

Super-Optimizing Analysis and Philippine Policy Problems

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Super-optimum solutions to public policy problems involve finding alternatives that enable conservatives, liberals, and other major viewpoints to all come out ahead of their best initial expectations simultaneously. This mode of analysis can be applied to any public policy problem, including such Philippine problems as deciding on a minimum wage, trying to commute to and from Manila, reforming land ownership, dealing with multiple languages in Philippine education, and handling the American military bases. Such solutions are facilitated by well-placed subsidies and tax breaks, systematic policy analysis, decision-aiding software, democratic institutions, and positive creative thinking.

This paper discusses how super-optimum solutions (SOS) can be applied to developmental policy. SOS analysis involves arriving at solutions to policy problems whereby liberals, conservatives, and other major viewpoints can all come out ahead of their best initial expectations.

The illustrative Philippine public policy problems that are used in this paper include (1) the Philippine minimum wage problem, (2) trying to commute to and from Manila, (3) land reform in the Philippines, (4) trilingualism in Philippine education, and (5) the American military bases in the Philippines.

The illustrations were largely generated as a result of the author's experiences in the Philippines in 1990 as discussed in a lecture on systematic public policy analysis delivered at the College of Public Administration of the University of the Philippines. The participants in those seminars consisted of public administrators from virtually all the major departments in the Philippine government and relevant units within the University of the Philippines. The emphasis was on problems that the policymakers were actually dealing with, rather than hypothetical problems.¹

Basic SOS Concepts, Principles, and Streams of Literature

This introductory section is designed to serve three purposes: first, to contrast super-optimum solutions with other types of solutions to public controversies; second, to indicate general procedures for arriving at super-optimum solutions; and third, to describe streams of relevant ideas and literature which help in generating this new perspective for dealing with public policy problems.

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SOS Contrasted with Other Types of Solutions

Solutions to public controversies can be classified in various ways. First, there are super-optimum solutions in which all sides come out ahead of their best initial expectations as mentioned above. At the opposite extreme is a super-malimum solution in which all sides come out worse than their initial worst expectations. That can be the case in a mutually destructive war, labor strike, or highly expensive litigation.

Pareto optimum solutions are those in which nobody comes out worse off and at least one side comes out better off. This is not a very favorable solution compared to a super-optimum solution. A Pareto malimum solution would be one in which nobody is better off and at least one side is worse off.

A win-lose solution depicts a scenario where what one side wins the other side loses. The net effect is zero when the losses are subtracted from the gains. This is the typical litigation dispute when one ignores the litigation costs.

A lose-lose solution is a grim scenario where both sides are worse off than they were before the dispute began. This may often be typical litigation dispute, or close to it when one includes litigation costs. Such costs are often so high that the so-called winner is also a loser. This oftentimes occurs in labor-management disputes that result in a strike, and even more so in international disputes that result in the eruption of war.

The so-called win-win solution sounds like a solution where everybody comes out ahead at first glance. What it typically refers to, though, is an illusion since the parties are only coming out ahead relative to their worst expectations. In this sense, the plaintiff is a winner no matter what the settlement is because the plaintiff could have won nothing if liability had been rejected at trial. Likewise, the defendant is a winner no matter what the settlement is because the defendant could have lost everything the plaintiff was asking for if liability had been established at trial. The parties are only fooling themselves in the same sense that someone who is obviously a loser tells himself he won because he could have done worse.

Procedures for Arriving at Super-Optimum Solutions

One procedure for arriving at super-optimum solutions is to think in terms of what is in the conservative alternative that liberals might like. One must likewise consider what is in the liberal alternative that conservatives might like. Then think whether it is possible to make a new alternative that will emphasize the opposite. It involves finding out (1) what is in a conservative alternative that liberals especially dislike, and (2) what is in the liberal alternative that conservatives especially dislike. Then think about making a new alternative that eliminates those two aspects.

In arriving at super-optimum solutions in litigation settlements, one should especially try to find something that the defendant can give to the plaintiff that is not worth so much to the defendant but is worth a lot to the plaintiff. This may relate to a product that the defendant manufactures or sells which has a low variable cost to the defendant but a high market value to the plaintiff. An example is the defendant manufacturer giving manufactured products to the plaintiff which the plaintiff can use. That kind of trade can be generalized to policymaking situations as well as litigation situations.

Another technique is not to concentrate on the alternatives as the above procedures do, but instead to concentrate on the goals. One way of doing this is to ask what goals are especially important to liberals, and what goals are especially important to conservatives. Then, try to find alternatives that can simultaneously satisfy both of those goals. This technique could be illustrated by the minimum wage example where the goals do not change at all. Conservatives endorse the goals of low wages, and liberals endorse the goal of high wages. Or to put it differently, conservatives endorse the goal of providing a stimulating environment for business, liberals endorse the goals of preventing abuse of workers. The minimum wage supplement allows business to pay as low as \$1.00 per hour while the worker receives \$5.00 per hour as a result of the voucher supplement.

A variation on that is to add new goals. The usual procedure starts with the conservative goals as givens in the light of how they justify their current best alternative, and it starts with the liberal goals as givens in the light of how they justify their current best alternative. This technique says to think about the goals conservatives tend to endorse that are not currently involved in the controversy, but that could be brought in to justify a new alternative. Likewise, what goals do liberals tend to endorse that are not currently involved in the controversy, but that could also be brought in. For this technique, a good example is the free speech controversy where liberals want virtually unrestricted free speech in order to stimulate creativity and conservatives want restrictions on free speech in order to have more order in the legal system. However, liberals also like due process, equal protection, and right to privacy. That raises questions as to whether it might be permissible to restrict free speech in order to satisfy those constitutional rights, where the restrictions are not so great, but the jeopardy of those other rights might be great. Likewise, conservatives like policies that are good for business. They might therefore readily endorse permissive free speech that relates to advertising, convincing workers not to join unions, or lobbying.

An important technique is to find a policy that in effect combines two policies into one. On the first policy, liberals receive a lot, but conservatives give up relatively little. On the second policy, conservatives receive a lot but liberals give up relatively little.

In the minimum wage example, which follows, conservatives get more than what they want, and liberals also get more than what they want. The important thing is that conservatives do not get by taking it from liberals, and liberals do not get by taking from conservatives. Instead, at least on the surface, they are both taking from a third party. In this context, the third party in the short run is the federal government and the American taxpayer. In the long run, though, the taxpayer benefits if subsidizing the minimum wage results in putting to work people who otherwise would be engaging in antisocial or possibly criminal behavior. The taxpayer especially benefits if combined with that minimum wage is an on-the-job training requirement that upgrades the skills of the workers so they substantially add to national productivity.

One problem with super-optimum solutions is that they look so good that they may cause some people to think they might be some kind of a trap. An example is the Camp David Accords. That example is a classic super-optimum solution where Israel, Egypt, the United States, and everybody involved came out ahead of their original best expectations. According to the *New York Times* for 26 March 1989, however, Israeli intelligence at least at first opposed Anwar Sadat's visit to Israel and the Camp David Accords until close to the signing on the grounds that it all sounded so good, it must be a trap. The Israeli intelligence felt that Israel was being set up for a variation on the Yom Kippur war whereby Israel got into big trouble by relaxing its guard due to the holidays. They viewed this as an attempt to get them to relax their guard again, and that any minute the attack would begin. They were on a more intense alert at the time of the Camp David negotiations than they were at any other time during Israel's history. That nicely illustrates how super-optimum solutions can easily be viewed by people as a trap because they look so good that they are unbelievable. Traditional solutions are not so likely to be viewed as traps, and they are taken more at their face value, which is generally not much.

Streams of Relevant Ideas and Literature

There are a number of relevant ideas and literature that have played important parts in the development of the concept of achieving super-optimum solutions. One stream of ideas relates to the use of computers to facilitate systematic, evaluative, and explanatory reasoning. Some of the key literature includes Patrick Humphreys and Ayleen Wisudha, *Methods and Tools for Structuring and Analyzing Decision Problems* (London: London School of Economics and Political Science, 1987); Saul Gass *et al.* (eds.), *Impacts of Microcomputers on Operations Research* (Amsterdam: North-Holland, 1986); and S. Nagel, *Evaluation Analysis with Microcomputers* (Greenwich, CT: JAI Press, 1989).

The second stream of inspiration has come from people in the field of mediation and alternative dispute resolution. Some of the key literature includes Lawrence

Susskind and Jeffrey Cruikshank, *Breaking the Impasse: Consensual Approaches to Resolving Disputes* (New York: Basic Books, 1987); Stephen Goldberg, Eric Green, and Frank Sander (eds.), *Dispute Resolution* (Boston: Little, Brown, 1984); and S. Nagel and M. Mills, "Microcomputers, P/G%, and Dispute Resolution," *Ohio State Journal on Dispute Resolution* 1987: 187-223).

The third stream of inspiration has come from people who are expansionist thinkers. This includes the conservative economist Arthur Laffer and the liberal economist Robert Reich. They both have in common a belief that policy problems can be resolved by expanding the total pie of resources or other things of value available for distribution to the disputants. The expansion can come from well-placed subsidies and tax breaks with strings attached to increase national productivity. That kind of thinking can apply to disputes involving blacks-whites, rich-poor, males-females, North-South, urban-rural, and other categories of societal disputants. Some of that key literature includes Ira Magaziner and Robert Reich, *Minding America's Business: The Decline and Rise of the American Economy* (New York: Harcourt, Brace, 1982); and Paul Roberts, *The Supply Side Revolution* (Cambridge, Mass.: Harvard University Press, 1984).

Generating and Interpreting SOS Tables

Eight Basic Principles

There are eight basic principles to consider in the process of generating and interpreting SOS tables:

- (1) Provide for at least four *alternatives* or sets of alternatives, namely a conservative one, a liberal one, a neutral or compromise one, and a super-optimum solution. There could be more than one conservative, liberal, neutral, or SOS, but there should be at least one. Sometimes if there is more than one in each of those four categories, they can be collapsed into a kind of package.
- (2) If there really is a controversy, there has to be a conservative and a liberal alternative. And there also has to be virtually by definition some conservative goals and some liberal goals. In order to have a trade-off controversy, the conservative alternative has to do better on the conservative goals and a liberal alternative has to do better on the liberal goals. A super-optimum solution may do better on all the goals, but that is not necessary for it to be an SOS winner. It simply has to do better on all the totals.
- (3) If the goals are meaningful, they should not only be somewhat balanced in terms of conservative, liberal, and neutral, but they should also cover

effectiveness, efficiency, and equity. There may be other important goals that relate to political considerations or the three Ps or feasibility considerations, namely, public participation, predictability, and procedural process. If feasibility is left out, that does not mean it is not important, it simply means that all the alternatives are feasible. Likewise, if any of the three Ps are left out, it may mean that in this particular problem they are not so relevant. Effectiveness, efficiency, and equity are always relevant. That means we always want to judge the alternatives first of all in terms of what benefits they achieve. That is effectiveness. We also want to pick alternatives that are low on costs if everything else is held constant. That is efficiency. We also want alternatives in which the benefits and the costs are fairly distributed and not disproportionately on one economic class, race, gender, region, or other demographic group. That is equity.

- (4) The 1-5 scale is very comfortable for scoring. It also follows for in-between scores, like 1.5, 2.5, 3.5, and 4.5.
- (5) In a balanced situation, one would expect the conservative and liberal solutions to do the worst and about equally bad, respectively. The neutral solution would do better. The conservative solution would be a *winner* on the conservative totals if there were no super-optimum solution and would come in second place where there is a super-optimum solution. The compromise solution would win on the neutral totals without an SOS and come in second to the SOS.
- (6) Generating alternatives and goals requires a knowledge of the subject matter. Generating super-optimum solutions involves some *creativity* since the SOS may be part of the common knowledge concerning the subject matter. It may represent some new cutting-edge ideas. In time, those ideas may be well enough accepted that they become adopted by conservatives, liberals, and neutrals and get taken for granted, thereby losing their innovativeness.
- (7) It helps to know which alternative does best in each individual goal. That helps develop a *super-optimum solution* since an ideal SOS does best on all the goals. It also helps to see who does best on each of the total columns in order to determine whether we really do have a super-optimum solution, and also whether the labelling of alternatives and goals as being conservative and liberal has internal consistency. It would not be internally consistent if the conservative alternative loses on the conservative column and wins on the liberal column, and vice versa for the liberal servative column and wins on the liberal column, and vice versa for the liberal alternative.

- (8) A key *purpose* of all this is to develop super-optimum solutions that will simultaneously exceed the best expectations of liberals and conservatives. This is an analytic tool that facilitates coming up with such solutions. It is a bit analogous to the Mendeleev table of chemical elements which for years facilitated the discovery of new chemical elements by hypothesizing that nature would not allow for holes to exist in the organized structure of matter, i.e., that every atomic weight could be accounted for by some chemical element. Here we are hypothesizing that for every problem, with a bit of creative thinking, one can come up with a kind of combination policy that has the characteristics of a super-optimum solution, using any of the seven approaches for arriving at SOS's and more that may be developed later.

Conservative, Neutral, Liberal, and SOS Designations

Conservative alternatives and conservative goals tend to emphasize the interests of those who are relatively well off in a society. Liberal alternatives and goals tend to emphasize the interests of those who have low economic standing. Neutral or compromise alternatives and goals tend to be in the middle in the sense of splitting the difference. Super-optimum solutions involve both conservatives and liberals benefiting greater than their original proposals, or benefiting greater than their best expectations.

Any alternative or goal that is ideologically ambiguous, we logically call neutral. Anything that is obviously liberal, we call liberal. Anything that is endorsed by virtually all Democrats in Congress and rejected by virtually all Republicans on a policy matter is quite probably liberal, and vice versa.

It does not make much difference at all in the case of super-optimum solutions, since by definition they win among liberals, conservatives, or neutrals. Thus if a certain goal on which an SOS does extremely well is scored as a liberal goal, but really should be scored as a conservative goal, the SOS will still be the winning alternative.

Issues qualify as SOS problems if the following characteristics are met:

- (1) There should be at least one conservative alternative and at least one liberal alternative. If there is only one alternative for dealing with the problem, then there is no problem since there is no choice, although one could say that there is still a go/no-go choice as to whether that one alternative should be adopted.
- (2) There should be at least one conservative and at least one liberal goal. If all the goals are conservative, then the conservative alternative should

easily win. Likewise if all the goals are liberal, then the liberal alternative should easily win.

- (3) The conservative alternative should do better on the conservative goal, with the liberal alternative doing better on the liberal goal. That is the tradeoff requirement. If either alternative does better on both kinds of goals, then that alternative should easily win.
- (4) It should be possible to meaningfully say that conservatives give relatively more weight to the conservative goals and relatively less weight to the liberal goals, and vice versa for the assigning of weights by liberals. If that is not so, then it is not so meaningful to talk about a conservative total with conservative weights and a liberal total with liberal weights.
- (5) There should be a super-optimum solution that does better than the previous conservative alternative on the conservative total with conservative weights, and it also does better than the previous liberal alternative on the liberal totals with liberal weights. That is the most difficult to achieve of these five characteristics, but still manageable.

Effects of the Designations on the Weights

If a goal is considered conservative, then we would expect conservatives to give it a higher weight than liberals would. A higher weight in this context generally means a weight of 3 on a 1-3 scale. Likewise, if a goal is considered liberal, then we would expect liberals to give it a higher weight than conservatives would. Thus, in a simple scoring system, conservative goals are given a weight of 3 by conservatives and a weight of 1 by liberals. Liberal goals are given a weight of 3 by liberals and a weight of 1 by conservatives. They both give neutral goals a middling score of 2.

That weighting system is simple. It also fits empirical reality regarding what we know about conservatives and liberals. They do tend to give positive weight to the same goals. A good example is from the criminal justice field where both conservatives and liberals put a positive value on acquitting the innocent and convicting the guilty. They are both likely (especially among lawyers) to place a higher value on acquitting the innocent than on convicting the guilty.

To be more numerical, liberals might say that it is ten times as desirable to acquit an innocent defendant than it is to convict a guilty defendant in accordance with the tradeoff values of William Blackstone. Conservatives, on the other hand, might say it is only five times as desirable. Or maybe liberals would say it is three times as desirable, and conservatives would say it is two times as desirable. The

important thing is to exact numbers, but that they consider both goals to be desirable and that relatively speaking, liberals consider avoiding false convictions to be even more desirable than conservatives do.

What may be even more important from the point of view of super-optimizing analysis, as mentioned above, is that an SOS solution scores high on both goals. Such a solution increases the goal achievement on both goals, contrary to traditional tradeoff thinking. That traditional thinking tends to perceive that whatever will increase the probability of innocent people being acquitted will decrease the probability of guilty people being convicted. This may be true in certain problems that are artificially defined as only involving a single dimension, such as jury size independent of other jury characteristics. Thus larger juries deciding unanimously are considered desirable to avoid convicting the innocent, but undesirable to gain convictions of the guilty. Juries, however, can be more accurate in both their acquittals and their convictions if they are (1) given some training on what to watch for as jurors, (2) allowed to take notes, (3) allowed to play back an audiotape or videotape of the trial during deliberations, and (4) allowed to question the judge and/or the lawyers during their deliberations.

It might also be noted that using a 1-3 scale for the weights does not necessarily mean that conservative goals have to be given a weight of 3 by conservatives and a weight of 1 by liberals, and vice versa for liberal goals. All that is necessary is that conservatives give a higher weight to conservative goals than liberals do on the 1-3 scale. Thus we would still have consistency between conservatives and liberals on a single conservative goal if conservatives gave it a weight of 3 and liberals a weight of 2, or if conservatives gave it a weight of 2 and liberals a weight of 1. It would not be a conservative goal if they both gave it the same weight, or if liberals gave it a higher weight.

Scoring Weights Versus Scoring Relations

One might ask why we use a 1-3 scale for scoring the weights in super-optimizing analysis, but a 1-5 scale for scoring the relations. One reason is because there is sometimes confusion between those two sets of scores. The confusion is lessened by having two different scales to keep the two kinds of scoring separate. A more important reason is that a 5-point scale works better with relations, and a 3-point scale works better with weights.

A score of 5 in scoring a relation means that if the alternative increases slightly, then the goal would be expected or predicted to increase greatly. A score of 4 means that if the alternative increases slightly, then the goal would be expected to also increase slightly. A score of 3 means that the goal would not change at all. A score of 2 means that the goal would decrease slightly. A score of 1 means that the goal would decrease greatly. If we only had a 3-point scale we could not express small and big increases or small and big decreases. We could only express increases

and decreases, where a 3 would mean an increase, a 2 would mean no change, and a 1 would mean a decrease. That would not provide sufficient precision.

On the other hand, in weighting goals, a 3 means that the goal has high weight. A 2 means that the goal has middling weight. A 1 means that the goal has low weight, but is a positively valued goal. That has been found to be sufficient precision for expressing the weight of goals. One indication of that is the finding that the threshold value of a disputed weight in a policy controversy is often between 1 and 3. If one provides for too many whole numbers such as a 1-5 scale for weights, then some people just use 2, 3, and 4. Others just use 1, 2, and 3. Still others use 3, 4, and 5. Those variations make the scale less meaningful because they reflect how different people perceive numbers, rather than how different people perceive the relative importance of goals.

In other words, the 1-3 system for scoring the weights is not a truncated version of the 1-5 system for scoring relations. It involves a different set of words and thought processes as reflected in the words high, middling, and low versus big increase, little increase, no change, little decrease, and big decrease. The high, middling and low represent normative importance. The increase-decrease concepts represent empirical perceptions. Under either system if one wants to, one can use decimals or fractions and talk about 1.5, 2.5, and other decimals within the 1-3 or 1-5 range.

Philippine Minimum Wage Policy

Table 1 presents the Philippine minimum wage problem in the context of an SOS framework, table, matrix, chart, spreadsheet, or other synonym for a set of rows and columns. An SOS table shows the goals to be achieved on the columns, the policy alternatives available on the rows, the relations between alternatives and goals in the cells, various overall totals for the alternatives at the far right, and a capability of determining what it would take to bring a second-place or other-place alternative up to first place.

To be an SOS table rather than just an ordinary decision-analysis table, it is necessary that there be at least one conservative, liberal, and SOS alternative. The conservative alternative can generally be considered as representing the best expectations of the conservatives, although their best expectations may be better expressed in terms of the degree of goal achievement they might best expect. The liberal alternative generally reflects the best expectations of the liberals. The SOS alternative (if it really is an SOS alternative) is capable of exceeding both the conservative and liberal best expectations in terms of their respective alternatives and/or goals.

The Inputs

In the context of the Philippine minimum wage problem as of January 1990, the conservatives would like to keep the minimum wage down to about 90 pesos per day. The liberals would like to get the minimum wage up to about 100 pesos per day. The neutral alternative usually splits the difference between the conservative and liberal alternative or takes a little of each. In this context the neutral or compromise alternative is 95 pesos per day.

The goals of both the conservatives and liberals are to pay decent wages but to avoid overpayment. The important thing in this context is not determining exactly what a decent wage is, but the relativistic idea that 100 pesos scores better on achieving a decent wage than 90 pesos does. Likewise, 90 pesos scores better on avoiding overpayment than 100 pesos does.

Instead of (or in addition to) expressing those relations in words, we can summarize them by using relativistic numbers on a 1-5 scale. On such a scale, a 5 means that the alternative is highly conducive to the goal relative to the other alternatives. A 4 means mildly conducive; a 3 means neither conducive nor adverse; a 2 means mildly adverse; and a 1 means the alternative is highly adverse to the goal.

In the context of the Philippine minimum wage problem, one could give the liberal alternative a 4 on decent wages, the conservative alternative a 2, and the neutral alternative a 3. Those are just relative numbers. It would be just as meaningful to use the numbers 400, 200, and 300, or 12, 6, and 9. The important characteristic is the rank order, and to a less extent the relative distances. Rank order is especially important and also relative distance because the bottom line in policy evaluation is determining which alternative ranks first and best.

Likewise on avoiding overpayment, the conservative alternative receives a 4, the liberal alternative a 2, and the neutral alternative a 3. We are temporarily not mentioning the exact nature of the SOS alternative. We need to first clarify the analysis working with the more traditional alternatives to the minimum wage problem, or whatever the policy problem might be.

After determining the basic alternatives, goals, and relations, the next step in an SOS analysis is to discuss the relative weights of the goals. A 1-3 scale is a simple and frequent way of measuring the relative weights or importance of the goals. With such a scale, a 3 means highly important relative to the other goals. A 2 means middling important, and 1 means having relatively low but positive importance.

In the minimum wage context, liberals tend to assign "decent wages" a relatively high weight and assign "avoiding overpayment" a relatively low weight.

Thus liberals would implicitly or explicitly multiply the scores in the decent-wages column by a 3, and multiply the scores in the avoid-overpayment column by a 1. Doing so results in a liberal total score for the conservative alternative of 10, which is 3×1 plus 1×4 . The liberal total for the liberal alternative is 14, which is 3×4 plus 1×2 , and so on for determining the other numbers in the liberal total column.

The Total Scores and the SOS

The conservative total scores are calculated in a similar way. Conservatives tend to give "decent wages" a weight of 1 and "avoiding overpayment" a weight of 3. The conservative alternative thus receives a conservative total of 14, which is 1×2 plus 3×4 . Neutrals tend to give all goals middling weight of 2. Thus the conservative alternative gets a neutral total of 12, which is 2×2 plus 2×4 . An easier way to calculate the neutral totals is simply to add the raw scores of 2 plus 4 to obtain 6, and then double that unweighted total.

Notice that on the liberal totals, the liberal alternative wins or ranks first before taking into consideration the SOS alternative, and the conservative alternative ranks third. Likewise on the conservative totals, the conservative alternative ranks first, and the liberal alternative scores last, before considering the SOS alternative. That is a check on internal consistency, although such consistency may not always be completely present.

Under the SOS alternative, each worker receives 101 pesos a day as a minimum wage. Each employer, however, only pays 89 pesos per day to the workers. The difference of 12 pesos comes from a governmental minimum-wage supplement. By each worker receiving more than 100 pesos, the SOS alternative has exceeded the best expectations of the liberals. By each employer paying less than 90 pesos, the SOS alternative has also exceeded the best expectations of the conservatives.

The SOS alternative receives a 5 on the goal of decent wages because it involves paying the workers even more than the liberal alternative which received a 4, assuming one wants to round off to whole numbers on the 1-5 scale, although that is not necessary. The SOS alternative also receives a 5 on the goal of avoiding overpayment because it involves employers paying even less than the conservative alternative which received a 4. Thus the SOS alternative receives a total score of 20 on the neutral totals which is 10×2 . It receives a score of 20 on the liberal totals which is 3×5 plus 1×5 , and it receives a score of 20 on the conservative totals which is 1×5 plus 3×5 . It is a super-optimum solution because it exceeds the best expectations of both liberals and conservatives simultaneously.

Potential Criticism

To be truly super-optimum, however, the SOS alternative should not involve liberals and conservatives both coming out ahead at the expense of other major

parties or viewpoints. In this context, one might argue that the government or the general public comes out behind as a result of the extra tax-cost to provide for the minimum wage supplement. It is a subsidy to the wages of the workers, and subsidy to the available payroll money of the employers.

A well-placed subsidy is professionally administered and involves enough money to get the job done. It especially involves strings attached that make the subsidy more than worthwhile to the government and the taxpayer. In the context of a minimum wage supplement, one important string might be to require the employers to hire people who would otherwise be unemployed, and to require the workers to be willing to move to jobs where they are needed. Another important string would be to require the employers to provide on-the-job training to upgrade the skills of the workers so they will be more productive than 101 pesos per day, and to require the workers to participate in the training so they can pass whatever performance tests are involved.

With those strings attached, the taxpayers would be relieved from various welfare burdens such as providing medical care, food stamps, unemployment compensation, public housing, aid to dependent children, social security, disability aid, and other forms of public aid. Providing jobs to the unemployed and upgrading job skills facilitate better role models, thereby relieving the taxpayers of the possible welfare burdens of the future generation. The new employment and increased income lessens costly antisocial behavior and attitudes, such as crime, drugs, vice, bitterness, and depression. The upgraded employment adds to the gross national product, helps create jobs for others, and adds to the tax base.

One objection might be that paying the unemployed 101 pesos per day will antagonize those who are already employed at the old minimum wage of about 95 pesos per day. This is not a serious problem in the United States because there are relatively few workers earning the minimum wage, and they tend to be non-unionized with little political power. In the Philippines and other developing countries, however, there is a relatively high percentage of the work force at the minimum wage, and they tend to be unionized and more aggressive. Thus, the string attached to on-the-job training might have to be emphasized in the Philippines more than the hiring of the unemployed, as compared to the United States.

Another objection might be that employers will resist providing on-the-job training. It is not likely for them to do so if it is partly subsidized by the wage supplement of 12 pesos a day. Employers are also not likely to object if the training is reasonably well planned so that worker productivity increases more than the cost, thereby increasing the profits of the employers.

This is thus a potential super-optimum solution for conservative employers, liberal workers, and the total society of taxpayers. A key reason why this and other

super-optimum solutions are sometimes not adopted is because the policymakers until recently have not been thinking along these lines. Another reason is that oftentimes liberals are too concerned that conservatives might gain by a super-optimum solution, even though liberals also gain. Likewise, conservatives may be too concerned that liberals might gain, even though conservatives also gain.

One might also argue that there is something about the minimum wage situation which makes it easy to find a super-optimum solution. The examples which follow deal with a variety of subject matters and approaches to arriving at super-optimum solutions. They include (1) trying to commute to and from Manila, (2) land reform in the Philippines, (3) trilingualism in Philippine education, and (4) American military bases. These examples draw upon the author's 1989-90 experiences in the Philippines, but they could apply to any developing or developed country by analogy.

Trying to Commute to and from Manila

The Manila commuting problem is a good example of how people in developed countries may have false stereotypes of policy problems in developing countries being simpler and less urbanized than policy problems in more developed countries. There may be no country in the world that has a worse commuter problem than the Philippines. Commuting is relatively simple in New York, London, Paris, Berlin, Moscow, Tokyo, and elsewhere.

It is more complicated in the Philippines because:

- (1) The Philippines has only one really big metropolitan city to which people are flocking, whereas countries like the United States have many such cities like New York, Chicago, Los Angeles, etc.
- (2) Metropolitan Manila may be bigger in population and area than most other big cities where there is a lot of complaints about the difficulty of commuting. Metropolitan Manila consists of about five adjacent cities, including Quezon City which is a big city in itself.
- (3) Greatly complicating the commuting problem in Manila is that it is on an island or a peninsula in which the Pacific Ocean is just waiting to flood any attempt to build a subway system. Further complicating matters is the lack of money for an expanded elevated or surface train system.
- (4) It has been proposed that there should be more vehicles that carry multiple people to and from work to ease the commuting problem. Washington, D.C., for example, makes a big thing of providing special lanes for cars and buses that have multiple passengers, especially as part of a pooling arrangement. The Manila area probably has more small

buses per capita than any city in the world. They have developed a mass transit system based on the extended jeep carrying a dozen or more passengers crowded closely together.

- (5) Having more jeepneys, small buses, and big buses would just further clog the highways and streets into and out of Manila. They would thus worsen the problem and make commuting even more time-consuming.
- (6) Having more bicycles will not handle the Manila commuter problem the way it helps in Beijing. Poor people and middle-class people have to travel too far to do it on bicycle, and they can also ride the jeepney buses for only one peso which is about 1/20 of an American dollar. Thus it is not cost-effective to buy and ride a bicycle to work. The more influential car drivers would also not tolerate giving up an auto land on each side of the street to be used by bicycles.
- (7) This commuting phenomenon is not peculiar to the Philippines as a developing country. Many developing countries have a capital city or central city to which rural people are flocking looking for jobs. The people build whatever shanties they can. The city becomes highly overcrowded, not just relative to the jobs available, but in an absolute sense given the limited space and the limited technological capabilities of moving people around in that limited space.

Alternatives

Table 2 shows the Manila commuter problem in the context of a decision-analysis table or a super-optimizing framework. The conservative alternative (as is often the case) is to leave things as they are, or leave it up to the marketplace to change things. Some conservatives like to talk about people buying cities the way they buy products. In that sense, people supposedly vote with their feet by going to Manila. The invisible hand of Adam Smith may eventually cause them to change their votes and go back to the countryside. That runs contrary to the invisible hand of somebody else who said something about once you have tasted the big city it is hard to go back to the farm, especially if the landless peasants have no farm to go back to. Maybe in the extremely long run, things get so bad in overcrowded cities that medieval diseases return to periodically decimate the population. That fortunately or unfortunately is not so likely given modern public health care.

The liberal solution tends to be spending big money, but often with no strings attached and with an unduly narrow focus on the immediate problem, rather than the bigger picture. Liberals also tend to project their middle-class New York or Chicago values on poor people, rural people, and people in developing countries. In

this context, it means proposing a New York or Chicago subway or elevated line or Washington, D.C. car pooling. Those alternatives were mentioned above as not so applicable to Manila and to most developing countries for lack of capital. The available capital could probably be better spent in upgrading human skills and machinery for producing goods. It should also be noted that at least some developing countries may be in a good position to act fast, in time to prevent a good deal of urban congestion, rather than try to cure it or commute it afterward.

The neutral alternative as in many situations tends to involve splitting the difference between conservative expenditures or recommendations and those of the liberals. If the conservatives say spend nothing on mass transit since it will overburden the taxpayer and may encourage people to move to Manila, and if the liberals say spend many millions, then the neutral compromisers try to find a figure in between. Doing so may result in half of a train system and may be expensive without adequate incremental benefits. Neutrals also tend to emphasize trying a lot of things simultaneously. In this context, that would mean a little more jeepneys, small buses, big buses, bicycles, and subsidized taxis. The result would probably be more congestion and more time wasted in commuting, as mentioned above. Building wider highways for the additional vehicles is also not likely to help. Many of the commuting roads in Manila are already much wider than Chicago's Outer Drive. The ultimate would be to clear out all the buildings, and have nothing but commuting roads.

Goals

As for goals, a key goal is to reduce the tremendous amount of time wasted getting to and from work. Only the richest Filipinos can afford to live near the central city, or the poorest who set up illegal shanties in whatever alley that might be available. The people who live in those shanties frequently do not have jobs to commute to, and neither do the people who live in the rich villas. The working people tend to live substantial distances away, and they may spend approximately two exhausting hours getting into central Manila and then getting out. Those hours are literally exhausting because the exhaust fumes are unbelievable due to the stop-and-go operation of many diesel-fuelled vehicles and propane buses.

Delays are also caused by numerous trucks going to and from factories that are in the central city, along with office buildings. Delay is also caused by many beggars and street vendors who interfere with traffic at intersections. A further factor is having large military barracks in the central city that could be used for residential housing. Camp Aguinaldo, which is one of the leading army camps in the Philippines, is near the middle of metropolitan Manila. Americans reading about soldiers from Camp Aguinaldo invading the Makati business district think they may have come as paratroopers. The soldiers simply walked down the block into the high-rise buildings. The hot climate further adds to the problem by making the commuting less bearable and causing a lot of overheated cars that stall and block traffic.

The second key goal is to keep the tax burden down. On the matter of tax burden, though, one has to distinguish between the short-run burden and the long-run burden. The long-run burden (if it is not too far away) is more important since it lasts longer. In this context, it may be necessary to spend a lot of money to do something about the problem in order to save a lot of time-cost later. More importantly by enabling people in the Manila area to be more productive and healthy, the gross national product may benefit substantially, thereby increasing the tax base. If that happens then the percentage tax rate can be subsequently lowered and still bring in more money for other projects.

Saving commuting time for workers tends to be a relatively liberal goal, and saving tax money for taxpayers tends to be a relatively conservative goal. As with other SOS analyses, however, both liberals and conservatives endorse time saving and tax saving. It is just a matter of the relative emphasis of liberals compared to conservatives.

Scoring and Totals

In scoring the alternatives, leaving things as they are is terrible for saving commuting time, but it does have a positive relation with short-run tax saving. Spending a lot of money on a train system that would run through developed areas of Manila or on a median strip of widened highways could save commuting time, but it does have a negative relation with short-run tax saving. The neutral compromise is not much help on saving time, although it is not as bad as doing nothing. Likewise it does have a short-run incremental tax burden, although not as bad as liberal mass-transit expenditures.

Looking at the totals, the conservative alternative comes in first using the conservative weights, with the liberal alternative in third place. Likewise the liberal alternative comes in first using the liberal weights, with the conservative alternative in third place. The neutral alternative is everybody's second. It is possibly even the second or third choice of the neutrals since the hodgepodge-neutral alternative does poorly on both goals, although it is not the worst on both goals. In arriving at a super-optimum solution, the important thing is finding an alternative that exceeds both the liberal and conservative initial best expectations, not necessarily the neutrals.

The Super-Optimum Solution

The super-optimum solution in this context has at least three parts. The first is to build up employment opportunities in the suburbs or outlying portions of Manila. The commuting pattern is highly unbalanced. It is nearly all inward in the morning starting about 5:00 in the morning, and it is nearly all outward in the evening starting at about 3:00. This is unlike American cities where there is an increasing growth in the suburbs as places for employment opportunities, not just bedrooms. Farmland

northwest of Chicago in places like Schaumburg Township now have skyscraper office buildings and low-pollution factories.

As a concrete example, it is amazing that the University of the Philippines which is located in Quezon City outside Manila does not have a high-tech area around it. That would take advantage of the fact that the University is the leading university in the Philippines and possibly the leading university in Southeast Asia. Most American universities that have engineering schools attract high-tech employment in their areas. The Philippine government could provide subsidies to create a high-tech employment area around the university. This would make a dent in the commuting problem, and set a useful precedent for other subsidized suburban employment. Also important is that it would help subsidize technological innovation and diffusion. Doing so could have broader useful effects on the Philippine economy than just the Manila commuter problem.

The second part of a possible super-optimum solution is subsidizing the development of regional cities throughout the Philippines. Certain cities in the southern provinces of Mindanao and the middle provinces between Manila and Mindanao could be made more attractive to rural people from those provinces as places to migrate to, rather than go to Manila. They could even be made attractive enough possibly to get some people to move from Manila back to those regional cities in their home provinces. This is a kind of subsidization that has been done in the Soviet Union to encourage people to move west. It was also done by the United States to encourage people to move west, although more a matter of providing people with land for farming in the west, rather than urban employment opportunities. The Rural Rehabilitation Administration during the 1930s, however, did provide low interest loans to enable rural people from Oklahoma, Arkansas, and elsewhere in the southwest to go to Los Angeles and establish gas stations and other small businesses or become automobile mechanics, rather than go to Chicago, Detroit, Cleveland, and New York, as was the case with poor southern blacks and whites.

The third part of the solution prescribes to the Philippine government to work more actively with a number of other governments that have labor shortages who could hire some of the excess labor in Manila area and other parts of the Philippines. This may be true of Hong Kong, Singapore, Taiwan, Malaysia, Korea, and even Japan. It might be worthwhile for the Philippine government to do more to upgrade labor skills to make that kind of guest-worker program more attractive. Those guest workers also send back a lot of money to help the Philippine economy, which may be even more important than relieving the Manila commuter problem. The Philippine government has developed labor-exporting relations with Arab countries in the Persian Gulf. The Philippine Airlines may stop at more Persian Gulf cities as a result than almost any other non-Arab airline. This is another illustration of the need for elevating some of the policy problems of individual countries to a more international or global level.

With that kind of a three-part super-optimum solution, commuting time could be substantially reduced, more so than doing nothing, having a mildly effective train system, or a hodgepodge of miscellaneous vehicles rivalling the evacuation of Dunkirk every morning and evening in Manila. Likewise, that kind of super-optimum solution could not only save taxes in the long run by increasing the GNP and the tax base, but it could also help resolve other policy problems besides Manila commuter problem. An increased GNP through suburban employment, regional cities, and overseas employment can do wonders with regard to reducing the problems of crime, poverty, discrimination, and lack of money for education, health care, housing, and other public policy expenditures. The SOS does show up as being a substantial winner on the liberal, conservative, and neutral totals. That includes winning over the previous liberal and conservative alternative or expectations even with liberal and conservative weights.

Land Reform in the Philippines

Table 3 provides an SOS analysis of land reform in developing countries, although it is especially based on the author's experiences in working with people from the Department of Agrarian Reform in the Republic of the Philippines. The table is a classic SOS table in that the rank order of the alternatives on the liberal totals are SOS, liberal, neutral, and conservative. Likewise the rank order of the alternatives on the conservative totals are SOS, conservative, neutral, and liberal.

The Traditional Outputs

More specifically, if we are talking about 100 units of land, the typical conservative approach tends to advocate retaining most of the ownership of the land in the hands of the traditional landed aristocracy. The typical liberal approach tends to advocate turning most of the ownership of the land over to landless peasants to farm. The typical neutral or compromise approach is something in between, although not necessarily exactly a 50-50 split of the 100 units.

The two key goals in the controversy tend to be agricultural productivity and a more equalitarian or equitable distribution of land ownership. The conservative alternative by allowing for economies of scale that are associated with large landholdings is more productive, but less equitable. The liberal alternative (of widespread land distribution) is less productive, but more equitable. The neutral compromise is somewhere between those relation scores, just as it is somewhere between the conservative and liberal distribution alternatives.

With those relation scores, we logically have the result mentioned above, where the conservative alternative wins with the conservative weights, and the liberal alternative wins with the liberal weights. We are also likely to get the classic compromise, which is everybody's second best alternative or worse. The worse

alternative means that sometimes liberals accept the compromise when the conservative alternative actually does better on the liberal weights, or the conservatives accept the compromise when the liberal alternative actually does better on the conservative weights. Each side may accept the compromise even though it is the third best alternative to them, because they do not want to give in to the other side.

The Super-Optimum Alternative

The super-optimum alternative seems to involve three key elements. The first is that the land needs to be bought from the present landowners, rather than confiscated. If the owners are threatened with confiscation, one possible reaction is to establish death squads, to bring in American military power, or to do other especially nasty things that may easily cost more than the cost of buying the land. The United States probably could have saved a fortune in military and other expenditures on Nicaragua, El Salvador, and Guatemala over the last 10 to 20 years by simply using a fraction of the money spent to buy land from the owners to give to the peasants. The landowners would have probably also saved themselves money by paying a substantial portion of the taxes needed to buy the land.

The second element is that lots of land need to be involved. It cannot be a token program. The landless peasants in developing countries are no longer as passive as they once were. They cannot be easily bought off with trinkets, pie-in-the-sky religion, patronizing aristocrats, and other relatively worthless bribes or distractions. They have demonstrated a willingness to fight and die for land in pre-communist China, in Central America, and in other developing countries, including the Philippines.

The third element is the need for using modern technologies in a cooperative way to overcome the divisive effect of distributing the land in relatively small parcels to the landless peasants. Here is where the policymakers can learn from both capitalistic American farmers and communistic Russian farmers. American farmers are highly individualistic, but they recognize that it makes no sense for each of them to own their own grain elevators, combines, and other big equipment which they can own collectively through producer cooperatives. In the Soviet Union, agricultural efficiency has been promoted through machine tractor stations where farmers can collectively share tractors which they cannot afford to own separately. This is true regardless of whether the individual farmers are associated with collective farmers or private plots. Cooperative activities also involve the equivalent of county agents who help bring farmers together to learn about the latest seeds, herbicides, pesticides, fertilizers, and other useful knowledge. Cooperative action can also include credit unions and drawing upon collective taxes for well-placed subsidies to encourage the diffusion of useful innovations.

With that combination of SOS elements, one can have agricultural productivity and equity simultaneously. Doing so enables the combination of elements to be a

strong winner on both the liberal totals and the conservative totals. Appropriate timing may also be required in the sense of moving fast to implement these kinds of ideas. The longer the delay, the more difficult an SOS solution becomes. The reason is that the liberal left may acquire such a negative attitude toward the conservative right that the liberal left would consider buying the land to be a surrender to evil people. Likewise, the conservative right may acquire such a negative attitude toward the peasant guerrillas that they can see no respectable solution other than extermination of what they consider to be terrorists.

Learning Experiences

One of the most interesting aspects of the Philippine land reform experience has been the many mistakes (or one might call them learning experiences) that have been made by well-intentioned agricultural experts who may have been overly focused in their expertise. This can be contrasted with policy analysts who have a more generalist perspective. One should try to see how different policy problems and proposed solutions can interface with each other. Some alternatives have a domino effect where the unintended consequences become devastating to what otherwise looks like a meaningful approach to increased agricultural productivity.

Four examples were given by the people associated with agrarian reform in the Philippines. The first example involved informing farmers as to how they can double their crops through better seeds, pesticides, herbicides, fertilizer, and machinery, but not providing for any increased storage facilities to put the doubled crop. The result was that much of the increased productivity rotted in the fields.

The second example involved informing farmers how they could arrange for as many as four crops per year, instead of one crop per year through special seeds that have a three-month season. The crops thus go from being put into the ground to being ready to harvest every three months. The farmers, however, were not informed as to how a one-person farm could plow, weed, and harvest four times a year and still be able to attend fiestas.

The third example involved supplying the farmers with new pesticides that kill all the crop-damaging insects and weeds, but also the frogs and fish that live on the farms that the farmers like to eat. After the frogs and fish are killed, the pesticides and herbicides are withdrawn realizing that the farmers did not want to kill the frogs and fish. The result is the farmers now have no frogs, no fish, and the insects are back. The thing to do might have been to continue with the pesticides, but give the farmers food stamps to buy frogs and fish from the local markets. The economy would then be better off because the increased farm productivity would more than offset the cost of the frog and fish stamps.

The fourth example involved showing the farmers how they can grow more efficiently with a tractor than with an ox. Such a demonstration may, however, fail to

recognize that tractors do not make good fertilizer. The demonstration may also fail to recognize that if you give one farmer a tractor and not other farmers in the area, then the other farmers come to borrow that farmer's tractor, especially his relatives. That farmer then has no tractor, no ox, and no fertilizer. The correct solution might have been to give the tractor to the whole community collectively to share, the way American farmers share grain elevators or Russian farmers share tractors at machine tractor stations.

The idea of one tractor per Philippine farmer is American individualistic capitalism gone berserk, contrary to the realities of farming in the Philippines and other developing countries, or even developed countries. Every farmer in Champaign County, Illinois does not have a combine, and they do not feel deprived. They find it more efficient to hire a combine company just as every American does not own a U-Haul trailer or a Greyhound bus, although they use them. Farmers want to own their own land at least in most developing countries. There are many American farmers, however, who own no land, but who farm for landowners. They often make a lot of money getting paid to do it with their equipment. Wanting to own one's own land does not mean one wants to own a combine. A farmer normally uses the land almost yearlong. The combine gets used for one week, and it is recognized as wasteful to have to store it, depreciate it, and make payments on it on a year-round basis. There is a need for combining individualistic landownership with collectivistic sharing and renting.

Trilingualism in Philippine Education

The problem of what languages to use in the public schools is a problem in many countries. In the United States, it is mainly a problem of Spanish and/or English in the southwest. In China, it is mainly a problem of Cantonese and/or Mandarin in the southeast. In the Philippines, the bilingual problem is often trilingual with a choice among English, Filipino, and a local dialect. Further complicating the situation is that the languages are not associated with ideological orientations the way high and low minimum wages are. Thus, this problem lends itself well to showing that the super-optimizing perspective can deal with alternatives and goals which do not neatly fall into conservative, liberal, and neutral categories.

The alternatives are: (1) only English in the schools; (2) only Filipino in the schools; (3) both English and Filipino; and (4) the SOS emphasis is not what language is used, but what is substantially relevant to national productivity.

All of these alternatives involve the local dialect as well. There is no way of avoiding that, which is where the third language comes in. As far as ideological orientation is concerned, speaking only English is associated with conservative elites, and speaking only Filipino has a left-wing nationalism attached to it. Retaining both is the neutral compromise. The SOS can be referred to as the language of

productivity, to be conducted in English in order to enable Filipinos to have access to the literature of the world that relates to productivity. It does not make any sense to talk about the language of productivity; that is the subject matter, and not a separate language.

The goals of the language of productivity are:

(1) *Access to the world's literature*

That is not an especially good way to put it. It sounds like access to Mark Twain, Edgar Allan Poe, etc. Since we are talking about textbook literature, it would be better to say access to the world's books.

(2) *National Unity*

The first goal is basically conservative. The second goal is basically liberal, although not necessarily so. That is where we developed three groups, namely, A, B, and C, at least with regard to the alternatives.

The A, B, and C alternatives are:

Option A: only English

The A alternative is endorsed by conservative business people who would like to have more access to international trade. It is also endorsed by liberal intellectuals who would like to receive more Fulbright grants and contribute to the literature in their fields.

Option B: only Filipino

The B position appeals to cultural conservatives, but also to left-wing nationalists.

Option C: both English and Filipino

The bilingual position comes out neutral, regardless of whether the first and second positions are considered liberal or conservative.

As for *scoring the relations*, it seems that in order to replicate what occurred in the course, we need a third position indicating the exclusive usage of the local dialect. If we call that position C, then it comes out to be a totally dominated position since it provides the worst with regard to access to the world's books and the worst with regard to national unity. (See Table 4.)

In this context, combining English and Filipino should give the benefits of both. It does not, though, because it detracts from learning English in comparison with

teaching only in English. It also detracts from forging national unity, since both English and Filipino are resented by people who speak only a local dialect, which constitutes a very substantial percentage of the population.

The big problem at the University of the Philippines was deciding how to *assign weights* if the alternatives were not clearly conservative or liberal.

- (1) The people who take the A position are likely to give a high weight to access to the world's books, and maybe only a weight of 2 to national unity.
- (2) The people who advocate speaking only Filipino are predicted to assign a low weight to access and a high weight to unity.
- (3) The people who advocate teaching in the local dialect tend to give a low weight to access and a low to unity. They are giving a high weight to localism. That alternative may not have been used. It is one thing to say that there is no way of stamping out local dialects. It is another thing to say that the national educational system should encourage local dialects by making books available and teachers conversant with the respective dialect of each locality. This alternative is however in danger of being eliminated for being unreasonable. We may end up with a fairly traditional analysis in terms of the liberal and conservative nature of the alternatives and goals.
- (4) We could say that the bilingual group is group C, and that it is placing a high weight on both access and unity. It could be referred to as the D group, rather than the neutral group.

With these weights, we can calculate four different total columns. The way things are now set up, we are operating independently of liberal and conservative concepts. The example thus serves the useful methodological purpose of how that can be done.

American Military Bases

The problem of the American military bases in the Philippines is unusually difficult because it goes beyond the usual dilemma of choosing between (1) a liberal alternative that clearly wins with liberal weights, and (2) a conservative alternative that clearly wins with conservative weights. An analysis of Table 5 tends to show that the liberal alternative barely squeaks by the conservative and neutral alternatives on the liberal totals, and the conservative alternative barely squeaks by the other two alternatives on the conservative totals. We thus have an even tighter than usual dilemmas between the liberal and conservative alternatives.

The Alternatives

Working backward from those totals to the alternatives, the conservative alternative is basically to allow the American bases to remain, but to ask for more money. The liberal alternative is to throw the bases out. The neutral alternative is something in between, generally a gradual phasing out of the bases. Other in between positions might involve throwing out the Clark Air Base but keeping the Subic Naval Base, or vice versa. Another possibility is to allow the bases but with more Philippine flags flying at the bases and other symbols of Philippine sovereignty. A recent middling position is to allow the bases, but give the Philippine government more say on how the planes should be used, especially with regard to putting down an attempted coup.

The phasing out idea is probably the most common middling alternative. It, however, blends into both the conservative and the liberal alternatives. The conservatives are willing to tolerate the bases, but they are going to be eventually phased out to some extent anyhow as the cold war comes to close. They are also going to be phased out to some extent because they have probably already become rather obsolete in the light of modern defense technology. Few if any of the planes or ships could ever get anywhere without being destroyed by modern missiles. The Russian equivalent of nuclear-armed Trident submarines in the Pacific Ocean could probably wipe out both the naval base and the air base almost before the alarm could ring. There are also bases that are possibly more welcome in nearby Okinawa and Korea.

Likewise, the liberal alternative of throwing out the bases would have to be phased out. They cannot be thrown out within a matter of hours. For one thing, the liberal and conservative members of the House of Representatives would not tolerate a rushed departure without allowing for substitute employment opportunities and some substitution for the large amounts of money that are spent by Americans associated with the bases. The Senate is elected at large and is not so sensitive to Luzon constituency pressures where the bases are located.

One might therefore think there is really only one alternative here, namely, phase out the bases. This problem, however, illustrates the importance of symbolism and language in political controversy. Whether the liberals really mean it or not, they talk about throwing out the bases now, not phasing them out. Whether the conservatives really mean it or not, they talk about retaining the bases indefinitely. The controversy needs to be resolved in terms of what each side argues, not necessarily in terms of the realities beneath the surface. Perceptions, value judgments, and symbolism are often more important in resolving political controversies than empirical reality, especially in the short run.

The Goals

As for goals, Table 5 lists the first goal as "liberal concerns." That means a whole set of interests that liberals are especially sensitive to, including workers rather than

employers, consumers rather than merchants, tenants rather than landlords, small farmers-businesses rather than big farmers-businesses, debtors rather than creditors, minority ethnic groups rather than dominant ethnic groups, and in general the relatively less well-off segments within society. The second goal is listed as "conservative concerns." That means a set of interests to which conservatives are especially sensitive, including employers, merchants, landlords, big farmers, big businesses, creditors, and dominant ethnic groups. One useful aspect of this problem is that it goes to the heart of liberal versus conservative interests and constituencies, as contrasted to lower impact problems.

The third goal is national sovereignty. In some contexts, that can be a conservative goal such as where Russian nationalists talk about restraining the Lithuanians, expelling the Jews, or otherwise discriminating against citizens of the Soviet Union who are not ethnic Russians. In other contexts, sovereignty can be a liberal left-wing goal, such as where Vietnamese advocate becoming sovereign from China, France, Japan, and the United States during various points in Vietnamese history. Likewise it is a liberal concept in the Philippines when Filipinos talk about getting rid of the Spanish colonialists or the American imperialists, including what they consider to be military-base imperialism. That makes sovereignty in this analysis a relatively liberal goal. Obviously, the goal of conservative concerns is a conservative goal, and the goal of liberal concerns is a liberal one.

Scoring the Relations

As for scoring the relations of the alternatives on the goals, both the liberal and conservative concerns are to some extent favorably benefited by the American dollars. Those dollars benefit both workers and employers, consumers and merchants, tenants and landlords, small and large farmers, small and large businesses, debtors and creditors, and both minority and dominant ethnic groups. The local money equivalent of the dollars is quite substantial. The Philippines is one of the top three recipients of American foreign aid in the world along with Israel and Egypt. The liberal and conservative concerns, however, do not benefit equally. The American presence has a conservative influence. The United States tends to be supportive of conservative pro-American politicians, especially in a country that has American military bases like Korea, Greece, Turkey, West Germany, Spain, and the Philippines.

To be more specific, the conservative alternative of retaining the bases with even more money is a bit of wash or a 3 on a 1-5 scale with regard to liberal concerns. The money is at least a 4 on liberal concerns, but the conservative influence of the United States is a 2 or lower. Those two subscores average a 3. On the conservative concerns, the conservative alternative of the bases and more money gets at least a 4. On sovereignty, the conservative alternative is at least a 2 on a 1-5 scale.

The liberal alternative also produces a washed-out 3 on liberal concerns. It gets a 4 with regard to getting rid of some of the American conservative influence, element

of a possible super-optimum solution. This element emphasizes massive credits to upgrade the Philippine economy. It could involve no payment of cash whatsoever on the part of the United States and yet provide tremendous economic benefits to the Republic of the Philippines. It involves a number of characteristics. First of all, the United States makes available an amount of credits that when expressed in dollars would be about twice as many dollars as the United States would be willing to pay in the form of rent or a cash payment. The United States would be willing to pay more in the form of credits because:

- (1) It is normally a lot easier to give credit than to pay cash. An example might be returning merchandise to a store and asking for cash. One may receive various negative reactions as to why the merchandise should be kept. If, however, one asks for a credit slip, the decisionmaker is likely to be much more accommodating.
- (2) The American economy would substantially benefit if the credit could only be used in the United States to buy American products and services. That would benefit the United States more than paying out cash that then gets spent in Japan or elsewhere. At the same time, it does not substantially hamper the Philippines in buying products and services needed for upgrading its economy.
- (3) The US economy would also substantially benefit indirectly from upgrading the Philippine economy, since that would enable the Philippines to buy even more American products and services in the future.

As for what the credits would be for, that is where the Philippines could especially benefit. The shopping list might include such things as:

- (1) Credits to pay for personnel and facilities for on-the-job training and adult education to upgrade worker productivity.
- (2) Relevant credits for upgrading Philippine higher education, especially in fields that relate to engineering and public policy which could have high marginal rates of return.
- (3) Relevant credits for upgrading elementary and secondary education but it gets a 2 on losing the American money. The liberal alternative of no bases gets a 2 or lower on conservative concerns. It does relatively well on sovereignty, as both liberals and conservatives can recognize, although they may disagree on the relative weight of sovereignty in this context.

The neutral phaseout approach is a middling on liberal concerns. It provides some money for a while, which is good, but not as good as having a lot of money for a long time. It provides a diminishing of American conservative influence, but not as

fast as the liberals would like, and not as slow as the conservatives might like. By allowing the Americans to retain the bases even under a phaseout arrangement, the neutral alternative does have a negative effect on Philippine sovereignty, although not as negative as the conservative alternative. We could show that difference by giving the neutral alternative a 2.5 on sovereignty or the conservative alternative a 1.5. Either way, the overall results are not affected.

A Super-Optimum Solution

Those overall results are that the liberal alternative wins on the liberal totals and the conservative alternative wins on the conservative totals although not so much, as previously mentioned. Finding a super-optimum solution may be especially difficult where the alternatives are so nearly tied and where the problem is so filled with emotional symbolism. A possible super-optimum solution would involve two key elements. The first is a recognition (as much as possible on all sides) that the bases are probably going to be phased out in the future. This will not be due to the United States surrendering or to the Philippines overcoming the US opposition. It will be more due to defense technology changes (as mentioned above) that makes these bases about as meaningful as the Maginot Line in France in 1940, Pearl Harbor in the United States in 1941, or the Singapore guns pointing to the sea in 1942. The phasing out will also be due to recent world changes that seem to greatly decrease the likelihood of a world war between the Soviet Union, Eastern Europe, and China on the one hand, and the United States and its allies on the other hand.

More important than a natural rather than a forced phaseout is a second key large-scale investment in human resource development.

- (1) Relevant credits for seeds, pesticides, herbicides, and farm equipment to make the previously mentioned land reform programs more successful, including the hiring of experts for training programs;
- (2) Relevant credits for subsidizing suburban job opportunities, regional cities, and overseas employment opportunities;
- (3) Relevant credits to improve energy and electricity production in the Philippines which is such an important aspect of improving the gross national product;
- (4) Relevant credits for buying technologies that can improve productivity along with upgraded skills, including modern assembly line technologies;
- (5) Relevant credits for health care and housing that can be shown to be related to increased worker productivity; and
- (6) Other credits for buying American products and services that relate to upgrading the Philippine economy, as contrasted to buying consumer goods

or other products and services that have little increased productivity payoff;

There are additional benefits for both sides that should be mentioned. By both sides in this context is meant the Republic of the Philippines and the United States. Both sides also refer to the liberals and conservatives within the Philippines. Some additional features are:

- (1) By providing credits rather than cash, there is a minimum of loss due to corruption. It is a lot easier to pocket money than it is to pocket a new schoolhouse or an expert consultant in on-the-job training.
- (2) By providing credits that are earmarked for upgrading the economy, there is a minimum of loss due to wasteful expenditures including bureaucratic administration.
- (3) Waste is not going to be completely eliminated. We would not want a straitjacket system that discourages experimentation with innovative ideas for increasing productivity. If innovation is going to be encouraged, some waste must be expected since not all innovative ideas work out well.
- (4) This could set a precedent for future American aid to other countries and future aid by other developed countries to developing countries. The key aspect of the precedent is emphasizing credits for upgrading the economy, as contrasted to an emphasis on food, shelter, clothing, and other traditional charitable do-gooderism.
- (5) In that regard, we are talking about teaching people how to fish, rather than giving them a fish. The fishing analogy is endorsed by liberals who founded the Peace Corps and conservatives who believe in workfare rather than charitable handouts. Actually we are talking about teaching people how to develop and apply new technologies for doing such things as fishing, growing crops, manufacturing products, transporting commuters, and making public policy decisions.
- (6) The kind of program that wins friends and influences people the most in favor of the United States might be programs that involve bringing left-wing anti-Americans to the United States to receive training or having American trainers go to work with Philippine union leaders or Mindanao farmers. People acquire a much more favorable attitude toward Americans in that context than by receiving a sack of flour labelled "Made in the USA."

It might be noted that if the Filipinos emphasize how obsolete the bases are becoming, they might succeed in getting rid of the bases faster. On the other hand, it might be wise to emphasize how valuable the bases are in order to get even more

credits as payment for retaining them. On the third hand, the United States is not so unaware of the empirical realities, and is not so unaware of bargaining techniques. This idea of retaining the bases along with an inevitable at least partial phaseout and massive credits for upgrading the Philippine economy should not be approached as a matter that can be resolved to the mutual benefits of all sides in the sense of a super-optimum solution with all major viewpoints coming out ahead of their initial best expectations.

Some Conclusions

A concluding section to a conference paper or a book frequently summarizes what has gone before. That might be a bit redundant to do in view of the summarizing nature of the last policy problem on the American military bases. It covers basic ideas regarding alternatives, goals, relations, and the drawing of tentative conclusions as part of a super-optimizing analysis. It comes to grips with the basic concepts of liberal, conservative, and neutral alternatives, goals, and totals. It also deals with what constitutes an SOS problem and the relevance of well-placed subsidies and tax breaks toward increasing national productivity.

One point that was made by the participants in the seminars was that developing countries like the Philippines cannot afford the luxury of super-optimum solutions. Instead, they would perhaps be satisfied with something substantially less than super-optimum. That point sometimes implied super-optimizing was too complicated except for people training in computer science, mathematics, statistical analysis, operations research, and other sophisticated methodologies.

After making the presentations though, the consensus generally was that those methodologies are largely irrelevant. They can sometimes be even harmful if they cause paralysis or an overemphasis on unnecessary measurement and data. The prerequisites for super-optimizing analysis are basically to have (1) some knowledge of the key facts relevant to the problem, (2) an awareness of such political concepts as conservative and liberal, (3) an understanding of such decisional concepts as goals, alternatives, relations, tentative conclusions, and what-if analysis, and (4) some creativity in developing appropriate super-optimum solutions. This creativity is made easier by having the first three of those four prerequisites. It is also made easier by having access to case studies like the ones previously discussed so one can learn from the experiences of other groups or individuals in trying to develop related super-optimum solutions.

The point about not being able to afford the luxury of super-optimum solutions may be the opposite of empirical and normative reality. The United States and other developed countries have less need for super-optimum solutions than developing countries do. The United States can probably go for a whole generation without developing any innovative ideas or coming close to solving any of its policy problems. If that happened, the US would still have a high quality of life because it has such a

well-developed cushion to fall back on. Developing countries, on the other hand, cannot afford to be satisfied with merely getting by. Doing so will put them further behind relative to other countries that are advancing rapidly, including countries that were formerly developing countries like Japan, Korea, Hong Kong, and Singapore.

In that context, super-optimum solutions are like free speech. Sometimes people in developing countries say they cannot afford free speech because it is too divisive. After they become more developed, then they can allow opposition parties and not have one-party system with presidents for life. The reality is that they especially need to have free speech in order to stimulate creative ideas for solving their policy problems. Those problems are much more in need of solutions than the policy problems of well-developed countries.

A concrete example is the polio problem in Malawi. It is not a problem that is solved by Malawi needing a Jonas Salk to invent a polio vaccine. It has already been invented. They just need to use it. They do not adequately use the vaccine, not because they lack the technology of having bottles of vaccine to pour into paper cups to give to the children to drink the vaccine. They do not use it because Malawi happens to have a one-party state with a president for life who thinks that only doctors can give out vaccines, partly because he happens to be a doctor himself. Anybody who speaks out against that nonsense may find themselves in jail or worse. The problem is thus a free speech problem, not a technology problem.

On a higher level, the problem is an SOS problem. Polio could be greatly reduced or eliminated in Malawi by explaining to the headman in each village how to pour the vaccine from the bottles into the paper cups, and how to have the children drink the vaccine. Doing so would probably mean the end of polio in Malawi as it has meant the end of polio in the United States. President Hastings Banda could get the credit for having been responsible for ending what has been a horrible disease since the dawn of history in Central Africa. That should please the liberals, who are interested in better public health care. It should please the conservative president, who wants to be admired. More important, if this situation can be used for establishing a precedent about the importance of free speech in stimulating better public health care and better resolution of other public policy problems, then the impact might extend to numerous ways in which the quality of life could be improved in the developing country of Malawi.

This is not an isolated example. Numerous examples have already been given in the previous case studies, and more past examples could be given. What is needed are more applications of the basic ideas mentioned above, including what constitute the prerequisites for super-optimizing analysis. It is hoped that this paper will help stimulate those applications toward achieving super-optimum solutions to the public policy problems of developing and developed nations.²

Endnotes

¹For further material on super-optimum solutions where both liberals and conservatives come out ahead of their best initial expectations, see Lawrence Susskind and Jeffrey Cruikshank, *Breaking the Impasse: Consensual Approaches to Resolving Disputes* (Basic Books, 1987); S. Nagel, *Decision-Aiding Software: Skills, Obstacles, and Applications* (Macmillan, 1990); and S. Nagel, "Super-Optimum Solutions in Public Controversies," *World Future Quarterly* 53-70 (Spring 1989).

²For further material on Philippine public policy problems, see Raul De Guzman and Mila Reforma, *Government and Politics of the Philippines* (Oxford University Press, 1988); David Wurfel, *Filipino Politics: Development and Decay* (Cornell University Press, 1988); Gabriel U. Iglesias (ed.), *Implementation: The Problem of Achieving Results: A Casebook on Asian Experiences* (Eastern Regional Organization for Public Administration, 1976); and Richard Kessler, *Rebellion and Repression in the Philippines* (Yale University Press, 1989).

Table 1. The Philippine Minimum Wage Problem

| <i>Criteria</i> | <i>L Goal</i> | <i>C Goal</i> | <i>N Total</i> | <i>L Total</i> | <i>C Total</i> |
|---|---------------------|---------------------|--------------------------|--------------------------|-------------------------------|
| <i>Alternatives</i> | <i>Decent Wages</i> | <i>Overpay-ment</i> | <i>(Neutral Weights)</i> | <i>(Liberal Weights)</i> | <i>(Conservative Weights)</i> |
| <i>C Alternative</i> | | | | | |
| 90 per day | 2 | 4 | 12 | 10 | 14* |
| <i>L Alternative</i> | | | | | |
| 100 per day | 4 | 2 | 12 | 14* | 10 |
| <i>N Alternative</i> | | | | | |
| 95 per day | 3 | 3 | 12 | 12 | 12 |
| <i>SOS Alternative</i> | | | | | |
| 101 to worker, 89 from employer, 12 wage supplement | 5 | 5 | 20 | 20** | 20** |

Notes:

- 1 A single star means this alternative was the leading alternative on this total column before taking the SOS alternative into consideration. Thus the conservative alternative tends to win on the conservative column, and the liberal alternative on the liberal column before considering the SOS alternative.
- 2 A double star means that this alternative is the leading alternative on this total column after taking all the alternatives into consideration. To be an SOS alternative, an alternative has to be an overall winner on both the liberal and the conservative columns.
- 3 The weighting system uses a 1-3 scale unless a more precise weighting system is available. A 3 means high importance, a 2 means middling importance, and a 1 means low importance.
- 4 Neutral weights involve giving a weight of 2 to all goals. Liberal weights involve giving a weight of 3 to liberal goals, and a weight of 1 to conservative goals. Conservative weights involve giving a weight of 1 to liberal goals, and a weight of 3 to conservative goals.

Table 2. Manila Commuter Problem

| <i>Criteria</i> | <i>L Goal</i> <i>Time</i> <i>Commuting</i> | <i>C Goal</i> <i>Taxes</i> | <i>N Total</i> <i>(Neutral</i> <i>Weights)</i> | <i>L Total</i> <i>(Liberal</i> <i>Weights)</i> | <i>C Total</i> <i>(Conservative</i> <i>Weights)</i> |
|---|--|-------------------------------|--|--|---|
| <i>Alternatives</i> | | | | | |
| <i>C Alternative</i> | | | | | |
| As Is | 1 | 4 | 10 | 7 | 13* |
| <i>L Alternative</i> | | | | | |
| Mass Transit | 4 | 2 | 12 | 14* | 10 |
| <i>N Alternative</i> | | | | | |
| Hodge Podge w/ more jeep- neys and buses | 2 | 2.5 | 9 | 8.5 | 9.5 |
| <i>SOS Alternative</i> | | | | | |
| Suburbs, Reg'l Cities, Overseas, & Other Emp Ctrs | 4.5 | 4.5 | 18 | 18** | 18** |

Note: See the notes to Table 1 for notes that are applicable to all the tables, especially regarding the asterisks and weights.

Table 3. Land Reform In Developing Countries

| <i>Criteria</i> | <i>C Goal</i> <i>Productivity</i> | <i>L Goal</i> <i>Equity</i> | <i>N Total</i> <i>(Neutral</i> <i>Weights)</i> | <i>L Total</i> <i>(Liberal</i> <i>Weights)</i> | <i>C Total</i> <i>(Conservative</i> <i>Weights)</i> |
|---|--------------------------------------|--------------------------------|--|--|---|
| <i>Alternatives</i> | | | | | |
| <i>C Alternative</i> | | | | | |
| Retain Land (0 units) | 4 | 1 | 10 | 7 | 13* |
| <i>L Alternative</i> | | | | | |
| Divide Land (100 units) | 1 | 4 | 10 | 13* | 7 |
| <i>N Alternative</i> | | | | | |
| Compromise (50 units) | 2.5 | 2.5 | 10 | 10 | 10 |
| <i>SOS Alternative</i> | | | | | |
| 1. Buy the Land 2. Lots of Land 3. Co-op Action | 4.5 | 4.5 | 18 | 18** | 18** |

Note: See the notes to Table 1 for notes that are applicable to all the tables, especially regarding the asterisks and weights.

Table 4. Trilingualism In Philippine Education

| <i>Goals</i> <i>Alternatives</i> | <i>Access to World's Books</i> | <i>Unity</i> | <i>Totals</i> | | | |
|--|--|--------------|---|---|---|---|
| | | | <i>A</i> <i>Access Wgt=3</i> <i>Unity Wgt=2</i> | <i>B</i> <i>Access Wgt=1</i> <i>Unity Wgt=3</i> | <i>C</i> <i>Access Wgt=1</i> <i>Unity Wgt=1</i> | <i>D</i> <i>Access Wgt=3</i> <i>Unity Wgt=3</i> |
| <i>A</i> Only English | 5 | 4 | 23 | 17 | 9 | 27 |
| <i>B</i> Only Filipino | 2 | 4 | 14 | 14 | 6 | 18 |
| <i>C</i> Only Local Dialect | 1 | 1 | 5 | 4 | 2 | 6 |
| <i>D</i> Both English and Filipino | 4 | 4 | 20 | 16 | 8 | 24 |
| <i>SOS</i> Both on Productivity | 5 | 5 | 25** | 20** | 10** | 30** |

Notes:

- 1 See the notes to Table 1 for notes that are applicable to all the tables, especially regarding the asterisks and weights.
- 2 Single stars are not used in this table because they usually show the conservative alternative as winning on the conservative total, and the liberal alternative as winning on the liberal total. In this context, however, there are no clearly conservative or liberal alternatives, goals, weights, or totals.

Table 5. The Philippine-U.S. Military Bases

| <i>Criteria</i> | <i>L Goal</i> | <i>C Goal</i> | <i>L Goal</i> | <i>N Total</i> | <i>L Total</i> | <i>C Total</i> |
|--|-------------------------|------------------------------|--------------------|--------------------------|--------------------------|------------------------------|
| | <i>Liberal Concerns</i> | <i>Conservative Concerns</i> | <i>Sovereignty</i> | <i>(Neutral Weights)</i> | <i>(Liberal Weights)</i> | <i>Conservative Weights)</i> |
| <i>Alternative</i> | | | | | | |
| <i>C Alternative</i> | | | | | | |
| Bases & More Money | 3 | 4 | 2 | 18 | 19 | 17* |
| <i>L Alternative</i> | | | | | | |
| No Bases | 3 | 2 | 4 | 18 | 23* | 13 |
| <i>N Alternative</i> | | | | | | |
| Phase Out | 3 | 3 | 2 | 16 | 18 | 14 |
| <i>SOS Alternative</i> | | | | | | |
| Bases & Massive Credits to Upgrade Economy | 5 | 5 | 3 | 26 | 29** | 23** |

Note: See the notes to Table 1 for notes that are applicable to all the tables, especially regarding the asterisks and weights.