Priming political leaders for fateful choices*

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Abstract

This paper presents nine proposition: (1) humanity is cascading through a rupture in its history into an epoch of "anthropo-transmutation"; (2) to prevent self-destruction and facilitate pluralistic thriving, many counter-conventional radical innovations in human values, institutions and policies are essential; (3) enlightened voluntarism cannot be relied upon; (4) human enhancement possibilities require strict control and regulation, based on clarified value judgments; (5) novel decisive global governance norms and structures are urgently needed; (6) the future-shaping stratum must be mobilized; (7) spiritual leaders advancing *raison d'humanité* are essential; (8) political leaders are critical, but to meet existential needs of humanity they need much improvement; and (9) priming political leaders to cope with the fateful issues posed by science and technology is a top priority.

Recognizing the need to upgrade political leaders, adding it to public discourse and working out concrete improvement proposals should be among the main tasks of the World Academy of Art and Science, the Club of Rome, the Club of Madrid and similar knowledge-intense humanity-serving epistemic communities.

1. Introduction

This short essay presents a set of nine propositions, leading to the major recommendation to focus on the priming of political leaders for fateful choices, with applications to the endeavours of the World Academy of Art and Science and related bodies, such as the Club of Rome, the Club of Madrid and the European Academy of Sciences and Arts.

· This essay is partly based on a short presentation read at the annual meeting of the Commonwealth Partnership for Technology Management – Smart Partnership Movement, invited by its Director and CEO Dr. Mihaela Smith. Its subjects are fully developed in Yehezkel Dror, *Avant-Garde Politician: Leaders for a New Epoch* (Washington, DC: Westphalia Press, Imprint of the Policy Studies Organization), 2014.

2. Main propositions

Proposition One. Humanity is Cascading through a Rupture in its History into an Epoch of "Anthropo-transmutation"

A relatively new term which has caught on is "Anthropocene", referring to the epoch beginning when human activities had a significant global impact on the Earth's ecosystems. But the tools increasingly supplied by science and technology enabled humanity to do much more than impacting on ecosystems, namely to transmute its way of being, including self-annihilation and creation of a *Homo sapiens novus* with inconceivable attributes. In short, humanity is cascading through a self-produced rupture in its history into an epoch of "anthropo-transmutation", in the sense of human actions changing basic features of human existence and its nature. This is the possibility of "future ending".

Some dangerous results of human action, such as climate changes, may be reversible owing to science and technology, such as geo-engineering. However, some of the potentially poisonous fruits of the tree of knowledge may be much harder to control, such as the abilities provided by synthetic biology to mutate viruses in "kitchen laboratories", providing fanatics with unprecedented mass killing weapons. Therefore, radically new policies and institutions based on the revaluation of some norms presently accepted as "obvious" are essential. However, even in the best of cases, harsh transition crises accompanied by much pain are unavoidable – making outstanding crisis coping abilities essential.

Proposition Two. To Prevent Self-Destruction and Facilitate Pluralistic Thriving Many Counter-conventional Radical Innovations in Human Values, Institutions and Policies are Essential

To start with a relatively simple example of a "disruptive technology", advances in artificial intelligence, robotics and perhaps molecular engineering are sure to transform labour markets by enabling high levels of productivity with much fewer human resources, making contemporary concepts of "employment" and widely accepted development policies obsolete.

However challenging, this example is benign in comparison to the full potentials of synthetic (and emerging quantum) biology, molecular engineering, artificial intelligence, robotics, etc. Even more problematic are the potentials of human enhancement, human cloning and perhaps the creation of new life forms.

Advances in science and technology can bring about human thriving, but also mass-killings, up to ending the existence of humanity. Therefore strict regulation of the production and diffusion of potentially very dangerous knowledge and tools is beco-

ming essential. Such regulation has to be applied globally, without exceptions. Therefore, a strict global surveillance and enforcement regime is becoming necessary, subject to safeguards.

This implies limitation of the sovereignty of states, some intrusive surveillance, restriction of the freedom of research and access to dangerous knowledge, and additional measures which are radical, counter-conventional and contradict presently widely accepted values.

Proposition Three. Enlightened Voluntarism Cannot be Relied upon

Recognition of some of the more obvious potential dangers of science and technology that can easily be misused, or that can cause devastating accidents, is growing among concerned scientists and some groups of policy intellectuals, in addition to the broad agreement on the risks of climate changes, probably caused by cumulative human action. However, the vast majority of proposals for coping with the dangers are, in my view, pipedreams.

Thus:

- there exists no "global public sphere" for reasoning that leads to consensus; and preconditions for such processes, such as a shared set of basic values, are not fulfilled;
- talk of some forms of "global democracy" is premature by at least a century, and probably more;
- self-regulation by scientists and technology developers, even if it takes the form of agreed codes of ethics, is sure to be ignored by a considerable number of them, whether at their initiative or because of various pressures and incentives by governments and market actors;
- *raison d'état*, and often even narrower localism and parochialism, are given priority over *raison d'humanité* by both political leaders and their publics; and leaders who try to divert resources in order to contribute to the future of humanity as a whole risk losing the next elections;
- willing cooperation by states will not withstand realpolitik, conflicting interests and value differences;
- many non-state actors cannot be controlled even if states are willing to do so; a majority operates in failed states and fanatic ones can only be contained by brute force, which is an anathema to widely accepted values and contemporary norms of public international law (which often lags behind evolving challenges);
- even if most market actors should join efforts to regulate dangerous knowledge and tools, free riders are sure to utilize the opportunities to make a lot of money by meeting demands for such knowledge and tools;

- no global mass movement supporting the control of dangerous knowledge and tools is likely to arise; even if some such mass movements emerge, their effectiveness is very limited, as illustrated by their failure to bring about adequate measures against greenhouse effects and environmental damage;
- reliance on global social networks is similarly misplaced, as they lack sustainable real power and are counteracted by other, manipulated networks;
- no "coalition of the willing" can impose the necessary measures on the non-willing unless a strict and decisive global regime does so.

Furthermore, necessary measures will meet much resistance by economic interests, a number of scientists and a variety of interest groups, as well as true believers in the "goodness of humans", the "hidden hand of free markets" and various "tyrannies of the *status quo*" – often supported by large segments of populations. Important actors will oppose necessary value changes, such as the acceptance of somewhat intrusive global surveillance, impairing privacy and limitations on research and access to scientific knowledge.

Therefore, a rather large "critical mass" is needed to bring about essential measures counteracting the potential dangers of science and technology; and this critical mass must be sophisticated and knowledgeable so as to maintain overall support for science and technology. Only an electronic microscope can find the beginnings of such a critical mass in the making, with major calamities probably being necessary as a catalyst for producing it.

In some respects, most insidious of all, outside select groups of scientists and policy intellectuals, the very dangers posed by unrestrained science and technology are not recognized. Instead, limitless optimism for their blessings dominates contemporary cultures, all the more reinforced by the tremendous contributions of science and technology to human welfare. These overshadow the (not less) tremendous potentials of damaging human welfare, perhaps endangering the very existence of the human species. Taking balanced views of the potentials of science and technology for better and for worse is emotionally and intellectually demanding and difficult to achieve for the vast majority of humans.

Even when dangers are recognized, they are hypothetical and seemingly far-off and therefore find no place in public issue agendas overloaded with pressing problems. Certainly, the vast majority of politicians will shy away from them, because of ignorance, overloads by current pressing concerns, lack of public interest, narrow "pragmatism" and – to be frank – the lack of needed qualities of the mind.

Proposition Four. Human Enhancement Possibilities Require Strict Control and Regulation Based on Clarified Value Judgments

Even more perplexing is the situation in respect to "human enhancement", in the sense of interventions with attributes of human beings through changing features of the human body (as distinct from psychological and educational ones) having physical or psychological effects. Thus, prolonging life expectancy to an average of 120 quality years or raising some forms of intelligence by 50 per cent may well become possible and seem beneficial, though implications for human societies are unpredictable. The spectre of human cloning is much more threatening and leads into inconceivable futures. The application of enhancement technologies to animals, such as raising some forms of intelligence of chimpanzees, also has inconceivable results. And should it become possible to produce multi-cellular living entities from inert materials – implications for human self-understanding and all of theology would be mind-staggering.

But these are not possibilities which can *a priori* be labelled as "bad" or "good", as can production of mass killing viruses or effective genetic immunization against most forms of cancer, respectively. Therefore, new values must be generated, and agreement on their validity comes prior to enforcement. However, it is hard to specify meta-values serving as bases for salient values judgments; there will be divisive disagreements on them (as prevalent in the literature starting to deal with human enhancement); and no forum able and entitled to set down norms on human enhancement is in sight, nor can it be imagined realistically. Furthermore, enforcement may be more difficult than in respect to clearly dangerous technologies, all the more so as much human enhancement research and tools can serve both the good and the bad, however defined.

One possibility which I tend to support is to adopt a very cautious norm prohibiting all human enhancement research and technologies which may have impacts on the future of the human species, broadly defined. This, together with an explorative approach providing a steep learning curve on which more general norms can be based, is subject to oversight by a kind of Super-Helsinki committee structure. But, whatever may be decided has to be enforced globally, with strict measures to counteract the many temptations to ignore the limitations of human enhancement research, technology and uses.

Clearly, this is an urgent subject in need of intense consideration, while in fact it is ignored by most of the powerful actors, including nearly all political leaders.

Proposition Five. Novel Decisive Global Governance Norms and Structures are Urgently Needed

The politics of the United Nations Framework Convention on Climate Change and the Kyoto Protocol clearly demonstrate the inadequacy of the existing global governance for coping with climate change. All the more so, the present global governance

regimes and institutions are clearly unable to handle the fateful problems raised by potentially dangerous scientific and technological knowledge and tools. Therefore, a novel decisive global regime based on new global institutions and promulgating, as well as enforcing innovative obligatory norms, is essential.

It is on this imperative that widely discussed proposals are fanciful. Thus, many imagine some kind of "global democracy", a nonstarter in the foreseeable future. And the relatively less unlikely possibility of a kind of Chinese-United States duopoly set up, together with some willing powers, following major global calamities, is not seriously considered.

Proposition Six. The Future-Shaping Stratum Must be Mobilized

This is not the place to go into detailed proposals on a required global regime and the conditions which may make its establishment feasible. But the activation of actors who may in time enable the founding of an essential kind of global governance is necessary, together with the preparation of suitable global governance designs, so as to be ready when opportunities open up. This applies in particular to the mobilization of the future-shaping stratum.

Let me start with the concept of the "future-shaping stratum". It includes all those who exert significant impact on the future, such as (in no order of importance, which varies with issues and time) scientists and technologists, entrepreneurs, social activists, mass media shapers, creative authors and artists, policy and social issues professionals, international lawyers, spiritual leaders and political leaders.

It is important to be frank about one fundamental fact: the entire future-impacting stratum is miniscule. As a rough guesstimate, its order of magnitude is probably around ten thousand at the highest. This means that a very small part of humanity shapes the future of multitudes.

A possible partial exception may be the aggregative effects of internet-based virtual network communities, whether temporary or somewhat permanent, with sometimes large numbers of participants. But these too depend on small numbers of initiators and leaders, in the absence of whom the networks are ineffective and dissipate rapidly.

At any given time and place the future-shaping stratum is influenced by traditions, cultures, social habitus, dominant ideologies and paradigms, together with additional sediments of the past. Its freedom of impacting on the future is further constrained by the facticity of power maps, resource limitations, accepted views, and so on. Overriding and circumscribing all these are the limits of the human mind and the rarity of "geniuses" who somehow break some of those limits. But still, it is the future-shaping stratum which is crucial for our concerns, with various components exerting influence in different ways on diverse domains.

As the impact of human action on the future is undergoing a quantum leap, the quality of the future-impacting stratum is becoming a major factor in shaping the fate of humanity and its parts. Therefore, it must be upgraded radically in order to fit the increasingly fateful, but also difficult choices facing humanity, as posed by its rapidly increasing ability to shape its future for better and for worse, as supplied by science and technology. This applies to all components of the stratum, such as artists who can play an important role in strengthening a shared sense of "The Family of Humans". But the single most important part of the future-impacting stratum for our purposes are political leaders; and differently, but perhaps even more importantly, spiritual leaders. It is therefore their fit (or misfit) that is required to be at the centre of concern and improvement efforts.

Proposition Seven. Spiritual Leaders Advancing *Raison d'Humanité* are Essential

Most of the measures required for containing the serious and in part fatal dangers posed by bad uses of science and technology or serious accidents are mainly a matter for top-down initiatives and actions. But bottom-up massive support by significant parts of humanity is not only important in terms of participatory values, but also essential for the long-term success of top-down measures. What is needed is a constantly growing sense of human communality combined with the readiness for efforts and pain in order to assure a good future for generations to come.

Many agencies can help build up and diffuse such a sense, for instance writers and artists producing emblems of human oneness. But most important of all are the spiritual leaders leading toward a wide acceptance of *d'humanité* as an increasingly dominant hyper-value and meta-ethical basis.

Widely accepted spiritual leaders are also essential for helping with the many tragic choices involved in coping with emerging dilemmas; even more so, for the needed value innovations, including radical ones. However, the contemporary supply of such spiritual leaders, who should combine normative contemplation and creativity with a strong sense of rapidly changing reality, is very small. Indeed, it is next to naught, with only single persons meeting satisfying parts of the required qualities.

All the more, I regret having no promising ideas on how to increase the supply of high-quality global spiritual leaders. In the longer run, multi-religious discourse may help a little, as can the introduction of relevant subjects into the curricula of seminaries. But more can be done to upgrade the qualities of political leaders by appropriate selection, mentoring, supply of professional staffs and other interventions than to develop high-quality spiritual leaders. Presently, at least, the appearance of global spiritual leaders is, in this-worldly terms, mainly a matter of what Machiavelli called Fortuna.

Proposition Eight. Political Leaders are Critical, but to Meet Existential Needs of Humanity They Need Much Improvement

As noted, the situation is different in respect to political leadership. This being a main focus of my theoretical work, comparative studies, and practical experiences, I hope this interest of mine does not bias my views. But I think that political leaders are critical in all efforts to contain the dangers of emerging science and technology knowledge and tools. Only they are legitimately and usually truly in charge of promulgating laws and regulations and giving binding directives. And in well-ordered states they have a monopoly over the use of large-scale force. Furthermore, only they can decide on setting up decisive global governance institutions and establish the necessary global regime.

This does not mean that political leaders can do that on their own and act freely as they may wish. They need support of salient populations and institutions and are constrained by law and a variety of power holders. Also, they need staffs and they operate within machineries of governance, which help them, but also limit them. Still, political leaders can do a lot to build up support and increase their freedom of choice, if they have the necessary qualities such as enlightening the public on which they depend and gain its support.

The danger of toxic political leaders is a real one and must not be ignored, all the more so as their enlarged tasks – as discussed in this essay – require more powerful leaders for overcoming frictions and resistance – and this increases the dangers associated with possessing power. Therefore, balances are needed, though not necessarily in their present form. Too narrow legal oversight may inhibit or at least unduly delay needed action. Fitting answers to the classical question, *Quis custodiet ipsos custodes?* (Who will guard the guards themselves?), can be designed with the help of innovative institution design. Political leaders are critical for the concerns discussed in this essay, though as noted, in some respects, spiritual leaders may be more important – *inter alia* – by providing the cultural basis for high-quality political leadership.

The statement that political leaders are crucial for dealing with the risks of bad uses of science and technology may seem obvious. But it is not so. Much contemporary discourse regards business entrepreneurs, civic actors, mass media etc., as being more important. This is true for some aspects of impacting on the future, with scientists and technologists, for instance, providing much of the knowledge on which a better human future can be based. But political leaders are those who are in charge of critical choices, including the provision of the frames and bases, such as public safety, essential for other future-impacting activities, such as economic, cultural and scientific ones.

Granted the importance of political leaders, the question is whether the majority of contemporary political leaders are suited for coping with emerging fateful issues. My proposed answer is a regretful, but clear, "in the main, no".

To start with a rather elementary example, a minimum requirement from political leaders is good literacy in scientific and technological core trends and at least some understanding of their potential impacts. However, my contacts with senior politicians in many countries lead me to a strong impression that this requirement is seldom met, though it is not difficult to acquire the necessary knowledge and understanding if one recognizes their necessity.

This is only a relatively small part of what is missing in the minds of nearly all political leaders. My evaluation is that most political leaders (as well as the majority of the policy stratum worldwide) are preoccupied with current crises, pressures and demands; caged in "the art of the possible" instead of being committed to what is needed; and all-too-often, though not always, rushing forward with mental eyes fixated on rear mirrors.

In short, as detailed in my book, the vast majority of contemporary political leaders lack the moral, cognitive and volitional qualities essential for making correct fateful choices and fulfilling well the crucial extra-ordinary mission of looking out for the future of humanity, including appropriate uses of science and technology.

Proposition Nine. Priming Political Leaders to Cope with the Fateful Issues Posed by Science and Technology is a Top Priority Necessity

The gross inadequacies of political leaders are in part not the result of personal failures. Inappropriate institutional structures and sleep-walking publics carry much of the blame. But still, given all impediments, many political leaders could and would be better if they were aware of the need to upgrade themselves and if they had the will to do so even if this involved risks to their political careers. However, they receive little, if any, encouragement and help to do so. For example, nearly all of the numerous books published on upgrading governance confine themselves to short term issues and narrow improvements. "Digital revolution" is receiving a lot of attention, but the very idea of improving the quality of politicians is not only neglected but also "taboo" – as if somehow getting elected assures *ipso facto* that the selected are suitably qualified, and as if raising questions about such myths somehow contradicts the principles of democracy and endangers them. Moral exhortations are fashionable, but focused and serious thought on how to better qualify political leaders for new fateful issues is very scarce.

At least and as a first step, political leaders should be primed (in the dictionary sense of "making someone ready to do something") by being clearly presented with the nature of the novel fateful tasks facing them and the qualities of the mind which they need for performing them well.

More is needed, including institutional reforms. Thus, electoral processes may have to be reformed to assure that the public knows enough about the candidates in order to make an informed choice; it may be necessary to prolong the time between elections so as to reduce the pressures of "politicking"; the influence of money on elections has to be neutralized; university teaching should include subjects preparing suitable students for becoming high-quality political leaders, far above and beyond what is offered now in the vast majority of political science departments and public policy schools; policy advisory staffs have to be upgraded; and more. But first of all, the pressing necessity to improve politicians needs broad recognition, intense attention and deep pondering by salient epistemic communities, and by serious political leaders themselves.

To sum up with a second question and a suggested reply: Can something be done to improve the essential qualities of political leaders before a high price is paid for their inadequacies? My answer is a loud "yes", but this depends on the clear recognition of what is needed before calamities become a harsh headmaster of humanity.

IMPLICATIONS FOR ACADEMIA, NOTABLY FOR THE WORLD ACADEMY OF ART AND SCIENCE AND RELATED ACTORS

Drawing attention to the necessity of radically upgrading the qualities of political leaders and priming them in order to improve them are major responsibilities of the "free floating" public interest intellectuals, whether located in think-tanks, epistemic communities, or contemplating on their own. They can and should withdraw mentally from the blinders of what is accepted and, instead, consider what is becoming vital, as suggested by Arnold Toynbee. And if this involves transgressing some taboos and accepting some risks, so be it! Counter-conventional thinking is a "must" for coping with radically novel issues.

Among the groups who shoulder the tasks of priming political leaders by pointing out their inadequacies and proposing ways for improving their qualities, the World Academy of Art and Science, the Club of Rome, the Club of Madrid, the European Academy of Sciences and Arts, and the World University Consortium should occupy a place of honour. But this is not the case.

They should realize that, in addition to fateful issues of preventing dangerous uses of science and technology, the best of proposals for protecting the climate, preventing depletion of resources, building social solidarity, reducing inequality, improving education, etc., have little chance of impacting substantively on reality without the support of political leaders based on understanding of the issues. High-quality political leaders are not only a *desideratum*, but often a *sine qua non* for realizing the proposals of the World Academy of Art of Science and related epistemic communities. Appealing to the

"global public opinion" will achieve almost nothing if political leaders are unwilling and lack understanding.

Therefore, priming political leaders for fateful choices and helping them to be adequately qualified for coping with them are proposed as a central subject of concern, thought and recommendation of the World Academy of Art of Science and related groups. I realize that this involves some risks, but without "speaking truth to power" little can be done to take care of the future of humanity.