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19.12.05

Technological Expertise and Global Ethics in an Age of Scientization and Ecological Crisisⁱ

Introductory Remarks

The process of modernization is a complex phenomenon, for one thing characterized by new technology and by new institutions. The new ways of institutionalizing society imply, in one perspective, a transition from tradition-based local communities and nation states to interstate organizations and economical and technological networks in a global scale. Whereas traditional societies were largely based on informal relations, modern states and organizations are to a larger extent based on political decisions and legal constitutions (on the background of economic and cultural factors).ⁱⁱ

There are certainly numerous problems in modern societies concerning these various institutions, for instance concerning the interplay between socio-cultural reproduction and economical forces, and concerning the functioning and legitimacy of the legal order.ⁱⁱⁱ

Furthermore, for various reasons, the organizational frame of national states has increasingly become inadequate for modern realities and problems: modern economy operates globally, through world markets characterized by anonymous relations and with distant effects on human actions and affairs. Modern technics and technologically organized institutions constitute an essential characteristic of this globally operating economy.

The devastating potentials of modern weapons and the general threat to our common biosphere caused by this technologically founded economy add to the rational demand for new forms of political, intellectual and ethical organizations working on an international level and in a long-term perspective.

The urgent need for international solutions, for inter-state institutions and for a global ethics, represents one aspect of the general need for a sustainable future. But in what sense and to what extent are such solutions possible? This question is to be seriously considered, both theoretically and institutionally.

One of the problems involved is that of the nature of technology. It can be stated briefly in this way: for one thing there is still a widespread optimistic belief in the possibility of solving all basic problems by means of some 'technical fix', some new technics correctly used by some experts. Thereby these issues are turned into *expertise questions* in a narrow sense. Hence complex problems, with sociological and ecological characteristics, tend to be described in technical and economical terms and to be defined as technological problems which can be solved by finding the appropriate technical and instrumental means.

This technological approach prepares for actions in accordance with cost-benefit analyses, where questions of cost and of safety are decided by experts. The intellectual strength of this technological approach is tied to its ability of being scientifically rationalized: once defined in technical and economical terms, the question of the adequacy of the various means can in principle be decided by scientific research. Science and technology can also create new means and improve old ones.

Hence, this technologically based cost-benefit approach can thus be nicely integrated in a free market economy. According to those having faith in this blend of technology and market, this system should then take care of itself and be self-correcting by the wisdom of 'the

invisible hand’.

However, in this package of technological expertise and market economy there are several shortcomings: (i) In this perspective, problems are defined in terms of just *a few disciplines*, thus neglecting a broader and objectively more adequate (or less inadequate) view of the problems. (ii) *Democratic participation* is discreetly left in the background, in favor of a narrow selection of experts and in favor of the anonymous forces of market economy. (iii) Thereby one also weakens the role of *a broader ethical discussion* of the problems and their possible solution, such as problems concerning socio-cultural and ecological reproduction and alternative ways of organizing society, for instance the role of state intervention in the market and the need of legal and political institutions in a global scale.

All in all, as intellectuals we have a special responsibility for maintaining the discussion of how to improve the situation and of how to prevent it from deteriorating unnecessarily. In this article I shall focus on the need for *a broader notion of expertise*, for *an enlightened public discussion* and for *a global political culture*.

Technological Expertise and Cost-Benefit Analyses

For centuries man’s relation to nature has been one of increasing domination. In this process nature has been understood as an unproblematic resource for human goals. In the end nobody was really responsible for his actions toward nature. As far as nature is concerned everybody could pursue his own particular interests, at least to the extent that the property rights of other people were not encroached upon.

This attitude depended on the presupposition that nature takes care of itself. But gradually this presupposition has revealed itself as untenable, and in our times technological domination has led to a situation of permanent crisis. This crisis appears mainly through various and partly unpredicted negative consequences in nature as well as in society. Catchwords are greenhouse effect and climatic changes, pollution and deforestation, unbalanced demographic development and the extinction of innumerable animal and plant species, and connected to this, overwhelming destructive potentials and inadequate politico-economical institutions, and often inappropriate attitudes and expectations.

Gradually it has become evident that the ecological conditions for life are vulnerable. Slowly we experience that a more careful intercourse with nature is a requisite of life.

This experience of crisis does not only indicate limits of nature. There is also a growing awareness of limitations inherent in purely technological rationality and practice.

I shall discuss such limitations of technology itself and its need for being transformed and transcended into a more adequate (or less inadequate) version of rationality and practice. First I will focus on limits to technological rationality in the sense of purposive rationality, by referring to the rational core of cost-benefit analyses as found in normative decision theory. Then I will argue for the possibility and necessity of ‘overcoming’ (sublating) this purely technological rationality in favor of a hermeneutic and discursive rationality, conceived of in fallibilistic and melioristic terms. Finally I will indicate some political implications of this broader notion of rationality.

Normative decision theory is not meant to describe or explain our *actual* behavior in choice situations, but to describe and explain what it means to act *rationally* in such situations. In this sense it is a *normative*, not an empirical theory. The point is to clarify how we *ought* to choose if we want to be rational and if we are committed to the given choice situation with its constitutive goal.^{iv}

In spelling out the requirement for such rational behavior by an elaboration of normative decision theory, we envisage an interesting case of technological rationality in the

sense of applied ‘purposive rationality’ (*Zweckrationalität* in the Weberian sense). This rationality implies a knowledge of causal connections, a knowledge which in principle allows us to control events, either by precluding an undesired event (by suppressing some causal element necessary for its occurrence) or by producing a desired event (by establishing the causal elements constituting its sufficient condition). Causal explanation, prediction and technological maxims for action thus tend to converge.^v

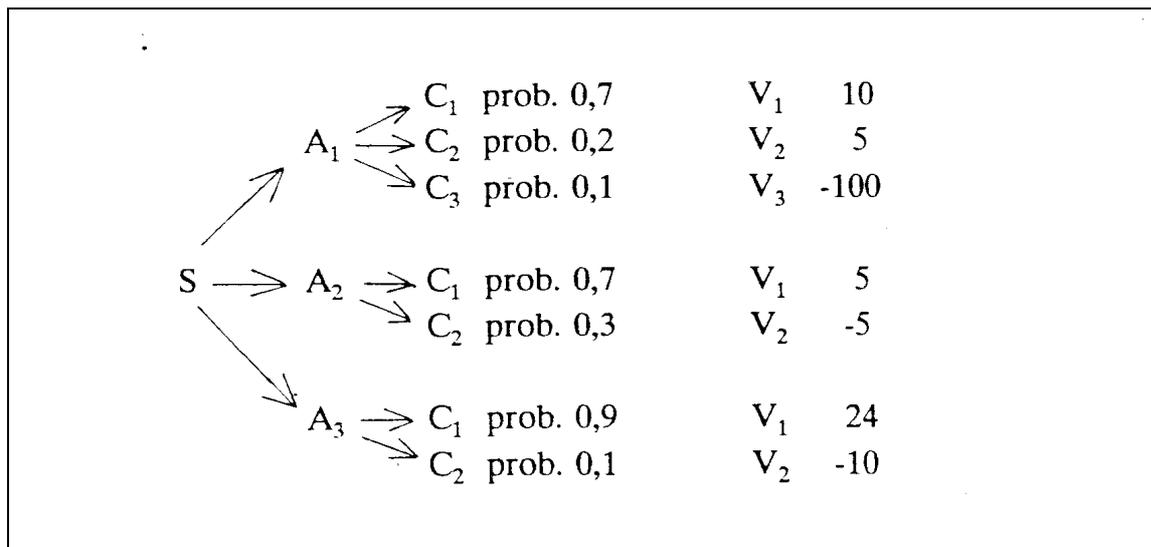
In the standard case of normative decision theory the goal is taken for granted, not in the sense that it cannot be changed, but in the sense that the rightness of the goal is not discussed within the decision-theoretical approach. To illustrate my points I choose an example, namely the question of energy supply in a given context, where the basic goal is that of acquiring ‘enough energy now’, and ‘as cheap as possible’. How to we go about such an example, within the frame of a normative decision theory?^{vi}

Any such case represents a choice situation located in a given socio-political, economical and technological context. In former societies man gathered various combustibles to get energy; in addition one had muscle power, in man and in animals, and man learned how to exploit the force of winds and waters. Today the question of energy supply is raised through political institutions; a lot of different factors are involved, depending on the local situation, such as the question of available resources of wood, wind, waterfalls, coal, oil, gas, sun light and of nuclear power. Different packages can, in each case, be put together—different packages with different quantities of the available resources. Different efforts to improve energy exploitation, including ways of saving energy and of minimizing pollution, are simultaneously involved.^{vii}

In order to implement the goal of ‘cheap energy now’ in a rational way, we have to get a survey of the different alternatives, the different packages. The goal itself represents primarily a normative question. The elaboration of the alternative ways of acting and the explication of their consequences represent essentially a scientific task. In order to be able to judge the different alternatives in a rational way, relative to the goal, we have to look into the predictability of the various consequences for each alternative. In short, we have to know the probability of these consequences, and we have to decide the positive or negative value of each consequence. The question of the probability of the various consequences is in principle a scientific question. On the other hand, the question of the negative or positive evaluation of the various consequences is a normative question determined by the goal of the actual project, but also dependent on other values and norms which we support.

It is intuitively reasonable that in choosing rationally between such alternatives we emphasize the highly probable consequences compared with the improbable ones and emphasize consequences with highly positive or highly negative values. This intuition is taken care of in normative decision theory by using the sum of the mathematical products of the numerical size of probability and of desirability for each consequence, and by characterizing the choice of the alternative with the highest positive sum (or the lowest negative sum) as the rational choice. In its paradigm case, normative decision theory begins with a choice situation where various alternatives, each with more or less probable consequences, are available for the agent. The agent is rational, according to this theory, to the extent that he chooses the alternative with the highest sum of the mathematical products of probability values and of consequence evaluations.

This point can be illustrated by means of a scheme:



S: Choice situation; A: Alternatives; C: Consequences, and C prob.: Quantification of the probability of a consequence. Scale from zero to one is chosen here. We disregard in this case the possibility of operating with probability margins for the various probability values (e.g. “C₁ prob. 0.7 plus/minus 0,01”). V: Values (desirability): Quantification of the evaluation of a consequence. Scale from zero to nearly infinity chosen here.

In this case we get following sums:

A1: $0,7 * 10 + 0,2 * 5 + 0,1 * (-100)$	= 7 + 1 - 10 = -2
A2: $0,7 * 5 + 0,3 * (-5)$	= 3,5 - 1,5 = 2
A3: $0,9 * 24 + 0,1 * (-10)$	= 21,6 - 1 = 20,6

In this case it is therefore rational to choose alternative A₃ (and to prefer A₂ before A₁).

This way of analyzing our decision making implies a differentiation between an *empirical* task, including the explication of the probability of the various possible alternatives and their consequences, and a *normative* task, including the evaluation of these alternatives and consequences.

The empirical task of explicating the possible alternatives and their probable consequences implies the use of different kinds of expertise, based on different scientific disciplines. In most cases of this kind, natural sciences like physics and geology are involved, and the same holds true for technology and engineering based on such disciplines. Chemistry, biology and economics are also frequently required. And these sciences and their experts are not only required in order to realize the possible alternatives and the probability of their consequences; they can also make new alternatives possible, by new technology.

The question of quantifying the various probabilities is thus part of the empirical task. For this purpose one often chooses to operate with a scale from zero to one. The question of quantifying the evaluation of the consequences is part of the normative task. For the purpose of quantifying the desirability and undesirability of the consequences one might choose a scale from minus one to plus one. But if one really wants to stress the absolute undesirability of a certain consequence, like the possibility of the extinction of all life, one might choose a scale from nearly minus infinity to nearly plus infinity. A consequence evaluated as nearly minus infinity gets a mathematical product of nearly minus infinity, even if its probability is very little, since a definite number multiplied with nearly minus infinity gives the product of nearly minus infinity. Consequently the sum of mathematical products will be nearly minus infinity, and therefore this alternative ought not to be chosen^{viii}—given that similar cases of

infinite values do not come up for other alternatives too.

Since it is often difficult to determine the probability value precisely, it is reasonable to operate with margins indicating upper and lower limits. If we want to ‘play safe’ we should use the lowest marginal values of probability for the desirable consequences and the highest marginal values of probability for the undesirable consequences. This choice between playing safe and gambling is a choice of strategy, which appears somewhat differently in cases where the actor plays with his own interests alone and in cases where the actor plays with the interests of other people (be it money, health or survival).

In trying to calculate the values involved we frequently encounter a structural problem, namely that the benefit pursued is local and short-term, whereas the damage caused is more or less global and long-term. This is the case for the radioactive pollution caused by the accident in Chernobyl, it is the case for the local usage of fossil combustibles, and it is the case for a huge range of ecological problems.^{ix} The consequences of our acts often interfere with those of other actors, to the extent that we do not notice our causal responsibility.

Being in general far-reaching in time and space, these negative consequences have to be visualized by the use of scientific research in order to be rightly understood, and to be treated by public institutions in order to be handled responsibly. But our political institutions are themselves for the most part local or regional or national, not global, and for the most part they are not acting on behalf of future generations, nor on behalf of species that are not themselves represented in our discourses. Our economical institutions, often more transnational than our political institutions—an asymmetry which in itself causes trouble—they, too, tend to have a short-term perspective, namely that of regaining invested capital, and not the perspective of future survival of nature and mankind.^x

This implies that the normative task, that of evaluating the positive and negative consequences of various actions, becomes extremely complicated. A range of relevant branches of expertise is required in order to realize the various consequences and to start discussing their negative and positive values—a task which partly gets its normative guidance from the goal of the actual project (that of getting cheap energy, in our case), but which also requires a broad public discussion (since moral judgment in a broad sense is required in cases of this complexity, and for such a moral judgment no single science or expertise can ever pretend to be the final arbiter).

The more far-reaching and intricate the consequences, the harder the task of getting hold of them, and further, of evaluating them and, finally, of institutionally handling them. The hardship of explicating the consequences is partly a question of the *amount* of work required—a question which includes its own economical and ecological dilemma, since resources are scarce, also for doing that kind of research—but partly it is a question of getting the *right kind* of expertise, i.e., of not operating with an inadequately narrow range of disciplines. The rational need for including ecological expertise in many large scale projects, for instance in those of energy supply, is just what in recent years has become overwhelmingly clear to everybody.

This is now a crucial point in our perspective: in taking the scheme of normative decision theory seriously, applied to cases like the one of energy supply, we are *forced* to recognize the rational need for *expanding* the range of required expertise, from one or a few technological and natural-scientific disciplines to a broader range of such disciplines. This is needed if we want to be *rational* in our attempt at understanding the case with its far-reaching consequences, and therefore also if we want to act rationally.

Since the very point of the use of scientific expertise is to create the optimal basis for the decision makers, be they politicians enlightened by public discussion or administrative or economical agents within more particularistic frames, it is furthermore required that the

various scientific contributions are adequately *mediated* to the decision makers: a hermeneutic mediation between the different disciplines, with their different conceptual and methodological presuppositions, is required. This demands a reflexive competence among the experts in their oral and written presentation of their contribution for the decision makers. But it also requires an effort and a reflexive competence among the same decision makers. This mediation therefore implies some mutual discursive activity between the experts and these actors.

The kind of rationality involved in this discursive mediation is not that of technological or purposive rationality. It is not a causally explaining rationality, not a means-to-end rationality, but a kind of rationality known as hermeneutics (or ‘understanding’ in contrast to ‘explanation’),^{xi} or communicative and discursive rationality (in contrast to instrumental and strategic).^{xii}

Before commenting on the problem of mediation between various disciplines in order to get a realistic grasp of a given situation and its consequences, I will briefly focus on the explication of the *human* factor in such cases. When one calculates the various forms of risk in a project of energy supply (where, for instance, nuclear plants are considered) one has to look into the human factor. The risks and dangers involved cannot be fully grasped within the perspective of physics or of any other natural science. The danger involved includes that of human behavior, intentional behavior as well as unintentional behavior, i.e., sabotage and terrorism as well as bad routines. In order to get a (more) realistic grasp of dangers as well as of feasibilities we therefore have to include relevant expertise from *the sciences of man*.^{xiii}

Thereby the problem of mediating between different disciplines becomes even more acute. An important point to consider in this perspective is the notion of *probability* in the sciences of man. Intuitively we tend to think of at least some human actions as not being predictable, and there are arguments supporting such an intuition.^{xiv} If that is so, we should add an element of unpredictability to our calculation of probability values. This implies an uncertainty which cannot be adequately understood in terms of a technological rationality operating with empirical correlations or with causal connections of a natural scientific kind. This argument points toward some *modesty* as to our ambitions for technological planning.^{xv}

I would like to sum up the following points:

This case of normative decision theory exemplifies how *different* disciplines and types of expertise are required to explicate optimally the various alternatives and the probabilities of their consequences. Often we need different disciplines of natural science and technology, but since in many cases the human factor plays an important role for the inquiry into the various probabilities, we have to introduce social sciences and psychology.^{xvi} Hence the inquiry into the various probabilities becomes more complicated, since human acts are only partially predictable.

Furthermore, this project-inherent need for *interdisciplinary pluralism* implies a need for interdisciplinary *mediation*, since the different expert reports should preferably be presented for the political agents as an intelligible whole. A hermeneutic mediation and methodological reflection on different disciplinary presuppositions and limits should therefore be undertaken. When, finally, the agents are the educated participants of a democracy, this need for critical interdisciplinary mediation between the various scientific contributions becomes even more essential. Without such a reflective mediation these agents would understand the issue less well. This need is therefore a rational one, which ‘transcends’ the scheme of normative decision theory *from within*—leading from monological single sciences to a dialogical and reflective mediation of a disciplinary plurality, leading from the scheme of decision theory to a free and open discussion.^{xvii}

Since a *semantic* synthesis of the different scientific languages can hardly be expected, mediation in this case means primarily a *pragmatic* ability to move trans-disciplinarily—an ability which demands a certain multidisciplinary competence as well as a methodological competence. Pragmatic, in this sense, means a competence acquired through participation (like a tacit knowledge acquired through practice).^{xviii}

Of course, in this process of mediation the question is not ‘everything or nothing’. The question is one of improving, of avoiding what is worse. In these cases we therefore have a rational norm, a norm which requires that we constantly strive for the improvement of the cognitive situation (and which in this sense promotes an internal overcoming of the decision-theoretical scheme, in favor of open reflective discourse).

I referred to the case of energy supply: when the different long-term and partly detrimental consequences of this project have been explicated, it is *rational* to raise the critical question whether or not the constitutive goal of this project contradicts some other goals and values, e.g., such goals and values that have to be given even higher priority in the perspective of our socio-ecological survival. For this reason what we have is a rational need for a critical normative discussion, by which the given project has to be viewed in the light of *other goals and other projects*. In this discursive reflection on the original project, it might well turn out that a profound change of that original project would be the most rational thing to do, all vital values taken into account.

When we look at the different attitudes to such an ‘overcoming transcendence’ of the given decision-theoretical rationality, four extreme positions might be delineated:

(i) The ‘technocrats’, who only consider one or a few natural scientific or technological disciplines.

(ii) The ‘humanists’, who underestimate the importance of natural-scientific and technological disciplines and merely underline their destructive potential (while pleading, militantly or mildly, for soft values).

(iii) The ‘total-refusers’, who (post-modernistically) reject reason *tout court*.

(iv) And the ‘overcomers’ (‘sublaters’), who try to actualize an internal overcoming of the natural-scientific and technological rationality in favor of a hermeneutic understanding, mediating between disciplines of different kinds and between research workers, executive agents and the general public.

The latter position is the one for which I am here arguing: it is a matter of enlarged interdisciplinary understanding, i.e., of *communicative rationality*. It is further a matter of dialogic reflection, i.e., of *discursive or argumentative rationality*. And a decisive point is the *rational* nature of this overcoming: it represents a rationally grounded imperative. Technologic-instrumental rationality is unavoidable, but it can be and ought to be overcome. In this sense we are bound and obliged by a discursive and reflective rationality.

Rational Expertise, Global Ethics, and Political Culture

I have tried to delineate an argumentation in favor of an overcoming (sublation) of technological expertise in favor of multidisciplinary and interdisciplinary expertise, leading further toward an open and enlightened public discussion where various goals and perspectives are freely and rationally discussed. In intellectual terms this is an internal overcoming of a narrow technological expertise toward a discursive and procedural rationality. In moral terms this is an internal overcoming of narrow cost-benefit schemes with short-term preferences toward a global ethics. And in political terms this is an internal overcoming of narrow-minded bureaucratic interests or market interests toward a political culture of co-responsibility.

I now assume that the argumentation has shown the rational possibility of such an

urgently needed broadening of the realm of expertise. But certainly, all the problems of implementation remain. For one thing, such an expansion does take time: time to obtain in each case the degree of double competence that is required, time to learn to see one's own hidden presuppositions, time to acquire confidence. And this task of steadily implementing a better set of expertise, creating 'supplementing expertise' (or counter-expertise) whenever needed,^{xix} can easily lead to conflicts, firstly on the professional level, provoking the prestige and self-understanding of the members of different disciplines, secondly on the economical and political level, provoking various particularistic short-term interests. But still, in its melioristic and fallibilistic version this is a feasible task, and one that is rationally grounded and rationally required.

However, when it comes to the need for a global ethics based on rational discourse, some objections should be considered, *objections against its theoretical possibility and not merely against its practical implementation*.

Before ending this paper with some comments on political culture, as a frame for implementing supplementing expertise and global ethics, I will therefore add a few words to the philosophical debate concerning the possibility of a rationally grounded, universalistic ethics.^{xx}

I will first consider the *positivist objection* (a) and then the *historicist (or neo-Aristotelian) objection* (b).

(a) The positivist objection, based on a distinction between facts (*is*) and norms (*ought*), claims that the question of truth is restricted to fact questions. These are open for intersubjective observation and intersubjective testing. Basic normative questions are not. Hence, since no basic norms can ever be rationally grounded, nor can a universalistic ethics; its functionality can be rationally discussed, but not its normative claims.

If this were the final word, we would have to conclude that science and technology are among the factors which have created an urgent need for a universalistic ethics in our time, but at the same time science and technology, interpreted positivistically, teach us that this need for a rationally grounded global ethics cannot be fulfilled.

I will briefly refer to three counterarguments against this positivist denial of rational discourse and of a possible grounding of basic norms, the first two counterarguments being widely held today, the third being more controversial.

(i) The dichotomy of facts and norms can be questioned by counterarguments from post-empiricist philosophy of language, emphasizing the multiple use of language (e.g., through the idea of multiple language games), where for one thing we have to consider 'institutional facts', i.e., normatively constituted facts, as in chess or football.^{xxi} Both facts and norms are conceptually constituted, in different ways according to the different language games. In short, we should pay attention to language, qua multiple practices, constituting both facts and norms within each specific institution. The positivist dichotomy of facts and norms is therefore to be modified.

This way of arguing, which today is a commonplace in analytic philosophy and which also reminds of hermeneutic philosophy, points toward an 'institutionalist' (or contextualist) conception of norms, referred to above as historicist (and neo-Aristotelian).

(ii) In this counterargument from linguistic philosophy the intersubjective dimension of practice and interaction is emphasized. The clear-cut subject-object dichotomy, inherent in positivism, is thereby overcome. The questions of subject-subject relations and of intersubjective structures have to be reconsidered. This implies an epistemological version of the former counterargument against positivism: norms are constitutive for the realm of

intersubjectivity. This holds true not only for human communication as a theme for research and comment, but also for human communication with those who do research or who speak. In this perspective we can talk about basic methodological norms that are constitutive (and therefore compelling) for scientific and scholarly work^{xxii} and about various norms that are constitutive for various speech acts.^{xxiii}

(iii) The second counterargument [ii] against a positivist denial of the possibility of a rationally grounded, universal ethics can be radicalized by an argument of self-reflection and of pragmatic inconsistency, thereby claiming not only the existence of constitutive norms for contingent activities, but of constitutive norms for unavoidable activities, and thus of unavoidable norms. This argument, in favor of a core of universally valid norms, runs briefly as follows:^{xxiv} the very activity of arguing, also when arguing skeptically, implies some constitutive norms, such as the norm of not breaking the principle of contradiction, the norm of listening to other people's arguments and to change one's position in accordance with the strength of the arguments presented, and of not letting the social position of the discussants decide one's acceptance or rejection of an argument. To deny these norms is a self-stultifying act, which therefore shows their status as being undeniable.^{xxv}

Discussions are peculiar activities—we do not, and cannot argue all the time—and norms that are unavoidable for discussions are not *eo ipso* unavoidable for other activities. But if one wants to know that one's own opinion is true, if one wants to try solving a disagreement rationally, one has to enter a process of research and discussion, whereby these discursive norms are necessarily presumed. And the option for a discursive treatment and solution does not represent an arbitrary choice; this option is part of our common predicament in a modern scientized world.

There are also various arguments in favor of the view that these norms of rational discourse are integrated into the processes of socialization in pluralistic societies, in the sense that these norms are present as dispositions also in those activities where we do not discuss or do research.^{xxvi} These procedural norms of the discursive activity thus represent a common mini-ethics of the modern world, universally valid while rationally irrefutable—but without metaphysical content, since they are procedural and formal (in a Kantian sense). They are merely claimed to be normatively binding as preconditions (or frames) of rational discourse; the various issues discussed *within* such a procedure (the various contents, as it were) - be it theoretical or normative issues—cannot be prescribed *a priori*.^{xxvii} What comes out as the content of a rational discussion, is an open question; and in many cases no consensus is reached even when people behave rationally—indicating that the issue under discussion rationally allows different views. And a consensus reached may later be challenged and changed by better arguments—which means that any consensus concerning the 'content questions' is fallible.

Still, this means that there is an unsurpassable meta-ethics, which is rationally binding—viz. a set of irrefutable norms for doing research, for discussing and for reaching rational consensus.

(b) By this latter argument I have already anticipated the criticism of the historicist (neo-Aristotelian) position, a position whose proponents are reluctant to ascribe universality and rational foundation to any normative system, thus ultimately tending toward contextualism or skepticism.

In leaving the counterarguments against the positivist denial of the possibility of a rational grounding for basic normative questions, I would just, once again, refer to the well-known standard argument against positivism; i.e. that of its self-referential inconsistency: the positivist claim that all cognitively meaningful statements are either empirically founded

statements or statements of logical relations, this very claim is itself neither. In approaching the contextualist ethics of the historicist or neo-Aristotelian kind, I will begin by stressing that this ethical position is inappropriate to cope with the need for a global or international ethics, since this contextualism is confined to given contexts, be it on the level of family or local community or on the level of formal institutions, national states included. This contextualism does not transcend these contexts, to become inter-contextual, international. Its apparent realism (its relatedness to actual traditions and institutions) is thus bought for the price of being inadequate in the face of the modern demand of a truly global and universal ethics.^{xxviii}

Hence, the intriguing moral questions of our time are not only related to the actual need for a global ethics, but also to the possibility of a rational justification of such a universal ethics. At this point the third counterargument against positivism reappears: in defending their contextualism, the contextualists presuppose the validity of their position; they presuppose that in an open discussion arguments will convincingly support their view. If this is not presupposed, they are not making a claim. If this is presupposed, they presuppose that there are universally valid truths and that there are discursive ways of deciding such questions, according to some basic norms for argumentation. In this sense the question is not whether there are universally binding norms and universally valid truths, but whether these contextualists in their basic claim are self-referential inconsistent.

Here again it is crucial to make it perfectly clear what this counterargument (against contextualism) entails, viz. that there is a claim of a self-referential or self-reflective ‘unsurpassability’ for some procedural norms that are constitutive for argumentative activities.^{xxix} There is a claim that validity claims, i.e., claims of truth as well as claims of normative rightness, can in principle be rationally solved by research and enlightened discussion without constraint, leading up to a rational consensus. But the result (consensus) of such a discursive procedure is fallible, open for future correction, and the result (consensus) is unpredictable, i.e., not a matter for *a priori* reasoning. Furthermore, in many cases the preconditions for discussion are absent. In other cases the result (consensus) might be that no rational consensus is possible (as in questions of taste), thus indicating the very important category of ‘legitimate pluralism’ or ‘rational plurality’—opening for cultural differences and individual particularities; in short, an opening for liberality and tolerance on the level of cultural traditions and on the level of individual opinions and behavior.^{xxx} Finally, the notion of normative rightness implies that all arguments are taken into account, which means that all relevant disciplines should have a say and that all persons possibly affected should have their say. This is the universalist and egalitarian aspect of the basic notion of justice embedded in argumentation.^{xxxi}

These are bold claims, though they are also in a sense fairly modest. In the end, what is claimed is the unavoidability of the regulative idea of a discursive search for theoretical and normative validity. This is a mini-rationality, including a mini-ethics, of a universally obligatory nature—being formal and procedural in a sense which does not imply any metaphysics. Hence it represents a modern, post-skeptical notion of rationality and ethics independent of cultural and religious differences.

Of course, this conception of rationality and ethics entails various philosophical and practical difficulties, partly related to the status of the self-reflective insight in the basic norms of discourse, partly related to the notion of a competent participant.^{xxxii} For instance, how do we settle the competence requirements for participation? Sure, through open and enlightened discussion. But still the question concerning reasonable demands for sufficient autonomy and competence in the various kinds of specialized discussions remains a tricky one. Nevertheless, the requirement for full transparency and fair procedures should at any rate be fulfilled.

In this paper I cannot go into detail concerning the intricacies of this universalistic and procedural notion of rationality. All I want to do is to point to the philosophical debate and

briefly indicate my own philosophical preference, namely that of the relative strength of this notion compared with positivism and (historicist or neo-Aristotelian) contextualism.

However, in the same way as I earlier criticized a narrowly technological (instrumentalist) rationality and practice without denying its relative importance, I now criticize contextualism but without denying the relative importance of many contextualist insights underlining our finitude as human beings and our embeddedness in traditions and in concrete contexts of various kinds. Again my point is a (Hegelian) overcoming, not a rejection.

At this point I will end my brief remarks on the possibility of a universalistic ethics, demanded in our times, and I will make a few comments on the broad and complicated question concerning institutional and cultural factors in favor of an *implementation* of rational expertise and global ethics.

Now, the *notion of political culture* is certainly in need for clarification on different levels and in different perspectives. In this connection I would like to emphasize three dimensions: the *sphere of rational and autonomous decision*, the *sphere of justice and legality*, and the *sphere of truth*—or, briefly: democracy, human rights and enlightenment.

Within the dimension of *democracy* there is a tension between different forms of direct democracy and different forms of representative and regulated democracy—regulated, e.g., by constitutional restrictions against possible harm to minority rights. Within the dimension of *human rights* there is a tension between actual rights (‘positive law’) and meta-procedures for changing legally existing rights, possibly for improving them in accordance with rational ethical requirements (‘natural law’). Within the dimension of *enlightenment* there is a need for *avoiding* psychological and ideological distortion, as well as a need for *promoting* public education of attitudes and opinions (*Bildung*); and there is a tension between intellectual skepticism and attempts at a universalistic justification.^{xxxiii}

In a normative sense political culture can be understood as a *balanced interplay* between these (three) dimensions, to the effect that each dimension on the one hand maintains its *peculiarity* and on the other hand is co-determined by this *reciprocal interplay*. This conceptual triangle is certainly very simplistic. The point is just to argue in favor of a normative notion of political culture which is multidimensional, with an interplay of autonomy and dependence between the various dimensions. I do not claim that there are just three (and just these three) ‘angles’. (For one thing, the sphere of economy and the sphere of socio-cultural reproduction, of tradition, are left out.) I merely claim that there are at least these ones, viz. that a normative notion of political culture implies multi-dimensionality (and thereby entails an emphasis on a ‘sufficient equilibrium’ between the various dimensions).

Already by this simple picture (where for instance the economical and social dimensions are left out) it is clear that political culture should be understood as a balanced interplay between *different* dimensions. Political culture is not one-dimensional; it cannot be properly sought along one dimension alone and it cannot be judged in accordance to one parameter alone. This point represents a criticism of ‘participation fundamentalists’ who overlook the principles of (legalized) human rights and of enlightenment. It represents a criticism of ‘legalists’ (on behalf of human rights), who do not take properly account of the principles of participation and of enlightenment (including rational justification for human rights). And it represents a criticism of ‘enlighteners’, who do not pay enough attention to the principles of (legalized) human rights or of actual participation.

In short, anyone who politically tries to realize The Best, by maximizing one or just a few parameters, is on the wrong track. His endeavor is sooner or later doomed to defeat, often to the expenses of innocent citizens.^{xxxiv} In short, the interesting political category is that of ‘enough’ and ‘not enough’, not that of utopic goals. It is the question of attaining some

reasonable balance – or, negatively stated, of avoiding a fatal unbalance between institutions and concerns.

Normal politics is not a realm for perfection and salvation.^{xxxv} However, when we seriously try to obtain and maintain a sufficiently well-balanced interplay between the various dimensions of our political scene, we enter a process of learning and formation (*Bildung*), entailing both personal experience and multidisciplinary insight.^{xxxvi}

A decisive point for any normative political culture is therefore the following question: what, in each concrete case, does a *sufficiently good* interplay of these dimensions really mean? The quality of a political culture is not to be sought along one dimension, as the maximization of the value inherent in that dimension. The quality of a political culture is located in the competence of its members of prudently evaluating what is enough in order to maintain a balanced interplay of the various dimensions.

This means that scientific and scholarly insight on the one hand and philosophical justification of basic norms on the other have to be mediated by a *practically acquired experience* of what is enough and what not. At this point the relevance of a mediation of insights from historicist and neo-Aristotelian contextualism with multidisciplinary insight and philosophical justification becomes evident.

Both a personal experience within the various dimensions and a discursively enlightened knowledge is here required. How is such a competence acquired? Academic learning alone does not suffice. Practice alone does not suffice. What is needed is a multiple formation and personal experience, *together* with a discursively mediated insight in relevant disciplines and rational ethical reflection.^{xxxvii}

The decisive question, about what counts as a sufficiently well-balanced interplay in each case, will probably often remain an open one, even under favorable conditions. This again means that we in these cases will often face a core of unresolved dissent, of reasonable disagreement, which asks for liberality and tolerance.

With these brief remarks about political culture, I would like to conclude this paper with a few comments on the institutional frames of an implementation of rational expertise and global ethics.

The modern world is a pluralistic one in many respects, also politically. But there are some constraints on politics due to the process of modernization. Catchwords are differentiation of formal and informal institutions and rationalization both in terms of instrumental control and in terms of discursive competence. In modern societies there are not only inherent rational needs for a relative differentiation between politics and religion, but likewise for some differentiation between economy and politics, and between socio-cultural reproduction (culture) on one side and economy and politics on the other. In short, monolithism has become problematic, whether it is traditionalistic or it is a fruit of recent events.

In this perspective it is safe to say that the old type of state socialism has become inappropriate. But it can also safely be said that a system primarily based on the laws and principles of market economy is doomed to run into problems, at least in the realm of ecology, and probably also in the realm of cultural reproduction and social cohesion.

The only option left is apparently some version of an enlightened and socially committed democracy, i.e., a system with an operating market economy within a frame of political and legal rule, on the basis of universal solidarity. How this should be realized in each concrete case—how the balance should be between market and politics—is a question to be decided within a sound political culture, as delineated above.

In this connection it is especially important to consider the various requirements stemming from the problems of ecology—this implies a ‘taming’ of technological rationality

and practice, in favor of an ecologically enlightened and rational expertise.

In short, attention should not merely be given to close-at-hand political and economic questions. (i) Modern societies require a realm of open and enlightened discourse. This ranges from scientific and scholarly work to public debates and opinion formation, and it further embraces the realm of education, of art and of mass media, all of them with their various distributions of symbols and signs. (ii) It requires a sustainable socio-cultural reproduction, for one thing in order to have a sociologically necessary degree of social integration to counterbalance the trend toward socio-cultural disintegration in modern societies. (iii) And it requires a sustainable ecological reproduction, for reasons already mentioned.

Our modern predicament is exactly to get these different institutions established and developed in relative independence and still to have them integrated in some balanced interplay, finally for a sustainable future for the whole of our ecosphere—all this on the background of different situations, each filled with immense practical problems.

Hélas, confronted with these problems we may all too easily be tempted to make ours those famous words of the Great Inquisitor in Dostoevsky, asking whether this is not too much for finite, fragile and fallible human beings!

But realistically, there is no return. No way back. Regression as well as narrow-mindedness and short-sightedness without any view for a sustainable future, these two options are both impossible, and thus unrealistic.

In referring to the Bible we could safely ascertain that Man has eaten from the Tree of Knowledge and reached the Tower of Babel, where each discipline (and disciple) speaks its own language, unintelligible to the others, to end up in a Commercial Ark, bound for disaster.

But there is no way back to a prehistorical paradise. We can only “eat” again, hoping for better insight, for better mutual understanding, for a safer sailing on board of our common Ark—hoping that it does not end as a ship of fools.

For the sake of the future, I end this paper with a joint appeal to reasonableness, solidarity and co-responsibility.

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ⁱ This paper was written for the new Russian journal *Chelavyek* (The Human Being), edited by professor Boris Yudin at the Centre for the Sciences of Man at the Academy of Science in Moscow. A revised version was published in No. 1, 1(1991) p. 86-93. Three earlier articles are used in putting this paper together: "Methodological and Ethical Remarks to the Current Ecological Debate" in *Manuscripts on Rationality*, Bergen: Vitskapsteoretisk forum skriftserien nr. 2, 1984 (p. 75-91); „Politische Kultur - durch philosophische Tiefe oder alltägliche Gewohnheit?“ in Kuhlmann (ed.) 1988 (p. 290-298); and "Contextual and Universal Pragmatics" in *Essays in Pragmatic Philosophy II* ed. H. Høibraaten, Oslo: Norwegian University Press 1990 (p. 56-100).

ⁱⁱ Cf the discussion of these problems in Habermas 1981 (English translation *The Theory of Communicative Action*, Boston 1984 and 1987), with the catchwords "lifeworld" and "system" and their interrelations. Cf also the paper "A Crisis in the Humanities" in this collection.

ⁱⁱⁱ There are also cultural and religious dimensions to consider: in pluralistic societies the idea of a collective national identity is challenged, but still some degree of common cultural identity is needed for a functioning state with a universal welfare system. This gives rise to the question of legitimacy and illegitimacy for the different forms of 'particular collective identities'. The reintroduction of fundamentalist religion in politics, especially in the US and in Muslim countries, represents a special challenge in this connection.

^{iv} *Decision theory* includes the use of various kinds of this means-to-an-end rationality. Hence, for a discussion aiming at an overcoming of technological rationality I find it fruitful to refer to *normative* decision theory. I assume that in discussing normative decision theory in order to exemplify technological rationality, we would also be able to illustrate important points concerning the strength and shortcoming of this form of rationality. Hence we would demonstrate a need for an overcoming (in a Hegelian sense) of technological rationality, in favor of a deeper and broader rationality, i.e., a discursive and reflective rationality. However, some intellectuals attempt to ground the social sciences methodologically on rational choice theory (which is theoretically affiliated with normative decision theory). This program has its own problems, thoroughly discussed by opponents and proponents (cf e.g. Hollis 1987 and Elster 1989): to the extent that rational choice theory operates with the concepts of desire and of belief, mediated by action for the sake of maximizing the actor's utility, it gives a standard for rationality and an indication of what has to be explained (viz. that which appears as irrational). However, there is, for one thing, a discussion about the possibility of complete information, e.g., in complex and long-term situations and in situations where preferences are shaped and changed by information. Some discussants, like Herbert Simon and Martin Hollis, have criticized the idea of maximizing, in favor of an idea of satisfying (cf Hollis 1987, p. 113-129 and Herbert Simon 'From Substantive to Procedural Rationality' in Latsis ed. 1976). I will not enter those discussions. I merely assume that *normative decision theory* (and *rational choice theory*) represents a paradigmatic version of *instrumental rationality* and that it has an appropriate function within some realm of action. In this perspective my point is one of *sublating* (in the double sense of situating and of transcending) this kind of action and rationality. This implies that in discussing the relationship between theory of rational choice and theory of communicative or norm-regulated action my position is one in favor of giving the latter the upper hand (at the same time as the former is given its relative legitimacy within appropriate contexts).

^v Cf Carl G. Hempel e.g. 'The Function of General Law in History' in Feigl and Sellars 1949, p. 459-471.

^{vi} Scandinavian philosophers (Jon Elster et al.) have delivered (critical) game-theoretical analyses along these lines concerning problems of energy supply in Scandinavia (e.g., for the Swedish Energy Commission, cf J. Elster 'Risk, Uncertainty and Nuclear Power' in Elster 1983, p. 185-207).

^{vii} In the process of elucidating and of implementing these various factors, different groups of experts are required. But in the end, the decisive questions should be settled in the political and public realm, both as public discussions between informed citizens and as transparent discussions and constitutional decisions on the political and administrative level.

^{viii} This, to be sure, is a point with some political importance in discussions on risk factors. Cf Ulrich Beck *Risikogesellschaft* (Frankfurt 1986).

^{ix} It is a problem that the ecological damage, caused by such acts, is often not immediately and clearly felt by the actors themselves (as opposed to for instance an act of nuclear warfare, which could involve disastrous consequences for the actors within a short period of time).

^x As we know, pure exchange values are inherently problematic when they are understood in terms of a competitive and unrestricted exchange balance of "offer and demand" here and now. They are problematic relative to *future* generations, to "third" persons (to all kinds of "moral subjects" as third persons), and to the "commons" (as in "the problem of the commons").

^{xi} Cf for instance Apel 1979.

^{xii} Cf Habermas 1981.

^{xiii} I here refer to the social sciences and psychology. Cf for instance the need for interdisciplinary expertise in the case of water development programs in Central and East Africa: 'A social scientist view of strategies in order that water development programs in Central and East Africa may attain their explicit and implicit goals', report 15.12.1982 from cand.polit. Mette Jørstad, NORAD (the official Norwegian agency for developmental aid). In the reported case the use of engineering expertise proved to be inadequate and detrimental to the program. Social sciences were needed. However, gradually one has realized that developmental aid is an ambiguous and problematic endeavor, cf e.g. Gunnar Håland 'Aid and Sustainable Development in a Dual Economy' in *Forum for utviklingsstudier*, Bergen, (1990), No. 1, p. 105-125.

^{xiv} Cf, for instance, arguments in favor of the impossibility of a prediction of all human actions, in Popper 1969

^{xv} This, again, is a point of some political importance.

^{xvi} Also history and cultural studies in cases where religious and cultural tensions are involved, possibly nurturing terrorist activities.

^{xvii} Cf Apel and Habermas, and Skirbekk 1993.

^{xviii} To put it briefly, I am skeptical concerning attempts at making ‘holistic syntheses’ of different disciplines with different conceptual and methodological presuppositions. I would argue that only a *pragmatic* competence to move between different disciplines can solve this problem of interdisciplinary mediation. Furthermore, I would argue that we (to some extent, at least) do have a *common life world*, as a common ground of reference, and I would also argue that we do have a *common argumentative and reflective competence*, making a fallible (and melioristic) procedural use of rationality possible.

^{xix} Concerning the term ‘counter-expertise’, cf Skirbekk (ed.) 1983, p. 134-145.

^{xx} Cf e.g. Apel 1988; Wellmer 1986; and Jonas 1979.

^{xxi} Cf the later Wittgenstein, and Elizabeth Anscombe for an early discussion of ‘brute facts’ and ‘institutional facts’.

^{xxii} Cf the discussion on speech acts (from Searle et al.) and on constitutive norms of scientific work (e.g., Tranøy ‘Norms of Inquiry, Methodology as Normative Systems’, in Ryle (ed.) 1977, p. 1-13).

^{xxiii} Habermas, in his universal (or formal) pragmatics, elaborates the theory of speech acts from Austin and Searle in favor of a theory of communication which entails implicit normative obligations within everyday speech acts. Cf ‘Was heisst Universalpragmatik?’ 1976, reprinted in Habermas 1984 (English translation ‘What is Universal Pragmatics?’ in *Communication and the Evolution of Society*, Boston 1974; cf also ‘Wahrheitstheorien’ 1972). This Habermasian approach to the question of normative justification represents an alternative to that of Apel. Cf the Apelian version of the difference of opinion among these two Frankfurt philosophers: in Apel (1998), the last three papers, and Apel and Habermas in Böhler et al. (eds.) 2003.

^{xxiv} My views are formulated in Skirbekk 1993.

^{xxv} Consider the pragmatic inconsistency involved in a case where a person in court makes the following claim: ‘I am convinced that my version of what happened is the correct one. Therefore I do not want to hear any counterarguments that possibly might support other versions of this event.’

^{xxvi} Cf the Habermasian position in Habermas 1981.

^{xxvii} With the exception that any denial of these preconditions, such as a mutual equal recognition among the participants, is ruled out: normative ethnocentrism is thus excluded.

^{xxviii} At this point it is worthwhile noticing that these contextualists tend to operate with archaic cases (such as the hammering blacksmith, in both Wittgenstein and Heidegger) or at least not with typically modern cases, such as those of an institutionally differentiated and rationalized world.

^{xxix} German: *Nichthintergebarkeit*. Cf a protagonist position defended by Wolfgang Kuhlmann in Kuhlmann 1985, and an antagonist position is defended by Hans Albert in Albert 1975.

^{xxx} I do not see why there should be a need for a further ‘*right not to be rational*’, cf e.g. Albrecht Wellmer ‘Models of Freedom in the Modern World’, in Kelly (ed.) 1990, p. 245. I cannot see how one could claim that the principle of discursive rationality ‘reminds us that we have no ‘right’ not to be rational’ (*op.cit.*). In a modern world there are certainly all kinds of weird contexts within which we are rightly allowed to be ‘irrational’ both in terms of discursive rationality and of strategic or instrumental rationality. To the extent that these contexts belong to the sphere of rational plurality and legitimate tolerance we have a right to ‘mess around’ as we want. (I am alluding to what Albrecht Wellmer calls Nozick’s ‘postmodernist’ vision of a liberal utopia, cf *op.cit.* p. 239, referring to Nozick 1974, p. 312.) To be sure, there are intricate cultural and existential questions of depth and maturity, but as long as we move within discursively legitimate borders, the notion of discursive rationality does not prevent us from freely ‘fooling around’.

^{xxxi} Since not everybody can take part in discussion—future generations not at all—there is a need for advocacy representation.

^{xxxii} Cf the discussions of these and other issues concerning this notion of discursive rationality, e.g. in *Funkkolleg, Praktische Philosophie/Ethik: Dialoge* Vol. I/II, Frankfurt a.M.: Fischer 1984, with Apel et al.

^{xxxiii} In terms of rational foundation (German: *Letztbegründung*).

^{xxxiv} This holds true whether the name is Stalin, Thatcher or Pol Pot.

^{xxxv} This holds true whether the name is Khomeini or Robespierre. It is worthwhile noticing that the fatal criticism of democracy by Carl Schmitt was based on an idealized version of democracy. Schmitt tried to show how the actual state of affairs differs from an ideal-type democracy, and this difference is then presented as a criticism of the actual democracy of Germany at that time (Weimar Republic). Schmitt here violates the point I am defending. (Still worse, Schmitt also used the reference to actual politics in order to criticize his own ideal-type democracy.)

^{xxxvi} Pure mandarins and computer brains are not the paradigms of good politicians (whatever intellectuals or technocrats might think, be they French elite students or Czarist apparatnics of all times).

^{xxxvii} Cf the debate about the relative role of *principles* and of *praxis*, between Viggo Rossvaer (Wittgensteinian) and Dietrich Böhler (transcendental-pragmatician), in Rossvaer ‘Transzendentalpragmatik, transzendente Hermeneutik und die Möglichkeit, Auschwitz zu verstehen’, in Böhler et al. (eds.) 1986, p. 187-201, and in Böhler ‘Die deutsche Zerstörung des politisch-ethischen Universalismus. Über die Gefahr des - heute (post-) modernen -Relativismus und Dezisionismus’, in Kuhlmann (ed.) 1988, p. 166-216.