

WORKSHOP IN POLITICAL THEORY
AND POLICY ANALYSIS
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S-2-94

DESIGNING POLITICALLY FEASIBLE SOLUTIONS

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Paper to be presented at the XVth World Congress of the International
Political Science Association, Buenos Aires, 21 - 25 July, 1991.
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With minor exceptions, this paper is identical to chapter 8 in Raino
Malnes & Arild Underdal (eds): Rationality and Institutions. Oslo:
Norwegian University Press, forthcoming 1991.

1. The problem

Imagine the president of a UN conference on global environmental change (or some other complex set of issues) sitting in his hotel suite pondering how to design a proposal for a world-wide program to control CO₂ emissions so that it can be accepted by a "sufficient" set of actors. Exhausted and disheartened by long days of unsuccessful probing, he turns (as his last resort) to a political scientist reputed to be a leading student of international co-operation and negotiation, asking for her advice. What - if any - contributions could she extract from the fund of knowledge so far accumulated within her discipline or subfield?

Flattered, but probably also embarrassed, she might decide to start with a few disclaimers. First, unless being very familiar with the specific issues under discussion and the current state of the negotiation process, she would probably like to make clear at the outset that she is not in a position to offer operational advice tailored to the specifics of his particular puzzle; her contribution will have to be confined to introducing analytical tools and general propositions that might help the chairman "diagnose" the problem and develop an effective "cure". Second, she might add that this set of concepts and propositions by no means amounts to an integrated manual or a full-fledged decision-support system. Third, being herself a student of "positive" political theory, she may find it appropriate to remind him that her contributions would focus on only one aspect of the solution design problem; viz. that of identifying what is politically feasible. To qualify as "good" a solution will, of course, have to meet several substantive criteria as well - in this particular case such substantive concerns would include ecological sustainability, economic efficiency, and ethical fairness. The criterion of political feasibility serves only an auxiliary function; its sole justification is to enable actors to achieve as much in terms of some other, substantive criteria as circumstances permit. Then - realizing that what she just said might be interpreted either as implicitly questioning the president's commitment to the substantive purpose of the conference, or as implying that her own field of research is largely irrelevant to praxis - she hastens to add that political feasibility nonetheless is a very legitimate and important concern. There is a priori no reason to assume that any solution attractive by ecological, economic or ethical standards will also distribute costs and benefits in such a way that it can in fact be adopted

and implemented through voluntary cooperation.

At this stage the conference president impatiently cuts her off. Surely, he urges, the academic study of negotiation and bargaining must have something to say that can serve as clues to the political "engineering" of international cooperation. Being unable to dispute that admonition without undermining her own position completely, she decides - with some apprehension - to start by reviewing basic text-book propositions. Let us briefly explore what she will find.

2. What constitutes a feasible solution? The text-book answer

What can be accomplished through collective decision-making processes may generally be seen as a function of three basic determinants: the institutional setting (determining the set of actors, the agenda, the venue and time of meetings, and the "rules of the game"), the configuration of actor preferences, and the total amount as well as the distribution of relevant political resources, including the elusive asset of skill. In exploring the political feasibility of a potential solution, we normally accept all these factors as exogenously determined¹, and ask three main questions: (1) What are the minimal requirements that a solution shall have to meet in order to be adopted and implemented under these circumstances? (2) What is the maximum (in terms of some other criterion) that we can hope to accomplish? And, (3) how would we design a solution if our only concern were to maximize its chances of being adopted and implemented²?

International cooperation is essentially a voluntary affair. Accordingly, most projects of international cooperation shall have to pass the most demanding of all decision-making rules, viz. agreement (unanimity). Given

¹ A political entrepreneur need not take preferences and institutions as exogenously determined. In fact, one major engineering function is the design of institutions and procedures facilitating the development, adoption and implementation of "good" solutions. Another is the design of actor strategies capable of inducing a constructive response from prospective partners. In this paper, however, I shall focus only on the design of substantive solutions.

² Note that these are two sets of requirements, one pertaining to adoption, the other to implementation. In fact, some of the techniques that can be used to facilitate agreement - e.g. despecification of commitments and issue linkage - tend to gloss over some hard disagreement. Conflicts unresolved during the negotiations are quite likely to become re-activated and strain the process of implementation.

this constraint, how would we answer the three questions formulated in the preceding paragraph?

According to what might be called "standard text-book wisdom", the critical minimum may be defined as follows: To be "adoptable", a solution must be subjectively integrative. A strongly integrative solution can be defined as one preferred by all parties to the best alternative that is unilaterally accessible (labelled BATNA by Fisher & Ury (1981)), while a weakly integrative option is one preferred by at least one party and not considered inferior to any unilaterally accessible solution by any prospective partner. When three or more actors are involved, the answer becomes slightly more complex. To be established by unanimous decision among a given set of actors ($N > 2$), a solution must not only be integrative but also belong to the "core", i.e. not be inferior to any solution that can be established by some subgroup of actors (see e.g. Riker & Ordeshook 1973:134f). To be successfully implemented as well, a solution must also be able to survive the encounter with the problem it has been designed to solve. A solution satisfying this requirement is said to be stable. The stability of a cooperative arrangement depends in essence on the extent to which incentives to defect are absent or effectively curbed.

The maximum of joint benefits that one can hope to achieve through agreement is a Pareto-optimal solution. The Pareto frontier is reached when any further improvement for one party will have to take place at the expense of one or more of its prospective partners - each of whom can refuse to go along.

Finally, the general recipe for maximizing political feasibility is to design a project so that marginal net gain is allocated wherever it contributes most to increasing the aggregate relative power or influence of the set of actors supporting the measure in question. This principle implies paying particular "tribute" to pivotal actors. In the special case where decisions are to be made through agreement among parties equal in power, political feasibility will be maximized if marginal cost is distributed in proportion to marginal gain. Only if this requirement is met will the interests of each party correlate perfectly with that of the group as a whole (Olson 1968:30-31).

The latter formula has the advantage of also being a device for maximizing efficiency. The general recipe for maximizing political feasibility will, however, often lead to solutions that are unattractive by efficiency as well as fairness standards. Conversely, there is no reason to assume that a

solution scoring high on the latter criteria will also distribute costs and benefits in such a way that it can pass the test of feasibility. Thus, a legal standard prescribing equal conduct by all parties (for instance, a reduction of certain emissions by x per cent over n years) will sometimes impose the most heavy burden on those having the weakest incentives to contribute. The greater the difference in marginal abatement costs or in marginal damage costs, the less likely that a legal standard will produce integrative outcomes. In order to achieve a politically feasible solution some kind of differentiation of behavior must often be permitted (see e.g. Underdal 1980; Sand 1990)³. Similarly, regulatory techniques designed to manipulate actor incentives (e.g. taxes, fees or transferable licenses) often impose the highest costs on those least able to pay (e.g. Third World small-scale producers relying on older generation technologies). If we want to combine efficiency with feasibility and can find no option distributing marginal costs in (rough) proportion to marginal gain, the general advice would be to look for (a) solutions leaving the distribution of costs and/or benefits indeterminate, or (b) some way of "de-coupling" the question of who should do what from the issue of who shall have to pay how much of the costs⁴.

Several refinements and extensions can be made within this basic conception of negotiation. For example, the answer may be refined to take into account uncertainty, inter-temporal trade-offs (discounting), and transaction costs. Suffice it here to consider briefly one other extension that may be of particular interest in coping with global policy problems; viz. the possibility of "non-inclusive" collective action.

In formulating the basic "text-book" answers above I considered the set of participants to be an exogenously given parameter. Good reasons can be given for relaxing that assumption. Instead of asking what characterizes the set of solutions on which a given set of actors can agree, we might ask what characterizes the set of solutions or projects that can somehow - i.e. by any set of actors - be established through voluntary cooperation (cf Hovi 1988).

³ This applies to efficiency as well. However, the pattern of differentiation required to achieve efficiency may be quite different from that required to make solutions politically feasible.

⁴ For example, measures to protect tropical ecosystems will obviously have to be undertaken in and by nations in the tropical zone, but unless other nations are ready to share the (opportunity) costs involved, the level of protection actually achieved will almost certainly be globally suboptimal.

The answer to the latter version of the question will, of course, differ from that given to the former only in cases where a particular solution can be established also by some subset of actors. Fortunately, such a possibility does sometimes exist⁵. This is definitely so with regard to capabilities. Even for some of the major global problems, such as the impact of human activities on ozone depletion and global climate change, a fairly small number of states would among themselves have sufficient capabilities to undertake effective action. "Political will" is likely to be a more critical constraint. In the area of environmental management actors will rarely have positive incentives to form "clubs" excluding others from joining the program. When faced with externality problems such as transboundary pollution or depletion of common property resources even the most concerned governments will prefer and probably also demand that others contribute to the efforts, or at least that others do not actively take advantage of their own sacrifices. The amount of contribution may, however, be a matter for negotiation. Actors will not necessarily demand universal participation or that others pay all or their "full" share of the costs (whatever that may be). The latter statement opens a window of opportunity that deserves to be further explored.

Assume that each actor is willing to contribute to a certain project if and only if his prospective partners (considered as a group) pay a certain minimum of the total cost. Let me refer to the critical minimum required by actor i as k_i . If we conceive of the threshold as a certain fraction of total costs, then $0 < k_i < 1$. We can now determine the minimal set of participants that is needed to establish a project by proceeding as follows:

First, find the critical minimum of cooperation that each actor requires from his prospective partners. Admittedly, this may not be an easy task. For one thing, the conceptualization indicated above may be overly simplistic. Instead of one critical minimum defined in terms of the aggregate proportion of costs paid by others as a group, an actor may have multiple "k" values, each referring to a bilateral demand upon some specific partner. Also, the conditions formulated for joining a certain project may be somewhat different from those pertaining to compliance. A government is likely to react more

⁵ Strictly speaking, solutions that can be established by a subgroup will usually be different in some respect(s) from one including all potential partners. Thus, even though a subgroup of nations may be capable of achieving a certain reduction in the aggregate amount of SO₂ or NO_x emissions in Europe, the geographical distribution of remaining emissions will, of course, to a large extent determine the local consequences of the program.

strongly against defection from a commitment actually undertaken than towards reluctance to join a project. A third complication is that an actor may not conceive of his choice as simply one between "contributing" and "not contributing". Rather, the interesting question will often be how much to contribute, and the answer to that question may be conceived of as a non-linear function of the amount of effort contributed by others (in absolute as well as relative terms). Moreover, in some contexts the minimum contribution a party can make will actually be less than zero. Thus, in the oil market one producer may, by increasing its own production or marketing efforts, actively take advantage of production cutbacks made by Saudi Arabia or some other major seller. Such negative contributions are likely to be seen by the party "exploited" as more provocative than the mere absence of positive cooperation.

But even if we are forced to abandon the notion of one simple and exact "k" value, the fact remains that governments frequently pursue some policy of conditional cooperation. And often it will be possible for the observer to get at least a rough impression of what those conditions are. Information about such conditionalities provides a necessary basis for the second step; viz. identifying the (sub)set of pivotal actors.

The extreme cases are unambiguous: Any actor without whom none of the others would go ahead is obviously pivotal to the project. It is also clear that any actor whose contribution is not required by any of its partners can not be pivotal. The reasoning becomes more complex if an actor is critical to one or some of its partners, but not to all. The general rule is that in order to be pivotal to the project the contribution of an actor must - by itself or in combination with the contribution(s) of any party or parties for whom its participation is a sine qua non - be necessary to ensure the contribution of some other pivotal party.

A brief look at a hypothetical case may help clarify the reasoning behind that proposition. Assume that four parties - A, B, C and D - get together to work out a solution to some collective problem. The contribution of A is by itself critical to B, but not to C or D. In determining whether A is pivotal to the project, we ask, first, whether C and/or D would be prepared to go ahead without B, and also without A+B. If neither C nor D would do so, A is pivotal to the project - although only indirectly, i.e. by being in a position to set in motion a chain of "falling dominos". If C and D are both ready to undertake the project without B, A is not pivotal by its own weight. But since B's contribution depends on A's, we also have to consider what

would happen if neither A nor B joins. If C and D both find the project still to be worthwhile, we may conclude that the combination A+B is not a pivotal one. If only one of the remaining partners - say D - can tolerate the defection of both A and B, the critical question becomes whether he can accept the loss of C as well. If not, A is indirectly pivotal. If, however, D should be prepared to undertake the project all by himself, none of his prospective partners can be pivotal - individually, or considered as a group.

We can now see that the critical minimum of cooperation (measured in terms of participants or aggregate amount of contributions) that is required to accomplish a project is the lowest level that satisfies the "k-value" of the most "demanding" pivotal actor. Within the (sub)set of pivotal actors, the general answer offered at the beginning of this section applies.

3. Some second thoughts

What I have called the "standard text-book answer" and the kind of refinement made above all build on a simplistic conception of negotiation as a "politics-free" game whereby unitary rational actors make a collective choice from a given set of options. This conception is no doubt "...peculiarly conducive to the development of theory" (Schelling 1960:4), but it is also inadequate as a paradigm for the practical engineering of international cooperation. In particular, three of the specific assumptions involved strike me as potentially "disabling" in the sense that they can delude actors into underestimating the challenge they are facing and/or lead them to overlook opportunities for entrepreneurial action.

One of these assumptions says that each actor is faced with a binary choice between accepting the (best) solution offered by his partner and his BATNA. But only in his final move will his options be thus confined. As Iklé (1964) reminded us, actors will most of the time face what he called a "three-fold choice": concluding agreement on the terms presently available, terminating the negotiations, or continuing the search for a better agreement. At any non-final point of decision, a rational actor will presumably choose the latter option as long as the subjective utility attributed to any expected improvement exceeds the costs of the efforts required to produce that improvement. And he is all the more likely to do so if, in addition, the best solution presently available fails to meet his aspirations or "standard of satisfaction". The latter notion suggests an important refinement that

calls for further elaboration.

Governments enter international negotiations with some more or less clear idea as to what they would like to achieve and what will qualify as a satisfactory outcome⁶. These are highly subjective standards, quite likely to be adjusted as the process develops (Iklé 1964:165f). Accordingly, they tend to be elusive subjects of study. Suffice it here to say that standards of satisfaction are, it seems, most often based on the actor's own notion of what he "deserves" (Thibaut & Kelley 1965:21) or "needs". Ideas about what one "deserves" or is "entitled to" will often be based on some kind of comparison with other salient outcomes, such as those obtained on earlier occasions or by other actors in a similar position (Thibaut & Kelley 1965:80). They may, however, also be derived from some general principle or norm. Particularly in the latter case, aspirations may be "unrealistically" high. The demands made by the G-77 for a New International Economic Order may be a case in point (Rothstein 1984). "Needs" are usually defined in terms of what is required to achieve some substantive objective (such as preventing further depletion of stratospheric ozone), or with reference to "political" aims (notably those of obtaining ratification and staying in power). The important point to be made here is that - whatever their contents and genesis - subjective aspirations seem to constitute an important standard of evaluation. Accordingly, they provide a key to understanding actor behavior.

If I am right that actors have at least two benchmarks against which possible solutions will be evaluated - BATNA and some subjective standard of satisfaction - a crucial question for the entrepreneur becomes which of the two constitutes the feasibility limit or the actor's "resistance point" (Walton & McKersie 1965:41). A tentative answer may be summarized in four propositions:

1) Presumably, no actor will accept a solution that it considers inferior to its BATNA, even if it would be satisfied with less.

2) Expect a government to be reluctant to accept a solution that fails to meet its standard of satisfaction, even if the solution is superior to BATNA. More precisely: an actor is unlikely to accept any solution it considers unsatisfactory as long as it sees some real hope of reaching its ambitions.

When no hope of significant improvement can be sustained, a government may in

⁶ These are two different levels of ambition. The former corresponds to what Walton & McKersie (1965:42) label "target", while the latter seems to be roughly equivalent to the concept of "comparison level" as defined by Thibaut & Kelley (1965:21/81f).

the end accept a solution that it considers unsatisfactory - provided that it is better than BATNA - but there is no guarantee that it will. And even if it decides to settle for such a deal it is likely to become an uneasy partner, continuously looking for opportunities for re-negotiation or, perhaps, for other partners. The general implication is, of course, that a political entrepreneur should take subjective aspirations seriously, and look for some way of modifying expectations that can not be satisfied.

3) A solution that is believed to be (a) better than BATNA and (b) satisfactory is also fully acceptable. An actor may, however, not be ready to accept it yet. Even a satisfied actor may continue search for a better deal. The amount of energy spent on further search is, however, likely to decline sharply once the satisfaction level is reached.

4) Only a ripe solution - i.e. one considered to be (a) better than BATNA, (b) satisfactory, and (c) leaving no room for further improvement - provides a basis for immediate agreement.

The essence of these propositions is summarized in table 1:

Table 1: Hypothesized responses to different kinds of solutions.

		Better than BATNA?			
		No		Yes	
		Hopes of improvement?		Hopes of improvement?	
		No	Yes	No	Yes
Satisfied?	Yes	Reject and withdraw	Continue search	Accept (now)	Continue, but be ready to accept
	No	Reject and withdraw	Probably continue	?	Continue search

This brief elaboration may suffice to alert us to two implications of substantial interest for the design of politically feasible solutions. First of all, the critical minimum can be determined with confidence only on the basis of information about subjective ambitions and standards of satisfaction. If ambitions are high, a minor improvement over BATNA may not be sufficient to have a solution accepted. Thus, the relatively minor adjustments offered by the major industrialized countries as a response to the radical demands for a New International Economic Order seem to have been

perceived by at least some LDCs as an offence rather than a serious attempt to help solve or alleviate the problem of world poverty. Second, the timing of engineering moves may be critical. Premature introduction might in fact spoil a solution that could have provided a basis for agreement later. To see why, recall proposition (3) above: An actor who decides to continue negotiating for a better deal can hardly at the same time accept the terms presently offered, even if that solution would be better than BATNA and also meet his standard of satisfaction. And, as we shall see, the act of rejecting a certain option - even if only for the tactical purpose of giving credibility to its search for a better deal - tends to make that solution harder to accept at a later stage.

The propositions suggested above should be seen as a refinement of rather than a radical departure from conventional "text-book wisdom". Only one of the four propositions - (2) - may seem to contradict a fundamental axiom of rational choice theory, viz. the assumption of utility-maximizing behavior. And on this particular point common sense may seem to be on the side of rational choice theory: Why would a government (who knows what it is doing) even consider rejecting a solution that it believes to be superior to the best available alternative?

This question can be answered without resorting to some counter-intuitive claim about perverse choices. All we have to do is to relax two other assumptions that are implicit in at least the axiomatic-static tradition of bargaining theory; viz. the conception of negotiation behavior as "friction-less" movement and pure "technicalities" involving no stakes of their own, and the notion of states as unitary actors. Space permits me to examine only the former; along the way I shall, though, indicate the significance of relaxing the latter assumption as well.

The assumption of negotiating behavior as pure "technicalities" can be stated as follows: the act of making a certain move neither implies nor generates any costs or benefits in itself (except, perhaps, transaction costs in a rather trivial sense). The utility of making a certain move is therefore equal to the utility ascribed to whatever impact that move may have on the official, substantive outcome of the game. For example, a government is assumed to be ready to propose or at least accept any solution that it prefers. The acts of proposing and accepting have themselves no stakes attached, and are therefore significant only in the technical sense of being moves that are required to achieve a certain outcome.

As any seasoned diplomat or observer could tell us, however, real-world

negotiations among governments rarely fit this "naive" picture of the process. There may indeed be a subtle but nonetheless important difference between preferring a specific solution on the one hand and accepting or proposing it on the other. The difference is made up of what I have elsewhere called process-generated stakes (Underdal 1983:190-1). These are costs and benefits pertaining to behavior itself, and either inherent in a particular setting or generated by previous moves. In more operational terms process-generated stakes can be conceived of as the difference between the utility ascribed to the act of making a certain move and the utility associated with the direct impact of that move upon the substantive outcome of the process.

At least two keys can be provided to help the reader identify and understand the interaction mechanisms generating such a difference. One is the distinction made by Walton & McKersie (1965:304) between "substantive" and "behavioral" expectations and preferences. Their rationale for making this distinction was the assumption that actors are likely to have their performance evaluated not only on the basis of the final outcome achieved, but also by the way they play the game. For example, domestic "clients" usually expect negotiators to "put up a real fight" on their behalf. More fundamentally, the significance of the distinction can be seen in the fact that human decisions tend to be evaluated by standards different from those applied to outcomes being "acts of Nature" or products of anonymous systems such as markets (see e.g. Lane 1986). A decision is a deliberate act expressing the will of the decision-maker(s). Accordingly, it is something for which one or more specific actors can be held accountable. Admittedly, the outcome of a collective decision-making process may be different from what some or even all participants had as their most preferred solution. But whenever joint decisions are made by explicit consensus, each party signing the agreement thereby gives its consent and assumes at least some responsibility for the outcome. If the solution fails to meet the government's aspirations (or those of its constituency), it may very well find that the act of explicitly accepting the deal implies political costs that outweigh the marginal improvement in substantive terms obtained over BATNA. In such a situation it could be perfectly sensible not to settle for the best substantive solution that it can obtain.

One of the major items in the local news at the time when I first drafted these lines offers a nice illustration. Negotiations were about to be concluded on the formation of a three-party coalition government for the city of Oslo. Although certainly not corresponding perfectly to the policy objectives

of any of the prospective partners, the program that was being worked out seems to have been generally recognized as integrative - on its own merits. Even so, strong reservations were voiced, particularly within the smallest of the three parties. The critics did not dispute the claim that the party had in fact obtained certain policy concessions that it could not hope to achieve or sustain by staying "out". Other things being equal, they would therefore have preferred the policies of the three-party coalition to those that could be expected from any of the other government configurations in question. But other things were, of course, not equal. By accepting the coalition program the party would provide a cover of legitimacy to policies that differed significantly from those it would have pursued had it commanded a stable majority in the city council all by itself. Accordingly, by settling for a marginal improvement now the party would run a risk of undermining campaigns for more substantial policy changes at a later stage. Moreover, by joining such a coalition the party would become accountable for policies that it could not positively support. The policy concessions achieved in the negotiations would - presumably - be good for society, but the consequences of becoming associated with policies that failed to satisfy its own objectives would be bad for the party⁷. And party leaders are supposed to consider also the latter category of consequences.

This leaves them with a kind of dilemma that is familiar also in inter-governmental negotiations. In international environmental diplomacy, the Scandinavian governments quite often find themselves in a situation where the best deal they can obtain will be a solution better than status quo (BATNA), but not one with which they or their domestic constituencies can be satisfied. By accepting such an agreement, a government achieves a marginal improvement in substantive terms, but it also becomes liable to charges of ineffectiveness or lack of political courage and morale. By refusing to sign, it would probably jeopardize the best solution currently available⁸, but it would also demonstrate its own strong devotion to "the cause". To the extent that consequences of the latter kind are a real concern, their general impact will be one of increasing the government's critical minimum and narrowing the

⁷ In the end the local party organization decided to join the coalition, but it lost several of its prominent members in the process. It also had to take strong criticism from the national party leadership.

⁸ A non-pivotal actor may, though, be able to "have his cake and eat it too"; he can have the project established without having to accept it or contribute himself.

range of feasible solutions. This clearly suggests that a political entrepreneur can be more effective if he is sensitive to process-generated stakes.

Another key to understanding process-generated stakes is the distinction between what might be labelled "primary" and "secondary" effects of negotiation behavior. In international negotiations a move can rarely achieve just one purpose; it is likely to have some side-effect that will show up as potential costs or benefits at some point in the process. Take, for example, the act of moving one's position closer to that of the other party. In itself, this is a positional or "basic" move (Snyder 1972:222f) reducing the distance that remains to be overcome. But the actor would be well advised to look for "communicative" side-effects as well. At least he should ask himself how the other party is likely to interpret such a move in the present context. Thus, it can make a significant difference whether he expects his opponent to read the move as a concession, attributable to the opponent's own firmness, or as an act of accommodation, reciprocating "favors" received earlier in the process (cf Pillar 1983:chpt.3). In the former case, the strategic lesson inferred by his opponent would be "stand firm", in the latter something like "pursue mutual accommodation". We can easily see that fear of running into the former "trap" may lead an actor to abstain from making a move that would be perfectly sensible evaluated on the merits of its primary effects only. Similarly, communication moves may have "positional" side-effects. For example, arguing strongly against a certain option implies a soft commitment, adding new political costs to the act of accepting that option later in the process. In subtle ways, the search for a better deal may generate stakes that block the road leading to the best solution that is actually available.

Summing up, we now have at least two very general lessons that deserve to be emphasized. First, equating a government's "resistance point" with its BATNA may lead the political entrepreneur to underestimate the challenge he is facing. Actors evaluate outcomes not only in relation to other options that are actually available, but also in relation to subjective aspirations. It is not a priori evident how a government will respond to a solution that satisfies the former standard but not the latter. Presumably, it will prefer even a minor improvement to no improvement, but we can not be sure that it will also explicitly accept and formally settle for anything above its BATNA. Nor can we assume, of course, that it will be ready to settle now even for a solution that it would definitely accept in its "final move". Second, we should recognize that there is a significant difference between preferring

and accepting or proposing. Negotiating behavior tends to generate its own stakes. These sometimes provide additional incentives for integrative problem-solving or accommodation, but more often they create obstacles to the achievement of joint gain. A prominent economist has even suggested what might be called an "iron law of bargaining", saying that inherent in the process of (adversarial) bargaining is a serious risk of blocking or spoiling the integrative potential that it is ostensibly undertaken in order to tap (Johansen 1979:520).

One very important implication of all this is that designing substantive solutions is only one component of the engineering challenge; the political entrepreneur may also have to devise a path that can lead actors there. The latter task may be as intricate as the former. Exploring these intricacies is, though, a task that I shall leave for another occasion.

4. From conceptual formulas to operational design

The kind of reasoning suggested above provides some basic elements of a conceptual framework for dealing with specific empirical problems, but we are still far from having one precise and definite formula or manual for determining the feasibility limit. In fact, my elaboration has taken us farther away from such a formula than we were at the outset. Further refinements and extensions could, of course, have provided sharper conclusions. But at this stage it also seems appropriate to remind ourselves that only if we can find a valid and feasible operationalization for the conceptual constructs developed can they be useful as tools for practical political engineering. Moreover, we must be able to provide accurate and reliable data that can be fed into our models. These are more intriguing challenges than we might appreciate. And further refinement at the conceptual and theoretical level might make the operational application more rather than less difficult.

Before exploring how we might go about translating the "theory" of political feasibility into operational guidelines for political engineering, we should pause to set our ambitions straight. So far, I have tacitly accepted the rational choice assumption that governments do indeed have some critical minimum below which they would not go, and that our task as students is to identify that threshold. Available evidence strongly suggests, however, that governments sometimes - and particularly in complex settings - enter negotiations without any explicit decision about what the critical minimum is

going to be. The precise "resistance point" that we are led to search for may simply not exist - or, more precisely, be something which can at best be determined a posteriori. This leaves the entrepreneur and the student with a hard core of indeterminacy which no data or technique of measurement can help him penetrate.

The negotiations on Norwegian membership of the EC (1970-2) may serve as an illustration. The Norwegian government entered these complex negotiations with a long list of demands and requests, some of which were more important than others. It was clear at the outset that there were some potential solutions that the government would be ready to accept, and others that it would not even seriously consider. But in between there seems to have been a grey zone of "maybes", where the political "framing" of the decision situation might tip the balance one way or the other (see Tversky & Kahneman 1986). And the actual negotiations seem to a fairly large extent to have been focused on solutions located within or bordering on that zone. The existence of such a grey zone can be seen partly as a matter of practical expediency; in complex negotiations with a very high number of possible (combinations of) solutions, no government can afford to set aside the time required to produce an exhaustive set of decisions. But the existence of a zone of "maybes" can also be seen as an implication of the fact that governments recognize that the operational criteria for evaluation may change during the process. This applies to substantive standards - which may be adjusted in response to new information or successful persuasion - and even more strongly to "political" criteria. In essence, the latter imply that a solution will be considered "acceptable" if and when a sufficient number of important others arrive at that conclusion. Obviously, such criteria are highly sensitive to contextual circumstances, and can not provide a firm basis for making advance decisions on what shall be the critical minimum.

What we would like to know in order to move from general propositions to the design of solutions to specific empirical problems is the subjective utility or value ascribed by each actor to alternative outcomes. What we actually have is usually some estimate of consequences measured in terms of objective "realia", such as the amount of cutbacks required in the emission of certain pollutants, or emission or production quotas for a certain time period, etc. In addition, we may know the official positions taken and the arguments submitted by the actors themselves. Both kinds of data may provide important clues, but neither is a reliable indicator of subjective utilities. Clearly, a political entrepreneur would be well advised not to rely on

official positions only. For one thing, he can not be sure that official statements reveal the actor's true preferences and beliefs. Moreover, he will certainly wish to be able to evaluate alternative solutions himself before inviting the actors involved to state their positions. At this early stage estimates of consequences measured in terms of "realia" may be the only pieces of information available to him. But inferring subjective utilities from data about "realia" is not always a straightforward operation.

There are two main problems that need to be solved. One derives from the fact that it may not at all be clear where the different options actually lead. This is true for a wide range of collective problems, but the area of environmental management seems to be one where a relatively high degree of uncertainty often pertains to the actual consequences of different lines of action (or inaction). When the problem itself is open to different interpretations, actors may legitimately hold diverging beliefs about the effectiveness and even the relevance of different "cures". Moreover, in circumstances characterized by high uncertainty, such beliefs become particularly susceptible to "contamination" by (myopic) self-interest. The protracted discussion about the relationship between SO₂ and NO_x emissions on the one hand and damage to lake fauna, vegetation and buildings on the other is a case in point.

The second problem is to determine how actors go about ascribing subjective value to whatever consequences they expect to flow from different policy options. The default option is to assume that each actor will conceive of subjective utilities as a linear or at least a monotonous function of the amount of goods it obtains or sacrifices. This assumption provides us with a straightforward operationalization, attractive particularly for purposes of extensive research. It is also one that can be defended as being at least as valid as any other equally simple solution. On closer examination, however, we realize that several of its more specific implications can be accepted only as very crude approximations. These include assumptions about motivational orientations (purely individualistic), domestic aggregation of preferences (perfect hierarchy or influence proportional to impact), issue-linkages (none), and inter-temporal trade-offs (discount rate = 0). Suffice it here to consider the former two.

4.1. Does each government care only about the pay-off to its own nation?

The assumption conventionally made in rational choice analysis is that each actor cares only about his own pay-off; what happens to others does not

enter his evaluation of alternative solutions. This assumption is so common that students sometimes take it to be a defining characteristic of 'rationality'. It can probably also be defended as corresponding better to reality than any other equally simple assumption. Yet we would certainly not accept it as an accurate description of how governments typically go about evaluating policy options in international negotiations. Governments are, it seems, most often not indifferent to the pay-offs obtained by others. The interesting question is not whether governments tend to take the welfare of other nations into account, but rather in what circumstances, to what extent, and how they do so.

In addressing that question the practitioner needs not resolve the philosophical issue of whether governments are in some profound sense driven by pure egoism or not. What he needs to know is which orientation he shall have to deal with in a specific context; whether that approach is being pursued on its own merits or used as an instrument to achieve some ulterior motive is a matter of practical significance only in so far as it affects the size and shape of the settlement range. This should be good news to the entrepreneur, because "tactical" altruism will often be very hard to distinguish empirically from the genuine concern for the welfare of one's prospective partners⁹.

Research on international negotiations has so far provided only bits and pieces of empirical evidence showing how decision-makers actually go about evaluating policy options. At this stage, any general conclusions must therefore be highly tentative. Bearing this caveat in mind, let me nonetheless, in a summary fashion, offer my interpretation of available evidence:

1) Actors in international negotiations tend to evaluate options in partly comparative terms.

The crux of this formulation is the word "partly". It is used to suggest (1) that actors typically consider their own pay-off as well as the pay-offs obtained by others (mixed orientation); and (2) that actors may be in-

⁹ Sometimes it may even be hard to determine whether an observed pattern of behavior is derived from a certain motivational orientation or from a certain structure of the interdependence relationship. Thus, a state may promote the interests of another out of genuine or tactical concern for the latter's welfare, but also - if their interests are positively linked - as a side-effect of working for its own self-interest. Conceptually, however, the distinction is clear: motivational orientation is a question of the criteria used in evaluating policy options; the correlation of interests is a function of the structure of an interdependence relationship.

different to the achievement of some prospective partners, on some issues, and within some range of pay-offs, but rarely if ever to all parties, on all issues, and with regard to the full range of potential outcomes. Each government is likely to have some "zone of indifference" where it evaluates outcomes in strictly individualistic terms. But in some respect and at some point its notion of what qualifies as a "satisfactory" or "good" solution will take some account of what others obtain or demand.

2) Two forms of comparative evaluation seem to be particularly common in international negotiations: "defensive competitiveness" and "constraining altruism". These two perspectives are not only mutually compatible, but also to some extent derived from the same basic concern.

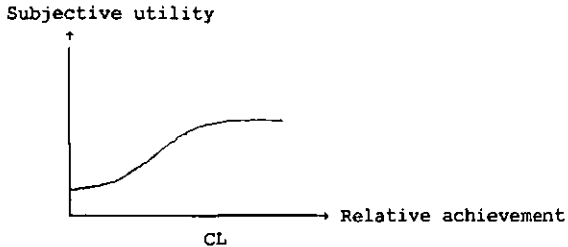
A competitive orientation is conventionally defined as a strive to maximize one's own pay-off relative to that of one's opponent(s). Thus, if actor A adopts a competitive approach towards B, A would try to maximize $(U_a - U_b)$, or possibly (U_a/U_b) . The defensive version suggested in proposition (2) portrays actors as being concerned with not losing rather than with "winning". The general function would be of the form

$$U_a = V_a - k_a^b(V_b - V_a),$$

where k_a^b is A's coefficient of competitiveness towards B (cf. Grieco 1988: 500).

The notion of defensively competitive behavior is linked to the concept of "satisfaction level" introduced above. We assume that actors develop some more or less clear idea about what will qualify as a "satisfactory" solution, and that this level of satisfaction typically will be defined in absolute as well as comparative terms. If an actor adopts a defensively competitive perspective his subjective utility tends to decline sharply as his pay-off falls below his "comparison standard". On the other hand, once this level is reached the marginal utility of further improvement in relative terms also tends to decline, though probably less sharply. The general pattern is indicated in figure 1.

Figure 1: The defensively competitive orientation: subjective utility as a function of relative achievement. (CL= comparison level)



This notion is similar to and inspired by Grieco's concept of "defensive positionality" (1988). In at least two respects, however, the version introduced here differs from his. First, what Grieco refers to as the "sensitivity coefficient" is, I suspect, not a constant - not even within one specific relationship and issue-area. Rather, it is likely to be a function of the distance between an actor's comparison level and his relative achievement. As indicated above, the marginal utility of improving one's pay-off in relative terms is assumed to decline once the comparison standard is met. Second, to the extent that this particular perspective is in fact adopted in international negotiations, it will probably most often be out of concern not for the future survival of the state - as suggested in Grieco's interpretation of realism - but rather on the basis of some genuine conceptions of fairness and justice or out of more parochial concerns about domestic politics and one's bargaining reputation with third parties. Governments and diplomats know that their domestic constituencies are likely to evaluate the substantive outcome as well as their negotiation performance in partly comparative terms. The prospects of having the agreement ratified may therefore depend on how well their own pay-off compares to what others have obtained. And, perhaps even more important: so may their own future careers.

A defensively competitive perspective is a benign version of the competitive orientation. Similarly, the kind of cooperative motivation that seems to be most frequently encountered in international negotiations is a weak one. It can most accurately be described as a set of soft constraints on the pursuit of self-interest. The term "constraints" is used to indicate that the norms and principles in question need not be actively pursued by everyone or even by a majority of actors. Rather, the basic assumption is that most governments and states (tacitly) do recognize certain ethical principles and

norms as valid or legitimate - at least in a wide range of circumstances - so that if seriously challenged to honor one of these they will do so, unless they are able to counter by invoking some other principle of equal or higher status. Young takes the argument even further, suggesting that "Equity...is an immediate concern that evokes strong feelings on all sides" (1989:369), and that actors in international regime negotiations tend to be more concerned with equity than with efficiency.

More empirical research is needed to determine the actual status of different principles and norms in intergovernmental negotiations. But among those that seem to be frequently invoked and rarely if ever explicitly disputed are certain basic rights (including some fundamental human rights and the right of states to exercise their national sovereignty) and certain general notions of equity, including those listed in table 2.

Table 2: Four general principles of equity.

		Objects to be distributed	
		Costs	Benefits
F o c u s o n	Cause	Blame	Reward
	Effect	Capacity	Need

Briefly, the principle of "blame" implies distributing the costs of solving a particular problem in proportion to one's relative "guilt" in causing or aggravating it (as in the Polluter Pays Principle¹⁰). The principle of "reward" requires that benefits be distributed in proportion to each party's relative contribution to providing a certain good. Similarly, the principle of "capacity" implies that the costs of a project be distributed so that the marginal disutility of the parties are equalized (as in progressive taxation), while distributing benefits according to "need" is a device for equalizing the marginal utilities derived from a scarce good.

¹⁰ The official rationale behind the application of the PPP at the international level refers, though, mainly to considerations of economic efficiency (see e.g. OECD 1975).

In addition to these and other general principles of equity, several norms and principles specific to the issue-area in question may be invoked. In the area of environmental management the latter category includes notions such as the "common heritage of mankind", the proviso of "sustainability", and more radical conceptions of moral imperatives, giving the rights of Nature priority above the welfare of Man. As can be seen in discussions about whaling and the appropriate regime for Antarctica, preservationist ethics pose a particular challenge to traditional notions of resource management and also to the use of cost-benefit analysis as a tool for environmental policies more generally.

Such norms and principles serve, to be sure, as soft constraints rather than as precise, categorical imperatives. Nor do they constitute an integrated system providing clear-cut and consistent prescriptions. In many situations, two or more principles may be equally relevant, and sometimes the implications of one of these may serve to offset those of another. One may also suspect that the concern with equity and fairness will to some extent be biased and egocentric; i.e. that each actor tends to be more adamant in demanding fair treatment for himself than in protecting the rights of others. Even so, it would be a mistake to dismiss notions of equity and fairness as irrelevant to understanding actor behavior in international problem-solving processes. In fact, there are numerous indications that governments do accept certain principles and norms as valid even when the immediate policy implications are to their own disadvantage¹¹. Thus, it seems clear that most, perhaps all, governments in the rich parts of the world do accept the principle of "blame" as one valid criterion for distributing the costs of measures to reduce the emissions of "greenhouse gases", even though this principle clearly would leave their nations with the lion's share of the bill. The fact that notions of equity and fairness are so frequently framed as arguments in international negotiations is itself an indication that they must be recognized (or at least believed to be recognized) by someone; there would be no point in invoking a principle that the sender neither believes in himself nor expects his prospective partner(s) or some other relevant audience to accept. And the act of claiming a certain right or invoking a general principle can by itself help maintain or enhance its status. This may be so even if the norm is invoked only for the tactical purpose of providing

¹¹ Experimental evidence suggests this applies to individual behavior as well (see Kahneman, Knetsch & Thaler, 1986).

a cover of legitimacy to a position actually taken in pure self-interest.

We can now see that the two modes of comparative evaluation sketched above may be derived from the same basic concern. A defensively competitive approach may, at least in part, be a response to the risk of becoming subject to "unfair" treatment oneself. The recognition of normative constraints on the pursuit of self-interest can be seen as an acknowledgement that the rights and principles that one would like to be able to invoke oneself may legitimately be invoked by others as well. As interpreted above, the two evaluation perspectives are therefore to a large extent complementary rather than mutually exclusive.

3) The relative weight given to different evaluation perspectives is likely to depend on a number of circumstances, including the overall affect "load" in the relationship, the relative strength of one's partner/opponent, and the domestic position of the government or regime itself.

Other things being equal, the more friendly the overall relationship, the weaker the relative position of one's partner or opponent, and the more secure its own domestic position, the more likely a government is to lean towards a cooperative orientation. Conversely, a government is likely to lean towards a competitive mode of evaluation if the overall relationship is characterized by hostility, if the opponent is about equal in terms of size, wealth and other characteristics that may serve as criteria for distribution, and if the domestic position of the government is weak and insecure (cf. table 3).

Table 3: Mode of evaluation: summary of hypotheses.

Dimension	Scores		
Overall affect load in relationship	Friendship	Neutral/mixed	Hostility
Relative position of partner/opponent	Much weaker	Clearly stronger or somewhat weaker	Close to equal
Domestic position of government/regime	Strong, secure	Moderately strong	Weak, insecure
	↓	↓	↓
Likely emphasis on comparative evaluation	Significant, leaning tow. cooperative mode	Weak, individualistic mode strongly predominant	Significant, leaning tow. competitive mode

At this stage, we may not be able to go much beyond the kind of propositions suggested above. Instead of elegant theory providing definite and precise conclusions we are, once again, left with a set of crude and at best partially substantiated hypotheses. Even so, the practitioner would be well advised to work with such primitive and soft "rules of thumb" rather than to rely on some sweeping and simplistic assumption. Despite obvious and important shortcomings, the former most probably provides the more accurate and sophisticated map of real-world politics.

4.2. Do states maximize "national interests"?

Strictly interpreted, the default option of conceiving of subjective utility as a monotonous function of the physical goods or economic value obtained or sacrificed requires either one single decision-maker (a dictator) pursuing the objective of maximizing net national pay-off, or some pluralist system distributing influence over policy decisions in proportion to the impact of these decisions. Neither of these assumptions provides a generally accurate description of the policy-making process. And they become particularly questionable when applied to issues characterized by certain asymmetries between costs and benefits. Environmental protection is a case in point.

Environmental degradation most often occurs as a side-effect of perfectly legitimate activities undertaken for other purposes, such as e.g. industrial

or agricultural production, transportation of people and goods, etc. The benefits derived from these activities are concentrated to specific social groups, certain, immediate, and often of great importance to those concerned. By contrast, side-effects in the form of environmental damage are often widely spread or indeterminate, uncertain or even unknown, distant in time and/or space, and for most victims a marginal concern. Other things being equal, we would clearly expect the former kind of consequences to generate more political energy and institutional capacity than the latter. No wonder that the political organization of most societies has a strong institutional bias in favor of producer concerns and interests - or at least had so until the 1970s.

As the environmental impact of human activities became more pervasive and better understood at the same time as increasing affluence led Western societies to shift their "indifference curves" in favor of environmental quality, the demand for policies that could "restore the balance" increased. And governments responded; new and more strict laws and regulations were passed, specialized institutions for environmental management were established or strengthened, and budgetary appropriations for conservation purposes increased. But as the problem to be solved is essentially a side-effect of other activities, environmental policy can not simply be added to other policy commitments. The success of environmental policy depends to a large extent on its ability to penetrate those activities that cause damage to the environment. Effectively integrating environmental concerns as premises in the making of decisions regarding these activities themselves usually requires more political energy and institutional capacity than merely having a new commitment added to the public agenda. This is so because the activities to be modified are in most cases well established systems or patterns of behavior, governed but also protected by their "own" rules and institutions, and sustained by real self-interest on the part of consumers as well as producers. The development of environmental policy therefore tends to follow a pattern characterized by a significant time lag between declarations of intentions and general policy doctrines on the one hand and "significant deeds", particularly those impinging upon established policies, institutions and activities on the other¹². More energy is usually required to change established policies or institutions than to maintain the status quo. And the

¹² A few issues acquiring high symbolic significance are likely to stand out as exceptions confirming the general pattern.

"periphery" of established policies and arenas are more easily conquered than the "core" (cf Majone 1989:chpt.7).

The same mechanisms also affect the development and implementation of international agreements, particularly those pertaining to complex global problems. Consider the following scenario: A UN conference has been convened to work out a joint program of action to cope with the problem of global climate change. In the initial stages of intergovernmental policy-making, discussions about problem "diagnosis" and possible solutions are often framed in rather general terms. The problem itself is truly global in its ramifications, and the policy options being discussed at this stage are likely to be quite general and the distribution of costs and benefits more or less indeterminate. So far, the issue can legitimately be claimed to fall largely within the domain of the Ministry of Foreign Affairs or the Ministry of the Environment. As policy ideas are further developed, however, it becomes increasingly clear that many of them will have substantial consequences for one particular sector of the economy or some distinct social activity. On their own merits, these measures would normally fall largely within the domain of "sector" ministries or agencies. Moreover, they are likely to activate the "clients" concerned and their organizations and representatives. Over time, this re-definition of the issue and the "take-over" by specialized sector agencies are likely to reinforce each other. Gradually, what started out as a "grand design" to cope with a major collective problem is likely to become decomposed and redefined into "micro-issues" of sectoral policy (industry, agriculture, transportation etc.), and "captured" by the institutions and segments normally in charge of such issues. And seen from the latter perspective the policy measures in question will most often look considerably less attractive or urgent than they did when seen as integrated parts of a larger program. As a consequence, there is a serious risk of ending up with what might be called a vertical disintegration of policy (Underdal 1979:7); i.e. a state of affairs where the aggregate thrust of "micro-decisions" deviates more or less significantly from what policy doctrines and principles would lead us to expect.

Admittedly, this scenario is a piece of hypothetical reasoning. But it is not based on pure conjecture. Instructive empirical illustrations can be found by taking a brief look at what happened to e.g. the energy policy programs submitted by the Carter and Nixon administrations in the 1970s. Moreover, the patterns found in what to my knowledge is the most relevant events data file available seem to support some of the general assumptions on

which the argument is based¹³.

Two of these assumptions may be formulated as follows: (A₁) The more specific the policy measure that comes up for decision, the more determinate and differential tends to be its impact on society; and (A₂) as subgroup concentration of issue salience increases, the involvement of sector agencies and interest organizations tend to increase, while the roles of actors with more "holistic" responsibilities - including the Ministry of Foreign Affairs and the Ministry of the Environment - tend to decline. Our data file does not permit us to follow issues as they move from the level of "macro-policy" to that of "micro-decisions". Some indirect support for A₁ can be found, however: Thus, policy specificity is indeed correlated with salience to some particular subgroup(s) (Pearson $r=.15$), and the correlation remains significant ($p.<.01$) also when we control for issue-area ($\beta=.14$). The support for A₂ is fairly strong: What might be called the "domestic scope coefficient", defined as [issues with "national" ramifications - subgroup(s) issues/total], is .68 for the MFA and .86 for the Ministry of the Environment, compared to -.18 for ministries and agencies managing one particular sector of the economy, and -.33 for business, labor and professional NGOs. Also when we control for substantive problem area and other issue variables, "sector" agencies as well as interest organizations tend to play a significantly larger role in events salient primarily to some subgroup(s) than in issues of "national" significance¹⁴.

¹³ I am referring to the file "Norwegian Foreign Policy Behavior" (NFPB), which includes events data for Norway covering selected periods from September 1978 through November 1986 (altogether 19 months and 1989 events). For further information, see Underdal (1987).

¹⁴ The results obtained in a multivariate analysis (MCA) with four issue dimensions as independent variables are shown below:

Issue dimension	Actor							
	MFA		Environment		Sector		Intr.org.	
	eta	beta	eta	beta	eta	beta	eta	beta
Impact scope	.19	.01	.07	.23**	.40	.27**	.41	.33**
Problem area	.27	.26**	.14	.29**	.35	.18**	.30	.12**
Values/interests	.15	.14**	.08	.24**	.24	.11**	.15	.02
Specificity	.04	.03	.08	.09*	.11	.06	.15	.10**

*/** = significant at .05/.01 level respectively. All independent variables are entered with three scores. Impact scope: "national", "national and subgroup(s)", and "subgroup(s)". Problem area: "security", "economic wealth",

The scenario described above hinges on two other basic assumptions as well. One of these (A₃) is best known through the aphorism "where you stand depends on where you sit" (Allison 1971:176). In other words, we assume that different actors tend to bring different perspectives and decision criteria to bear on a policy problem, and that these perspectives to a large extent are shaped by formal role (for government agencies) or by "structural" position (for non-governmental actors). Finally, we assume (A₄) that the character of the decision-making process affects policy output. The latter argument can be specified with the help of a simple two-dimensional matrix suggested by Wilson (1973:331f; see table 4). Under conditions of low politicization ("business as usual"), we would expect the decision-making process to produce a bias in favor of policy measures belonging to cell 2, and "too little" of policies leaving one specific sector or subgroup of society with a disproportionately high share of the costs (cell 3). This is so particularly if the measures in question require a radical change in established patterns of behavior or "entrenched" rights, rules or institutions. Conversely, under conditions of strong political mobilization we would, at least in democratic political systems, expect a bias in favor of the interests or values of the majority (i.e. "too little" of category 2 policies, and "too much" of measures in category 3). In the area of environmental management, abstract policy ideas, such as e.g. the notion of "sustainable development", typically belong to cell 4; benefits as well as costs are largely diffuse, collective or indeterminate. Specific "deeds", however, - notably those requiring some particular branch of industry to reduce the amount of environmental damage caused by its production process or by the consumption of its products - most often generate the configuration of costs and benefits found in cell 3¹⁵. If these propositions are tenable, it seems that, at least in its most simple version, the unitary rational actor model is likely to produce the most accurate predictions for policy measures where costs and benefits are either concentrated to the same subgroup (cell 1A) or dispersed throughout society

and "other". Values/interest: "essentially values", "essentially interests", and "mixed/ambiguous". Specificity: "macro-policy", "micro-decision", and "mixed/ambiguous". Only 800 cases were available for this particular run.

¹⁵ Sometimes, however, policies requiring a cutback of certain emissions or creating strong incentives to do so provide a significant comparative advantage to certain companies or even a certain branch of industries. If so, these regulations could produce the kind of configuration found in category 1B or in category 2.

at large (cell 4). The greater the incongruity between the distribution of costs and the distribution of benefits, however, the less likely that the domestic aggregation of preferences will lead to policies maximizing net national pay-off.

Table 4: A typology of public policies (based on Wilson 1973).

		COSTS	
		Concentrated	Distributed
B E N E F I T S	Concentrated	(A) 1 (B)	2
	Distributed	3	4

Legend: A = costs and benefits concentrated to the same group.
 B = costs concentrated to one group, benefits to another.

The kind of analysis offered above has several implications for the craft of political engineering. First of all, it clearly suggests that there is a priori no reason to assume that domestic policy-making processes will generally lead to solutions maximizing net national pay-offs. Equally fundamentally, it strongly indicates that a political entrepreneur is likely to be more effective in designing feasible solutions if he can understand the domestic politics of international problems (cf Putnam 1988). On a more specific level, it may help us appreciate the fact that designing compensatory arrangements to attract the support of states suffering a direct loss from a certain solution can be a far more delicate undertaking than the unitary rational actor model would lead us to expect. Moreover, it may help us realize that securing the implementation of international agreements is not merely a matter of removing or curbing national incentives to defect. Different kinds of policy issues tend to generate different kinds of decision games, involving to some extent different (domestic) actors, with different perspectives, interests and capabilities (Allison 1971). As a consequence, vertical disintegration of policy is a very real possibility even when a government is perfectly sincere about its international commitments. "Grand designs" to deal with complex global problems seem to be particularly vulnerable to the disintegrating impact of the "ecology of micro-games".

5. Concluding remarks

There is certainly more to be said about what constitutes and determines political feasibility. But let us assume that at this stage our hypothetical scholar pauses to ask herself and her client whether the kinds of concepts and propositions that she has so far extracted from text-books and academic research meet the dual requirement of (a) advancing significantly beyond what might be called "practitioner wisdom", and (b) lending themselves to operational application. On both accounts sound reasons for concern can be given.

The process of international problem-solving does not easily lend itself to systematic empirical analysis. Restricted access to the kind of data required and the high costs of covering a sufficient range of cases to permit controlled comparison are two major obstacles. Some try to bypass these problems by "retreating" either to the simplistic assumptions of formal bargaining theory or to the laboratory of quasi-experiments. Others try to make the best out of whatever empirical evidence they can get their hands on, sometimes sacrificing canons of scientific method in the process. From the perspective of the practitioner, both strategies have their pitfalls and limitations.

Formal bargaining theory is vulnerable to the charge once made by Hedley Bull in a somewhat different context; viz. that the simplistic assumptions conventionally subscribed to tend to keep it "...as remote from the substance of international politics as the inmates of a victorian nunnery were from the study of sex" (Bull 1966:366). Scant relevance to praxis is not the only price to be paid for the analytical rigor obtained; one might argue that this tradition of research also projects a substantially distorted conception of the process, including an obsession with choice rather than search and with the distributive rather than the integrative aspects of negotiation (cf Midgaard 1976). Quasi-experimental research obtains its findings in artificial settings, the real-world equivalence of which remains moot. And the conclusions offered by students of real-world processes are often based on incomplete or poor data supplemented by more or less educated guesswork. Faced with this menu, the practitioner may very well conclude that what the study of negotiation has to offer are either formal theories that are elegant and rigorous but of little or no operational value, or findings and propositions that appear to be relevant but also inconclusive, somewhat trivial, or based largely on "artificial" evidence produced in laboratory simulations

or even on conjecture. Neither can qualify as a major contribution. Yet, he will almost certainly find that the latter tradition of research is better tuned to his own concerns, and - after all - offers the more interesting inputs.

Some may argue that the reference to notions of "political engineering" and "designing" must be based on a misconception not only of the present achievements of political science but also of the intellectual and political dynamics of collective problem-solving. International negotiations are, one might argue, as much "art" or "craft" as "science", relying as heavily upon the intuition of the artist as upon the calculus of the engineer. Moreover, to the extent that the notion of engineering is at all appropriate in this context, sound reasons can be given for conceiving of the "design" of substantive solutions not as a "one-shot" application of some construct or formula from bargaining theory to a specific problem, but rather as an incremental process of trial-and-error, whereby tentative ideas are adjusted and re-adjusted until a general consensus is reached.

A reconceptualization along the lines suggested above would have important implications for the prospects of political science as an "engineering" discipline. For one thing, the greater the element of art the less compelling seems to be the link between knowing and doing. You may know all there is to be known about the social mechanisms of charismatic leadership or the physics of tennis and yet be utterly inept in the role of performer. Moreover, in art- or craftlike activities practising may be the key to improving one's skills. No artist or craftsman eager to improve his own performance would rely exclusively or even essentially on the study of abstract theory or "how-to-do-it" manuals; nor should a negotiator.

There is substantive merit in both these lines of counter-argument. Nonetheless, the practitioner and the student of negotiation may find their dialogue mutually rewarding. Thus, although searching in vain for anything like an operational manual or decision-support system, the practitioner may very well find some of the concepts and models developed through academic research to be useful devices in helping him to structure his own thinking, and some of the propositions to be useful in corroborating or challenging lessons inferred from his own experience. The student on her part is quite likely to come to the conclusion that "practitioner wisdom" is a rather elusive body of knowledge. As Raiffa (1982:357) has pointed out, "Practitioners often act intuitively in ways that are far more sophisticated than they can conceptualize and articulate". But even if "practitioner

wisdom" should turn out to be a somewhat intractable source of insight, offering little that can add significantly to the accumulated knowledge of her field, his questions and beliefs may very well serve as important stimuli for further research. More generally, a case can be made for conceptualizing research problems in explicitly instrumental terms. Even if we shall have to admit that the study of negotiation may never be able to provide a firm basis for "designing" cooperative solutions, addressing explicitly the basic questions of "political engineering" may at least help to provide intellectual excitement and direction to research itself. In research the quest for relevance may serve as an impetus rather than a threat to academic quality.

Acknowledgement: In preparing this paper I have benefitted substantially from comments to an earlier version from Jon Hovi, Giandomenico Majone, and Olav Schram Stokke.

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