Science, Power and Decision

by Panagiotis Kondylis

(Plain English Version with translator's footnotes. Translated by C.F. © all rights reserved 2014. This translation should not be reproduced in any form whatsoever without the express written permission of its author C.F. contactable through the following email address: pkproject@live.co.uk)

I. The historicisation of the natural sciences and its consequences

Since its first world-theoretically founded and systematic appearance, new-times¹ natural science connected its self-understanding with a sense of superiority vis-à-vis the historical sciences in general²: against the imponderability, variability and consequently the inadequate apprehensibility of human affairs, new-times natural science believed that it could set a fixed knowledge about a fixed object: that is, nature in its law bindedness. With this belief corresponded a perception against an anthropological backdrop that namely in the natural-scientific realm impartial Reason and rationally oriented experience are active, whereas in the field of history, passions and feelings prevail, that is, subjectively and ideologically determined positionings. Here is not the place to follow the variations of this contradistinction between the natural and historical

¹ I.e. the era of the modern world when compared with the Medieval or ancient era in western European history, regardless whether one dates the New Times as commencing in the fifteenth century or earlier (or later).

² For many, detailed and specific references in relation to the history of ideas vis-à-vis all the unreferenced comments made by Kondylis throughtout this article see Kondylis, P. *Die Aufklärung im Rahmen des neuzeitlichen Rationalismus* (*The Enlightenment in the framework of new-times rationalism*), and also, *Die neuzeitliche Metaphysikkritik* (*The new-times critique of metaphysics*).

sciences of Descartes, Hobbes and Vico up to neo-Kantianism³. What interests us rather is the logical conclusion which must be drawn from a reminding of the history of ideas' facts: if the conviction regarding the objective and, as it were, supra-historical character of secured, i.e. verified, natural-scientific knowledge is accompanied by a belief in the unique ability of mathematical natural science in overcoming, at least in the long term, subjective arbitrariness or ideological prejudice through Reason and experience - then on the other hand, the consistent admission of the historicity of the natural sciences cannot get out of a confession that the fundamental forms of theoretical activity or human knowledge are, after all, structured in essence identically in all realms, that namely they are determined by the same anthropological and social-historical factors, even if on each and every occasion in different doses and while having a different effect. In recent decades the social and historical character of the natural sciences was investigated with remarkable clarity and consistency for the first time in the new-times history of ideas; in this way history and sociology took their belated (even if perhaps only shortlived) revenge, and indeed at a point in time in which the natural sciences in their various forms and applications have become socially effective like never before. Despite all this, the significance of this new understanding of the natural sciences was not reflected upon thoroughly enough with regard to a general theory about the forms of human thought and knowledge - a theory which could proceed up to the ultimate anthropologically pre-given magnitudes⁴ and by starting again from them

-

³ See Kondylis, P. *Die Aufklärung im Rahmen des neuzeitlichen Rationalismus (The European Enlightenment*), and also, *Die neuzeitliche Metaphysikkritik (The new-times critique of metaphysics*).

⁴ The ultimate anthropologically pre-given (or given) magnitudes in this article are power and decision (but they also include and or directly relate to (the many or innumerable manifestations of) human: action, meaning, rationality, identity, world images, world theories (views) ideologies, friend and foe (enemy), culture, etc.). They are observed as existing in, and relate to, human action in all human societies (whilst Kondylis uses the terms "behaviour" and "action" interchangeably in his writings prior to *Das Politische und der Mensh*, I prefer to draw the distinction between them referred to in his

make the formations and the peripeteia in thought and knowledge understandable.

The historicisation of the natural sciences means, not least of all, the emphasising and the locating of the role of the subjective factor in natural-scientific theory, that is, the rejection of the traditional view in respect of the objectivity of physical knowledge. This rejection was already contained in conventionalism at the end of the 19th as well as in many a view which was held during the debates over quantum mechanics and the theory of relativity. But in these cases it was not just a question of the historical and social subject, but only of the natural-scientific subject; the subjective component of natural-scientific knowledge was therefore connected with either the insurmountable knowledge limits and deficiencies of the physicist as a finite human or with immanent necessities of the economy of thought. Yet from the moment the historicisation of the natural sciences began and the natural-scientific subject⁵ was understood also, or above all, as a social and historical subject, the subjective component of natural-scientific knowledge ought to have been reduced also, or above all, to the effect of world-theoretical and ideological factors in the broad sense of the terms. Quite a few observers even came to the conclusion that behind the great theoretical generalisations only all too human wishes and hopes are hiding, and that is why they felt compelled to pose anew old questions: what is knowledge? What is rationality? What is objective and subjective, what is

ma

magnum opus, i.e. the former characterises the animal kingdom in toto inclusive of humans, while the latter is a distinctly human phenomenon of the human animal who does not just use existing symbols and tools, but also makes them). Power and decision are very broadly defined and are intertwined with biological constants such as the drive of self-preservation and the necessity of death (which through culture, as we shall see in relation to the drive of self-preservation, take on meaning), and of course, with human society (including the social relation) without which they cannot be *anthropologically* pre-given magnitudes, or a.k.a. fundamental categories, anthropological constants, etc.. See also footnote 11 below as well as Kondylis, P. *Macht und Entscheidung (Power and Decision)*, and, *Das Politische und der Mensch (The Political and Man)*.

⁵ I.e. man as scientist.

a fixed scientific acquisition and what merely a relative or standpoint-bound opinion? Whatever one may say in this context about "thought styles" or about the structural similarities between science and "myth" or "art", nevertheless the character and the range of the aforementioned subjective component of natural-scientific knowledge can hardly be apprehended if they are not considered from the perspective of the fundamental categories of power and decision. Beyond that, only from this same perspective is a unified and unifying consideration of the fundamental forms of human thought in all fields possible, so that the humanities and the natural sciences or the activities of the natural-scientific and the historical-social subject can be brought under a great common hermeneutic denominator.

Through the consistent hermeneutic application of both fundamental categories of power and decision a merely phenomenological description is transcended, which cannot proceed beyond reducing thought contents to thought styles or thought structures. That reduction of thought contents to thought styles and structures can be very useful; but beyond that the reasons for the formation, change and dissolution of thought styles and thought structures must be clarified. Starting from the fundamental categories of power and decision we proceed up to the anthropologically pre-given presuppositions of every theory formation and at the same time we find ourselves in a position of apprehending each and every respective theory in its historical concreteness. Because the aforementioned anthropological given facts are activated only in and by means of the relations between concrete human subjects, which for their part act and react inside concrete historical situations, i.e. they make power claims and they take decisions. In the domain of theory, which is the focus of our attention, the highly rich in variety game of power and decision takes

specific forms, and that is why we must here undertake the definition of these concepts, bearing in mind their relevance to theory formation and change in theory.

II. The essence and the mechanisms of power and decision

In order to apprehend the essence of power, especially in the domain of theory, one must first of all break away from the usual express or implicit confusion of power with the exercising of violence in any form. Only where human life exclusively revolves around physical self-preservation, that is in the most primitive of situations, does power largely coincide with physical superiority. Culture is characterised precisely by the decoupling of power and (the exercising of) violence, and here power can be wielded with purely ideational means on the part of physically weaker people. In culture and through culture elementary biopsychic factors are translated into ideational magnitudes; in this way e.g. the drive of selfpreservation is transformed into belief in the "meaning of life", which for its part logically and psychologically supports all normative systems, or the sex drive is transformed into "love" etc.. Simultaneously however the field of more or less refined ideational magnitudes is shaped in such a way that in the ideational field a modified continuation of those basic human situations and basic human ways of acting takes place, which are also fundamental for the rest of the fields of human life happening in organised society - said more precisely: the field of the ideational magnitudes is shaped first through and inside this continuation of basic human situations and basic human ways of acting, and indeed since what constitutes this field's specific element is in constant interaction (or

mutual influence) with whatever constitutes the common element of basic human situations and basic human ways of acting.

We now define this common element as (striving for) power, so that first of all we mean by it the naked will to self-preservation as a not further reducible magnitude which determinatively belongs to the constitution of all individual or collective subjects. Contrary to the impression which language suggests, self-preservation is not a static or passive state at all; it always takes place within a variable, therefore potentially dangerous situation and demands a permanent physical and social metabolism, if one may express it in this way. Particularly out of consideration for the endeavour at self-preservation of other existences or subjects, self-preservation must be multiplied and become self-intensification in order for preservation itself to be made at all possible. Power is therefore successful self-preservation by means of such a self-intensification which is able to safeguard and possibly improve the relative position of a particular power bearer vis-à-vis others (potentially) competing with it.

This definition of power fully and wholly applies also to the field of ideational magnitudes, to that field in which self-preservation of individual or collective subjects is lived through and practised as representation and imposition of certain theoretical perceptions, in which consequently the struggles necessary for self-preservation are conducted through theories and arguments - during which the identity of the fighting subjects is bound to the possession and propagation of theoretical positions and "truths", so that the endangering of each and every respective represented theoretical position or "truth" is perceived as a direct threat against the identity of the corresponding subject. Just as society in magno can be understood as a sum of individual and collective subjects which for the safeguarding (protection) of their own self-

preservation through self-intensification are grouped in accordance with the distinction between friend and foe and behave accordingly, so too the small society of scientists and theoreticians can be presented as an ensemble of specifically gifted and educated subjects, which as members of society in magno or as bearers of anthropologically pre-given properties and ways of acting, are grouped and behave in accordance with the same criteria as to their essence.

This ascertainment of the undiminished continuing effect of general basic human situations and basic human ways of acting in the field of ideational magnitudes, as well as in the particular theoretical-scientific domain, is not to be confused with the now familiar sociological pointing out of the influence of social-political forces or tendencies on efforts in respect of the human sciences or natural-scientific efforts. Such an influence cannot in general be disputed, but even if its working out is done properly and does not succumb to vulgar sociologism, yet again the specific feature of ideational magnitudes cannot be apprehended, and indeed in relation to the theoretical-scientific domain. It is true that the grouping of the subjects in this domain sometimes corresponds grosso modo with the wider social-political realm; the question however is whether this correspondence touches on or even encompasses the specific feature of the theoretical-scientific domain as well, whether, in other words, the active therein subjects realise the aforementioned correspondence not only as social subjects, which they are anyway, but also as theoretical-scientific subjects which as such act and react in specific ways. - Conversely, however, the impossibility of deriving the specific instruments and specific means of thought of the theoreticalscientific domain from the dominant extra-scientific currents that are transiently in the theoretical-scientific domain, does *not* mean that these

instruments and these means of thought are shaped to one side of the mechanics and the dynamics of the striving for power of concrete subjects. We must here distinguish between the content-related socialpolitical and ideological influence which is bound to time and place (e.g. the rejection of causality or materialism on the part of a natural scientist for world-theoretical reasons and in agreement with certain extrascientific currents), and the *forms*, in which the striving for power unfolds in the theoretical-scientific domain and which are largely independent of each and every respective influence of socially determined contentrelated tendencies. Theory and science are therefore not social in the sense that their specific element can be directly deduced from the respective "social" factors, that is, extra-theoretical or extra-scientific factors, on each and every occasion, but rather in the sense that in theory and science the same form-related rules of striving for self-preservation and striving for power prevail, which equally take effect in the other social fields, therefore also in the field of ideational magnitudes. Theory's and science's specific element constitutes the resultant of the struggle between gifted and learned subjects which constitute a particular society and deal with particular questions - not the simple reflection of the socialpolitical and ideological correlation of forces in society in magno, nor the simple translation of the same society into the language of the theoreticalscientific domain, notwithstanding how much such a reflection or translation constitutes not a rare phenomenon and may shape the worldtheoretically extrapolated content of the aforementioned domain.

Self-preservation and striving for power in the field of ideational magnitudes, as well as in the narrower theoretical-scientific domain, necessarily take place within the framework of a decision and through a decision. By decision we do not here understand the conscious choice

between pre-given alternatives, as language usage wants it, but a much more comprehensive act or process, inside of which alternatives (also) first come into being. De-cision (de-cisio) (Ent-scheidung (de-cisio)) is then one such partly conscious and partly unconscious executive act or process of segregation during which an organised and hierarchised worldimage comes about which guarantees the necessary for self-preservation ability at orientation and serves striving for power through the granting of a fixed identity. Separated in the process is that which might be useful for the formation of the world image and the identity, that is for selfpreservation and striving for self-intensification, from whatever seems unsuitable for self-preservation and striving for self-intensification. The subject, in the course of acquiring or gaining an identity, is freed from the vertiginous plethora of impressions which flood it from all sides and as such do not give meaning, while replacing, by means of cutting the Gordian knot, this chaotic pre-world with a well-ordered world and at the same time reserving for itself a meaningful place within the well-ordered world - by connecting, in other words, the world's meaning with its own place in the world. The substitution of the chaotic pre-world with the well-ordered world, of orientationless existence with a fixed identity, does not take place only by means of the elimination of what is useless and what is irrelevant, but just as much by means of the purposeful structuring or hierarchisation of the materials which were taken from the pre-world. From this hierarchisation which is based on an explicit or implicit evaluation, the meaning of the emerging world and simultaneously the ends (goals) being set of the subject result, the subject's identity is connected with the assumed meaning of this world and consequently brings to light who are its friends and who are its foes.

So the world image is the work of the subject, it is determined by the orientation needs, self-preservation needs and power needs of the subject and consequently is subjective. However it must make a *claim* to objectivity, and indeed principally for three reasons: firstly, the assumption of the objectivity of the world image takes effect on the subject of the de-cision, out of which the world image came, in so far as it is relieved and encouraged as it removes any doubt about the correctness of the de-cision and with it the uncertainties and the difficulties of orientation. Secondly, this same assumption satisfies a demand which society in principle makes on all its members in order to ensure its own cohesion. The generally acknowledged fact that this cohesion can only be achieved through the curbing of subjective arbitrariness and obeying the rules or norms generally in force, takes in the field of ideational magnitudes the form of the conviction of the superiority of the objective vis-à-vis merely subjective notions and insights; that is why inside of an organised society a power claim, which of its nature is only made in accordance with a certain subject, that is, it can only be subjective, is most likely to be imposed when it is portrayed not as a monstrous invention of subjective motivating forces and aims (goals) but, on the contrary, as a demand which results from the knowledge of objectively given interrelations and whose fulfilment should benefit the common good. Thirdly, the subjective world image can and must exactly, because of that, claim objectivity for itself, because only based on the criteria provided by itself, what is to be regarded as objective and what as subjective is defined; the assertion of one's own objectivity precedes, in every world image, its individual content-related statements about the world, these statements are based on the asserted objectivity.

As we said, the subject's identity is shaped in the act or process of the decision which for its part is fused with striving for self-preservation and striving for self-intensification or striving for power. Mere existence is changed into an identity capable of orientation, and consequently capable of life, to the extent that the chaotic pre-world, partly through the separation and the elimination of the irrelevant elements and partly through the hierarchisation of the relevant elements, is changed into a well-ordered world. Whoever holds a meaningful place inside a world image with more or less distinct contours possesses identity. Identity is principally recognisable in the quicker and more precise ability at orientation, action and reaction. This ability however is always of use for the overcoming of a foe and it develops in connection with the existential desideratum of being able to overcome foes. In every world image the foe appears in the form of the lower tiers of the world image's hierarchy of values or in the form of whatever is declared anti-value. A foe is everything that engenders disturbing disorientation and consequently danger, everything that stands in the way of orientation in the positive sense and can only be taken into account negatively during striving for orientation. The foe accordingly must not be a concrete person, he can just as well be represented by a certain idea, whose prevalence threatens to demolish the world image and thus the corresponding identity although actually, not the idea in itself, but in fact the inevitable active or potential being put into contact with concrete persons brings into being the sense of uncertainty and being threatened or enmity.

Just as the foe does not have to be a concrete person, so too the subject, whose identity is partly founded and partly safeguarded or legitimised, does not have to personally appear in the world image. The identity's meaning-creating bond with the world image can assume much more

indirect forms than those it assumes in religious world images we for instance encounter where the place of every subject is expressly determined in accordance with its assumed value or anti-value. In the new-times mathematical-natural-scientific world image, which already because of polemical reasons had to eliminate every (open) anthropomorphism, the subject as creator of the world image first of all completely recedes into the background, and the joining of his identity with the world image, which arises from his theoretical-scientific decision, becomes indirect and symbolic. The content of the theory and the hierarchisation of the ideational values in the theory in other words constitute a symbolic summary of the total striving for orientation and striving for power, that is, a symbolic summary of all the positionings of the theoretical-scientific subject vis-à-vis friends and foes; even though this subject does not at all appear the same in the theory, nevertheless, it announces its identity in the framework of the formulation of the theory in that it emerges vis-à-vis other subjects as a representative of this theory or this world image, and it takes the corresponding place in the community of fellow scientists. Orientation and an increase in power, that is, the formation and successful activation of the subject's identity, are ensured in this case not for instance because the subject makes to measure a world image which contains an explicit naming of friends and foes as well as concrete normative instructions but rather because the subject, by outlining a (mathematical or physical) theory, discovers the adequate for it way to find its way in each and every respective relevant society of theoreticians, to take a position vis-à-vis the society's burning questions and thus vis-à-vis its fellow scientists.

Theory formation as an act or process of the de-cision in our sense is therefore fused with the constituting of the identity of the theoretician *as*

theoretician. This person possesses an identity to the extent that he can orientate himself in the domain of theory and make power claims, that is, he is able to define himself in relation to other theoreticians (as representatives of other positions and as bearers of the corresponding identities). The fusion of the constituting of the identity with theory formation becomes clear if on more careful inspection one ascertains that every position comes into being as a counterposition or, what amounts to the same thing, as an attempt at mediation between extremely opposed positions. The theoretical de-cision is therefore a form of practice in so far as it contains or implies a positive or negative positioning vis-à-vis the immediate world - not merely vis-à-vis the world as object of theoretical knowledge but, in addition, vis-à-vis the world of theoretical knowledge and with it vis-à-vis the world of theoretically knowing people as the in practice relevant society. The theoretician or the scientist may have the impression that he researches the extra-human world or pure logical structures, however this world or these structures are first of all mediated through each and every respective relevant society, and their being researched amounts to the researching of the possibilities of acquiring a fixed place, i.e. identity and power, in this society. Exactly because of that, the theoretician is only then certain about the truth of his findings if he can dismiss, "ruin (finish, destroy)" all counterpositions argumentatively; before this highest criterion of truth inside the in practice relevant society the direct comparison between the finding and the object of knowledge - assuming the comparison is even possible recedes into the background. A feeling of power is here the feeling that one's own identity as theoretician is invulnerable, since every counterposition can be refuted. That is why the interweaving of knowledge and power is not to be understood only in accordance with Francis Bacon, that knowledge *gives* power, but just as much then that

knowledge *is* power - a condensed expression of the power claim of a certain identity.

III. Power, decision and theory formation in natural science

The outlined fundamental features and mechanisms of the act or process of the de-cision, in which power claims in the field of ideational magnitudes manifest themselves and through which they are satisfied, also become noticeable in the example of new-times natural science, which for a long time has understood itself as the only possible and provable objective knowledge. In the framework of the historicisation of the natural sciences, as it was undertaken in recent decades, the role of public opinion and the outer correlation of forces in the society of scientists was pointed out a number of times with regard to the formation and prevalence of theories. But in respect of this sociological factor, whose effect incidentally is by and large indisputable, only one aspect of the problem of power appears in this special field of ideational magnitudes; conversely, that deeper anthropological-epistemological aspect which lies in the nature of the act or process of the de-cision itself, is overlooked - and here it must be noted that the sociological aspect constitutes a specific condensation, modification and, at the same time, extrapolation of the anthropological aspect taking place in a concrete historical situation, which for its part the anthropological aspect cannot be activated other than in a certain historical-social form. In any case, newtimes natural science was constituted as a discipline using mathematical methods in a large-scale act or process of the de-cision by eliminating whatever seemed irrelevant (to it): it eliminated whatever was relevant in

the foe's world image, namely the variety of form of the perceptible qualities as well as the qualitative peculiarity of the substances, and it quantified all the physical magnitudes and events; in this way the mathematical apprehension of nature as well as the power predominance of all those who wished to contemplate and treat nature in this way, that is, to connect their own identity as theoreticians with such a contemplation or treatment of nature, was founded.

The elimination of the irrelevant elements and the interrelated formation of the outline of the world image by means of a de-cision or decisionistic segregation had nevertheless no less of an effect on both of those procedures which were to found the particular claim to objectivity of new-times natural science, namely: observation and the experiment. What is really self-evident has been noted for a long time, that namely no observation can be made outside of a certain subjective perspective, that the ascertainment of the facts implies or presupposes a certain theory, which hides exactly in the subjective perspective, and that accordingly the ascertainment of the facts is identical to an at least latent interpretation of these same facts; under these circumstances the attempt at drawing clear dividing lines between terms of observation and pure theoretical terms, between a context of discovery and a context of justification, amounts to an endeavour at squaring the circle. Even in regard to observation in the narrowest sense, namely simple attentive looking, one can notice that to the extent that objects are perceived as forms, elements slip into observation which are reduced to the observer's individually or socially shaped thought style and style of perception; something similar can be said about the repercussions of the linguistic formulation of observations, especially since observations can become

relevant for scientific research only in the guise of language⁶. This interweaving of observation and subjective perspective, that is, of a theory or of an interpretation, which can be ascertained at all the tiers and in all the forms of observation, does not now constitute anything other than an elementary de-cision in our sense, since every perspective or theory is characterised exactly by the fact that it undertakes a separation between irrelevant elements and relevant elements, that it puts something in a framework and at the same time excludes something from this same framework, that, in short, it eliminates quite a few things and hierarchises the rest. But the experiment is also based on the isolation and the corresponding processing of whatever is held to be relevant. The express ambition of every experiment is one such shielding of the research process so that the environment is excluded and cannot influence this process; the equipment thus creates an artificial world, a world which is seen only in each and every respective relevant perspective, and thereby it subjects the world to a certain way of looking at things in which again the concrete identity of a subject comes to be in force. Hence the experiment implies no less than observation a certain interpretation of phenomena, a certain theory. On the basis of theory, manufacturing and use of instruments becomes possible, on the basis of theoretical assumptions the experiment itself is carried out and in the course of it this or that correction is made, which would otherwise be meaningless: an

_

⁶ While the perspectivity of all knowledge does not preclude the possibility of reality's description and explanation (or "analysis"), also, symbolism, including language, is nothing more than a necessary but not sufficient aspect of the social relation (and of social action). This means that through the social relation and social action a core of agreed meaning applies to many things within a society, albeit to varying degrees of agreement, e.g. a book, a tree, a U.F.O. etc. (i.e. without ever denying the varying degrees of interpretation of things, concepts, affairs etc.), and that any theoretical fixation on language or communication or the system etc. more often than not constitutes an ideological weapon in polemics against opponents in the relevant society of theoreticians, and has little, if anything, to do with accurate knowledge of reality (to the extent it is possible), which, as we know from observation, experience and the application of logic to observation and experience, is obviously far richer, multi-dimensional, varied and more complicated than being mere language, communication or the system etc.. See *Das Politische und der Mensch* for further discussion in relation to these matters.

experiment is regarded, after all, as successful if it effortlessly fulfils the theoretical expectations connected with it.

Power claims manifest themselves even more emphatically at the higher tier of the natural-scientific effort, at the tier of theoretical generalisation. This generalisation of course is already hiding in observation and the experiment; however in the generalisation's more abstract and most abstract forms it creates much wider spaces inside of which the identity of the theoretician can unfold more freely and be expressed most candidly, while confirming its power and while striving after more power. The total power claim in the domain of theory must appear in this way as a claim to universality or a claim to generalisation with universal validity. The formulation of ideational magnitudes which, as it were, stand behind experience, that is, they transcend the same experience and at the same time want to make it understandable, is not a phenomenon happening to us exclusively in the natural sciences; it fulfils the same function everywhere because precisely by way of this formulation each and every respective interested subject can articulate as clearly and freely as possible its own de-cisions, its perceptions and its wishes, without being exposed to the direct pressure of empirical data, especially in other subjects' interpretation; here, and only here, the subject's own interpretations and axioms exclusively dominate. Because different, and in themselves with equal rights, axiomatic systems can be erected on the basis of the same or roughly the same basis propositions, such axiomatic systems of course can connect the observable facts (or more precisely those held to be the central part thereof) to a whole, yet they are not directly deducible from these facts but rather constitute ideational constructs from which the phenomena themselves can be deduced. These constructs again come about by way of abridgements, simplifications and

compromises at a number of levels which are undertaken in view of necessities pertaining to economy of thought, conventional and not least of all polemical necessities, so that already for this reason in this context there may not be talk of any adequatio rei et intellectus⁷, of any apprehension of purely objective facts to the exclusion of subjective points of view and power claims.

The uppermost criterion here is applicability rather than the truth - although the applicability of the axioms to the facts must be passed off most of the time as apprehension of the facts' essence. At any rate, we must strictly distinguish between the empirical relevance and the empirical verifiability of an axiomatic theory; so that the transition from the symbolic system or from abstract mathematical-logical calculus to experience is in general possible, certain mediating rules, which only make mathematical-logical symbolism open to an empirical interpretation, are, for that matter, needed. And even if the experimental findings prevent the problem-free application of symbolism to experience, the experiment as a rule only shows *that* the symbolism and experience do not match each other, but not *what* must be rejected and replaced in the symbolism. The choice as regards this crucial question always depends on the de-cision of the theoretical-scientific subject and on the power claim which is activated in it.

The use of models of a smaller scale already bears witness to this state of affairs. However the difference as to the theoretical power claim generates different levels of generalisation so that above the models are hypotheses and above the hypotheses axiomatically founded theories. The broader the generalisation's range, the less the empirical content and the empirical verifiability! The price to be paid for the achievement of logical

_

⁷ The intellect (of the knower) must be adequate to the thing (known).

coherence at a higher level of generalisation is the synoptic dealing with, or the impoverishment (emaciation) of, the empirical content at a lower level. The aspect of power of theory is visible exactly in that theory imbues experience with its interpretations, it shortens and dilutes experience or even simply leaves a part of experience unnoticed, which from another point of view could be held to be significant or decisive. This treatment of experience is not an evil, which would perhaps be remedied through advances in knowledge and through more "objectivity", but it is the constitutive feature of every theory. If theory can apprehend experience only because of this, that it partly must transcend, partly must sift through, partly shorten and partly dilute the same - in short: interpret the same experience, then the reason for this lies in that the theory arises from a power claim and embodies a power claim. The character of the decision when dealing with experience also accompanies the thirst for generalisation and universality, the broadest possible generalisation as highest tier of the theoretical effort just constitutes the other side and at the same time the high point of the selective-abstractive apprehension of experience: through this selective-abstractive apprehension only or principally whatever is necessary for the orientation of the theoreticalscientific subject in the domain of theory is retained from experience, while the generalisation ensures that this same orientation is given the most objective character possible, that therefore the subjective de-cision is objectified, it can be presented as objective knowledge or even as an objective command.

Through the endeavour to make a comprehensive whole or to summarise the whole in a theory, the theoretician's power claim reaches the non plus ultra⁸. The inclination towards the establishment of a logically cohesive

⁸ Not more beyond; the extreme or perfect point or state.

and at the same time comprehensive whole seems first of all to be inherent in the nature of theory as such. And in fact: if the statements about empirical data cannot be formulated other than in the language of a certain theory, then they can actually be made understandable only if clarity dominates over the concepts of the theory in question. Yet the concepts and the propositions of a theory achieve clarity through their concatenation with one another, through the way they are put in order in the theory, and through the place they occupy in the whole, i.e. inside of the theory, and the theory confers on them a specific meaning and a specific function; the concepts, the basis propositions and the rest of the propositions eventually become clear in light of the highest axioms of the theory, of course only in this light do the facts become facts, while the relation of a concept or of a proposition with a fact is eo ipso a relation with another concept or proposition. The evaluation of a fact, of a concept or of a proposition inside of a theory in this way amounts to an evaluation of the whole of the theory or of theory as a whole.

Nonetheless, this does not at all mean that the construction of the theoretical whole takes place just for the sake of the explanation of the facts from which the theoretician sets forth and which the theoretician constantly keeps in mind. Rather, the outlines of the whole from the beginning linger in the background and give to those subjects, which in the domain of theory want to make total power claims, the ideational unfolding space which is then increasingly concretised in the more thorough contradistinction with friends and foes. That is why the observation of individual phenomena is undertaken, consciously or unconsciously, with one eye on the needs of the establishment of a theoretical whole, induction becomes a disguised deduction. The theoretical undertaking that has totality as its aim (goal) does not start

from individual problems, but from the (often implicit) general, and of course world-theoretical framework, inside of which incidentally problems can first be constituted as concrete problems: we know of the closest connection between ultimate questions and individual problems in the classics of natural science like Descartes and Galilei, and we also know that the hierarchical structure of the ancient-Christian cosmos was first of all demolished thanks to monistic Renaissance natural philosophy which laid the world-theoretical foundation stone of new-times natural science and paved the way for natural science's development as to its individual parts.

In respect of all of that, the interweaving of natural-scientific research at all levels, especially at the higher and highest levels, and the worldtheoretical de-cision along with the interrelated power claim is revealed. Something other than that would not be, for that reason alone, possible because whatever from a scientific-rationalistic perspective appears as an immanent need or a finding of the logic of research is formed only within the act or process of the de-cision and as an articulation of a power claim in the domain of theory. As a power claim, a general theory must always state something more than whatever it can prove; it always goes beyond the known phenomena and even known "laws": because it is the connection of phenomena and laws with a comprehensive whole. Only through the formulation of such a whole can ultimate questions be answered, and whoever wants to hold one's own in polemics over the long run must prove his ability at answering ultimate questions, that is, at granting secure orientation, in relation to which he of course holds for himself the monopoly of the decision over which are the "true" ultimate questions and must degrade the foe's ultimate questions to pseudo questions. For these reasons the inclination towards the establishing of a

whole can become so strong that for the achievement of this end (goal), means of thought must be summoned which in themselves cannot offer any guarantee of truth. The use of conclusions per analogiam⁹ for the exploration of inadequately known fields or for the filling of gaps inside of theoretical constructions has been noticed many a time already by means of its precarious character. However things are not much better also with regard to logical coherence or as regards simplicity, which are frequently considered as the two most solid pillars of a theory with a claim to comprehensiveness. Because a false and a true whole can be set up on the basis of the same formal-logical rules, simplicity, to which often precedence over partial findings is given for aesthetic or heuristic reasons, can for its part achieve an agreement with empirical observations only as a result of a summary dealing with, i.e. as a result of an abridgement and dilution of, these latter empirical observations. Simplicity only seemingly constitutes a command of the economy of thought as the conventionalists thought. In the demand for simplicity a power claim in reality is declared, which wants to restore a direct and clear relation between the uppermost principles to which every relevant subject binds its identity as a theoretician and the remotest corners of what is real; the direct, and consequently simple, subjection of the part to the whole, of the particular empirical element to the general theoretical element puts aside all the middle tiers, all the attempts at disorienting partial interpretations and lets the One great idea dominate alone, under whose sign the whole is and in whose background stands the mighty shadow of its own originator. This power character of the ideal of simplicity is shown both by the variety or the arbitrariness of the ideal's interpretations as well as the fact that great theories are actually multi-

-

⁹ By analogy.

dimensional (and by the way, again for compelling polemical reasons), even though they must make a claim to "deeper" or "true" simplicity.

With reference to a method and its strict application, de-cisions or power claims seek to be objectified in the domain of theory in which they show themselves, namely to be made out to be the inevitable result of a procedure which is immune to subjective arbitrariness. Nonetheless, the evidence of history forbids us from restoring a necessary connection between objectivity and method. Not only has the methodical ideal changed from time to time, so that for instance a deductivism (e.g. in the form of the methodological primacy of hypotheses), not only in our days, was set against a classical inductivism, but also method, which since earlier times was connected to the new-times natural science then coming into being, was initially formed outside of this latter natural science, and actually in connection with logical and rhetorical investigations, not with the experimental investigation into nature. Method's acceptance and application again presupposed content-related convictions, e.g. the conviction with respect to the inner logic and law bindedness of nature, as it was pleaded in the polemic against the ancient-Christian perception of the ontological inferiority of the material world. The joining of every method with content-related positions or pre-decisions leads for its part to the method having to confirm that content with which it had originally been connected.

Methodological polemics thus always have a direct or indirect *content-related* character, here already the thing is fought for, and not just access to it. The ars inveniendi¹⁰ is basically an art of rationalisation (i.e. as explanation or justification), namely, it rationalises ex post facto those findings at which research practice arrives either representationally or by

¹⁰ "Art of invention", i.e. ascertaining truth through the use of mathematics in mathesis universalis.

chance, and it lets the same findings appear as a necessary or foreseeable result of superior theoretical insight. The formulation of methodological rules gives an (indirect) insight into the theoretical self-understanding of the theoreticians in question rather than fertile instructions for research practice. Because even under optimal conditions the answer to the question as to which methodical rule is to be applied in which concrete case must be left to the researcher's judgement, and it is not rare for very different results to be obtained with reference to the same method.

IV. Truth and practical-technical applicability of theories

After the preceding analysis the question must be posed as to what extent the "objective truth" of physical theories is proved by their practicaltechnical applicability, as one often hears. And first of all we must remind ourselves that even until recently technology (technique) had developed almost independent of natural science - still further: through its practical achievements technology (technique) had given strong stimuli to natural science. Already in the 16th-17th century the theory of mechanics came into being following the by then known technologies (techniques), e.g. in the field of ballistics; with regard to the steam engine or Röntgen X-rays theoretical explanations were offered long after their invention and practical use, and in general only at a very late point in time could the technological upturn, which accompanied the tremendous advances of industry in the 19th and 20th century and took place with the simple practical procedure of trial and error, be theoretically dealt with through physical research; this research first of all was confronted with the task of understanding, after all, that which already was proven practice. Only for

the last few decades has an extensive interweaving of modern natural science and modern technology (technique) taken place, which gave rise to the impression that technology (technique) is the result of the direct practical application of theoretical insights into natural science and that invention does not constitute a coincidence but the quasi necessary result of systematic research. Yet now, between theoretical conclusions and practical-technical application there is always a gap which must be bridged with an invention, and it makes the acceptance of imponderability and risks inevitable. In addition, the aforementioned interweaving of science and technology (technique) takes place in certain realms where neither absolute verification nor theoretical hairsplitting nor theoretically unsuspecting practicism is in demand. The newer development of the interweaving of science and technology became in other words possible because technology was scientised and natural science was technicised or at any rate was practised with regard to technology (technique), whereas both extremes of pure theory and pure methods and skills of craftsmanship were increasingly driven out to reading rooms or workshops.

Under these circumstances anyone who wants to consider technology (technique) as applied natural science must a fortiori hold natural science to be theorised technology (technique). The traditional primacy of technology (technique) over natural science lives on inside of the modern interweaving of both technology and natural science in the form of the fact that the theoretical findings of natural science are determined by means of the apparatus which technology (technique) manufactures. The natural scientist reads in his apparatus whatever the technician has put in it so that he actually describes the functioning of the apparatus when he talks about nature's behaviour (that the manufacturing of the apparatus for

its part implies a certain kind of theory, as already mentioned, does not change this fact). Above the field in which this interweaving of natural science and technology (technique) takes place (irrespective of whether for the purpose of achievement of theoretically usable results or for the purpose of practical application), actual theory stands or rather floats as an attempt to construct an ideational whole which can offer ultimate answers and explanations. However this attempt can turn out very differently according to each and every respective decision and each and every respective involved identity, and that is why the deduction of technical applications from the highest axioms of theory is untenable. In order to prove the objective truth of their own theory, i.e. in order to objectify their theoretical de-cision, the interested parties nevertheless claim a direct origin of technical achievements at the "base" from the higher theoretical "superstructure". This assertion ought not be shown any more trust than for instance the proclamation of Marxists-Leninists that the Bolschevistic seizing of power and the establishing of the Soviet state proves in practice the objective correctness of their perception of history.

In reality technical achievements therefore appear only as the necessary products of a general theory about nature, because in the meantime this theory has been imposed and those who work at the level of technical practice and translate their way of thought and way of procedure into the dominant scientific language want to recognise themselves in the mirror of the dominant conceptuality. Another conjuncture in the realm of society in magno and in the small society of theoreticians could possibly lead to the prevalence of another general theory while the technical achievements were the same (let us recollect e.g. the fundamental difference of the theoretical assumptions of Soviet and western physicists while technical development in both camps followed a similar or the

same course). Precisely this de facto always existing and irreducible distance between theory and technology (technique) indicates that not the pressure of "reality", but the specific power claims in the ideational field push towards the formulation of general theories - just as specific power claims in other fields propel the development of technology (technique). After all, we have already said that, and why, specific theoretical power claims cannot be directly deduced from power claims of another kind.

V. The power character of theories with regard to their structure and their historical fate

Let us now talk about the consequences which the power character of theories has for their structure and their historical fate. In principle it is valid that every theoretical position comes into being as a counterposition. Self-preservation in the ideational field is, as well as in all other fields, eo ipso self-intensification, that is, a power claim, so this must entail competition and polemics. In these polemics the de-cisions (also in theoretical form) are formed and concretised as well as the identities of the subjects (also of theoreticians). Since the de-cision is partly elimination of irrelevant elements, partly hierarchisation of relevant elements, so must the polemic against a foe's de-cision either declare as (only) relevant element whatever is for this foe irrelevant, or at least hierarchise what (for both sides) is relevant in the sense of particular preferences. The common acceptance of relevant elements with a different hierarchisation of the same relevant elements indicates the existence of a common foe, and this again implies that the shaping of a de-cision and an identity most of the time - especially in a complex world - takes place in view of a hierarchy of enmities. An alliance of different subjects, that is, a collective power claim, which finds expression in common assumptions, turns against a common foe; should the common foe be put aside or made harmless, then the polemic is displaced to a new level and takes the form of a struggle for the "true" interpretation of the common assumptions, in relation to which that person or side prevails whose interpretation is recognised as binding on the basis of the existing correlation of forces. Whoever wants to make power claims inside this new situation must now either suggest a new interpretation of dominant basic concepts or else another conceptuality, that is, a new theoretical overall position, and lead them (the new interpretation etc.) to victory.

The multiple polemical considerations and the different intensity of enmity vis-à-vis every one of the competing theories or identities of rival theoreticians determine the structure of a theory, as this theory is shaped as rationalisation (i.e. as explanation or justification) of a de-cision and as expression of an identity. Namely, they determine the premises or the axioms from which they start, the choice of the methods and the ways of argumentation as well as the degree of complexity. No theory can endure in competition if it is not at least just as comprehensive as the others are too, if it does not therefore deal with all questions in issue on each and every respective occasion, although it of course must do this from the perspective of that one de-cision on which it is based. A theory, already because of the necessary consideration of counterarguments, cannot be restricted to the mere announcement of its axioms, that is, to its naked power claim, in relation to which a large number of counterarguments impels it towards the unremitting refinement of its own argumentation. In this way those gigantic finely structured constructs gradually come into being which give rise to the impression of the sovereign independence of

pure thought, while the constructs, by means of the (increasing) logical complexity of their various kinds of founding, conceal their subjective power character.

And yet power claims may be anything other than arbitrary in the familiar sense if they want to be imposed - something that again interrelates with the necessity of their objectification, as explained above. Not any decision at all and not any articulation of a power claim at all is possible or conceivable in a concrete situation. On the contrary, the persuasiveness and the possibility of the prevailing of de-cisions and power claims increase to the extent that their originators take the concrete situation seriously, i.e. the degree to which they take into account the logical and factual magnitudes which are handed down and widespread or just happen to be controversial also exactly at that time, while apart from that they take friendly or inimical positions vis-à-vis corresponding subjects. In spite of all the depth of its anthropological rootedness, the power claim is of little use in practical terms if it has not been sufficiently concretised historically. That which appears as rationality of the de-cision and the theory resulting from it in reality is their historical concretisation, i.e. such a correspondence of theory with the historical moment that its content of necessity captivates the thought of contemporary people who are existentially and intellectually bound to this same moment. (Of course every concrete situation has several aspects, and that is why there can be a number of competing rationalities, a process that is made easier by the fact that "correct" and "false" theories are able to use the same logical instruments irrespective of their content¹¹. A de-cision and a power claim

¹¹ It must be noted that in both Kondylian "descriptive decisionism (decisionist theory)" (of this article and of *Power and Decision*) or in Kondylis's "general social theory (social ontology)" (of *The Political and Man*) more or less complimentary things are being said, but due to the different points of view and different magnitudes of "analytical focusing" different terminology can be used and different emphasis can be given in accordance with the scientific or analytical point of view and focusing: e.g. the discussion in "Science, Power and Decision" makes reference to the historicity or historical

ought, in other words, to appeal to other people, and that is why they must move more or less effortlessly on the pre-given stage, even when they want to or must appear in entirely new roles exactly in case all the other roles are taken. Since foes are obliged to share at least a battlefield, so too must every power claim stand on common ground with the rival power claims and be articulated only on this ground, the ground of the concrete historical situation. Just as one today cannot make a power claim in politics in the name of the resurrection of the ancient polis, so too in the field of modern cosmology power claims can hardly be satisfied by flying the flag of geocentrism.

From the perspective of the polemical character of theories the question regarding the formation of, and shift in, paradigms can also best be clarified. During the examination of this question various models for the interpretation, or rather the schematisation, of the order of events and of the larger or smaller turning points in the history of the natural sciences were proposed, in which at times the continuity, at other times the rupture, at times the interrelation, at other times the contrasting of what has been handed down and what is new was stressed. None of these models nevertheless is in a position to do justice to the historical variety of form in its entire breadth, every one of them, otherwise stated, can be applied only to certain cases - and every one is directly or indirectly based on a normative perception of the essence and of the practice of science. However in order to understand such processes in their historical concreteness one is not allowed to render into forms a situation A or B in

.

concretisation of the de-cision and the power claim, or to human subjects acting in concrete historical situations, whereas in *The Political and Man* there is discussion of the social relation, its mechanism, its spectrum, and of social action, without the historicity of the decision ever being refuted or contradicted since wherever there are world images, world theories (views), power and decision (obviously in the sense Kondylis uses those fundamental categories) etc., there are social relations, social action,... and vice versa, etc.. *The Political and Man* also contains an extensive discussion about the levels, forms and degrees of rationality.

accordance with an already established pattern, but one must act precisely conversely: namely one must dismember this situational case, which is always unique in its subjective and objective constituent elements, name the individual and collective bearers of the theoretical power claims and scrutinise the groupings as to their individual parts which come into being and take effect in accordance with the friend-foe relation. However from the concrete studying of concrete situations only the general conclusion can arise that new constellations are always conceivable, that therefore change and normality, tradition and rupture are defined and realised always anew. Also exactly because of this, no "logic of research" can be framed in abstracto (except as a theoretical power claim), since the use of induction and deduction, of method and intuition must vary considerably according to the situation and subject. The result of research is not formed as the high point of a logical sequence of tiers which one has to climb without fail, but rather as the resultant of positionings of the subject vis-à-vis friendly and inimical positions, as the determination of one's own place and one's own identity within each and every respective relevant community - whether it is managed quickly or effortlessly.

The change which takes place in the so-called scientific revolutions can be called a general paradigm shift when one ideal-typically compares both the paradigms in question with one another and in similar ideal-typical abstractness scrutinises the replacement of one with the other. At the logical level, of course, the aforementioned change can be reconstructed only in this way; however its concrete carrying out looks different, i.e. it differs considerably from that image of the direct confrontation of two subjects which the ideal-typical contradistinction of paradigms wants to suggest. According to the situation and the correlation of forces, both the course and the duration of the formation of

the new paradigm as well as the process of its spreading and its imposition differ (a comparison of the Aristotelian, Galilean¹² and Einsteinic paradigms in both respects should clarify this). Likewise on each and every respective occasion the new status of old data and formulations of a question are determined differently, that is, on each and every respective occasion the question of the commensurability or incommensurability of theories is posed differently so that also here no normatively inspired generalisations are appropriate. In principle it is to be emphasised that, with regard to that, polemical purposefulness decides whether a novel theory will formulate a new conceptuality or will use the dominant one, by it either interpreting the same anew or putting it in a new framework and thus changing its meaning. So according to the situation and the correlation of forces the new can take the stage as radical denial or as commensurable continuation of the old, and because of this the appropriation of certain elements or even leitmotifs of a theory on the part of a newer theory cannot constitute conclusive proof of the fact that in this newer theory an organic meta-development of the former older theory is to be seen; frequently we are dealing with a case of one side, not yet having consolidated its own position, using the established side's weapons against the established side. In this light, i.e. taking into consideration the concrete case and leaving aside pre-given schemata, the question must be dealt with, whether and to what extent terminologicalconceptual changes accompany change in the general theoretical situation. There is no mechanical correspondence between theory and theoretical language, i.e. a correspondence irrespective of the interpretive activity of fighting and, on each and every respective occasion, theoretical subjects or identities which group themselves differently. The comparison of theories is possible only with regard to the decisive

¹² Pertaining to Galileo Galilei.

struggle regarding their interpretation, their deployment at the "theoretical front". The common conceptuality can as well only be the common "battlefield" which, as we already said, foes must share anyway. Formal or terminological and conceptual commensurability does not at all guarantee inner peace and continuity in the domain of theory, just as incommensurability does not at all hinder communication - it only makes an inimical act out of it.

The question of commensurability and incommensurability, in addition, must be posed differently according to the degree of, and claim to, generality of theories. The more general a theory, the greater the power claim of the subject which binds its theoretical identity to it. As in society in magno, so too in the small society of theory there are different subjects and power claims, and as in the society in magno the great mass makes its decision for the most part in the form of an identification with the already existing model of the de-cision, so too most members of the small society of theory orientate themselves towards the dominant framework and satisfy their modest theoretical power claims in a modest manner. The distinction between revolutionary and normal science can therefore be well understood from the point of view of the fundamental categories of power and decision, however from this of itself clear distinction one cannot directly deduce law bindedness in the succession of both these kinds of science. Because the variety of form of the power claims and of the correlation of forces make possible all variations of normal and revolutionary science, the variety of form indeed makes possible both a stiffening as well as rendering fluid of these concepts themselves. A one and only model of revolution in science is just as untenable as one such model in politics. Seen in terms of form, the power game unfolds more or less in accordance with the same general rules, totally irrespective of how

broad each and every respective field in question is; yet it always remains open and it must be vouched for in every concrete case to what extent and in what sense changes in the smaller fields influence the overall situation as well as the outcome of the struggle on the overall field of theory. The readiness to infer the general unsuitability of a paradigm from the ascertained weaknesses as to its individual parts depends on the dynamics of the concrete situation rather than on the "objective" weight of the individual problems themselves, which become interesting to the extent that they can constitute in times of fermentation the focal point of contradistinctions which are rich in implications. This or that formalistic perception of revolution and normality, of continuity and rupture in science is not then only historically insufficient, but also the scientisticrationalistic putting first of criteria like, for instance, falsification. It has already been noticed by several sides that on the basis of such criteria no distinction between revolutionary and structurally insignificant changes in science is possible. Not any problem and not any hypothesis, so not even any falsification at any moment influences the course of the development of science - rather, similar or identical problems and hypotheses can have an essentially different status in different situations. Higher science is therefore in practice not the science which solves problems but the science which determines what the problems are. Only out of this determination does the definition and the status of experience follow, and hence the decision as to whether the hypothesis has passed the test of falsification by means of experience or not.

VI. The utopia of a dominance-free science

The utopian character of the demand to make out of science a power-free and dominance-free territory and to secure scientific progress through the motto "anything goes" derives from the proof that in the domain of science the anthropological¹³ law of power and decision is in force no less than in other realms of social and ideational magnitudes. If only this motto can guarantee scientific progress, then the obvious - even though in its consequences Janus-faced - scientific progress in recent centuries cannot be properly explained any more. In order to put aside this striking contradiction it was stressed, incidentally not unjustly, that the "anything goes" was followed in actual fact also in the past and that the consistent application of the falsification principle probably would have prevented progress; the conclusion must apparently be that whatever was practised in actual fact in the past, unconsciously or secretly, from now on should consciously and openly become the maxim of scientific practice. This view overlooks the mechanisms in the field of ideational magnitudes. Namely, it makes a great *practical* difference whether everyone de facto does whatever they want, while simultaneously believing that they are following an objective principle or an objective method, or whether everyone de facto and de jure devotes themselves to their own appetite or inspiration. To confuse the subjective course of thought with its objective function, to accept the possibility of a ponderable correspondence between practice and the self-understanding of those engaged in practice and to expect better results for practice from the knowledge of the mechanisms of practice - these are only classical rationalistic prejudices.

_

¹³ As becomes apparent from *Das Politische und der Mensch* "anthropological" refers to merely one aspect of human existence and in no way can be understood as separate from the socio-ontological dimension (the mechanism and spectrum of the social relation, the political) or man's rationality, action, culture, identity etc., and therefore is not something that pertains to man in isolation from human society even though biological constants such as the drive of self-preservation, the necessity of death etc. in man also exist in non-human animals.

In reality, there is a necessary inner symmetry between the wanting, i.e. volition, of the subjects in question to proceed with their scientific work methodically and objectively and not anarchically, and the in fact anarchic character of science. Because that wanting, i.e. volition, expresses a power claim, that is a claim to objectivity of one's own decision, and an anarchic historical variety of form comes into being out of the struggle between the power claims against one other. The - in any case impossible - renunciation of the "dogmatic" power claim would lead to the drying up of the psychological sources of action and therefore to theoretical sterility. And since, as we know, this power claim already manifests itself in the observation and sifting of facts which can always only be seen from a certain perspective, the - in any case impossible - renunciation of the power claim would entail an anthropologically completely different cognitive approach, that is, it would entail other kinds of people.

Whoever admits to the perspectivity and the historicity of knowledge must consequently, to be consistent, understand science from the point of view of power and decision. Also, the collective power claim of science, namely the belief in the objectivity of its findings and in the, of its essense, superiority of its cognitive approach, was and is for its progress constitutive. Like the consistent application of the falsification principle, so too the undermining of this power claim and this belief would endanger science in toto. Those scientists and theoreticians of science, who in recent years fight with increasing severity historical and relativistic tendencies, instinctively suspect this. That is of itself a sign of social weakness and the in practice lack of prospects of the ideal of a dominance-free science - an ideal incidentally which not less than all other ideals has an obvious aspect and inside a concrete situation helped a

power claim to be articulated in the domain of theory. Like in other fields, not least of all in moral theory and value theory, as well as in the field of the theory of science, historical relativism sees things more clearly than its foes. However the same practice, which it correctly describes, can only then continue if it ignores historical relativism or even fights historical relativism¹⁴. While relativism must ultimately call into question the meaning of life, it threatens the drive of self-preservation of people (theoreticians are at least in this respect perhaps even more human than others), and it is treated accordingly - despite the short-term partial alliances with relativism in fighting a "dogmatic" foe. After all not even in the future will one succeed in drawing normative conclusions from a historical-relativistic way of looking at things. But precisely such normative conclusions are needed by those who act. Whoever consistently represents historical-relativistic contemplation and is familiar with the mechanisms of power and decision must nevertheless quietly abstain from the formulation of every norm and every regulation or order - including the regulation or order for the abolition of all regulations or orders. A higher pragmatism can even exist in the renunciation of pragmatism itself, in so far as this follows the rationalistic prejudice of a possible symmetry between conscious motives and objective results in action and in theorising.¹⁵

_

¹⁴ Kondylis is saying that all points of view are relative to time and place, power and decision, but as we have already pointed out, scientific knowledge is possible because it recognises this state of affairs and does not make normative claims, i.e. it does not tell people what to do, how to act, in addition to being tested by facts, logic, as well as knowing its limits etc..

¹⁵ The heterogony of ends (Die Heterogonie der Zwecke) never ceases to overshadow the long-term collective consequences of separate individual and collective acts (which arise, not necessarily symmetrically, from the respective intentions behind those acts).

Texts used for this translation:

Kondylis, P. "Wissenschaft, Macht und Entscheidung", pp. 81- 101 in H. Stachowiack (ed.), *Pragmatik Handbuch Pragmatischen Denkens Band V Pragmatische Tendenzen in der Wissenschaftstheorie*, Felix Meiner Verlag, Hamburg, 1995.

Kondylis, P. "Wissenschaft, Macht und Entscheidung", pp. 129-156 in P. Kondylis, *Machtfragen. Ausgewählte Beiträge zu Politik und Gesellschaft*, Wissenschaftliche Buchgesellschaft, Darmstadt, 2006.

Κονδύλης, Π. Επιστήμη, Ισχύς και Απόφαση, Εκδόσεις Στιγμή, Αθήναι, 2001.

Where there was a discrepancy (e.g. as to paragraphing) between the German texts, the 1995 text was preferred. Notwithstanding that the English translation is from the German text, Kondylis's own Greek version proved very useful in producing the English translation since the author's own preferences in translating German terms guided much of the approach to translating from German into English, whilst of course always keeping in mind the differences between, and respective textures of, the three languages, and the history of conveying German sociological and philosophical terms in English.

All the footnotes are the translator's and as footnotes have nothing to do with Kondylis himself.