# Basic ethics (Aristotle, Bentham, Kant)

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## *Introduction*

Schools and universities provide us with toolkits to approach real life projects when we are finished with the studies and have jobs. Everybody who thinks that these toolkits suffice to solve complex problems in practice will be very disappointed. Most of the tools focus on rational methods to cope with problems, where the real life shows a lot of emotion and unexpected behaviour. Some students will start to work at government or a consulting company to implement 'good' ideas about improving the living surroundings. However, their ideas are blocked by "civilians who does not understand it" or politicians that play other games than these new professionals are interested in. In practice they will meet: fear, group protection, power, bureaucracy, opportunity seeking, resistance, sadness, holistic vagueness, irresponsibility, etc. These are all human characteristics. The outside world is often more cruel than the protected world of school and university. If you have no eye for that, these characteristics will work out in a negative way to dominate your life and you might get frustrated. Good ideas will hardly be implemented. However, when you recognise them, take them serious and even see the beauty into them, you might find ways to cope with them. And finally, when you succeed in getting ideas realised in a dynamic and 'cruel' social system, the pleasure afterwards is extra large.

In a world with order and chaos, pain and pleasure, cowards and heroes, restrictions and freedom, you have to find your way to use the tools you learned at school and university to make things better. For that, you need some insight in what is good and bad; in ethics. Of course you can try to find a book with binding ideas about good and bad; however, a lot has to come from yourself of from an interaction with other people. Real life problems cannot be formulated by n equations with n variables. Most of the time the number of variables outranks the number of equations, so you have to be creative and good. There are more solutions to the problems you explore.

This short introduction for the "environmental ethics and management" course presents three basic ideas on ethics. They help us to navigate through real life situations. They will not tell us what to do, but they will give *structure* to our thinking. Also by presenting three different kinds of ethics, it will become clear that there are many way to give form and content to this structure. The first one is the Aristotle ethic. Aristotle (384 – 322 BC) saw the world as wholeness and formulated a goal oriented (teleological) ethic. The second ethic originates from Jeremy Bentham (1748 – 1832). It is called utilitarism. It is also a teleological ethic; however, he saw a world that is dominated by nature laws where eventually 'everything' could be determinated. The third and probably most difficult ethic comes from Immanuel Kant (1720 – 1804). His ethic is called a deontological ethic, about "that what we should do." It is about duty, rules, laws and autonomy.

This introduction presents the theories in a personal manner; real philosophers might think it is oversimplified. However, it is not the goal of this course to present the different ethics as

accurate as possible. It is important that students with different backgrounds understand the essences of the three ethics and become aware that there are several ways to look at problems in real life. They will realise that at university perhaps 90% of the lectures will be presented from a utilitarian point of view, most of the times without making this explicit. The utilitarian approach is more or less pre-assumed as the best – or only. Especially in the western society utilitarism dominates in science. However a lot of people will recognise themselves more in the way Aristotle and Kant approach the good and bad of our society. In the lecture on environmental ethics and management at DTU on 14 September 2006 it worked out that more than half the number of the students preferred an Aristotelian approach.

## *The ethic of Aristotle (384 – 322 BC)*

To understand the ethic of Aristotle, it is essential to know how the Classic Greeks looked at the world. It is different to how we see the world in the modern society. They saw everything as a whole. Everything is connected to everything. There is a macro cosmos, the unity of everything. It consists of the world, the sun, the planets, and the galaxy. In that, a human is a micro cosmos, a reflection and a part of the wholeness. This wholeness unfolds itself in an emergent way. It is never in equilibrium. However, inside this all there is hidden a solid and unchangeable truth (real knowledge).

*Teleological ethic (goals oriented)*
From this point of view Aristotle observed the world. Like Plato he does not look to ethics as something that is focussing on the real knowledge. Ethics operate in the domain of meanings and opinions. It evolves within the limitations of human observations. Therefore it is not solid and unchangeable.
He looked at all living creatures and believed that they all have internal goals. When a seed of a plant is in the soil, the goal (telos) of the seed is to become a healthy plant with a beautiful flower. That is why the Aristotle ethic is also called a eudemonistic ethic, focussing on being successful. A seed is 'good' when it is working to reach that goal. Some of them will succeed, many will not.

For people it is more complicated than for plants. People have many goals inside themselves. It is good that people live intensively to discover these goals. If you lock yourself up into a room without interaction with the world around you, you will discover fewer goals and also will be able to fulfil a limited amount of them. You are successful and happy when you discover a lot of these goals and work hard to realise them. The working on the goals is more important than realising them, because the goals might change. The efforts make a good man of woman. Human beings are so complex, that life is too short to reveal all goals. A strong point of human life is that it is only temporarily. Travel, see and experience, and work on your goals. The 'doing' makes the difference. This doing is goal oriented, but the most important thing is that this doing has a beauty on its own. When Aristotle would have been a football fan, he would say that winning the game is an important goal; however, the joy of playing a beautiful game with sportive behaviour and technical high quality performance, is more important. Result football is too utilitarian.
In the ideas of Aristotle it is worthwhile to strive for happiness. Happiness is a balance between working on goals and achieving the goals. It is also a balance between reality and expectations.

At a first sight it looks that Aristotle's ethic is very individual. However, he also has been thinking a lot about individuals as parts of a political system. In interaction with other people

goals change and might evolve into common goals. Everybody starts his or her life in a situation that is created by other people and other living processes. He or she is adapting to this situation. He or she will influence it – adds something to it – and has to adjust to the context he or she is living in. An individual should obey the rules of a system without neglecting his or her own goals. The beauty of the game is mainly a result a high quality interaction between the goals of the political system and the individual goals.

*Prudence, middle way, bravery, hybris and kairos*
There are several words that characterise the way we could give form and content to a beautiful and successful way of acting in this world, as a micro cosmos in the macro cosmos. Five of these words are selected here. They represent some essences of Aristotle's way of approaching the good and bad: prudence, the middle way, bravery, hybris and kairos.

*Prudence* is the most often used translation of "ρονησι" and has something to do with practical wisdom or practical judgement. It is the ability of people to act in a reasonable way under practical conditions. People collect knowledge (experience) in their lives and when they are placed in a situation where they have to take decisions, they should use that knowledge in a conscious way. One way to do that is to follow the *middle way*, between too much and too little. In his Ethica Aristotle writes: "Both excessive and insufficient exercise destroy one's strength, and both eating and drinking too much or too little destroy health, whereas the right quantity produces, increases or preserves it. So it is the same with temperance, courage and the other virtues (...). This much then, is clear: in all our conduct it is the mean that is to be commended."

An important middle path in the environmental ethics course concerns the attitude of *bravery* between cowardice and recklessness. When we want to work on goals, we have to take risks. Acting is not always without uncertainty. When you only act in certain situations, you act like a coward. Life will not show many of its beauty than. For example, when a man falls in love with a woman, he should have the courage to ask her out. If he does not do that, due to the fact that she might reject him, he will never know whether she loves him or not. He will never find a partner, because living with other people introduces a lot of uncertainty. On the other hand, it is also not good to be reckless and to ignore uncertainties. If you are in a battle situation and run in the direction of the enemy without courting the risk of getting injured or killed, you are reckless. You do not use your knowledge then, so it is not according the principle of prudence. Some people are reckless and survive. Sometimes we call them heroes, often we call them stupid. The middle way of bravery represents the way where we take risks, but act in a way that we can cope with them. Before asking the woman out, the man could try to have a little conversation with her, to collect some knowledge that will reduce the amount of uncertainties. Does she like the jokes he is telling? And in the battlefield it is wise to work out a group strategy for approaching the enemy. The middle way offers the right uncertainty balance.

When we act in a situation of too much, Aristotle calls that *hybris*. Then we are overacting. For example, when we develop a new residential area, it could be a common goal to make this area as sustainable as possible. We could install a water system where all stormwater is infiltrated into the subsoil and all waste water is treated towards drinking water in the area itself and recycled. The use of energy (electric and gas) could be the lowest in the whole world and to make people aware of the negative influence of cars, the area could be car free. Only walking, cycling and public transport will be allowed. Also all houses could have vegetation roofs, the use of material could be minimal (only materials with low life cycle

costs) and the air could be cleaner than in the surroundings. When we succeed in realising all these goals, it will be the most sustainable urban area. However, it is too much. It is a hybris situation, especially when you want to construct this new residential area within three years. We have limited human capacity and financial resources and the knowledge is not enough to cover all the fields at the same high level. We have to make choices. If not, the residential area will be a disaster. Because we fail on some aspects, the "psychology" of the project will be one of "we fail to achieve our goals", resulting in a negative attitude. When one thing goes wrong, many things go wrong (a law of practice). Hybris will predictably result in disappointments. It is better to formulate goals that can be met theoretically and practically, and results in a happy feeling when we succeed in realising them.

Because the world of ethics is not in equilibrium, and goals evolve, there is a right and a wrong moment to act. The right moment is called *kairos*. Also this has to do with practical knowledge and perhaps intuition. When you would like to ask a girl out for dinner, act at the right moment. When you want to buy some farmers land, act on a moment the farmer is in a good mood for it. Kairos has to do with being interested in all the factors in the context of your action that will influence the probability of success.

*Relation to modern science*

The way Aristotle approaches the ethical dimension of human actions is very old and some people might think it is not valid anymore. There have been so many philosophers since Aristotle, so his ideas should be overruled by others. That is partly true. However, in some respect the ideas of Aristotle are also very modern, especially in the 21st Century where people have a need for holistic approaches.

In the time of the Classic Greek the world and the universe formed wholeness. As told, everything was connected to everything. In the western cultures, this view only disappeared gradually in the 16th and 17th Century, due to the Enlightenment. This Enlightenment refers to a series of changes in European thought and is connected to historical categories, such as Renaissance and Reformation. It says that people were breaking from the past and replacing the obscurity, darkness, and ignorance of European thought with the "light" of truth. Scientists and artists started to analyse facts of life and nature and introduced a deterministic way of looking at reality. The idea of God disappeared – partly – and people started to believe that everything can be rationalised. All processes are ruled by Nature Laws, like the ones Newton and Einstein discovered. Some people even expected that there will be a time that we can predict the whole future by knowing the present situation and the Nature Laws that describe to movements of 'things.' Especially the discoveries in the 17th and 18th Century encouraged this view. By getting more knowledge about the parts, we get more knowledge about the whole. This is called reductionism. People thought they were able to find the real truth.

Nowadays – starting at the end of the 20th Century – the people realise there is a limit to deterministic knowledge and they expressed a need for integration of knowledge. Everything is split up in pieces and all people are specialised to such an extent that nobody can overlook the whole anymore. In the physical world theories like quantum theory and chaos theory show that there are limits to human knowledge and in practical professions people feel that "something is missing." More and more people explore holistic views of the world, where they combine the values of the classic thinking and values of modern science.

One of the dominating modern holistic approaches is the science of complexity. It started as a mathematical theory about "complex adaptive systems", but nowadays people from many

disciplines are working on it. A good introduction to the science of complexity is written by M.M. Waldrop: "Complexity: The emerging science at the edge of order and chaos." In this field of complexity science the Aristotle's philosophy comes to life again. One of the most important lessons from complexity science is that the only way to cope with complexity is to *act in practice*. Integration on an abstract level results in complicated 'spaghetti' structures; however, in practice integration is "just normal." For example, nowadays many professionals try to integrate their knowledge. We have integrated water management, integrated traffic management, integrated health care, etc. Everybody is integrating, putting his of her own profession (discipline) in the centre. This results in as many integrated approaches as disciplines. On the one hand it is for citizens that are informed by the professionals very complicated to understand the integrated approaches. Every group of professionals uses his own idiom. On the other hand, for the same citizen it is quite easy to accept that everything is related to everything, because within a radius of 100 metre they will find water, traffic problems and opportunities, situations regarding health and sickness, etc. Only in theory integration is difficult. In practice is a fact of life. To cope with the complexity of life the principle of *prudence* comes into play. It means that the best way of integration is to act wisely in practice, instead of making abstract models that possibly might describe all processes in the future. It is allowed that models only represent parts of our world and focus just on water or traffic, etc.

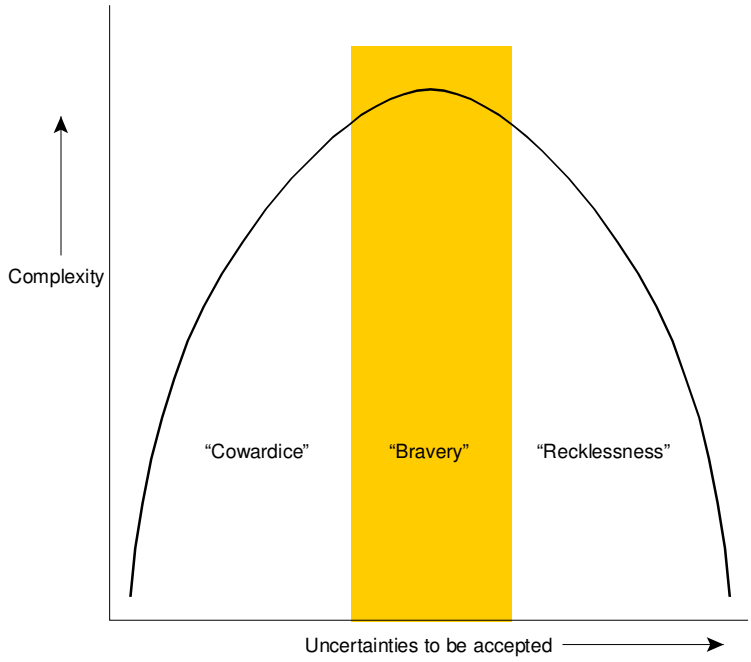


**Figure 1. Relationship between complexity and uncertainties to be accepted, with Aristotle's terminology.**

Also the *middle way* has a new meaning. In complexity science complexity is defined as the middle way between order and chaos. In fact complex structures emerge at the edge of chaos. Also complexity is not seen as something that should be reduced ore beaten, but a healthy characteristic for development. When we look again at the uncertainty level of complex projects, Figure 1 becomes visible. Complexity is low when we avoid uncertainty. In that situation we prefer the certainty of doing things wrong to the probability of doing things right. When we act in a *hybris* way and ignore uncertainties, it is not very complex either. We do

not make choices and will enter an area of chaos. This is not a healthy condition for developments in the direction of our goals. In the middle way – the area of *bravery* – we find the highest complexity. It is complex, because we do make choices and making choices is probably the most difficult activity in our lives.

In complexity science the role of time is nonlinear. Times is a carrier of transition processes and history will not fade away. The opportunity to act is not in equilibrium. It changes. So in complex processes *kairos* plays an important role. You cannot do everything on every moment.

## *Utilitarism (Jeremy Bentham, 1748 – 1832)*

In the 17th and 18th Century the world was changing fast. As told, the view on the world as a whole was disappearing. Scientists were atomising the living surroundings and developed mathematical approaches for observed processes. By developing models and instruments they made it possible to make predictions, even in complex situations. The view of the world became more and more a mechanistic view. Many processes could be operated under full control. In the 18th Century the people were very optimistic about the possibilities to tame natural processes and to create a new and better world.

This is the background for the ethic of Jeremy Bentham and other philosophers that worked on the utilitarian approach. Jeremy Bentham was seen as the founder. He strived for an approach where you can quantify as many parameters as possible.
His ethic is like the Aristotle's ethic a teleological ethic. It is focussing on goals. An essential difference is that in the utilitarian approach only the result counts, the realising of the goals. For example, if the goal is to plant a tree, the activity of planting the tree is not important, like Aristotle thought. It is only the result of one tree that counts. That is what you can quantify.

Jeremy Bentham stated that as human beings we have only two masters we obey: *pain* and *pleasure*. The hearth of the utilitarian approach is that we should minimise the pain and maximise the pleasure. This looks like a simple principle, but in fact it influenced a lot of processes in the world. Due to this utilitarian principle slavery could be 'calculated' as being wrong and also the differences between men and women could be attacked. When people accept the principles of the utilitarian approach, it is possible to compare alternative situations in a more or less objective way. That is the strong point of utilitarism. When you are able to quantify pain and pleasure, you can proof that a certain situation should be changed. The main idea is that if you want to develop an action, there should be a utility attached to it. Otherwise it does not make sense.

How can we quantify pain and pleasure? In the utilitarian approach Bentham defined seven dimensions:

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| I | Intensity |
| D | Duration |
| C | Certainty |
| N | Nearness (propinquity) |
| F | Fecundity (fruitfulness) |
| P | Purity |
| E | Extent |

These dimensions result in statements like: “it is better to help 1000 people (E) a little (I) than 2 persons (E) a lot (I)” or “when it is certain (C) that we can reduce the combined sewer overflows with 50% (I) in our own city (N), we should prefer that to reducing the combined sewer overflows in a city far away (N) with 90% (I) in an uncertain situation (C)” or “action A is better than action B, because the probability that it will inspire other people (F) is higher, it will have a longer positive effect (D) and it is more pure (P).” All dimensions can be applied both to pleasure and pain.
Most of the seven dimensions speak for themselves. Perhaps the most difficult one is the fecundity. A project has a high positive fecundity when the pleasure of the action results in other pleasures. It is like domino effect. The first action inspires other people so they will start a second and third action. The fecundity is zero when you have only pleasure (or pain) within the project.

Nowadays the utilitarian approach is often applied in the form of a multi criteria analyses. This means that if we have to make decisions, we formulate some variants or alternatives. Per variant we define criteria, related to the seven dimensions of Jeremy Bentham. For example, for planning a new road we look at the following criteria: (1) the cost, (2) the technical uncertainty, (3) the beauty (esthetical aspect) and (4) the effects on nature and environment. When the cheapest variant had the most significant bad effect on ecology, we apply weighing factors to make final score for every variant. Many techniques for multi criteria analyses can cope both with quantitative and qualitative scores.
The strength of a multi criteria analyses is that it makes the advantages and drawbacks of certain variants explicit. The weak point is that a complex decision problem is reduced to such an extent that many involved stakeholders do not recognise their interests.

In the Aristotelian approach people look for the middle way. In the utilitarian approach people minimise and maximise. That is a huge difference. Where Aristotle challenges people to be brave and to cope with uncertainty, the utilitarian approach looks for the variants that show the less uncertainty. As a result many modern projects focus on results. Targets are formulated and processes are defined to meet the targets as efficiently as possible. Possibly utilitarism is the most important resource for modern managers.
It is obvious that the utilitaristic approach has strong and week points. On the one hand it is a useful approach in many projects; on the other it is important that it is just *an* approach and not *the* approach. Not everybody feels him or herself comfortable when working with the methods developed by Jeremy Bentham. In countries like France and England multi criteria approaches are very popular. In Eastern countries (Asia) an Aristotelian approach fits better. The best way is to look at practical problems through several ethical frames.

## *Immanuel Kant (1720 – 1804)*

Kant did not like the utilitarian approach at all. The idea that people have only two masters to obey was for him unrealistic and immoral. The approach makes you a slave of your own needs, he stated. And a slave is not free. For Kant the most important thing for people is freedom, the ability to make choices themselves. When you can calculate what the best solution is in an objective way and you follow this calculated optimum, than you have no free will anymore.

Due to the discoveries of the 17$^{th}$ and 18$^{th}$ Century and the ongoing process of atomising the image of the world, many scientists discussed the matter of free will. Imagine your brain is a collection of molecules bumping to each other. The things you think then are the result of

these bumping processes. The thinking result – from a mechanistic point of view – is not a result from the free will, but something that is accidentally happening and could not be avoided. When you kill somebody, you cannot be blamed, because the molecules in your head bumped in a way that they made you do that. This is a strange discussion, but scientists in the 18th Century were really facing this idea. When you accept the principles of reductionism, where the behaviour of the whole can be fully explained by the sum of the behaviours of the smallest particles, there is no place for the free will.

Kant did like the progress being made in the field of rational and mechanistic approaches; however, he could not accept the fact that we do not have a free will. A moral dimension exists, so people have the ability to do things right or wrong and they can be both good and bad. They have the choice and this choice characterises freedom. If you accept the existence of a free will, human behaviour is more than the result of arbitrary bumping molecules or atoms. Then also the true world is more than the phenomena we observe. Man is not able to describe all dimensions of the real truth.
Kant stated that as human beings we are observing the world in a limited way. We have five ways to sense our surroundings (smelling, listening, tasting, seeing and feeling). The stimuli produced by our senses are sent to the brain and in this brain an image is produced of the outside world. This image is a representation of the outside world, but not an accurate description of what it is in real. The image we produce is a deformed projection of reality. Based on the images we make – the phenomena we observe – we construct a world in where we can quantify processes and where we can apply our mechanistic insights. Also the nature laws are based on empirical observations in this constructed world. They help us to control the processes we experience, but they do not reveal the real truth as it is.

*Two worlds*
Therefore Kant distinguishes two worlds: (1) the Noumenal world or the world *An Sich* and (2) the Phenomenal world or Empirical world. The Noumenal world (nous = mind) is the real world, the Phenomenal world is the world as it appears to us. When we only focus on phenomena's and we deduce our behaviour out of our knowledge about them, we are not free. Then our actions are determined necessities. However, inside ourselves we find 'some' connections to the Noumenal world. It is essential to 'listen' to the signals coming from these connections, because they can make you free. They only tell something about who you really are, nothing about other people. Kant assumed that in the Noumenal world people are free. Of course he could not proof that, but the assumption makes it possible to solve the problems other ethics face.

The essence of Kant's ethic is that in a moral life people acknowledge the fact that they are a goal in themselves. In this moral life they have the freedom to make choices and it is their *duty* to act according the choices they make. That is why Kant's ethic is called a deontological ethic. It is about duty, about "that what we should do." It is a paradox, the combination of freedom and duty. You are only free when you commit yourself to the moral life that is connected to who you really are. You make laws according to yourself, and by doing that you are autonomous. You make your own laws. These laws should be respected.

*Maximen and imperatives*
The practical translation of Kant's thoughts is the formulating of *maximen* (rules). People make rules, telling themselves how to act. An example could be: "when I go to the dentist, I go by bike." When I feel that this is essential for me, I have to *respect* this rule. An example coming out of the environmental ethics and management lecture is: "when I am with several

people it is good to eat out of one pot." Such a rule is strict personal and not everybody should agree to it. When you are really free and feel that tells a lot about who you really are, Kant stated that you have the duty to act according this rule. Kant himself also had some rules in his own life. An example is that when he had visitors "there should be no less than four visitors and not more than nine." He obeyed this rule during his whole life.
There are different levels of rules. We have thousands of maximen and some of them are not really essential. They just help you to organise your life. It is important to follow the rules and to respect the rules of other people. However, there also maximen that have the character of a *law*. They could be described as "Thou shall do …" This level of maximen is called *imperatives*. Kant distinguished two kinds of imperatives: the conditional imperative and the categorical imperative. The first one is related to a goal. For example, when you try to be a successful athlete, a conditional imperative could be "Thou shall not smoke." It is a law for all sportsmen on a high level. When you take your goal seriously, you have to commit yourself to this behaviour. It is a duty. And it is you own choice to focus on sport. The categorical imperative is a maxime from which you think it should be law. It should also be applied to other people. For example, for many people "Thou shall not kill" is a categorical imperative. In environmental science and practice the precaution principle could be a categorical imperative. It is better to prevent negative environmental impact than to restore the effects afterwards. You can only be a moral person when you commit yourselves to these imperatives and fully respect them. When you think this should be a law, you have to commit to that, as an individual. Only then you are a free man, because they come out of yourself. They reflect the Noumenal world.

*The social dimension*
Probably the weakest point of Kant's ethic is the fact that it is purely individual. Where rules are conflicting, his view is not clear. He has been writing about the political dimensions of his ethic. He was aware that people have to interact with other people and somehow a lot of people are bad. That is why we need a system (government) that is also making rules … and laws. Perhaps the most direct way to formulate his ideas about the tension between individual and common rules is, that common rules should act in such a way that they give form and content to a context in which people can be really free. For example, in an area like the Netherlands the government should take care of the water systems and make laws about the strength of dikes and the way the people operate weirs and pumping stations. Otherwise the country will be flooded, which offers bad opportunities to fulfil your duties as an individual. Also a government should make laws, so immoral people cannot dominate people that live according their own rules. Freedom is the most important value and government should create the right conditions.

Although this is a simplification of Kant's subtle way of formulating ideas, it makes clear that that there are limits for governments to act. Power systems should not intervene in all processes. Somehow they have to trust people that they will act in a moral way and social systems are able to come to good structures in a process of self-organisation. Regarding the environment it is good that governments take care of it, because a healthy environment is a pre-condition to a free life. However, it should focus wider than needs. The best known definition of sustainable development, according to the WCED is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." It is more or less a very utilitarian way of looking at sustainability. And probably the governments act in *hybris* when they want to force people to act according the rules coming out of this principle. For a lot of people the maxime of "you have to organise you life in such a way that you minimise the negative environmental impact" is a categorical imperative.

However, that is not the case not for all the people. The art of acting in environmental practice is to operate in such a way that people can recognise their own rules in what you are trying to achieve, without to much manipulation. Somehow, working on a better environment should result in common goals and not in rules that force people to act in a way that limits their freedom.

*New science*

Also Kant's philosophy has a connection to new science. It is possible to see a social system as a rule based system where people interact and adapt. Sometimes we talk about a set of rules as "a technological regime." These regimes can be stable for a long time. But due to new insights, they can change in a short time. And when the rules change, the environment changes (gradually). This is called a transition. It is good to realise that rules (maximen) are not 'just' something, but that they are attached to individuals and form a connection to the Noumenal world. They might be categorical imperatives, so they should be handled with respect. Our ways to represent this Noumenal world changes, but the Noumenal world itself is the way it is. The connections to it makes to world and the society more stable.