

Power of Judgement

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Abstract

The concept of the power of judgement goes back to the Greek word *phronesis* which means prudence. Aristotle dealt with it, and in the 19th century Kant wrote his groundbreaking *Critique of the Power of Judgement*.

Mainstream Economics traditionally is good at modelling predictable situations as well as situations with calculable risk. However, environmental issues generally evolve over the long-term, which entails surprise and ignorance. To this end we need concepts hitherto not employed by Mainstream Economics; in particular we need to consider the concept of the *power of judgement*. Although this is a philosophical concept, we all are aware of it in everyday life. It is the ability to react intuitively in a new situation. A judge or a doctor who is confronted with a new case needs the capability of power of judgement to pass an adequate judgement or find an appropriate treatment. Ecological Economics makes use of the power of judgement.

This concept enables us to discuss, in a non-scientific but nevertheless rational manner, long-term problems, evolutionary in nature, and our confrontation with uncertainty and ignorance.

An example of the power of judgement is the application of the precautionary principle which protects us from the consequences of actions that otherwise would take us completely by surprise. The example of Fukushima shows how that catastrophe could have been avoided had the power of judgement been applied.

Related Concepts: HOMO OECONOMICUS & HOMO POLITICUS; RESPONSIBILITY; IGNORANCE; JOINT PRODUCTION; ENVIRONMENTAL POLITICS

1. History

The history of the power of judgement goes back at least to Socrates. The Greek word *phronesis* denotes 'a type of wisdom or intelligence'. It is more specifically a type of wisdom relevant to practical things, requiring an ability to discern how or why to act virtuously and encourage practical virtue, an excellence of character, in others. Phronesis was a common topic of discussion in ancient Greek philosophy... it is often translated as 'practical wisdom' and sometimes (more traditionally) as 'prudence', from Latin *prudencia*.' (see Wikipedia on Phronesis and Aristotle 1999: Book 6) Aristotle (384 – 322 B.C.) dealt at length with it and differentiated it from wisdom (*sophia*) as well as from scientific knowledge.

What is the relationship between practical knowledge and judgement? "Judgement must 'subsume' specific or practical circumstances under rules and concepts. This is necessary when action needs to occur: The doctor's advice says how a specific individual who is sick should be treated. But exactly how judgement subsumes and comes to formulate such advice is something Kant does not divulge to us at first. All he tells us is that it is "a special talent [...] that cannot be taught at all, only practiced" (Klauer et al. 2017: 99).

The power of judgement is strongly connected with experience and everyday knowledge. Precise scientific knowledge is not the proper resource when it comes to judging a situation or subsuming circumstances. How can the required practical knowledge and its relation to the faculty of judgement be characterized?

"Practical knowledge has repeatedly turned up as a theme in the history of philosophy, and yet there has always evidently been a degree of difficulty when it comes to making it genuinely definable" (Klauer et al. 2017: 126).

Aristotle's practical knowledge

"At first sight this type of knowledge seems somewhat deficient when contrasted with the knowledge of science. It is described variously as 'imprecise' (Aristotle 1995: 2/3; I, 1; 1094b12 ff.), 'uncertain', and merely 'probable' (Oakeshott 1991: 24). Everyone agrees with Aristotle's thesis that practical knowledge – in contrast to scientific knowledge – is *not* knowledge that can be proven, that is, knowledge underpinned by a watertight rationale and backed up by axioms (e.g. Aristotle 1995:135; VI, 5; 1140a32 f.). Aristotle also finds that practical knowledge is related to all that is contingent – things that could be different than they are – whereas the knowledge of science can have as its object only that which is of necessity the way it is.

Descriptions of practical knowledge also illustrate, either implicitly or explicitly, that this kind of knowledge is about ‘how to do things’, in other words, it is *know-how*, whereas scientific knowledge is ‘*know that*’ knowledge. Scientific knowledge knows about facts and relations; therefore, it can be expressed (as mentioned above) in statements or propositions. This is not the case with practical knowledge. ‘I know how to ride a horse’, ‘I know how to conduct a negotiation’ or ‘how to give medical advice’ is different from ‘I know that petrol is lighter than water’. In terms of their grammatical form, ‘how to ride a horse’ or ‘how to conduct a negotiation’ are not propositions but indirect questions. This grammatical peculiarity signals that we cannot really say precisely what a person knows when they possess practical knowledge. Practical knowledge, then, is *non-propositional* knowledge. As such it cannot be taught or conveyed in the same way as the propositional knowledge of science. What is peculiar for practical knowledge is the fact that it is always, and essentially, specific to the person who possesses it” (Klauer et al. 2017: 126-127).

Kant’s approach

We will confine ourselves in this concept to the seminal work of Immanuel Kant (1720 – 1804), in particular to his *Kritik der Urteilskraft* (Critique of Judgement, 1793/1892).

“The term *judgement* is often used in everyday speech and yet it appears to be inextricably linked with a certain vagueness that is apparently hard to reconcile with scientific or philosophical concepts and principles. We say that a person demonstrates judgement when he or she accurately judges the character of another person or is able to ‘size up’ a situation – but not if she or he develops a complicated mathematical proof. People typically show judgement in cases where it is possible to ‘have a different opinion’. Such a difference of opinion is not possible with regard to a mathematical proof but often is in relation to judging people and situations. Nonetheless, correctly anticipating the behaviour of a person and mastering a situation is no proof of having made a correct judgement, as it would still be possible to object that the person making the judgement had simply ‘got lucky’” (Klauer et al. 2017: 98).

“Kant had already concerned himself with the faculty of judgement in his *Critique of Pure Reason*, defining it there as follows: ‘the faculty of subsuming under rules, i.e. of determining whether something stands under a given rule (*casus datae legis*) or not’ (Kant 1960.II [1781]: 184; translated by Ginsborg 2015: 1).

However, what we might ask is this: Subsuming ‘under rule’, is that not something we constantly do when we think? What is supposedly special about this ‘ominous judgement’ (Ortmann 2006: 168)? Elsewhere Kant offers us a further clue. We need judgement, he

says, when we wish to make practical use of or follow a theory (i.e. a system of rules or concepts). This is because:

‘(...) no matter how complete the theory may be, a middle term is required between theory and practice, providing a link and a transition from one to the other. For a concept of the understanding, which contains the general rule, must be supplemented by an act of judgement whereby the practitioner distinguishes instances where the rule applies from those where it does not. And since rules cannot in turn be provided on every occasion to direct the judgement in subsuming each instance under the previous rule (for this would involve an infinite regress), theoreticians will be found who can never in all their lives become practical, since they lack judgement. There are, for example, doctors or lawyers who did well during their schooling but who do not know how to act when asked to give advice.’ (On the common saying: That may be correct in theory, but it is of no use in practice, Kant 1991: 61)” (Klauer et al. 2017: 98-99).

2. Theory

We now turn to the main contributor to the concept of power of judgement, Immanuel Kant. We first give a short introduction for the hurried reader before we go into the details of his approach (Section 2.1). Thereafter we relate it to the sciences because the relevance of it is different in different areas of science (Section 2.2).

2.1 Kant’s concept of power of judgement

We start with Kant’s definition of power or faculty of judgement and illustrate it with a famous quote by Martin Luther. We then ask whether it is accidental if one possesses the faculty of good judgement. Finally, we relate practical knowledge to the concept of power of judgement.

Immanuel Kant stated that ‘the faculty of judgement’ is a capability which enables us to react appropriately to the particularity of a situation – be this by holding to what we have always thought and done in such cases, modifying it as the situation demands, or by sensing that in this case something entirely new is required. Kant writes that: “Judgement is a peculiar talent which can be practised only and cannot be taught. [In the sense that one can learn science, M.F.] It [judgement] is the specific quality of so-called mother-wit; and its lack no school can make good. [...] A physician, a judge, or a ruler may have at

command many excellent pathological, legal, or political rules [...] and yet, none the less, may easily stumble in their application. For although admirable in understanding, he may be wanting in natural power of judgement. He may comprehend the universal in abstracto, and yet not be able to distinguish whether a case in concreto comes under it. Or the error may be due to his not having received, through examples and actual practice, adequate training for this particular act of judgement” (Kant 1787/1929: 177-178, B 172f.).

“Judgement is characterised by appropriateness and commensurability. It falls to judgement to understand the particular circumstances of what is on the agenda and to find a measure for deciding which part of what has been recognised as principally right is at the time possible and sensible. For this there exist no objective criteria, but the behaviour of someone endowed with proper judgement is nonetheless characterised by the fact that his or her thoughts and actions seem plausible in the long term to those with whom he or she lives and (ideally) to those who came after and hear of him or her. Plausibility on the side of those involved and those affected, a plausibility which proves to be lasting – not forever, but for a certain period of time – this is the criterion which stands for having thought and acted rightly” (Faber/Manstetten 2010: 64-65).

The example of Martin Luther

“There are, however, times in which it might not suffice to meet with approval in the judgement of the present. These are times of crisis in which great upheavals take place within history – for example, toward the end of the Roman Empire or during the transition of the Middle Ages to the modern age. In such times, everything that the majority of people habitually thinks and does can appear to be blindness, madness or wrongness to reasonable judgement. In such a case, a watchful and discerning person can feel obligated to cross the horizon of general awareness, as (according to the legend) Martin Luther did in 1521 before the emperor at the Reichstag in Worms: ‘Here I stand, I cannot do otherwise. God help me, Amen!’ – Luther could have continued by saying: ‘To this I will hold, even if none of those gathered here can understand why I behave in this manner’” (Faber/Manstetten 2010: 64-65).

How can the faculty of good judgement be acquired?

“Is it then up to chance whether or not an individual possesses the faculty of good judgement? Quite the contrary it is one of the most important aims of education to contribute to the schooling of judgement. In our modern society, it seems too little value is placed on such education – and this must be particularly emphasised in regard to the sphere of environmental education. Why is this so? The reason is that environmental

problems have very many dimensions, to name some: biological, ecological, physical, geographical, sociological, economic, juridical, political, ethical and philosophical. No one is expert in all these subjects. Hence, to come to grips with these various perspectives, one needs good judgement to assess the various arguments concerning an environmental problem.

Kant offers some clues as to what the right school for judgement is. On the one hand, we have examples in the past: We would call these exemplary cases within a tradition which is kept alive by being narrated. On the other hand, we have experience by learning through observing, accompanying and emulating. One requires role models whose actions demonstrate how right judgement can prove itself in practical success, and one also needs to be actually involved in such practices in order to personally gain the knowledge that comes from experience. To this end, we must add that the faculty of judgement requires – among other qualities - a certain kind of social intelligence, for we should act in such a manner that our actions are intelligible and comprehensible for others and, when possible, include them in our actions as we are included in theirs. This, however, demands that we develop an instinct for others, that we become sociable and capable of acting cooperatively.

If action is joined by judgement, the particular task at hand is to recognise what one is to hold on to in a specific situation and what one must let go of: The faculty of judgement must lay claim to pre-knowledge in order not to face the situation empty-handed, and it must be willing to let go of pre-knowledge in order to react appropriately to the novelty of the situation. Thus, judgement is always critical, but also sometimes pragmatic: It questions some of its preconditions but does not let doubt inhibit its actions. Standing on principle is not the business of the faculty of judgement. Having no principles at all, however, as is strongly implied by the chaotic abundance of images and concepts with which our lives and world is flooded today, is even less its business.

The appropriateness of judgement proves itself in whether or not the faculty recognises the special time for that knowledge which is in principle always available – the proper time, the time in which a word or a deed is required:

‘There is a time for everything and a season for every activity under heaven: a time to be born and a time to die, a time to plant and a time to uproot, a time to kill and a time to heal, a time to tear down and a time to build, a time to weep and a time to laugh, a time to mourn and a time to dance, a time to scatter stones and a time to gather them, a time to embrace and a time to refrain, a time to search and a time to give up, a time to keep and a time to throw away, a time to tear and a time to mend, a time to be silent and a time to speak, a

time to love and a time to hate, a time for war and a time for peace.’ (Old Testament, Ecclesiastes 3. 1-8)” (Faber and Manstetten 2010: 65-66).

Application to questions of ecological economics

“Returning to our ecological economic questions, it becomes immediately evident that the power of judgement must play a central role in their analysis and in the process of environmental decision making. It is certainly no accident that the awareness of environmental problems came in the fifties of the previous century almost entirely from the side of laymen and laywomen (see Carson 1962/2002). They had only to open their senses in order to see, hear and smell that something was not right. They were soon dependent on the assistance of science, for nothing else could identify the hole in the ozone layer, CO2 concentrations, dioxins etc.” (Faber and Manstetten 2010: 65-66).

And as a matter of fact, in the seventies and eighties, researchers of many disciplines began theoretically and empirically to work on the environment from different perspectives. Soon new fields emerged, among them was Ecological Economics. Presently there exist many large environmental institutes working on the environment. Numerous scientific journals developed, publishing an abundance of articles, apart from the many books which attempt to summarise parts of their results. Nonetheless, science alone cannot adopt the leading role in environmental matters; for “the question: In which world do we wish to, and can we live, one of the most essential questions of all pertaining to the environment in any manner, is also central to environmental education. This question will not be decided by scientific discoveries. For this we require an instinct for the possibilities and the open spaces of the individual situation. Such an instinct can and must occasionally be corrected or made more precise by science, but it can by no means be replaced by science. In other words, we need good judgement” (Faber and Manstetten 2010: 66-67). This statement holds in particular for the politicians who are responsible for education and the future of our environment.

“It is not scientifically pure solutions, not untainted visions of laypeople, journalists or politicians which will lead us out of the environmental crisis. They are certainly helpful, but only when they are joined by stamina and an alert faculty of judgement: an instinct for what is possible here and now. In the field of the environment, science should provide the best tools for courses of action within the sphere of the scientific knowledge and everyday knowledge. This requires, however, that the scientists themselves are not living in an ivory tower, but are familiar with the dimension of everyday life, and thus interpret their results in such a way that takes the sphere of the society, which must absorb and adopt their results, into account” (Faber and Manstetten 2010: 67).

Practical knowledge and Kant's power of judgement

“Thinkers such as Aristotle have shown that practical knowledge is always a matter of relating a specific, isolated case to a general concept and subsuming it within this concept.

With practical knowledge, then, we have exactly what Kant calls *power of judgement* (*Urteilkraft*), also translated into English as *faculty of judgement*: the act of subsuming individual specific cases within general concepts and rules, above all in a practical context, as with a doctor's ‘counsel’. Practical knowledge is also often associated conceptually with the faculty of judgement, and it is indeed difficult to mark out a clear separation between the power of judgement and practical knowledge. With regard to a doctor who has to give medical advice, we might just as well say that he needs judgement as that he needs to have practical knowledge – both statements would mean roughly the same thing.

Aristotle believes that practical knowledge is needed only for right action; contemporary political philosopher Michael Oakeshott (1991), by contrast, views it as an indispensable element of every human activity – whether practical or theoretical. Thus, we can say that practical knowledge, as Oakeshott understands it, differs only minimally from the concept of power of judgement in Kant. This is because judgement is a case of knowing how: Judgement knows how to deal with concepts and how to apply them” (Klauer et al. 2017: 106-107).

The individual aspect of Kant's characterizing of judgement

“In his Critique of the Power of Judgment, Kant provided a similar definition of judgement to that contained in his Critique of Pure Reason: ‘The power of judgment in general is the faculty for thinking of the particular as contained under the universal (dem Allgemeinen)’ (Kant 2000: 66). To think ‘the particular as contained under the universal’ seems fairly unspectacular initially. Identifying objects as a specific application of a concept does not seem to be anything special. ‘This is a tree’ or ‘that is a dog’ are, in Kant's usage, judgements, and yet making these judgements is a perfectly normal, everyday thing to do. Nonetheless, this everydayness should not allow us to gloss over the fact that indeed we cannot prove these kinds of judgements or provide a watertight rationale for them, and that actually they are in a certain way specific to a particular individual: Each person has to make this type of judgement for him or herself rather than merely accepting it from someone else. If we wish to convince someone else that the object in front of a building is a tree, we can do so only if this other person sees the tree as a tree and makes the judgement: ‘That is a tree’” (Klauer et al. 2017: 106-107).

2.2 Power of judgement and scientific knowledge

It is useful to relate the concept of *judgement* to sciences because the relevance of it is different in different areas of science. We shall apply this relationship to Mainstream Economics and Ecological Economics in particular

Natural sciences and humanities

To this end we distinguish between the natural “sciences which are usually contrasted to the human sciences (humanities), which focus not on *explaining* facts and circumstances but on *understanding* meaning. The contrast between the two is formulated in particularly concise fashion in a text written by theologian Karl Rahner:

‘In the natural sciences it is possible to transfer precisely proven results from one subject area to another and from one researcher to another, to more or less understand them and in any case to use them without having to judge the method, the way they were gained and the certainty of their results. But in the human sciences, truly understanding a statement and honouring its validity depend upon personally re-enacting the process by which it was obtained’ (Rahner 1976: 19; our emphasis).

We can understand Rahner’s differentiation in the following way. The results of (natural) scientific research are not only statements or propositions but also information, even for the outsider. The latter can make use of them without ‘having to judge’ the method or the scientific procedure involved – indeed, he or she need not even be aware of the method or procedure. The human sciences also generate statements, true enough, and yet they do not have the character of transferable information. In order to understand the statements of the human sciences and to find them useful in some way, we have to judge them and to re-enact the way the discipline concerned came up with them.

An illustration

We wish to illustrate this with an example. Let us compare the sentence ‘The acceleration of gravity is 9.8 m/s^2 ’ with the statement ‘The ethical system of Immanuel Kant is a contemporary variant of the ancient ethics of the Stoics’. With no knowledge of gravitational theory, we can use the first sentence as a piece of information and thereby predict that a stone dropped from a height of 20 metres will hit the ground after about 2 seconds with a speed of approx. 70 km/h. By contrast, the statement about Immanuel Kant is of no use to us whatsoever if we understand nothing about ethics or the history of philosophy and cannot see how the person who posited the thesis came to formulate it. Another difference

is this: Statements emerging from the human sciences do not have to be definitive and unambiguous to count as ‘scholarly’ and ‘well-founded’. Thus, alongside the statement ‘The ethical system of Immanuel Kant is a contemporary variant of the ancient ethics of the Stoics’ it is possible to have a thoroughly opposing one which, for example, traces Kant’s ethics back to his pietistic roots – and which likewise counts as ‘well-founded’.

Natural sciences and the human sciences

“Whereas understanding the results from the natural sciences does not require any special power of judgement, it is clearly necessary for the human sciences. Thus, the natural sciences and the human sciences seem to differ more in the *methods* they are using than in their objects. At the same time, they represent extremes between which other sciences can be located. For example, the disciplines of history, political science and sociology often proceed on the basis of certain methods that demand less judgement (cf. Wieland 2001: 177-178), generating knowledge about both specific things and particular regularities of a general nature – e.g. the connection between environmental awareness and education or income. In other words, using observation (guaranteed by the methods used) and empirical data collection, they are able to generate law-like generalisations.

However, statements of law emerging from the social sciences are usually seen as merely ‘indicative of a tendency’. They have to be interpreted, and that too demands judgement. Even the assertions of history as a discipline are often not simply pieces of information. This is true both for assertions about historical developments (what exactly was it that led to the outbreak of World War I), and for assertions about certain events; here, too, the credibility of sources has to be *judged*” (Klauer et al. 2017: 113-114).

Mainstream Economics and Ecological Economics

“Finally, Mainstream Economics – insofar as it is guided by mathematics – has a particularly close affinity with the natural sciences, namely, to the extent that it too formulates laws (such as the fundamental theorems of welfare theory and many theorems on growth theory) which are widely considered to determine market economies. Even political science and sociology reveal traits of the natural sciences when they adopt methods and models from economics (e.g. rational choice theory)” (Klauer et al.: 2017: 114).

This affinity to mathematics became a particularly characteristic of Mainstream Economics at the beginning of the second half of the 20th century. This development led in turn to a neglect of the attention in research and teaching to faculty of judgement; this is quite in

contrast to the statements of the founder of Mainstream Economics, Adam Smith (1723-1790). For example, he insisted on the teaching of the power of judgement in schools (Smith 1776/1978: 667-668; see also Faber/Manstetten 2007: 99-100). In contrast to this falling into oblivion of the faculty of judgement in Mainstream Economics, this concept gained more and more prominence in Ecological Economics. The reasons for this development have been that Ecological Economics is characterised, besides nature and time, by justice (Faber 2008); of course, the latter is not possible without power of judgement (Faber/Manstetten 2010; Klauer et al. 2017).

To sum it up: Power of judgment is no longer a concept of Mainstream Economics. You will hardly find this concept, if at all, in any textbook of Mainstream Economics. Quite the contrary, it is of central importance in Ecological Economics.

3. Practice

We show in Section 3.1 how power of judgement can be applied as one of the main principles of Ecological Economics, namely the precautionary principle. In Section 3.2 we turn to its relevance to sustainability. Finally, in section 3.3 we relate the concept of power of judgment to our concept of *homo politicus* [HOMO OECONOMICUS & HOMO POLITICUS].

3.1 Power of judgement and the precautionary principle

“A look at a complex case reveals that the central task of the power of judgement, the subsuming of the particular as contained under the universal, is by no means a trivial matter. Let us take an example from environmental politics. The precautionary principle is a general rule according to which “damage or harm to the environment or to human health should – regardless of an incomplete knowledge base – be avoided or reduced to the greatest possible extent in advance” [Translation of German Wikipedia definition, accessed 13.02.2014]. Yet what exactly ‘reduced to the greatest possible extent’ means cannot be determined in general terms: It always depends on a range of sometimes unique circumstances. Refraining from doing something would not be a genuinely safe application of the precautionary principle either because, in the case of natural disasters for example, it is this very inaction that has adverse consequences for the environment and human health” (Klauer et al. 2017: 107).

3.2 Judgement in politics and sustainability policy

“What function does power of judgement have in politics? It enables fires in Bentschen to be spotted from Posen – in other words, it makes it possible to anticipate things which cannot be predicted with certainty by understanding. What we can say with certainty is that in politics in general Kant’s ‘*erweiterte Denkungsart*’ (*Gemeinsinn* or *sensus communis*) plays the crucial role; those who are most successful in achieving their goals are those who are best able to comprehend and anticipate other people’s interests and perspectives. We were able to demonstrate this, for instance, in a study on the German Environmental Administration (Petersen and Faber 2000).

At the same time, sustainability policy makers in particular are confronted with a host of often disparate scientific and non-scientific insights on which they have to base their activities and decision making, indeed, even their problem definitions per se. Heuristic elements which bring these insights into a unified perspective regarding sustainable actions and *subsume* them within its goals are needed here. We would like to elucidate this in a little more detail” (Klauer et al. 2017: 114-115).

An example of land use

“Whether a political problem is a sustainability problem at all cannot be decided without scientific expertise; equally, it cannot simply be ‘read off from’ such expertise, i.e. it cannot solely be determined by scientific knowledge. Hence, it needs power of judgement to decide whether it is a sustainability question or not. Why, for example, is land use – new land dedicated to industrial areas, human settlements and transport infrastructure – of more than 100 hectares a day in Germany a problem of sustainability, and why should a reduction to 30 hectares a day be sustainable?”

How can power of judgement help to solve such a sustainability problem? Targets such as the 30 hectare target contained in the German government’s sustainability programme (German Federal Government, 2008) are obviously intended to provide a ball-park figure; at times they seem to be selected at random. Why do we not set the target at 60, 20, 10 or – as some sustainability researchers are demanding – 0 hectares? Science can tell us neither in simple terms why daily land use of more than 100 hectares is not sustainable nor why one of 30 hectares should be sustainable. Other considerations must come into play here.

When answering the question why land use is a problem of sustainability in the first place, the *experience* that the mere quantity of newly allocated land is an indicator for other

sustainability-relevant developments – such as for an increase in traffic and pollutant emissions – is of crucial importance. Such experience is different from scientific knowledge or a law. At the same time, the 30-hectare target may be a reasonable interim target on the path towards sustainable land management. It may be based on the assessment that it is not possible to achieve more in a period of nearly 20 years. Setting a target that is too ambitious would have no impact. The 30-hectare target also offers an opportunity to try out new regulatory instruments for land use - such as the trade in land-use permits. Such instruments can – once they have proven their worth over time – facilitate further reductions in land use. These kinds of considerations in turn presuppose, among other things, a feeling or an intuition for temporal dynamics” (Klauer et al. 2017: 114-115).

3.3 Power of judgement as a characteristic of homo politicus

“Power of Judgement is a faculty of the homo politicus who, in order to achieve a better understanding of human behaviour, was created to be combined with the concept of the homo oeconomicus [Homo Oeconomicus and Homo Politicus] (Faber et al. 1997; Petersen et al. 2000). The homo politicus is strongly orientated towards the common good, including its basic condition: the preservation of the natural conditions for life. The homo politicus is characterized by his preference of factually appropriate and long-run solutions. To achieve these solutions, he or she needs to find a consensus from all participants. Finding such a consensus is a very difficult task, and the homo politicus needs a certain faculty, Immanuel Kant’s power of judgement (1960.V: 389), as Kant wanted to differentiate this faculty from the discursive reasoning of mind. In contrast to the latter, the judgements of the power of judgement are not necessarily logically consistent, repeatable in each instance or necessary (Kant 1960.II: 184). What is the difference between the power of judgement and the brain? Remember that in contrast to the steps of the brain, the judgements of the power of judgement are not necessarily logically consistent, repeatable in each instance or necessary (Kant 1960:368). The judgements of the power of judgement do not fulfil these conditions since they have an irrevocable element of freedom and spontaneity and refer strongly to practical knowledge based on everyday experiences” (Petersen et al. 2000: 141-142; our translation).

“In order to be successful, homo politicus requires this faculty of power of judgement. It follows that in contrast to the behaviour of the homo oeconomicus, which is calculable and under given restrictions completely predictable [HOMO OECONOMICUS & HOMO POLITICUS], the acting of the homo politicus is never completely determined by a given context.

Power of judgement is that moment where it comes into its own; this is what Hannah Arendt centrally considered as politics per se. Politics is for Arendt (1981) action, and action differs from a purely adaptive behaviour since it always contains a spontaneous element and thus creates novelty [EVOLUTION; IGNORANCE]. Arendt writes: 'Action and a new beginning [are] the same' (Arendt 1981: 166; our translation). Behaviour, and therefore the behaviour of the homo oeconomicus, is always a consequence of its conditions, and if complete knowledge of these conditions is available, then it is predictable; this does not hold for action. Action is never completely determined by its conditions, e.g. the judgement of a judge can never be predicted precisely, the same holds for therapy prescribed by a doctor. This connection between politics and spontaneity corresponds completely to our everyday understanding of politics, for we consider politics as the art of the realm of the possible (Otto von Bismarck), in which there exists the freedom to create and to shape political acting. The politician has this freedom of deciding and shaping, while the seemingly unpolitical administration has only to carry out what the politician pretends to do. In contrast, we consider what the administration does to be predictable, the decision itself however not [see Ch. 3 of HOMO OECONOMICUS & HOMO POLITICUS]. The power of judgement and the homo politicus' acting determined by it thus has an element of unpredictability. Since this political acting can change laws and institutional frameworks of the economy as well as norms and preferences, it represents a possible source of evolutionary change [EVOLUTION]. This unpredictable acting is particularly demanded on those occasions when very narrowly interwoven and conflicting interests exist which leave the homo politicus only very limited scope for action. In all these cases, politics can be considered a perpetual cutting of Gordian knots, be it that the political actor wins the consent of the interested parties with a completely surprising and novel proposal or be it that he or she at first meets with a refusal, which gradually changes into consent" (Petersen et al. 2000: 145-148; our translation).

Example

"We have emphasised that the human as homo politicus has the ability and the potential to create novelty and to initiate unpredictable developments. This circumstance implies certain dangers which have to be clearly recognised. In spite of the homo politicus' orientation concerning the common good and welfare, this does not necessarily imply that these developments will turn out to be factually good or desirable. As examples, we do not think of totalitarian leaders like Hitler or Stalin, since their politics cannot at all be affiliated with any idea of common welfare or justice. However, the possible complex of problems of the homo politicus can well be illustrated by a figure like Maximillien Robespierre. He was beyond a doubt an extraordinary political talent with great power of judgement.

Robespierre solely employed the word and did not rely on any potential of power to determine the course of the French Revolution for one year and, in spite of his power of judgement, he led France into a reign of terror” (Petersen et al. 2000: 145-148; our translation).

3.4 Conclusion

Power of judgement is a concept well known and analysed since antiquity. Aristotle, in particular, dealt with it at length. It received new prominence by the seminal work of Immanuel Kant.

The terms *power of judgement* and *practical knowledge* often seem to differ only in a few nuances. The difference consists mainly in the fact that each emphasises a different aspect of the same thing: Practical knowledge, for instance, often highlights the aspect of experience required by this knowledge – experience is something that can be accumulated over time. Kant, by contrast, sees judgement as a mental faculty that is essential to human beings and part of their inherent make up, and unlike understanding, this faculty requires continual, steady practice.

Researchers from different sciences have different requirements for employing the concept of power of judgement. While ‘normal’ research in the natural sciences, i.e. research which uses an established paradigm and its methods, requires little power of judgement, if any at all, the situation is very different in the humanities where power of judgement plays a central role since one cannot depend on established methods as much as in the natural sciences.

While the founder of Mainstream Economics, Adam Smith, considered power of judgement to be an important element of education, it got lost with the growing use of mathematics in the second half of the 20th century. Thus, the homo oeconomicus is in no need of his own decisions since they are calculable and hence predictable. Quite in contrast to this development in Mainstream Economics, it received new relevance in Ecological Economics because ecological economic problems intrinsically have to do with justice [SUSTAINABILITY & JUSTICE]. In particular, the concept of power of judgement came to new prominence with the rise of the concept of the homo politicus. Homo politicus is indispensable for the explanation of political action. This is particularly true for environmental problems because they are characterised by the interwoven interests of many different interested parties.

4. Literature

The content of MINE originates from scientific work published in books and peer-reviewed journals. Quotes are indicated by a special typographic style.

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The main sources of this concept are the following publications:

Faber, M. and R. Manstetten (2010) *Philosophical Basics of Ecology and Economy*. Routledge, London and New York. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical or photocopying, recording or otherwise without the prior permission of the publisher. The material is reproduced in MINE with permission of the Licensor through PLSclear (**Ref. No: 8528, licenced 03.01.2019**).

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4.1 Recommended literature

Key literature

Faber, M. and R. Manstetten (2010) *Philosophical Basics of Ecology and Economy*. Routledge.

Kant, I. (1793/1892) *Critique of Judgement*. Translated with introduction and notes by J.H. Bernard,

Klauer, B., Manstetten, R. Petersen, T., Schiller, J. with Contributions by B. Fischer, F. Jöst, M. Lee, K. Ott (2013) *die Kunst langfristig zu denken. Wege zur Nachhaltigkeit*. Nomos, Baden-Baden.

Klauer, B., Manstetten, R. Petersen, T., Schiller, J. with Contributions by B. Fischer, F. Jöst, M. Lee, K. Ott (2017) *Sustainability and the Art of Long-Term Thinking*. Translated by Kathleen Cross, Routledge, London.

Recommendations for further reading

Torkler, René (2016) *Philosophische Bildung und politische Urteilskraft. Hannah Arendts Kant Rezeption und ihre didaktische Bedeutung*. Verlag Karl Alber, Freiburg im Breisgau.

4.2 References

Power of judgement

Aristotle (1999) *Nicomachean Ethics*. Translated by Terence Irwin, 2nd edition; Hackett.

Faber, M. and R. Manstetten (2007), *Was ist Wirtschaft? Von der Politischen Ökonomie zur Ökologischen Ökonomie*. Alber Verlag, Freiburg.

Faber, M. and R. Manstetten (2010) *Philosophical Basics of Ecology and Economy*. Routledge.

Ginsborg, H. (2015) *The Normativity of Nature. Essays on Kant's Critique of Judgement*. Oxford University Press, Oxford.

Kant, I. (1960) *Werke in sechs Bänden*, ed. by W. Weischedel, Darmstadt.

Kant, I. (1787/1929) *Critique of Pure Reason*, translated by Norman Kemp Smith, Macmillan and Co. Ltd. London.

Kant, I. (1793/1892) *Critique of Judgment*, translated with introduction and notes by J.H. Bernard.

Klauer, B., Manstetten, R. Petersen, T., Schiller, J. with Contributions by B. Fischer, F. Jöst, M. Lee, K. Ott (2013) *die Kunst langfristig zu denken. Wege zur Nachhaltigkeit*. Nomos, Baden-Baden. [The book is the main source for this concept. It is also essential for the concept Basics of Life -Stocks, Stores and Funds. The English translation is quoted below.]

Klauer, B., Manstetten, R. Petersen, T., Schiller, J. with Contributions by B. Fischer, F. Jöst, M. Lee, K. Ott (2017) *Sustainability and the Art of Long-Term Thinking*. Translated by Kathleen Cross, Routledge, London. [The book is the main source for this concept. It is also essential for Basics of Life -Stocks, Stores and Funds. The German edition is quoted above. (2013)]

Ortmann, G. (2006) „Kür und Willkür. Jenseits der Unentscheidbarkeit“. In A. Scherzberg, T. Betsch, H.-J. Blanke, P. Walgenbach, A. Waschkuhn, G. Wegner (eds.) *Kluges Entscheiden. Disziplinäre Grundlagen und interdisziplinäre Verknüpfungen*. Mohr Siebeck, Tübingen: 167-194.

Volume II of the Glasgow Edition, R.H Cambell/ A. S. Skinner/W.B. Todd (eds)
Indianapolis.

Wieland, W. (1999) *Platon und die Formen des Wissens*. 2. ed., Vandenhoeck & Ruprecht, Göttingen.

Wieland, W. (2001) *Urteil und Gefühl. Kants theorie der Urteilskraft*. Vandenhoeck & Ruprecht, Göttingen. [The book is a thorough analysis of Kants' theory of judgement, adhering to the strictest philological precision; it demonstrates its significance for modern practical philosophy.]

Homo politicus

Arendt, H. (1981) *Vita Activa oder Vom tätigen Leben*. Piper, München,

Bernholz, P., 1998. *Homo oeconomicus and homo politicus: a comment*. *Kyklos*, 51: 409-415. [The short paper gives a critique of the concept of homo politicus developed by Faber et al. 1997]

Faber, M., 1999. *Was ist Wirtschaft? Was ist die Wissenschaft von der Wirtschaft?* *Dialektik* 1999/3: 13-41.

Faber, M., Manstetten, R., Petersen, T., 1997. *Homo politicus and homo oeconomicus*. *Political economy. Constitutional interest and ecological interest*. *Kyklos*, 50: 457-483. [The paper develops the concept of homo politicus from an economic and a philosophical perspective.]

- Faber, M., Manstetten, R., 2014, Was ist Wirtschaft? Von der Politischen zur Ökologischen Ökologie, 2. Edition Alber, Freiburg. [The books deals with various concepts of MINE.]
- Gintis, H., 2000. Beyond Homo oeconomicus: evidence from experimental economics. Ecological Economics, 35: 311-322.
- Jager, W., Janssen, M.A., De Vries, H.J.M., De Greef, J., Vlek, C.A.J., 2000. Behaviour in commons dilemmas: Homo economicus and Homo psychologicus in an ecological-economic model. Ecological Economics, 35: 357-379.
- Kliemt, H., 1984. Nicht-explanative Funktionen eines 'Homo oeconomicus' und Beschränkungen seiner explanativen Rolle. Homo Oeconomicus II: 7-49. [The paper was written by a philosopher, who has also dealt with many aspects of economics.]
- Manstetten, R., Hottinger, O., Faber, M. 1998, Zur Aktualität von Adam Smith; Homo Oeconomicus und ganzheitliches Menschenbild, Homo oeconomicus, XV(2):127-168.
- Nyborg, K., 2000. Homo economicus and homo politicus: interpretation and aggregation of environmental values. Journal of Economic Behavior & Organization, 42: 305-322.
- Petersen, T., Faber, M., Schiller, J., 2000. Umweltpolitik in einer evolutionären Wirtschaft und die Bedeutung des Menschenbildes. In: K. Bizer, B. Linscheidt, A. Truger (Editors), Staatshandeln im Umweltschutz. Perspektiven einer institutionellen Umweltökonomik. Duncker & Humblodt, Berlin: 135-150.
- Siebenhüner, B., 2000. Homo sustinens-towards a new conception of humans for the science of sustainability. Ecological Economics, 32: 15-25.
- Söderbaum, P., 1999. Values, ideology and politics in ecological economics. Ecological Economics, 28: 161-170.

Empirical studies

- Klauer, B, Manstetten, R., Petersen, T., Schiller, J. The Art of Long Term Thinking. Clearing the way towards sustainability (Forthcoming): 136-139, 161-191.
- Petersen, T., Faber, M. (2000) „Bedingungen erfolgreicher Umweltpolitik im deutschen Föderalismus. Der Ministerialbeamte als Homo Politicus“, Zeitschrift für Politikwissenschaft 10. Jg., Issue 1: 5-41.

Further reading

- Carson, R. (2002) Silent Spring, Houghton Mifflin, 1962, Mariner Books.

Costanza, R., (Editor) 1991. Ecological Economics. The Science and Management of Sustainability. Columbia University Press, New York, Oxford.

Debreu, G., (1959) Theory of Value. Wiley & Sons, New York.

Faber, M. (2008) How to be an ecological Economist. Ecological Economics 66: 1-7.

Kant, I. (1960) Werke in sechs Bänden, edited by W. Weisschedel, Darmstadt.

Mas-Colell, A., M. D. Whinston und J.R. Green (1995), *Microeconomic Theory*. Oxford University Press, New York und Oxford.

Petersen, T., Faber, M., (2000). Der Wille zur Nachhaltigkeit. Ist wo ein Wille ist auch ein Weg? In: Birnbacher, D. and Bruder Müller, C. (Editors), Zukunftsverantwortung und Generationensolidarität. Schriften des Institutes für angewandte Ethik e. V., Band 3, Königshausen und Neumann, Würzburg: 47-71).

Rahner, Karl (1976) Grundkurs des Glaubens. Herder, Freiburg/Brsg.

Sagoff, M., 1988. The Economy of the Earth. Philosophy, Law, and the Environment. Cambridge University Press, Cambridge, U.K.

Online-References

Wikipedia on Phronesis: <https://en.wikipedia.org/wiki/Phronesis> last access 23.10.2018