-4). This is not simply because individuals remember losses far longer and with greater intensity as gains, but also because people separate decisions from outcomes. I feel the loss of a losing \$5 bet far more intensely than I should because I fail to recognize the gains I made over the day in income that swamps the temporary loss in my bet. This insight has important consequences for IPE models of risk aversion. As Rabin and Thaler have demonstrated, standard models of risk aversion fail to account for individual behavior. People are consistently risk averse over minor stakes (Rabin 2000 and Rabin and Thaler 2001).

Because people are consistently concerned about losses, individuals also exhibit a “status-quo bias” in decisionmaking (Knetsch and Sinden 1984 and Knetsch 1989). This leads people to prefer the current situation to one that might change in the future, even if the changes are likely to incorporate more gains than losses. The propensity of individuals to avoid situations of loss also leads to a bias in decisionmaking in favor of the status quo. Most people are reluctant to accept a bet that offers equal odds of gaining and losing x dollars (Quattrone and Tversky, 1988, 724). The concave utility function in the domain of losses means that individuals would rather choose their current level of wealth under the status quo (which is a certain outcome) than any risky prospect with the same expected value.¹⁹ People value what they have more than the

¹⁹ This tendency may help explain the advantage noted in many political studies for individuals to vote for incumbents. See Quattrone and Tversky (1988), 725-726.

comparable value of things they do not yet have.²⁰ The advantage of the status quo increases as the number of possible alternatives increases.²¹

In bargaining and negotiations, the status quo bias is particularly significant. Each side in the negotiation may view their own concessions as losses that are more relevant than any gains received from the other party (Bazerman, 1983; Tversky and Kahneman, 1986). The location of the reference point depends on how the choice problem has been framed.

Problems with Probability Calculations

Under standard expected utility calculations, decisionmakers weight the possible outcomes in any decision against a straightforward assessment of probabilities of that outcome. This assessment is linear. But repeated experiments have shown that individuals are extremely poor probability calculators. As Camerer and Ho (1994), Tversky and Kahneman (1992), and Wu and Gonzalez (1996) note, the critical point at which individuals shift from systematically overweighting to systematically underweighting probability outcomes takes place between .30 and .40. This nonlinear weighting of probabilities has some significant real-world implications.

For example, individuals have an exaggerated preference for sure gains over gambles that would result in the same outcome, if the probability of winning is greater than .30-.40. This is because the gamble appears riskier and the sure bet appears more certain than would be the case if probabilities were linear. The endowment effect also makes a certain payoff more attractive. This suggests that decisionmakers in gains will, for example, end negotiations more rapidly than might otherwise be the case, as they choose to take the offer on the table rather than continue to negotiate for a possibly better offer in the future.

Recall, however, the propensity for risk acceptance in a domain of loss. Individuals will also have an exaggerated preference for a gamble over a sure loss with a potentially equivalent outcome if the probability

²⁰ This has also been called the “endowment effect” and has been extensively studied. See, for example, Thaler (1980) and Kahneman, Knetsch, and Thaler (1991).

²¹ Samuelson and Zeckhauser (1988) termed this tendency the status quo bias.

of winning is also greater than .30-.40. This, as Schaub (2004, 399) notes, is because individuals discount the potential losses of the gamble and exaggerate the potential magnitude of the loss.²²

The probability weight curve, shown in Figure 2 (Tversky and Kahneman, 1986, S264), highlights the unpredictability of events with probabilities close to 0 (extremely small) or 1 (extremely large). Highly unlikely events are ignored or treated as impossible and highly likely events are treated as certain (Kahneman and Tversky, 1979, 282-283).²³ Events viewed as either impossible or certain receive greater psychological weight than other events (McDermott, 1998, 30). Individuals are more willing to pay money to remove the last bullet from a gun in a game of Russian roulette than remove the fifth or third bullet, even though each and every bullet removed reduces risk by exactly the same amount (one-sixth) (Plous, 1993, 99).

Low probabilities are overweighted and given more importance than a standard rational calculus suggests should be the case. Medium-to-high probability events are systemically underweighted.²⁴ This bias in evaluating probabilities contributes to risk propensities. Positive gambles are viewed as less attractive in the domain of gains in part because moderate and high probabilities are underweighted. Because low probability events are overweighted, the value of long shots and highly risky moves is enhanced (Kahneman and Tversky, 1984, 345).

²² These preferences appear to be reversed, or diminished, as the probability of winning on the gamble falls below .30. See especially Levy (1992a), 183-184 and Levy (2000), 199.

²³ The overweighting of outcomes violates the expectation rule in neoclassical economics. Tversky and Kahneman, 1986, S265-270.

²⁴ Events that are accompanied by highly salient representations (like graphic images of airplane crashes or murder) are overweighted while more common, high probability events (car accidents or suicide) are relatively underweighted. McDermott, p. 31.

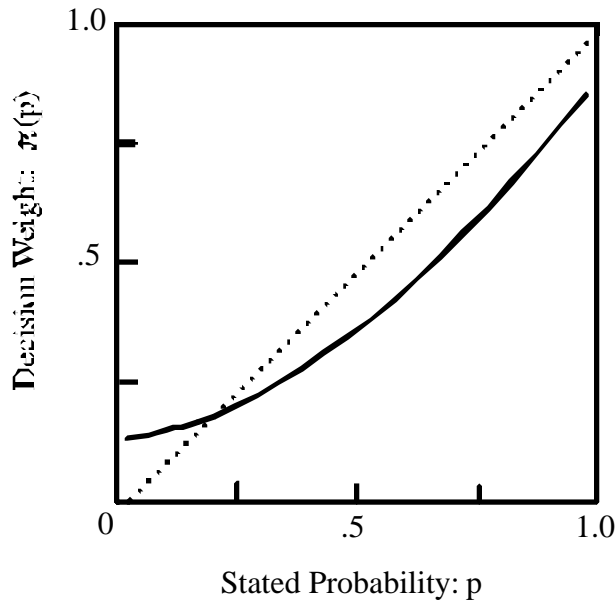


Figure 2: A Hypothetical Weighting Function

Loss Aversion In IPE

So how does this matter? To demonstrate the applicability of these concepts for IPE, I've chosen a set of recent papers published in *International Organization (IO)*. I will first provide a brief synopsis of the puzzle and theoretical model used by the author to analyze the puzzle. Then I reconceptualize the same puzzle using insights drawn from behavioral economics and political psychology. I believe this best illustrates the utility of these ideas.

In the Summer 2004 issue of *IO*, David Andrew Singer tackled the following puzzle: why do financial regulators in the developed world sometimes push for international regulatory standards and sometimes refuse to support harmonization? Singer's answer, in brief, to this puzzle is that regulators push for harmonization when confidence in the stability of financial institutions is declining and when domestic firms are suffering from competitiveness challenges brought by foreign firms bound by less stringent regulations.

Regulators are agents in a principal-agent framework. They have two broad options open to them: to create more or less stringent regulations. They do so in part in response to legislative pressures, but Singer argues that regulators are the primary demanders of greater international harmonization, not legislators. After exogenous shocks to the system, regulators can opt to move in the direction of lax or stringent regulations. Singer sets up a simplified model to demonstrate how various shocks to the system alter the win-sets open to regulators and move them in one direction or the other. He then tests his predictions against two cases, the creation of harmonization in bank capital adequacy in the 1988 Basel Accord and the collapse of harmonization efforts over capital adequacy for securities firms from 1988-1992.

Singer has identified an important empirical puzzle and created an elegant model of regulator behavior to explain the variation in outcomes between harmonization in Basel and the collapse of agreement in securities. It places attention squarely on regulators rather than legislators and improves on existing accounts of harmonization. The clear drawback of his approach, however, remains the operationalization of the win-sets.

This puzzle of international harmonization efforts can be better explained with reference to losses and gains experienced by regulators. In positions of strong losses, regulators will push for harmonization. Absent this domain, they will not. A different theoretical orientation, I believe, not only explains the case outcomes from Basel and securities harmonization but does so in a way that is more compelling because it is more parsimonious and easier to operationalize. It also explains regulator decisionmaking in a variety of settings.

One unnecessary complication in Singer's models is the behavior of the legislature. He is attempting to address a flaw in existing literature that argues that moves to harmonization are directly attributable to pressures from the legislature. By contrast, Singer argues that the members of the legislature have multiple sources of control open to them beyond merely tightening or relaxing regulations. They can enact "trade barriers, subsidies, and tax breaks to bolster firm competitiveness, or repeal costly legislation."(p. 540)

The key players for Singer are therefore not the politicians, but the regulators who respond to their environment. This environment certainly includes potential pressures from legislatures, since moves clearly

counter to the interests of politicians invites intervention by the legislature. Regulators are mostly concerned with getting the balance between confidence and competitiveness correct: too little regulation can lead to costly failures while too much regulation can strangle business. Singer argues that changes in these two variables lead to different win sets and these different win sets allow (or do not allow) regulators to push for international harmonization.

But I believe this evidence can be reinterpreted more simply with a focus on domain and risks for regulators. The legislature matters only because legislator involvement increases the pressure on regulators. In the absence of exogenous shocks, regulators do not alter their assessment of harmonization. In other words, at the status quo position, regulators do not attempt to move for or against international efforts. This bias in favor of the status quo has been repeatedly noted in various experiments.

If, however, regulators observe some alteration in the status quo, their perception of domain is likely to shift as well. If the exogenous shock comes in the form of less stringently regulated firms capturing market share from domestic firms, this puts regulators into a position of loss. Why loss? Because regulators believe they are losing market share now and will continue to lose market share into the future. Foreign firms are not operating on a “level playing field” but one tilted against domestic firms. Regulators are intimately familiar with the competitiveness of the sector they are assigned to regulate and therefore define domain in terms of success and failure in the sector. If the situation continues to deteriorate, moreover, legislators are likely to become involved. The involvement of politicians significantly complicates life for regulators, as Singer notes (p. 535). This, in turn, reinforces the position of loss for regulators.

In a position of loss, regulators will opt to take risky solutions to the problem. One risky solution is to increase the stringency of domestic regulations. This is risky because it may fail to correct the problem, could lead to additional problems as competition becomes limited with greater regulations, and could invite further interventions by politicians.

If the loss is significant, however, regulators are likely to reach for an even riskier solution—to aim for an international harmonization of standards. Broadening the scope significantly increases the risks for domestic regulators. By increasing the number of participants involved in negotiations, regulators run

important risks of being unable to create the kinds of regulations that might benefit their domestic industries. Foreign regulators, for example, might argue for *less* stringent rules (or for the reverse). Depending on the domestic situation, either option could make the current situation worse instead of better. By electing to move negotiations to the international arena, domestic regulators are signing on for a significant investment of time and resources in bargaining. Even if negotiations are a success, the regime created in the end is likely to give regulators less control over their sector in the future. Regulators are opting to tie their own hands in potentially significant ways. They should only opt for this solution to their problems when their perceptions of loss are very strong. This is the only time when they are willing to accept great risk to recoup their losses.

If, by contrast, domestic firms are dominant now and will likely remain so into the future, regulators are operating in a domain of gains. In gains, they are risk averse.²⁵ They will not push for international harmonization measures. Singer himself notes a similar outcome (p. 543).

The solution to the puzzle of harmonization pressures, then, can be found in the domain of regulators. As long as the status quo remains unchanged, regulators will not press for any movement along the lax/stringent regulations continuum. If, however, the sector receives a shock that makes conditions worse in the sector under regulation, regulators will push for risky solutions including movement to international harmonization.

This solution ought to hold true not just for the financial sector, but for any type of regulation regime. If international harmonization of standards is an option, regulators will only push for this outcome when they are facing a loss. Regulators are facing a loss whenever domestic firms are threatened with foreign competition stemming from differential regulations (since this is the only thing directly under the control of

²⁵ This behavior in a period of gains may seem puzzling. After all, if you are doing well, why not push for changes to lock in gains for the future? The answer seems to lie in basic human psychology that drives individuals to be wary of risks in periods of gain. In an uncertain environment, options with greater risk (i.e., greater variation in outcomes) are less appealing without a perception of loss.

regulators, this is the narrow area of focus for them). They will push for tighter restrictions when domestic firms face a loss, especially one arising from a loss of confidence in the system.

In a position of dual shocks to both competitiveness and confidence, Singer argues regulators “are especially likely to push for international regulatory harmonization.” (p. 543) This is true, I would argue, specifically because dual shocks put regulators into a position of strong loss. In strong losses, regulators are conditioned to accept even greater risks to recoup losses. Because international harmonization efforts come with strong risks, this is a natural outcome.

This is a testable proposition as well. If my explanation for regulator behavior holds, we should not see regulators arguing for increased harmonization in periods of gain. In periods of dual shocks to the system, we should always see regulators pushing for international harmonization (if this is an option). The definition of gain and loss is critical here. If domain and risk are defined by behavior alone, i.e., because the regulators pushed for harmonization they must have been in a loss, we cannot untangle the two.

The same type of explanation could be made for legislatures. In other words, as long as the status quo continues, legislatures will not intervene in domestic regulatory environment. Only with an exogenous shock will politicians become involved. If the shock has made domestic firms less competitive or when confidence in the system is declining, legislatures will push for more stringent regulations. If, by contrast, an exogenous shock points to the increasing competitiveness and confidence in the current system, legislators, facing gains, may urge a relaxation of regulations into the future.

This explanation is an improvement, I believe, on the answer provided by Singer. While his argument about win-sets appears elegant, it is extremely difficult to apply to the empirical evidence. Singer notes the problems with the win-set concept. It is designed to highlight the range of policy choices that do not result in legislative intervention (p. 533). It does not provide information about the precise location of the win set, but instead to focus attention on changes in the size of the win set. Singer argues that exogenous shocks to confidence and competitiveness reduce the size of the win set or eliminate it all together (p. 538). But there is no way to determine, in advance, what was the original size of the win-set, nor to determine what

the current win-set might be. All you can say is that the win-set is likely to shrink after negative shocks. This does not allow you to determine what options regulators might select to resolve the problem.

By using prospect theory, however, we ought to be able to predict regulator behaviors. If regulators are facing a strong shock, especially a dual shock to competitiveness and confidence, they ought to reach for the riskiest solutions available, including pushing for international harmonization. If regulators are not facing a situation of losses, they should not opt for harmonization and, in fact, ought to argue strenuously against such actions on the part of others. This explanation does appear to be in accord with the evidence presented by Singer on the Basel Accord negotiations as well as those over capital adequacy requirements for securities firms. The explanation has the additional advantage of being just as parsimonious and more predictive than Singer's alternative and is based on information about how individuals actually behave.

Myopic Time Horizons

In 1985, Rajnish Mehra and Edward Prescott noted a considerable empirical puzzle: given that over a ninety year period from 1889-1978 equities consistently returned a seven percent annual yield while the average yield on short-term debt (treasury bonds) was less than one percent, why was the premium for investing in the stock market so high? One dollar invested in the S&P 500 on January 1, 1926, was worth over \$1100 by 1995, while a dollar in treasury bills yielded only \$12.87 across the same time horizons. No matter how Mehra and Prescott tried to parse the data, the empirical results remained unchanged (Mehra and Prescott, 1985).

They termed the result an "equity premium puzzle" and it remained intractable to various economic models that suggested a difference in return of no more than four-tenths of one percent ought to be possible (as opposed to the six percent actually observed), even under conditions of plausible risk aversion (p. 146). There was no way they could calculate outcomes using standard expected utility-maximizing formulas that would allow the same individuals to invest in high-risk stocks with potentially high payoffs, yet still invest in a bond market with yields of around one percent per year.

The discovery of this apparent challenge to various economic models lead different scholars to try to solve the puzzle. Siegel (1992) showed that the puzzles remained robust, even if the time horizons were lengthened to 1802-1990. Thomas Rietz (1988) proposed that individuals' calculations of the risks associated with equity markets (and particularly the possibility of a significant stock market crash) could account for high equity risk premiums and low risk-free returns. But Mehra and Prescott disagreed (1988), since Rietz's argument called for calculations of risk significantly greater than the stock market crash of 1929 or any other historical evidence over the period and had to affect only the stock market determinations and not bond markets. Philippe Weil (1989) reformulated the puzzle to ask not why the premium for equities was so high, but instead why the payment for risk-free rates was so low (or why would anyone choose to hold bonds?).

The most persuasive answer to these twin puzzles has been to attribute the unexpected rates of return to myopic loss aversion (Benartzi and Thaler, 1995; and Thaler, Tversky, Kahneman and Schwartz, 1997). This concept brings together two different strands of research—one on loss aversion (as outlined above) and another on mental accounting. Individuals with myopic loss aversion will view the short-term losses in the equities markets very keenly, especially if they follow the market closely, and will make decisions about market volatility that do not accord with standard economic models of individual behavior. They will chose to put less in stocks and more in bonds than they otherwise would and this pattern will be reinforced the more frequently in time that they evaluate their options.

Mental accounting refers to the way individuals (or households) make decisions in ways that are broadly analogous to accounting decisions made by organizations and firms (Thaler, 1985).²⁶ The crucial

²⁶ The idea of grouping decisions has been considered by a number of authors. For example, Read, Loewenstein and Rabin (1999) consider narrow and broad choice bracketing, Kahneman and Lovallo (1993) discuss narrow and broad decision frames, and Heyman (1986) used the terms local and overall value functions. In each article, the authors attempt to determine if individuals make choices differently if they consider items in relative isolation (sequentially or temporally) than if they broaden or

elements of mental accounting for the equity premium puzzle are that individuals group financial decisions in two ways: cross-sectionally (e.g., stocks are evaluated differently from bonds or in a total portfolio) and intertemporally (with portfolios evaluated at various time intervals) (Thaler, et. al., 1997, 648). Investors must make decisions about their investments that groups or frames their choices over allocation of assets along these two dimensions.

Myopic investors frame decisions about allocation very narrowly and put short-term choices ahead of long-term planning and will also frame decisions over outcomes narrowly as well, meaning they will frequently evaluate losses and gains in assets. But surely, readers will argue, individuals investing in the stock or bond market are generally doing so with a long time horizon in mind. For example, they are investing with an eye towards retirement in 20 or 30 years time, giving them an extremely long time horizon. In this situation, they ought to prefer investing in the stock market, which has a demonstrably long record of improved returns (even though subject to wide variations in value over the short term with a standard deviation of 20 percent), over a bond market that gives back a fixed return of approximately one percent per year.

In fact, argues Thaler and his colleagues, even in this situation of investing for retirement, individuals customarily evaluate their portfolios regularly. For most investors, this evaluation process takes place at least annually, as investors prepare income tax returns and receive the most detailed reports of the year on investment outcomes at the same time.²⁷ This annual evaluation exercise brings the twin problems of mental accounting and loss aversion to the fore. Even investors planning for retirement in 30 years are faced with a short-term evaluation period that leads most people to attempt to maximize returns across the one-year time period between evaluations.

widen the objects under consideration. All of these studies provide evidence to support the contention that bracketing or mental accounting matters.

²⁷ Benartzi and Thaler (1995) consider alternative evaluation periods, but find that one year time horizons appear to best fit the historical evidence.

The more often an investor evaluates his or her portfolio, the shorter the time horizons become.²⁸ Over shorter time horizons, the fluctuations in the stock market will be even more visible and investors will be more concerned about taking on additional high risk investments—especially, of course, if the investor has experienced a significant loss since the last evaluation period. This desire to avoid another financial loss will lead investors to shift money out of stocks altogether and into the guaranteed returns offered by the bond market.²⁹ (It is worth noting that when experimental returns are manipulated to yield only positive returns from investments, investors shift higher proportions of their portfolio into stocks.)³⁰

The concept of myopic loss aversion is likely to have implications for a range of IPE research questions. I have chosen to consider the puzzles presented by Kenneth Scheve in his Winter 2004 *IO* article, “Public Inflation Aversion and the Political Economy of Macroeconomic Policymaking.” In this piece, Scheve asks the question, “Do the macroeconomic priorities of citizens differ across countries?” In particular, he is interested in the role that inflation and unemployment play in altering public opinion on optimal monetary policymaking across twenty advanced economies.

²⁸ This observation was tested empirically in Thaler et.al., 1997. It was further refined and applied in different contexts in Gneezy and Potters, 1997.

²⁹ Benartzi and Thaler argue as well that this model fits both individual and institutional investors. Institutional investors like pension funds are still managed by individuals that are governed even more strongly by concerns of losses. The managers must create regular reports on the returns to investments, so it appears that agency costs lead to greater myopic loss aversion than in individuals (87-90). The same is true of foundations and university endowments faced with similar agency problems to pension funds compounded by the spending rules of most foundations and universities that allow spending only up to a certain percentage of the value of the endowment. Any board of governors or trustees that presides over a prolonged period of stock market losses will not be satisfied with the knowledge that over the longer term, stocks will likely outvalue bonds.

³⁰ Thaler, et.al., 1997, 657.

Much of the research on monetary policy, including work on optimal currency areas, choice of monetary institutions, and international coordination, has assumed that individuals hold broadly similar preferences over acceptable levels of inflation. These preferences are driven by concerns over inflation and unemployment. As Scheve notes, “Rising and more volatile inflation is more costly, and the public places greater emphasis on low inflation as prices increase more rapidly. Similarly, as unemployment rises, reducing unemployment becomes a greater priority.” (p. 2)

These empirical findings, which are broadly consistent with economic theory, still points to a challenge—the public perceptions of acceptable inflation and unemployment levels varies across states. Scheve’s award-winning article uses statistics to examine both individual and national level reasons for these differences and finds that national-level factors explain more of the cross-country variations than do individual-level factors.³¹ He finds that, controlling for economic performance, Swedish citizens are significantly less inflation-averse than British citizens, but Australians are significantly more so (p. 16). So inflation aversion is not stable across countries.

These variations in public inflation aversion across states, however, could also be explained by considering myopic loss aversion. Recall that this concept brings together two elements—concern over changes relative to the status quo (and a particular emphasis on loss) with mental accounting. What matters in this case, then, is not the absolute level of unemployment (inflation), which may be high or low, but whether the level of unemployment (inflation) has been holding steady or rapidly rising or declining.

Under the traditional economics explanation for inflation preferences, individuals should prefer greater inflation and less unemployment under conditions of high levels of unemployment. This ought to hold true across all states. The public should demand that government take steps to lower unemployment if unemployment is high. But if myopic loss aversion is taking place, what really matters is whether

³¹ Individual-level variables (like propensity for unemployment or gender) do matter, but are not sufficiently strong, Scheve argues, to account for cross-state variations. He won the award for the best article published by a junior scholar in *International Organization* for his piece.

unemployment is rapidly changing. In periods of rapidly rising unemployment, citizens should opt for greater inflation even if unemployment has only gone from three percent to four percent. By contrast, if unemployment remains stubbornly high (say, greater than 10 percent) but has not recently changed, the public should be less concerned with unemployment than traditional economics models suggest.

The more often the public learns about changes in relative levels of inflation and unemployment, the more volatile their reactions to both will become. The most visible feedback on economic statistics for the mass public is likely to be found in the periods leading up to elections in democracies, as various candidates and political parties trumpet or trash the economic policies of the current leadership.

Scheve notes that “historical experience matters” but he remains unable to account for exactly why this should be so (p. 21). Myopic loss aversion suggests, however, that it matters because historical experiences set the base or status quo level of expectations for the public on both the level of unemployment and the level of inflation. This also fits with broader explanations of the differences in public information sets. The more information citizens have from the media, experts, elites, and so forth, the more likely they are to re-evaluate the current status quo and see themselves in positions of loss or gain from that status quo. Rapid changes in these information sets ought to lead to more rapid propensities for inflation or unemployment adjustments by government.

Citizens that have grown accustomed to unemployment levels in the double digits react very differently to reports of a percentage point shift in levels than citizens in states with unemployment of three or four percent. In a place like Singapore, with historically low levels of unemployment, a shift upwards of one percent in unemployment will be met with greater dismay and, presumably, stronger demands for action by government than a similar shift in France.

This assessment reinforces Scheve’s conclusions about the folly of implementing an “optimal policy response,” particularly in the wake of strong economic shocks (by the International Monetary Fund, for example). An economic meltdown that causes dramatic upward shifts in unemployment levels will demand a different response than one that produces only modest changes in unemployment.

It also suggests that the design of monetary institutions will vary across states. Some regimes (like the U.S. Federal Reserve) monitor results in a period-by-period fashion while others (like the European Central Bank) are committed to a zero-inflation rule. The former are likely to be more volatile than the latter and the more frequently policymakers re-evaluate their positions, the more likely they are to deviate from “optimal” policies.

Concerns Over Fairness

Standard economic theory does not provide a space for considerations of “fairness” in the behavior of individuals.³² One classic example is the “divide the dollar” game. One individual is given a dollar and told

³² Part of the challenge to incorporating fairness that the discipline as a whole is assumed to be value free or not driven by norms of human behavior. Economic agents are assumed to be law-abiding, but not “fair.” If we assume that individuals are even occasionally motivated by fairness considerations in ways that makes an impact in economic life, economists have to explicitly deal with normative considerations of human behavior. In fact, since Matthew Rabin published his now famous article on the need to incorporate fairness into economics in 1993, many economists have worked themselves into intellectual pretzels. Many have claimed that fairness continues to be a matter that is inconsequential. Others have insisted that fairness can be included into standard economic models. Still others have suggested that these types of value considerations simply have no place in economics at all. For an illustration of complaints, see Holcombe 1997 and the response by Berliant, et. al, 2000. Fehr and Schmidt 1999 attempt to have it both ways, by building models that incorporate fairness behavior on the part of some individuals by arguing that fairness is a “self-centered inequity aversion.” This debate is somewhat analogous to the arguments in political science made by some rational choice scholars. One of the presumed strengths of rational choice theory is its non-normative base. Yet, as Mercer (2005a) points out clearly, even assumptions about individual self-interested behavior and utility calculations are laden

to propose a split of the money. The second participant can accept or reject the offer. Standard theory assumes that both will respond to individual incentives. The first person will propose a division that leaves her with 99 cents and the other participant with a penny. The second person will accept the division. After all, both participants—including the person with a one penny payoff—receive an improved outcome. Yet in repeated experiments, two interesting outcomes take place: 1) the proposer rarely proposes a 99/1 split but rather offers something closer to 50/50, and 2) proposals closer to 99/1 are nearly always rejected by the second participant.

In fact, the second player nearly always rejects splits that leave him with less than 20 percent of the total (Camerer, 2003). Even in games where the second participant cannot accept or reject the offer (i.e., the original offer stands regardless), individuals are quite generous. Seventy six percent of participants in one game offered a 50/50 split under these conditions (Thaler, 1988, 198). These outcomes hold true even in different settings. Henrich et. al. (2001 and 2004) examined fifteen small-scale and tribal societies and determined that fairness considerations in ultimatum games appears universal.³³

Other examples of unexpected behaviors include high levels of cooperative behavior in one-shot prisoner's dilemma games. While classical economic theory anticipates some cooperation in repeated games, rational calculation in one-shot games should lead to defection. Instead researchers have

with value assumptions. It should be noted that welfare economists have a long history of studying fairness or equity in outcomes, but have not considered how such concerns can alter individual behavior.

³³ See also Gintis et. al., 2006. This line of research is particularly important in untangling the connections between behavior and background. Most of the limited work done thus far on fairness has examined cooperative behavior among undergraduate students in (largely) American universities. The results could therefore be an artifact of cultural norms or the informal and formal institutional settings that are common among most college undergrads. The results of the largest study to date by Henrich et. al. does not provide support for neoclassical, rational behavior models. Individual-level economic and demographic variables did not appear to play a role in determining outcomes either.

found that roughly half of the players cooperate in these settings (Camerer and Thaler, 1995 and 2003; Abbink, Irlenbusch and Renner, 2000; and Berg, Dickhaut and McCabe, 1995).³⁴ Examples from the “real world” include voluntary reductions in water use during droughts³⁵ (as well as voluntary labor of nearly every variety), donations to public television and radio programs, consumers that refuse to purchase goods from certain companies (especially those practicing what are perceived to be monopoly pricing),³⁶ or managers that pay higher wages to get greater effort out of employees.³⁷

Considerations of fairness were not assumed to motivate individuals acting in their own rational self-interest in the marketplace. To the extent that these “anomalies” appeared in experimental results, most economists assumed that any potential fairness concerns were isolated instances or simply did not matter in

³⁴ Most of these authors argue they are not studying fairness, but instead are studying “reciprocal behavior” both positive (cooperative) and negative (retaliatory).

³⁵ There is a long list of studies that indicate individuals cooperate with public good provisions far in excess of the expected levels (at or near zero). Dawes and Thaler’s review of the experimental literature highlights that for most one-shot public good decisions, the contribution of individuals ranges from 40 to 60 percent of the socially optimal level (1988). But individuals do not generally respond for purely altruistic reasons either—seeking to unconditionally help others—rather, behavior is highly contingent. I will do my part to the extent that I see others doing their part. If no one but me reduces water use, I will not reduce my own consumption even during a severe drought.

³⁶ See the experimental evidence on this point, especially in Kahneman, Knetsch and Thaler, 1986a and Gorman and Kehr, 1992.

³⁷ See Fehr, Kirschsteiger, and Riedl, 1993, for experimental evidence of this point. Buyers offered substantially (by more than 100 percent) higher prices than the market-clearing level in expectation that sellers would provide fair quality levels. Even when repeated, the experiment revealed no tendency for prices to converge at market clearing levels. Other evidence can be found in Blinder and Choi 1990 or Campbell and Kamlani 1997.

economic life. For example, while fairness may matter at the level of dividing a dollar, when the stakes are greater, these concerns wash out. Unfortunately for many economists, even when the stakes are high (up to several days or months of salary), the empirical results hold.³⁸ Individuals repeatedly reject apparently Pareto-improving outcomes for reasons of fairness. The predictions of individual behavior derived from game theory, in particular, have been consistently inaccurate.³⁹

In 1993, Matthew Rabin came up with a novel interpretation of these results.⁴⁰ Rabin modified economic models to incorporate a new function of “kindness.” His reading of the experimental literature suggested that individuals have two different levels of behavior. Individuals want to be nice to people who are nice in return, but want to punish others who are unkind. Utility comes from not just material payoffs, but are also a product of the kindness factor (how nice I am depends on how nice the other guy is).

³⁸ The ultimatum game has a similar structure. A good review of this game structure can be found in Thaler 1988. Early experimental evidence of the challenges posed to standard theory by individuals was shown by Guth, Schmittberger and Schwarz, 1982; Binmore, Shaked and Sutton, 1985; Kahneman, Knetsch and Thaler, 1986a and 1986b; Neelin, Sonnenschein and Spiegel 1988 and Guth and Tietz 1990. For examples of experimental evidence over high stakes see: Hoffman, et. al, 1996, Roth, et. al, 1991, Slonim and Roth 1998 or Cameron 1999. William Nelson (2001) makes the opposite argument—it is only at very, very large payoffs that fairness concerns will override standard utility calculations. As an example, Bill Gates will continue to derive high wealth levels at the end of any game, so even at very high stakes, he is willing to sacrifice more wealth for greater fairness.

³⁹ Ochs and Roth 1989 and Prasnikar and Roth 1992 provide helpful reviews of the debate over evidence.

⁴⁰ This article marked Rabin’s opening foray into behavioral economics and psychology for which he was later awarded the John Bates Clark Medal in 2003 (Camerer and Thaler 2003). Rabin was not the first economist to consider economics models incorporating fairness (although he may prove the most influential). See, for example, Baumol 1982.

Incorporating this insight resulted in three key changes in a standard prisoner's dilemma game. First, the payoffs themselves are altered. Payoffs include a "fairness penalty" if the other person chooses to defect (Camerer and Thaler, 2003, 162). The outcomes (cooperate, cooperate) and (defect, defect) are both fairness equilibria since the players will cooperate if they believe the other side will cooperate but will also defect if they expect the other side to play "meanly" and also defect.⁴¹ Second, incorporating fairness also changes the importance of what had been called "cheap talk" prior to the game. If players are allowed to exchange non-binding communication before the game, outcomes are also shifted (Sally 1995). Promising to cooperate generally leads both sides to cooperate and not defect (Roth and Murnighan 1982). The players use the communication to determine if the other side will be kind or mean and make their own selections accordingly (cooperate if niceness was promised and defect if not). Finally, it helps explain why outcomes are different when the game is described or framed differently for players. If the game is called a "community game," players cooperate more than if it is called the "Wall Street game" (Ross and Ward, 1986). This makes sense, argued Rabin, since the information about the game leads participants to certain expectations about the behavior of other participants. In a Wall Street game, players assume the other side will pursue "greed," behave meanly, and defect.

Adding fairness to the chicken game leads to opposite outcomes entirely than standard equilibrium outcomes suggests. The Nash equilibrium for this game is (dare, chicken). But if fairness considerations are active, players will select (chicken, chicken) where both sides decide to sacrifice themselves to reward kind behavior by the other or (dare, dare) where each side is more concerned with punishing the other than by extracting the maximum individual gains.

This is not to argue that fairness as a concept has never been studied. Welfare economists have extensively examined distributional outcomes with a focus on equity. In political science, fairness as a concept appears in work on voting systems, legal decisions, and media coverage. Fairness has also been

⁴¹ Pure altruism on the part of the players cannot account for both outcomes. See Rabin, 1993, 1288.

taken up by political theorists, especially those following Rawls. The closest application to IPE thus far has been to consider fairness in taxation policies. If fairness makes a difference in behaviors, individuals are more likely to contribute taxes in systems perceived as “fair” than those that are not.

Little scholarship to date, however, has actively considered how perceptions of fairness may affect policy outcomes. Fairness, in this context, means more than a rhetorical commitment to a “fair” or equitable distribution of outcomes. It must be incorporated into decisionmaking behaviors—even if it is never acknowledged. For example, if the chicken game accurately describes the potential outcomes of a divorce proceeding, incorporating fairness into a consideration of outcomes leads to a very different settlement. Recall that, in the absence of fairness concerns, the equilibrium outcome is (chicken, dare) or (dare, chicken) where one party capitulates and the other party holds firm. If, however, both parties are motivated by fairness, the outcome could be either (chicken, chicken) or (dare, dare). Both sides may either elect to give up some of his or her material gains in the interest of resolving the divorce amicably (perhaps for the sake of the kids) or both sides may dig in and focus more on destroying the other than securing any personal gains. The destructiveness of the “War of the Roses” does not make sense without an understanding of the motivations of each side.

These same concerns are likely to hold at the level of individual negotiators. For example, Richard Steinberg recounts negotiations in the General Agreement on Tariffs and Trade (GATT)/World Trade Organization (WTO) meetings in an article in the Spring 2002, *International Organization*. Steinberg was trying to understand how the bargaining rules at the GATT/WTO, which call for sovereign equality and consensus decisionmaking, works in practice. Under GATT/WTO rules, nothing happens in the absence of consensus from all member parties. Steinberg was particularly puzzled by why powerful actors, like the United States or European Union, supported such decisionmaking procedures. Even if you assume that the U.S. or EU have dominated outcomes historically, it does not make sense for either party to continue to follow procedures based on consensus.

Steinberg argued that negotiators have largely followed two modes of negotiating: one law-based, when states stick closely to procedural rules and search for Pareto-improving outcomes that are largely

symmetrical; and another that is power-based, where states use other instruments of power to alter the decisionmaking process itself and generate largely asymmetrical outcomes. The system as a whole remains, he said, because “invisible weighting assures that legislative outcomes reflect underlying power, and the rules help generate a valuable information flow to negotiators from powerful states” (342). This allowed the weaker states a voice at the launching of a new round and provided them some room for agenda setting. At the close of the round, larger, stronger states could use the invisible weighting procedures (based largely on domestic market size) to bundle together a package that contains enough benefits for weaker states to agree, yet skews the overall outcome in favor of the larger states. The evidence supporting his organized hypocrisy argument was drawn from process tracing of the launching, agenda setting, and closing of successive GATT/WTO negotiating rounds.

But what if negotiators were driven by fairness considerations and not by power or law-based modes of negotiating? The acrimonious bargaining at the WTO in the Doha round over cotton subsidies and drug access may be evidence of this process at work. Developing states, as Steinberg and others have noted, largely granted more trade concessions in the Uruguay Round than they received (Finger, Reincke, and Castro, 1999; Goldin, Knudsen and van der Mensbrugge, 1993; and Harrison, Rutherford, and Tarr, 1996). At the conclusion of the negotiations in 1993, developing states—in addition to all the trade liberalization issues contained within the Round—were also required to sign onto the Trade-Related Aspects of Intellectual Property Rights (TRIPs), Trade-Related Investment Measures (TRIMs), the General Agreement on Trade in Services (GATS), and the Understanding on Balance-of-Payments Provisions of the GATT 1994. Each of these elements required significant changes from developing states and had long been opposed by most. The revised subsidies and anti-dumping measures in the final agreement not only did not contain useful concessions for most developing states, but membership in both became automatic (as opposed to voluntary, as before Uruguay). Even the arena with the greatest potential gains for developing states, the elimination of the Multi-Fiber Agreement regulating trade in textiles, contained a long phase-in period with escape clauses for developed states facing a surge in imports.

So at the conclusion of the Round, developing country negotiators, as Steinberg noted, were less pleased with the outcomes than U.S. or EU counterparts (367). As the agreements came into force, moreover, developing states had to contend with their increased obligations. In some arenas, like TRIPs, the agreement has required wholesale changes to provide adequate patent, trademark, and copyright protections for a range of intellectual property products that were never protected before. (This led to the heated debates in Cancun, Mexico over drug patent protections noted above.)

As negotiators met, first in Seattle in 1999 and then in Doha in 2001, to launch a new round of bargaining, officials from developed and developing states faced quite different assessments of their previous successes at the negotiating table. Two issues quickly became notable: drug access versus intellectual property rights and rich world subsidies for cotton. In each, developing state negotiators banded together to argue that the current world trade regime left them at a disadvantage. Without access to generic medications, states facing public health crises like HIV/AIDS could not afford to help their citizens. Enormous subsidy payments to cotton farmers, particularly in the United States, depressed global prices for cotton and punished developing state farmers in places like Chad and Burkina Faso.

Both issues, but particularly cotton, were viewed as symbolic debates, especially by negotiators from the United States and the European Union. Yet each could also be viewed as a fairness signal using the model developed by Rabin. Recall that your behavior is contingent on the behavior of others. You will be nice when the other side is being nice, but prepare to defect and play mean if the other side does so as well. Cotton and drugs act as these signaling devices for developing country negotiators. If the U.S. and EU refuse to play “fairly” in these two areas (especially by phasing out subsidies that cannot be justified in economic terms), they will likely play “unfairly” in all other arenas as well. Stonewalling on the removal of cotton subsidies suggests no serious movement will be forthcoming in any other agricultural area of concern to developing states either. Especially in the wake of repeated rounds of negotiations that ended with limited benefits for developing states (at least relative to developed country gains) negotiators are predisposed to claims of “unfairness” at the bargaining table.

Developing country officials should decide to defect and play meanly, even if it means leaving many potential benefits on the table. This feature helps make sense of another apparently puzzling outcome from the Doha negotiations. Any deal struck in the end is likely to result in greater market openness and improved market access for developing states (as well as developed states). Observers have repeatedly noted that developing country markets are the most closed. Assuming economic liberals are correct, increasing openness will, over the long run, bring benefits to all. But even the promise of greater benefits in the long run may not be sufficient to overcome perceptions of unfairness for developing state officials charged with negotiating a final deal. If developed state negotiators refuse to play kindly, developing states could retaliate in turn. As both sides defect, the agreement fails.

This outcome is unanticipated, using the two models discussed by Steinberg. Under law-based negotiating, states use their procedural rules to create outcomes that are Pareto-improving. Under power-based bargaining, strong states use invisible weighting to create asymmetrical outcomes. In this case, some of the weakest states in the system (but, crucially, not all of the weaker states)⁴² have decided to use procedural rules that require consensus to move forward to block a potentially improving outcome for all. Unless the more powerful states can induce movement by the “holdouts,” the negotiations will collapse. Even if the more powerful states were successful at offering up meaningful “carrots,” the final outcome will likely not match the asymmetrical outcomes of previous agreements.⁴³

Steinberg notes that one challenge of sticking with a policy of sovereign equality decision making in the WTO is that the United States and EU will find it increasingly difficult to continue to use invisible

⁴² If all weaker states were united in their efforts, it would more closely match Steinberg’s discussion of law-based bargaining. The final outcome, however, may not fit the Pareto-improving scenario he describes.

⁴³ In this case, using sticks or punishments to induce movement is unlikely to be effective. This is certainly true if I am correct and fairness concerns are active. The use of sticks will only reinforce the “unkindness” message and prompt the holdouts to continue to defect in the future.

weighting to tip final outcomes in their direction. In particular, if the developing states are successful at following law-based bargaining, they may be able to use their larger numbers to offset the informal trade weights currently driving the process. If fairness matters at the negotiating table, developing state negotiators may elect to play “meanly” in response to deadlock or extensive delays in drugs and cotton. If most developing state negotiators respond in similar ways, reaching agreement at Doha could prove impossible. The developed states may discover that past asymmetrical agreements will make new agreements more challenging unless they can alter perceptions of fairness for the future.

Conclusions

Many of the research avenues currently under investigation by behavioral economists have more powerful implications for international political economy scholars as well. The three research ideas illustrated in this article—framing and losses, myopic time horizons, and fairness—highlight important concepts of interest to IPE researchers. The use of previously published *International Organization* articles, reformulated to consider the same puzzles from a different angle, was intended to illustrate the application of these concepts. At this point, however, they can only serve as illustrations. What remains now is for other IPE scholars to take up these lines of research and subject them to serious scrutiny.

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