CHAPTER 4

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TRAINING FOR POLICY MAKERS

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Tʜɪs chapter discusses training for policy makers by focusing on a politically incorrect subject, namely training of rulers in grand-policy thinking. But the analysis and recommendations apply with some adjustments to all types and levels of policy makers.

The importance of rulers and their quality is widely recognized, but needs and possibilities for improving them are not only ignored, but taboo. If rulers would in the main perform well this would not matter much. However, it is enough to observe governments and their heads in action to reach the conclusion that even the best of rulers often fail to cope adequately with increasingly fateful choices. And the few very good rulers, too, make grievous mistakes the costs of which are constantly increasing because of the growing future-shaping power of human action. Therefore, steps to improve the performance of the highest strata of policy makers are imperative.

The performance of rulers depends on a range of intrinsic and extrinsic variables. The required qualities are multidimensional, ranging from moral character to political skills. Ways to improve them vary, from improving governance systems within which they operate as a whole to trying to improve their characters, stimulate their "emotional intelligence" (Goleman, Boyatzis, and McKee 2002), and restructure advisory systems. However, given institutional rather than revolutionary leadership, where other qualities are crucial, grand-policy training may often be a very cost-effective approach.

The required performance of rulers and their relative importance depend on situations. However, a core function of all rulers is to fulfill a major and often critical role in decision making and in particular grand-policy crafting.

Governmental decisions can be divided into relatively routine decisions dealing with current issues, which are not expected to make much of a difference; and what

I call "grand policies" which aim at massive effects on the future. Grand policies consist of various combinations of single critical choices and long-term strategies. Critical choices are illustrated by dropping the nuclear bombs on Japan, approving a large infrastructure project, or joining the European Union. Long-term strategies include moving from a command to a market economy, giving priority to the young in public health services, trying to promote democracy in the Middle East, and efforts to become a learning society.

Most choices need improvement. However, grand policies exert more influence on the future and are more intricate. Therefore, a high priority task is to upgrade grand-policy crafting qualities of rulers. Doing so depends on availability of knowledge on which effective grand-policy training of rulers can be based. The basis thesis of this chapter is that such knowledge is available, in part readily so and in part in raw form which can be reprocessed. This proposition will be supported by presentation of a prototype core curriculum for grand-policy training of rulers together with selective references to pertinent knowledge and some comments on training modalities.

1. CORE CURRICULUM

The proposed core curriculum is equivalent in content to a preferable model of cognitive capacities of a high-quality ruler in his grand-policy crafting roles. It includes twenty closely linked and in part overlapping themes or subjects, presented concisely, together with select references as mentioned and comments on mentors and didactics adding to what has been postulated above.

A special form of "grand policies" deals with institution building and structural change. Going back to classical views of rulers as "law givers," revamping institutions and building new ones is a major modality of "grand policy." Illustrations include constitution writing, building new governance structures such as the European Union, changing global governance, and building a market economy. Throughout the training, this grand-policy form should be taken into account with attention to the importance of institutions (North 1990) and institutional design (Goodin 1998) within the various subjects.

1.1 Separating Politics and Policy

The first imperative is the capacity to make a clear analytic distinction between policy and politics. These closely interact, often overlap, and in part cannot be separated even analytically. The absence of different terms for "politics" and "policy" in most languages other than English reflects the difficulties of that distinction. Furthermore,

modern democratic politics often pushes rulers in the direction of subordinating policy to politics and marketing, with rulers often giving priority to "blowing of bubbles" over weaving the future. But grand-policy quality depends on the ability of rulers to differentiate between policy and politics and giving priority to policy requirements before making unavoidable compromises with political reality. Training should clarify and emphasize this distinction.

However, political feasibility must not be neglected. A grand-policy option which cannot be implemented in the foreseeable future because of lack of essential political support or other crucial resources is not one to be chosen, though crafting it as a contingency policy to be realized when conditions change is often to be recommended. Therefore, political feasibility and ways to increase it should be included in the curriculum within the broader context of feasibility testing and policy resources amplification as a whole—but without going into the substance of power mobilization and political marketing.

Here, training is sure to run into a difficulty. Participants will wish to discuss politics and marketing. There is no lack of good literature dealing with policy making in its political context which can be referred to (Stone 2001). Having mentors who know politics and who demonstrate this knowledge from time to time, but without being distracted from the main curriculum, can help a lot.

1.2 Value Clarification and Goal Setting

Grand policies are value based, goal directed, and goal seeking. If the values are superficial and slogan-like and the goals are misperceived then choices will be counter-productive. Hence the importance of improving value clarification and goal setting. However, value judgement is a subjective process entrusted by the basic norms of democracy to elected politicians, subject to legal review and sometimes public override. Improving their value judgement and goal setting must not undermine their prerogative and duty to make legitimate value judgements, but rather help them clarify their values and operationalize their goals.

This raises a serious moral problem concerning training of evil rulers which will make them more effective in doing evil (Kellerman 2004, ch. 10). Therefore mentors need a professional code by which to train. Given Western democracies this is not an acute problem, though one to be kept in mind.

Relevant issues to be taken up in grand-policy training include, for instance:

1. Moral and political tensions between following values and desires of the public as against advancing values which the ruler, after full consideration and soul searching, regards as normatively and realpolitically correct (including the tangential issue of how far educating the public to higher values is part of his mission).

2. Tragic choices between meeting present needs as against trying to take care of future generations, including coping with the congenital defect of democracy of future generations not voting now, though heavily impacted by present decisions.

3. Relations between moral intentions, rule-based value judgements (including legal approaches), and consequentialism.

4. Serving individuals as supreme values by themselves as against advancing the thriving of societies.

5. Psychological and moral contradictions between intensely believing in select values and knowing that one's beliefs are largely a product of personal circumstances which one did not choose, such as the period, culture, and family into which one is born.

6. Related, the tension between looking on values as a sociocultural fact and believing in them. And between trying to adopt a cold stance and an attitude of clinical concern on one hand and intensely striving to realize values to which one is deeply committed on the other.

7. Taking into account future unpredictable values, including providing open options for future generations to realize whatever values they may have, as against trying to fortify present values against change.

8. The dilemma between clarifying the value and goal priorities on which a decision is based as against maintaining coalitions and mobilizing support by keeping values and goals ambiguous and opaque.

9. The increasingly acute dilemma between advancing the interests of one's country and taking into account the good of humanity as a whole, what I call *raison d'humanité* (Dror 2002, ch. 9).

10. The problematic of applying value judgements and goal priorities to specific situations as an iterative process.

11. On a different level, but at least to be posed: the personal dilemma between fulfilling one's mission and advancing values on one hand and taking care of one's career on the other.

Such subjects are to be taken up with the help of a broad set of value clarification and moral reasoning approaches. Examples include the following:[1]

- Socratic dialogue, helping self-clarification of values.
- Select basic normative frames, such as religious, Kantian, and utilitarian.
- Soft psycho-didactics, facilitating differentiation between motifs and drives on one hand and values on the other.
- Exposition of often neglected value and goal dimensions, such as preferences in time stream, attitudes to risks, and elasticity as a goal.
- Philosophic discourse posing categorical imperatives, clarifying values (such as in political philosophy), and presenting ways of helping value judgements.

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[1] See Boyce and Jensen 1978; Levi 1986.

- Logical and behavioral contradictions between values.
- Sensitivity testing to identify and clarify value choices and goal priorities necessary in specific choice contexts.
- Concept packages provided by jurisprudence and philosophy helping to enrich value thinking and deal with value conflicts, including use of decision rules.
- Discourse on especially problematic value judgement situations, such as "moral bad luck" (Statmen 1993) and "tragic choice" (Calabresi and Bobbit 1979).
- Welfare economics ideas and theorems salient to value consideration, such as Pareto optimum and the Arrow paradox.
- Construction of value and goal taxonomies and hierarchies.
- Goal-costing and microeconomics methods for considering costs–benefits of alternative value and goal mixes.
- Critical clarification of substantive values of high importance in many grand-policy spaces, such as human rights and duties, equity, reducing poverty, environmental values, animal rights, "fairness," communitarianism, "just war," and so on.

Training in value clarification and goal setting is very demanding, in terms of contents and interface with senior decision makers alike. Resistance to being told how to think on values and goals can be overcome by focusing on helping participants to make their own judgement, without presuming to tell them what their values should be. Helpful are uses of court judgements and, especially, literary texts with discussion of the ethical issues raised in them (Nussbaum 1995).

1.3 Creatively Weaving the Future

Grand policies are instruments aiming at—to use a striking term coined by Plato in *The Statesman*—"weaving the future" through creatively combining present contradictory materials and processes into making a better future. More specifically, grand policies try to reduce the probability of bad futures, to increase the probability of good futures, as their images and evaluations change with time, and to gear up to coping with the unforeseen and the unforeseeable.

To introduce a different metaphor, in grand-policy crafting rulers perform as both composers and conductors, with composing being much more difficult, original, personal, and important than conducting, however essential the latter is to realization of the compositions, giving them varied interpretations, and adjusting them to changing situations.

The metaphor is revealing, though a ruler is very different from a composer in working within organizations and composing and conducting in union as well as

competition and also conflict with peers, advisers, organizations, and societies. The freedom of innovation enjoyed by a great composer creating on his own is larger by many orders of magnitude than the constrained space of creation open to rulers. Still, creation is at the core of grand-policy crafting, all the more so in our epoch when rapid change makes the wisdom of the past into the stupidity of the future, and invention of new options fitting radically novel situations and values is a must. The ruler should in part operate as a creator (as well as transformer and change agent) and his mind pictures and "inner visibility" (Panek 2004) are of profound importance, on a minor scale "on line with the mind-music Beethoven heard when he was deaf" (Gelernter 2004). If the ruler himself cannot be a real creator, at least he should facilitate policy option creativity and be eager to consider and absorb new ideas after open-minded but critical evaluation.

To go one step further, high-quality grand-policy crafting in an epoch of transformations requires visions up to elements of utopian thinking. This is crucial for revolutionary rulers, but also increasingly essential for institutional rulers—who, whether they like it or not, face quasi-revolutionary situations sure to characterize the twenty-first century. Grand-policy training cannot make rulers into visionary leaders. But training can achieve awareness of the importance and nature of the future-weaving mission of rulers with its creative elements.

On a more operational level, to be emphasized and illustrated is the scarcity of promising options for main policy issues and therefore the practical need for option invention, to be sought, encouraged, and pushed by rulers. No less important is the negative necessity to engage in iconoclasm of policy orthodoxies. "More of the same," however politically convenient and organizationally attractive, is frequently worse than doing nothing. Encouraging rulers to be skeptical about accepted "solutions" is therefore an important part of the training.

1.4 Time Horizons

Grand policies aim at long-term impacts. But this general statement needs specification so as to help rulers to adopt preferable time horizons adjusted to the features of different policy spaces.

Four main criteria are relevant:

1. Value preferences which postulate the relative importance given value-wise to results at different points in the future, with care to be taken to avoid errors such as discounting results in time stream as if one deals with old-fashioned portfolio investments.
2. The life cycles of relevant policy spaces and the time needed for a decision to reach its main impact.
3. Predictability, with uncertainty and inconceivability usually increasing with the length of time horizons.

4. Political and personal cycles, to assure sufficient time for a grand policy to have a meaningful impact.

For most grand policies medium- and long-range effects should be aimed at, ranging from about five years to multiple generations. The life cycles of most grand policies usually have a similar range. But predictability rapidly decreases, with the outlook beyond five years and more becoming increasingly uncertain and dense with inconceivability. And political and personal cycles in democracies range from four to ten years.

It is the contradictions between long-term values and long implementation cycles on one hand and unpredictability and short political and personal cycles on the other which constitute a main cause of the fragility of grand policies. Uncertainty sophistication, as discussed later, can help, as can political stratagems and governmental structures facilitating policy continuity. But the dilemma is serious, often undermining the very significance of grand policies and making them less attractive to rulers.

Training can expose these problems, suggest treatments, and illustrate coping practices, such as multiphased time horizons divided into five-year intervals with a maximum, in most cases, of twenty-five years. Other possibilities include increasing policy continuity between governments by building consensus and institutionalizing grand policies.

Relevant experiences and ideas are available in literature dealing with planning and strategy (Ansoff 1979; Steiner 1997).

1.5 Thinking-in-History

The basic reasoning of grand-policy crafting is one of intervening with historic processes so as to achieve desired impacts on the future. This requires, first of all, "thinking-in-history" with emphasis on macro and deep history. Required are mapping of the evolutionary potential of the past as evolving into the future, designation of policy spaces where interventions are necessary to prevent the bad and achieve the good, identification of main drivers of the future, and pinpointing of a subset of such drivers which can be influenced by deliberate governmental action and thus serve as policy instruments.

All this should be seen within an overall view of human history as shaped by a dynamic mixture, which is changing non-linearly, between necessity, contingency, mutations, and random events—as influenced by human deliberate or unintended interventions.

This formulation fully exposes the presumptuous nature of grand-policy crafting and the dangers of unintended and bad results even when choices are based on the best knowledge and the highest cognitive qualities that human beings can achieve. Therefore, it is only the near-certainty that ongoing historical processes may well result in very bad and also catastrophic futures and the expectation that

well-considered governmental, selective, and carefully considered interventions with historical processes have a good chance to avoid some of the bad and achieve more of the good that justify grand-policy crafting and implementation.

The proposed view of historic processes and the conjecture on the potentials for the better of grand policies are foundational for training. Foci of attention include:

1. The dependence of all choice on assumptions concerning causal relations between what is done now and what will happen in the future.
2. The both doubtful and complex nature of such assumptions, requiring on the emotional and personality levels a good measure of skepticism combined with decisiveness; and on the level of cognitive processes a lot of uncertainty sophistication as epitomized in the perception of choices as "fuzzy gambles," discussed later.
3. The moral and realpolitical imperative to seek the best possible groundings for grand policies, in terms of reliance on whatever salient knowledge is or can be made available, serious pondering, and optimal reasoning and choice processes.

Participants should be provided with at least a window into thinking-in-history and its requirements of lifelong reading and both abstract and applied thinking. A preliminary step is to alert them to the dangers of wrongly applying history to current issues, as first pointed out by Nietzsche. These include wrong reliance on historical analogs (May 1972; Neustadt and May 1986) and fixation on surface events without understanding their embedment in deeper processes.

Some classical writings do try to base statecraft on the study of history, as illustrated by the meditations of Machiavelli and *The Peloponnesian War* by Thucydides. These should be referred to, with participants asked to read, if possible before the training activity, one or two books providing a vista of long-term history (Denemark et al. 2000; Gernet 1996), a text or two on the dynamics of history (Hawthorn 1991), and another book or two in philosophy of history and historiography (Braudel 1980). More realistic when maximum reading requirements are limited is demonstrating thinking-in-history and exercising it by application to select grand-policy spaces.

1.6 Understanding Reality

Understanding reality as in between the past and the future is of paramount importance while being very error prone. To improve the "world in the mind" (Vertzberger 1990) of rulers so as better to fit reality and its dynamics is therefore a main training task.

It is inherently impossible for human beings to take a "view from nowhere" (Nagel 1986). But the propensities to misread reality because of cultural and personal blinders and motivated irrationality (Pears 1984) can be counteracted and

participants can be helped to exit misleading "boxes" and "frames" distorting their perceptions of the world.

A lot is known on factors distorting social imagery, cognitive maps, and reference theories of rulers. There is also quite some knowledge available on the difficulties of improving reality images through providing new information. The rich literature on intelligence failures and distortions can serve as a solid basis for training (Codevilla 1992). Findings dealing with dramatic recent intelligence failures, such as on the terror attack on the USA (National Commission on Terrorist Attacks 2004), can serve as excellent training material to 'open the minds' of rulers in ways very helpful to grand-policy crafting.

Very important is enrichment of the concept packages of rulers so as better to perceive and process reality. Thus, the concept of "second strike capacity," very novel at its time, was crucial in providing understanding of new strategic realities produced by nuclear weapons. Therefore, adding to the mental vocabulary of rulers concepts such as "soft power" (Nye 2004), "inconceivability" (Dror 1999), "fuzzy gambling" as discussed later, "virtual history" (Ferguson 1997), thought experiment (Sorensen 1992), "distant proximities" (Rosenau 2003), and many more can help to improve mental images of reality in ways improving grand-policy thinking. But relevant literature is dispersed over a large range of disciplines, illustrating the need for multidisciplinary bases for grand-policy training of rulers and its dependence on very knowledgeable mentors.

It is easy to present rulers with descriptions and analysis of select aspects of the world (such as some chapters in Lord 2003). Taking up one critical but often misunderstood dimension in order to illustrate needs and possibilities to arrive at deeper understanding can be quite useful, with "globalization" being a good example. But grand-policy training for rulers should provide them with insights, understandings, frames, theories, approaches, reasoning modalities, etc. which will stand the test of time and be applicable to a large variety of changing situations, not monographic knowledge sure to be outdated soon.

Quite different is the question whether one should include in the program exploration of fundamental, very stable parts of reality, such as "human nature" and its competing explanations in terms of fixed essence as against cultural formation (Ridley 2003) and the nature of "evil" (Bernstein 2002). It might be a good idea to expose participants to such problems so as to open their minds, perhaps by guest lectures and short readings. But overloads must be avoided and many important subjects not directly related to grand-policy thinking as such must necessarily be excluded from most training programs for rulers.

1.7 Foresight

Understanding historical processes, including their inherent uncertainties and inconceivabilities, is an essential foundation. But directly needed for grand-policy crafting

is foresight, the ability to foresee alternative futures and the likely consequences of different interventions with historical processes—so as to decide what to do now and what to plan to do in the future, subject to revisions depending on actual development.

To put it into a literary form, which may be insight providing to participants, foresight (and understanding reality) aim to reduce regret "if only we could know!," as central in the view of one interpretation to the works of Chekhov (Kataev 2002).

However, the dependence of choice on foresight is, as already indicated, the main cause of policy fragility. Our epoch is one of ruptures in historical continuity together with a lot of invariance. Therefore, it is very likely that future historical processes, also in the near future, will be in part radically different from what we know from the past, so that even perfect understanding of the past—which does not exist—cannot provide reliable knowledge on the impacts of different grand policies on the future.

Still, quite some foresight is possible thanks to the relative stability of some main historical structures and processes and some understanding of change. These are the grounding of four main outlook approaches:

1. Extrapolation, with past and present facts and dynamics being projected into the future.
2. Theories and qualitative and sometimes quantitative models based on them from which conditional predictions can be derived by changing the time parameters.
3. Intuitive knowledge, whether professional, local, or naive, which provides subjective images of the future based on tacit knowledge and pattern recognition, expertise, and experience.
4. Imagination, whether "wild" or based on various forms of intuition and experience.

The trouble is that the three first families depend on the past, either directly or as processed into theories and experience. The nature of imagination is not clear and may in part transcend the past, but its validity cannot be evaluated. Therefore basing policies on imagination concerning likely futures (as distinct from utopias which present ideal futures relevant to value clarification) is reckless, however stimulating the images of the future of some thinkers may be.

In terms of both ontology and epistemology, because of the contingent and mutative nature of future-shaping processes and the limits of human understanding of such processer, the future has to be viewed as largely underdetermined by the past. And, the less the future is determined by the past the less can it be foreseen, both inherently and because of the dependence of foresight, including also highly structured outlook and forecasting methods, on the past—with the hypothetical exception of wild imagination, with its many dangers.

We must not have an exaggerated view of future-shaping processes as being chaotic, as there is a lot of continuity. However, the twenty-first century will be

characterized by many discontinuities and reality-mutating events, making the future in part inconceivable. The conclusion is that the best foresight is in large parts doubtful as a basis for choice. But choice is unavoidably based on foresight, however in need of skepticism. It follows that grand-policies are largely in their very nature and essence "fuzzy gambles." This is a critical conclusion for the training of rulers.

Explaining the problematic nature of outlook is not difficult, all the more as reality provides many striking illustrations. But care must be taken to avoid too extreme a conclusion, making rulers doubt equally all outlooks and motivating them to trust their own intuition more than professional guesstimates of alternative futures. Over-chaotic views of the future will also result in recklessness or unwillingness to adopt long-term policies when clearly essential. Worst of all is the escape of rulers from uncertainty into fixed and arbitrary assumptions, as if the future is subject to their commands, or reliance on astrology and similar stupidity.

Therefore, care must be taken to balance presentation of uncertainty and inconceivability with emphasis on the many important features of reality and its dynamics which are invariable within policy-relevant timespans, making carefully prepared foresight useful though doubtful.

A special problem is posed by circumstances in which "confidence" is more important than foresight, namely revolutionary situations when it is necessary to trust that God or History are on one's side, so that the effects of "self-fulfilling" prophecy can be mobilized to make the nearly impossible a little less impossible though still very unlikely. But in most situations overdoses of "confidence" (Kanter 2004) are very dangerous, realistic guesstimation being instead required together with prudence and also doubts and skepticism, combined with decisiveness.

There is no scarcity of literature on which exploration of foresight approaches as well as critical examination of predictions can be based (CIA 2004; Lempert, Popper, and Bankes 2003; Molitor 2003).

1.8 Cogitating, Feeling, and Dreaming in Terms of Alternative Futures and their Drivers

At the core of the curriculum and summing up much of it are thinking, feeling, imagining, dreaming, speculating, guesstimating, and planning in terms of alternative futures, rise and decline, realistic visions and nightmares, etc., together with their drivers and policy instruments.

Rulers need to be trained and habituated to exercise all their mental facilities to play with and consider in-depth alternative trajectories into the future and the actions they need to take, to reiterate a key formulate, in order to improve the probability of the desirable ones, decrease the probability of the undesirable ones, and gear up to coping with the inconceivable sure to come.

The vast difficulties of doing so are brought out by "if–then" historical speculations, nowadays called "virtual history" (Ferguson 1997). To take a relatively simple example, let us assume that Hitler had been assassinated in 1938. It is very likely that the *Shoah* would never have happened and that Hitler would be remembered mainly as a great German statesman, a "second Bismarck." But what European, Jewish, and global history would have been like is a matter for wild speculation, with available understanding of historical processes being very inadequate for providing supportable conjectures.

This is the case concerning the past, when we know many facts. All the more difficult is consideration of alternative futures, which is a kind of futuristic virtual history dealing with the question: If I do so-and-so what is the future likely to be? Or, more sophisticatedly: If I do so and so, what is the likely range of possible futures? But, however doubtful and in part speculative, this is the stuff on which grand policies are unavoidably based.

Cogitating, feeling, and dreaming in terms of alternative futures and their drivers as central to policy making involve five main elements:

1. As indicated, the hub around which all choice circulates is "alternative futures," a concept first worked out by Bertrand de Jouvenel (Jouvenel 1967) and called by him "futuribles." The ruler's mind has to imagine and think in terms of alternative futures of main policy spaces and all of them together, consider which ones have to be prevented and which ones have to be facilitated, identify main drivers which will further the prevention and realization of the various alternative futures, and select a subset of the drivers which can serve as policy instruments to be integrated into grand policies, including institutional ones.

2. The need is not only for deliberate and disciplined thinking in terms of alternative futures and their drivers, but for exercising one's entire mind. Imagining alternative futures, dreaming about them, and speculating on them are essential for injecting much-needed creativity and for tuning the ruler's entire mind to operating in terms of alternative futures.

3. Imagining, dreaming, speculating, guesstimating, and finally planning and crafting of grand policies require multiple frames so as not to get lost in the kaleidoscopic, multifarious labyrinths of the future. The most demanding but often critical frame is rise and decline of nations, regions, communities, and humanity. However speculative in part, it provides a basis for deep and holistic thinking on alternative futures.

4. Concrete and directly guiding grand policies are realistic visions and nightmares. These are specified alternative images of near and middle-range futures to be approximated or prevented. To check realism and to derive from them policies, they should be linked to present dynamics by scenarios and roadmaps.

Realistic visions and methods for working them out are well recognized in business literature (Hamel and Prahalad 1994) and practice. Military experience is relevant

to considering "worst-case" nightmares and their shortcomings. Some countries have prepared realistic visions. All of these provide good bases for training.

More difficult is facilitation of thinking in terms of "rise and decline." Classical writings by Gibson, Toynbee, and Sprengler are in part stimulating, but training should critically discuss modern literature and apply it to select grand-policy domains (Kennedy 1987; Olson 1982; Tainter 1988).

1.9 Critical Mass Interventions with Historic Processes

The applied purpose of thinking-in-history, cogitating in terms of alternative futures, etc. and the main rationale of grand policies are to design, plan, and implement interventions with historical processes so as to try and weave a better future. Such interventions with historical processes are, on the most fundamental level, based on a philosophy or theory of history and of reality as a whole (McCall 1994), which—as mentioned—regards the future as produced by a dynamic non-linearly changing mix between (1) necessity, that is, deterministic processes, whether simple or probabilistic (taking the form of stochastic chains); (2) contingencies, that is, pre-fixed sets of alternative futures without predetermined probabilities; (3) mutations, that is, radical shifts and ruptures in continuity leading into what prospectively are largely inconceivable directions, as a result of processes which may or may not be predetermined or indeterminate to various degrees; and (4), in part overlapping the last category, what from a human perspective are random events, such as the idiosyncratic behavior of a powerful ruler.

Given such an image of historic processes, there is scope for human weaving of the future to the extent that a human agency controls resources which can have impact on future-making processes.

As already emphasized, the future-shaping power of human decisions and actions, including by governments and rulers, is increasing by orders of magnitude, mainly as a result of science and technology. However, this conclusion has to be reconsidered within a broader canvas of the potential for human free will to shape the future as in being between values and desires as independent drivers on one hand and stubborn facts of reality as limiting free will and future-shaping possibilities on the other. An extreme idealistic view of human nature and history would grant to freely chosen human values and desires very much influence on the future, while an extreme materialistic view would minimize the existence of free human choice and its impact on the future. Between such extreme positions, the proposed view recognizes the rapidly increasing weight of human action as decided in part by free human choice in influencing the future, but regards this influence as constrained by limits on free choice and historic events and processes beyond human influence. Furthermore, and this is very important, there is a world of difference between the overall impact of human action on human futures and human impacts on the future which are

purposeful and are more or less in line with what is aimed at by partly free choice. Much of the growing impact of human action on the future is not intended and even less of the impact fits freely chosen values and goals of human agencies entitled according to accepted ideologies to engage in future shaping, such as legitimate governments and rulers.

Furthermore, not only are many impacts unintended but they are also undesired, with a rapidly increasing risk of unintended very bad impacts resulting from the growing gap between rapidly increasing human power to influence the future, and more or less stable human capacities to exercise these powers so as to prevent the bad and achieve the good.

It is this widening gap between growing impact power and relatively stable decision-making quality which poses the main challenge to grand-policy training of rulers and makes it into an endeavor which may have macro-historic significance.

However "philosophic," these perspectives should be discussed with participants as basic to serious grand-policy thinking. This, together with explanation of the purposes of the training as providing perspectives, understandings, and approaches, not techniques.

On a more applied level, the main purpose of training of rulers can be reformulated as augmenting their capacity to weave the future according to their clarified values and prioritized goals, insofar as legitimate within accepted constitutional norms. An important element of this capacity is their understanding of the potential as well as limits of their ability to achieve desired impacts on the future, including much uncertainty on what the limits of their effective choice are—as evidenced by the many historical cases of very large impacts which could not be expected in advance together with the many cases when effects which were reasonably expected and aimed at were not realized.

Training of rulers should provide them with an understanding of this complex relation between their future-shaping power and their actual impact on the future. Furthermore, participants should realize that to a meaningful though limited extent their impact on the future depends on their personal capacities, including the quality of their grand-policy thinking at the augmentation of which the training is directed.

Given such an understanding of historical processes, effective efforts to shape the future through intervention in historical processes must meet six conditions:

1. A will to shape the future.
2. Some operational notions of what constitute "good" or "bad" futures.
3. Adequate understanding of historical processes, so that the chances of interventions having effects for the better are higher than the risks of bad outcomes.
4. Capacities to translate the understandings into grand policies.
5. Sufficient resources—political, economic, human, etc.—to achieve critical masses of intervention in historical processes so as to have a substantive impact on them.

6. Implementing capacities adequate to translating the grand policies into effective action and applying the resources effectively and efficiently.

The need for "critical intervention mass," including often but not always "large-scale" policies (Schulman 1980), needs emphasis, all the more so as it is often ignored in theory and practice alike. Political and other pressures together with resource limitations frequently result in dispersal of limited resources over many policies with the result that often minimum critical mass thresholds are not reached and as a result policies do not have the desired effects. Hence the need to set priorities and focus resources on a limited number of grand policies so as to achieve adequate intervention masses, together with ways to make this feasible— such as by nominal allocation of limited resources to other policies so as to meet demands without really expecting much impact, while concentrating main efforts on a limited number of grand policies.

Critical mass thresholds vary with the rigidity or fragility of given historic processes and the extent of change aimed at in historic trajectories. Thus, in some cases relatively minor interventions can operate as a "tipping points" while in others only large-scale interventions provide a chance to achieve desired impacts.

Crises sometimes provide unique opportunities to have significant impact with limited intervention masses, as will be discussed later. Even more special a case is the "throwing of surprises at history" as a way to try and achieve major impacts with limited resources by creating a "fulcrum" effect. Illustrations include sudden devaluations and surprise attacks or agreements.

Discussing with participants situations when throwing of surprises at history is justified despite its risks, to avert great dangers or avail oneself of short windows of opportunity, is a good way to clarify the idea of critical mass interventions with historical processes. It also illustrates a special type of grand policy taking the form of critical choice, and brings out the problematic of taking risks as against that of being prudent together with the importance of creativity.

Crucial to effective interventions with history are the causal assumptions on which they are based. Required is explication of such assumptions, critical examination of their bases and validity, and clarification of their quantitatively and qualitatively probabilistic nature at best, and their being often guesstimates and speculations.

Especially difficult for many participants to absorb, as distinct from abstractly understanding, is the unavoidable conclusion that the most "practical" decision maker depends unavoidably on multiple and often quite hypothetical conjectures, assumptions, theories, and speculations. Not less difficult is the required thinking in terms of quantitative and qualitative uncertainties and inconceivability. And hardest of all to accept and act upon is the simple but striking conclusion that all major choices, including grand policies, are in their very nature and essence "fuzzy gambles," with rulers being in crucial respects gamblers with history, often for high and also fateful stakes.

1.10 Fuzzy Gambling Sophistication

All that has been said leads to the conclusion that grand policies are in their very nature "fuzzy gambles," that is, gambles without fixed rules the very nature of the outcomes of which is in large part ambiguous, indeterminate, and unknowable in advance. Therefore, to re-emphasize a crucial point which is central to grand-policy training of rulers, one of their most critical tasks is to engage in fuzzy gambling, often for very high stakes. They need not delve into the philosophic, psychological, and methodological aspects of fuzzy gambling and its improvements, but they definitely need awareness of this essential nature of their choices and its problems and familiarity with ways of coping—in short, they need "fuzzy gambling sophistication."

This conclusion is intellectually irrefutable, but very hard to accept emotionally and anathema politically. It may also be dangerous to explain it to decision makers with low tolerance of ambiguity, as it can cause recklessness, an illusionary subjective sense of certainty, and reliance on false prophets and seers.

Particularly challenging are:

1. Required value judgements on preferred mixes of risks, qualitative uncertainties, and inconceivability.
2. Findings in decision psychology indicating that human thinking on uncertainty is very error prone.
3. Irrationality of public attitudes to risk, making it politically dangerous for rulers to explain truthfully the fuzzy gambling nature of their grand policies.
4. Failures and misuses of security intelligence and other types of estimations and outlooks caused by wrong expectations of getting reliable predictions combined with politically convenient readings of ambiguities.
5. Vexing situations where contingencies with very low or unknowable likelihood but very high impact potential are faced.
6. Available methods for improving fuzzy gambling (Dewar 2002; Dror 2002, ch. 15) are in part very useful. But some are misleading and many are complex, demanding, and in part counter-intuitive. Also, while in the main not being quantitative, they are not easy to explain to rulers who are innumerate (Paulos 1988).

All these and additional difficulties are aggravated by standard proposals for coping with uncertainty in much of policy analysis and risk analysis literature, which are wrong. In particular the recommendation to rely on subjective probabilities multiplied by not less arbitrary utilities in order to calculate "expected value" and thus arrive at an "optimal" answer is totally incorrect. This is the case unless relevant historical processes behave stochastically and subjective probabilities approximate objective probabilities, two assumptions which are a phantasm when complex situations are faced.

The nature of choice by rulers as fuzzy gambling was well recognized by Machiavelli in putting the relations between "fortune," "opportunity," "prudence," and "virtue" at the center of his statecraft recommendations. Useful knowledge does exist. Memoirs of rulers and writings by historians who explicate the "throwing of dices" nature of major decisions are helpful to make the subject concrete and palatable to rulers. Therefore, training can do a lot to improve fuzzy gambling sophistication, though this subject should be handled gingerly.

Thus:

1. Rulers should be made fully aware both of the nature of their decisions as fuzzy gambles and of possibilities to improve them together with the impossibility of unmaking their "fuzzy gambling" nature.
2. Training in this matter must also take up emotional aspects, emphasizing the need to accept and tolerate ambiguity.
3. Presenting main error propensities of the human mind in processing uncertainty and explaining counter-measures can help a lot.
4. A number of practical recommendations should be presented and exercised, such as not thinking of complex issues in terms of "solutions" but "treatments;" considering expected results of alternative options always both optimistically and pessimistically; reading contrary opinions of experts not in terms of one being correct and the other false, but as demonstrating uncertainty; persistently asking "what next?" and "what if?"; working with multiple assumptions; testing options for sensitivity to uncertainty; paying attention to low-probability, high-impact contingencies; creatively imagining possible surprise events; and seeking elasticity.
5. Value clarification and goal-setting dimensions should be expanded to include judgement on different mixes of diverse uncertainties.
6. The likelihood of inconceivable events and dynamics should be emphasized with ways to prepare for them, leading to crisis coping as the ultimate way to upgrade fuzzy gambling.
7. The political and public aspects of the fuzzy gambling nature of decisions should be considered, with the dilemma between speaking truth and demonstrating confidence being put forth clearly, though left for the trainees to ponder.
8. The difficulties posed by the fuzzy gambling nature of choices to evaluation by results, learning from consequences, and being judged by the public for what happens in fact should be explained and their practical implications explored.

1.11 Crisis Coping

The ultimate way to handle the unforeseen, unforeseeable, and inconceivable is crisis coping. New forms of terror attack epitomize the need for improved crisis coping,

but crises also take the form of natural disasters, economic meltdowns, social unrests, and more. In major crises rulers usually are the ultimate decision makers, by action or default. But, unless they have a personal background of crisis coping, they are ill prepared for their lead roles and can easily do a lot of harm.

A major reason for being unprepared is the lack of readiness by senior politicians to take part in crisis exercises, as essential for preparing oneself for crisis coping. The formal reason they frequently give is that they do not want to reveal their hand prematurely, but the real reason is that experienced politicians will not volunteer to be tested. All the more essential in training is sensitizing of rulers to the need to prepare for crisis coping, including also unconventional uses of crises as opportunities to do what otherwise is impossible.

Participants can be introduced to crisis coping by short and long crises exercises dealing with hypothetical but realistic situations. Computer simulations and games can help. Crisis-coping exercises are not only important by themselves, but also provide opportunities to apply and absorb other main grand-policy thinking subjects in stimulating ways which will engage the full attention of participants.

There is plenty of literature available on crisis coping, in both security and civilian contexts, theoretic and applied (Rosenthal, Boin, and Camfort 2001). Good historical examples can serve as interest-evoking introductions (Frankel 2004; Lukacs 1999). Some of the ideas on crisis handling in business enterprises are in part applicable, but especially pertinent are the few books focusing on the role of leadership in crisis (Carrel 2004). Persons with experience in crisis coping can help as can visits to crisis management units and special demonstration runs to be evaluated later.

1.12 Holistic View

Rulers need to adopt holistic views of main policy spaces and of their policy cosmos as a whole, so as to set well-considered priorities for grand-policy crafting, understand cross-impacts, and try to achieve synergism.

The need for "holistic governance" is increasingly recognized, at least in theory (Perri 6 et al. 2003), but the best frame for comprehensive grand-policy thinking is provided by the systems approach. Its central ideas are quite clear: overall performance is not a simple additive function of the output of components. Therefore the interaction of components has to be carefully considered so as to prevent negative effects and achieve overall system improvement. Main implications are also clear, such as the advantages of self-managing systems, the need for overall systems understanding and management when self-management does not work, systems costing, and so on—all within appropriate timeframes.

Especially pertinent are implications for the mission of rulers: they are in charge of overall governmental and societal perspectives; and, when self-management does not work, of systems redesign, oversight, and management. Furthermore, it is up to them

to assure holistic governance and to achieve themselves an overall systems perspective of main grand policies as an interactive set.

Within this subject, attention should also be devoted to budgeting. Though most attempts to do so have failed, important lessons can be derived for innovative uses of revised policy-linked budgeting as an instrument for achieving some parts of a holistic view.

The systems approach is well developed in the literature (Checkland 1981; Jervis 1997) as well as in some policy-making practice. Explaining and demonstrating its principles to experienced participants is not difficult, but really to make holistic perspectives a part of their thinking exercises, case studies and projects serve best.

More difficult is the issue of a "national overall grand policy" which tries to set an integrated trajectory for most policy spaces. Illustrations include preparing a country for joining the European Union, moving from a Communist regime and command economy to a democratic regime and market economy, waging a life-or-death war, and some overall modernization directions, as in Singapore (Yew 2000). The question if and when having an overall grand policy is advisable, is central for training of rulers in countries engaging in radical but not revolutionary self-transformation. If answered positively, much of the grand-policy training should refer to crafting such an overall grand policy and its derivative policy-space-specific "sub-"grand policies.

There is nearly no relevant literature, other than outdated and often misleading "development policy" treatises. But treatments of "rise and decline" and some multinational documents, such as the "Lisbon Agenda" the European Union, can serve to introduce the subject.

1.13 Penetrating Complexities

Nearly all the curriculum subjects appear to add complexity which may well make the task of grand-policy crafting seem impossible and discourage participants. To overcome this barrier and help in dealing with real difficulties, a deeper look at complexity is necessary.

Let me start with what is quite useless for coping with the quandaries which rulers face. The so-called sciences of complexity (Waldrop 1992), however intellectually interesting and in part stimulating, are not really helpful. Chaos theory, catastrophe theory, and similar fashionable approaches supply some valuable concepts, such as the popularized and often exaggerated "butterfly effect," but applying them to real-life high-level policy issues does not yield much. Large-scale computer simulations do help with some aspects of important policy spaces, such as macroeconomy and environment, but are of limited help for most grand-policy issues (La Porte 1975).

However, it is often possible to cut through soaring complexity by seeking and identifying the kernel or cluster of kernels and thus making the situation more

comprehensible without falsification of its essence (Slobodkin 1992). Thus, in the Kyoto Agreement the core issue is readiness to pay economic prices for reducing a probabilistic danger. In the European Union core issues are striving for a federated Europe or an alliance of partly sovereign states; wishing to preserve some cultural homogeneity or taking Turkey in; and global standing and policy. And so on: in quite a number of very complex and multifaceted policy issues one of two hard kernels can be identified. Multiple factors have to be taken into account, but many quandaries are in essence less complex than appears before penetration to their kernel.

In seeking to distill the essence from complexity there is much danger of oversimplification, to which top politicians are prone. But, if done with care, complexity can often be handled better by getting to the kernels than by use of refined methods which either make complexity completely unmanageable or wrongly simplify it behind a veneer of advanced methodologies and abstruse calculations and simulations.

However, methods for doing so are scarce. No general approach to penetrate complexity is known and perhaps none is possible, with each policy space to be handled according to its unique characteristics. But examples can clarify the proposed approach and participants can try to penetrate complexity in closely monitored projects, with much care taken to avoid oversimplification.

1.14 Basic Deliberation Schema

Let me conclude the core curriculum with a basic deliberation and choice schema. In many training activities it might be good to start with this scheme so as to apply it throughout the activity. However, I present it here as an illustration of tools helping to get to the kernel of complex grand-policy choices.

The structure of the basic deliberation scheme is as follows:

values-goals
options outlook on expected impacts of options on values-goals

However rudimentary, this schema serves as a useful format for summing up options and presenting them for overall judgement. It also brings out and reiterates a number of important points (Dror 1983, part IV), such as:

- Avoidance of discussing choice in terms of "rationality" in its usual narrow meanings, because of the importance of extra-rational elements, especially values and innovative options. But more advanced notions of higher rationality, such as self-binding (Elster 2000), should be presented and applied.
- Division of labor within grand-policy crafting, with value and goal judgement being a prerogative and duty of the ruler; outlook being a matter for professionals; and options being open to innovators whoever they may be.

- Outlook must never to be put into a singular form, with at least optimistic and pessimistic outlooks being a must, and further refinements to be added such as dependence on events and surprise-proneness.
- All elements have to be phased in time to take into account different time horizons fitting the subject.

This schema, in different forms, is well known in policy analysis and related literature (Weimer and Vining 1998). Teaching it is not problematic, but rulers have to be habituated to demanding its use from their staffs and absorbing and also applying it into their own grand-policy thinking.

1.15 Integration and Absorption

It is essential to achieve at least some intellectual and behavioral integration of the various subjects, so as to upgrade grand-policy thinking as a whole and make it into "knowledge-in-action" (Schön 1983).

It is an open question whether the various aspects, approaches, and frames of grand-policy thinking, as in part presented in the curriculum, form a single paradigm or whether they constitute multiple perspectives sharing a world of discourse but different in groundings and nature. Whatever the ultimate answer to this question may be, as matters stand now there exists no unified prescriptive theory fitting grand-policy thinking as a whole, a fact which makes integration difficult. And the ideas, theories, and perspectives which are best suited to serve as a grounding for grand-policy thinking belong to the philosophy of practical reason starting with Aristotle's *Nicomachean Ethics*, as receiving renewed attention in the philosophy of praxis (Bourdieu 1998; Bratman 1987; Velleman 2000), of reasoning (Gilbert 1986), and of judgement (Lycan et al. 1988), together with cognitive sciences (Robinson-Riegler et al. 2003).

I am of the opinion that parts of philosophy and of cognitive sciences can provide strong groundings for a unified prescriptive theory of choice on which much improved versions of grand-policy and policy analysis as a whole can be based (Dror 1988). However, this is not a ready basis for grand-policy training. Mainstream policy analysis literature (representative is Radin 2000) fully reflects the lack of a strong theoretic basis, a weakness which is epitomized by the inapplicability of most of it to grand-policy thinking. It is therefore not an accident that very little of that literature has been cited as providing knowledge relevant to the proposed curriculum. Thus, nearly completely ignored in mainstream policy analysis literature are thinking-in-history and alternative futures, value clarification, and "rise and decline" frames. And a number of crucial subjects are often mistreated, such as deep uncertainty. Most of the bulk of policy analysis literature fits some types of micro-decisions but not grand-policy crafting, though some books (Dunn 2004; Rosenhead 1989) include important relevant ideas and methods. And when that literature presumes to

suggest a dominant paradigm, such as an economic or "rational" one, it is a very narrow and largely misleading one when applied to complex choice.

The absence of an encompassing paradigm is in part compensated for by a number of core ideas and leitmotifs around which training can be structured, in particular thinking in terms of alternative futures and intervening in historic processes. But, at least in training activities, the main burden of integrating the material and applying it selectively to different policy spaces is one of "praxis:" participants have to integrate the material in their cognitive processes and develop the skill to apply different approaches selectively to a variety of grand-policy issues.

Some texts may help after critical discussion, such as writings on political judgement (parts of Steinberger 1993) and the documents of the strategy unit of the British Prime Minister (www.strategy.gov.uk) which, in addition to their intrinsic quality, are very credible to rulers as used in practice at a top policy level. But the main way to help participants integrate the material in ways conductive to their praxis is by case studies, exercises, and projects in which a variety of approaches are applied with the help of mentors and tutors having both extensive theoretic knowledge and high-level policy experience.

Another perspective helping with integration is that of creative professionalism. Professionalism involves applying general theories, abstract thinking, and comparative knowledge to concrete issues. Creative professionalism adds innovation, creativity, and "artistry," in line with the composer metaphor. It is up to the mentors to facilitate such thinking throughout the training.

Also useful is integration of the material on the level of "common errors to be avoided." During the presentation of the curriculum, error propensities specific to each subject will have been mentioned. Pulling them together and supplementing them with additional typical policy-making mistakes (Baron 1998: Bovens and 't Hart 1996) can assist participants in gaining an overview on an additional level. Examples added from other domains, such as technology (Perrow 1984) and medicine (Rosenthal and Sutcliffe 2002), can be very helpful.

However, as noted, in training of high-level policy makers integration is to be achieved on the level of praxis with the help of active learning and, especially, extensive group exercises and projects closely monitored by highly qualified mentors.

2. Training Requirements

In grand-policy training of rulers didactic methods and substantive contents are closely intertwined. To help participants improve both knowledge-based systematic but 'open' thinking and creative design (Schön 1987), extensive use of active learning methods, such as case studies, interactive computer programs and games, syndicate

discussions, individual and group exercises, and projects, is essential. Guided reading on one hand and individual tutoring and coaching are also essential.

Preparation of suitable texts, case studies, exercises, and projects is a main challenge facing the still very small epistemic community of policy scholars, policy analysis professionals, and governance practitioners eager to advance grand-policy training of rulers.

The demanding nature of grand-policy thinking together with the difficulties of telling senior participants "how to think" require highly qualified mentors who combine much theoretic and factual knowledge with high-level policy experience. Finding such mentors and getting them to devote sufficient time to prepare for grand-policy training of rulers is a major difficulty.

Selection of participants is very important, because not all will resonate with the proposed training. And needed are alternative training arrangements of different length, various categories of participants, and different foci so as to fit opportunities and demand.

Most difficult is getting senior policy makers to participate in the proposed type of activities. Directing training at junior policy makers on the way up is more feasible and a very useful endeavor in the longer run. But top-level politicians too can and should be motivated to participate in compact workshops. This requires at least some highly reputed mentors, attractive settings, and good presentation. And getting the support of at least a few rulers who will themselves participate in a training activity is critical.

However, all this is secondary to the need to recognize the imperative of upgrading the quality of top-level decision makers and the possibility to do so in part by grand-policy training.

References

ANSOFF, H. I. 1979. *Strategic Management.* New York: Wiley.

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

BERNSTEIN, R. J. 2002. *Radical Evil: A Philosophical Interrogation.* Cambridge: Polity Press.

BOURDIEU, P. 1998. *Practical Reason.* Stanford, Calif.: Stanford University Press.

BOVENS, M. and 'T HART, P. 1996. *Understanding Policy Fiascoes.* New Brunswick, NJ: Transaction.

BOYCE, W. D., and JENSEN, L. C. 1978. *Moral Reasoning: A Psychological Philosophical Integration.* Lincoln: University of Nebraska Press.

BRATMAN, M. E. 1987. *Intention, Plans, and Practical Reason.* Cambridge, Mass.: Harvard University Press.

BRAUDEL, F. 1980. *On History.* Chicago: University of Chicago Press.

CALABRESI, G. and BOBBIT, P. 1979. *Tragic Choices.* New York: Norton.

CARREL, L. F. 2004. *Leadership in Krisen: Ein Handbuch für die Praxis.* Zurich: Verlag Neue Zürcher Zeitung.

CHECKLAND, P. 1981. *Systems Thinking, Systems Practice.* Chichester: John Wiley.