Embedded and Disembedded Rationality: Contributions to Global Governance from European and US American Legal Cultures

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I. WHAT IS GLOBAL GOVERNANCE?

Sociologists of law commonly focus on the search for universal theories on law and social structure. While their frame of reference has traditionally been national societies, recently the attention of the scientific community has shifted towards the law in transnational transactions and international regimes. For instance, studies exploring the self-governance potential of industry and studies on multilevel organisation have found seminal ground in trans- and international relations. Altogether, many different layers of informal and formal law have been discovered thus prompting scholars to speak of legal pluralism or interlegality.

The fascination with new forms of law has however somewhat disregarded the more painful question of what problems the law should address and solve. Sometimes the effects of legal forms come into view, but seldom is the more demanding inverse perspective taken, ie an inquiry from functions to legal forms asking what the problems are, and what legal form and level may be appropriate to solve them. Based on Adam Smith's works, three tasks have widely been attributed to the state and its law: (1) the internal public order, (2) national defence, and (3) public works and institutions (or infrastructure in modern terminology) (Smith, 1775/6). Interventionism—the setting and implementation of political goals (such as redistribution, environmental protection, etc)—has emerged as a fourth function of the modern welfare state (Grimm, 1994).

In the transnational perspective the four tasks reappear as a challenge for transnational and international governance. Certainly the maintenance of global public order is a major task, including the enabling and controlling of transnational economic transactions. Another major task is international

peace-keeping, and a third the provision of transnational infrastructure (such as air transportation), although this largely remains a national task. As part of interventionism, the preservation of the global environment has become a major task of transnational governance. Given the fundamental nature of the living conditions for human life, I suggest that this should be understood as something even more fundamental than normal interventionist policies. We are entering a period of the development of the earth system called the anthropocene. This term indicates that mankind's footprint on the global biosphere has become so deep and vast that human impact has brought the system to the brink of making human life untenable in many regions of the earth. Figure 1 using a footprint methodology shows that humankind has overstepped the bearing capacity of the earth, and Figure 2 shows what effects may be caused by such impact.

There are indications that the fundamental mechanics of the earth system have been upset and may move towards unknown states. The oceanic thermohaline 'pump', a fundamental mechanism supporting the temperate zones of the earth, may be irritated by changes in rain patterns and salt content of oceans due to human induced climate change. It is speculated, for instance, that this may cause the golf-stream to lose its dynamics.

If the fundamental mechanics of the earth as a whole are affected, then a new kind of institution and institutional analysis is needed. Just as with scientific earth

Footprint and Biocapacity

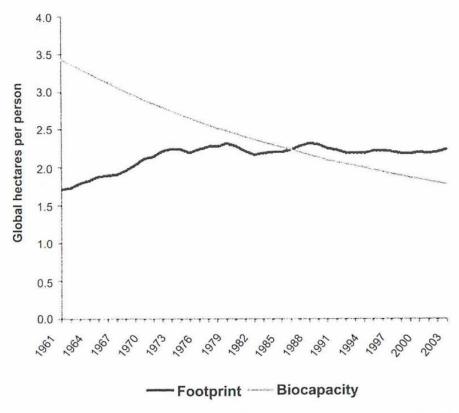


Fig. 1: Tracks, in absolute terms, the world's average per person Ecological Footprint and per person biocapacity over a 40-year period (Global Footprint Network www.footprintnetwork.org).

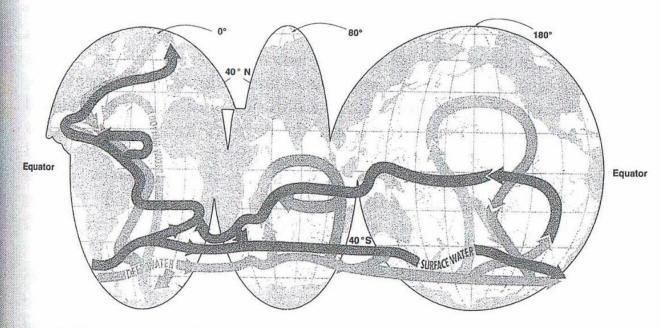


Fig. 2: Oceanic thermohaline circulation (black: surface currents, dark grey: deep water, light grey: bottom water)(Lemke, 2006: 56).

system analyses, the social and legal analyses of institutions must be holistic. This does not mean that the only solution is to develop international law towards a supranational organisation endowed with powers to manage the fundamental laws of the globe. On the contrary, a holistic view requires a look at the full scale of institutions because all levels contribute to the systemic whole (Winter 2006). Such kind of multilevel governance would include:

- (1) The construction of 'vertical' regimes, ie international organisations having the power to make secondary law and urge contracting parties to implement it.
- (2) The horizontal diffusion of state based legal concepts through transnational discourses, consultancy, mimesis, coercion, etc.
- (3) The development of national laws towards an attitude of trusteeship for the globe.

An inquiry into the contributions of states to global governance would therefore look at three paths:

- · national legal concepts influencing international regimes;
- · national legal concepts offered for horizontal diffusion; and
- · national legal concepts as individual contributions to an overall whole.

The aim of this chapter is to compare the contributions to global governance of Europe and the United States thus highlighting the two most prominent contributors to and managers of global environmental change.

I will trace differences in EU and US legal cultures in these contributions. Others have elaborated on the impossibility and yet seminality of this term (Gessner/Höland/Varga 1996: 3) and I will not attempt to give it much more shape. For the purpose of this chapter I suggest that by legal cultures one might understand basic assumptions about society and its governability built into various types of law.

Analysing legal cultures of this kind I will look at three sectoral policies and ask what the EU and US legal contributions have been. The policies chosen concern climate protection, hazardous chemicals, and biotechnology. Climate protection is taken as an example of international regime formation; hazardous chemicals as one for horizontal diffusion of national concepts; and biotechnology as one for national contributions to an overall whole.

II. CASE STUDIES

1. Climate policy and international regime building

Climate policy will serve as an example for EU and US contributions to international regime formation. I begin with a summary of the history of climate policy in the emergent regime¹ and continue with a description of the major arguments carrying the different approaches to international regime formation.

(a) History

As early as 1990 some EU member states adopted national targets for the reduction of CO_2 emissions. No such targets were introduced in the US at the time. This was due to the so-called 'no regrets' policy, according to which the mitigation of climate change should be limited to actions which are profitable for other reasons as well. An example here would be that the costs of the investment into energy efficiency devices being fully outweighed by gains from energy saving. Thus the US decided it would be preferable not to engage in a reduction of CO_2 emissions beyond profitability.

Next, at the Rio Conference on Environment and Development (UNCED) of 1992 the UN Climate Convention was concluded. It was discussed there whether the industrialised states should pioneer in setting climate gas reduction targets, as the EU desired, or whether the developing states had to be included in such obligation, as the US argued. A compromise was reached by framing non-quantified reduction obligations for all contracting states, on the basis of the principle of joint but differentiated responsibility. In addition, the obligation to take a number of measures in order to mitigate climate change was prescribed. The Convention was signed and ratified by both the EU and US and has since been put into force.

The Kyoto Protocol was concluded in 1997. The US was successful in convincing the EU to agree to include all climate gases in the agreement, not just CO₂. The EU accepted a reduction of 8 per cent by 2010 compared with 1990, while the US agreed to a reduction of only 7 per cent. Against

¹ Following Oberthür/Ott, 1999; Schreurs, 2004; Freestone/Streck 2005.

its initial position of relying upon conduct measures aiming at technology forcing, the EU agreed to US proposals to introduce so-called flexible mechanisms. This meant that the emission rights could be traded or could be obtained by investment reducing climate gas emissions in Annex B states (joint implementation – JI) or in developing states (clean development mechanism – CDM). The Kyoto Protocol was ratified by the EU. As for the US, although having signed the convention during the Clinton administration, it stepped back from ratification on the ground of the Cheney report of 2001. This report stated that the US energy hunger was so demanding that more rather than less energy had to be supplied.

In 2001 the Marrakesh Accords were concluded, establishing ambitious supervisory mechanisms to ensure that the flexible mechanisms were not misused. In spite of being active in negotiations, the US did not ratify or even sign the treaties.

In the EU the Kyoto Protocol was implemented in two steps. First, according to a Council Decision, the overall target of 8 per cent was broken down into individual targets allowing less developed member states to emit more than the higher developed member states. Second, a Directive was issued establishing the basic rules on the allocation of emission rights, emissions trading, JI and CDM. Consequently, the member states created national legislation on the matter. Most of them allocated the first round of emission rights on the criterion of grandfathering. This means that the historical factual emissions were broadly taken as a legal allowance. Qualifications were enacted by some member states—for instance additional emission rights were given as a compensation for 'early action', ie recent investment in emission reduction technology. In the US, while pro-active measures of the federal government were largely missing, some states such as California have since introduced some measures on their own.

The results of the endeavours are poor, not only in the US, as one would expect, but even in the EU. In the US emissions had increased by 12 per cent in 2005, which means that the US is 19 per cent away from the Kyoto commitment of the 7 per cent decrease to be achieved by 2010. In the EU a decrease of 1.7 per cent per year was attained, which is still 6.3 per cent away from the 2010 target of 8 per cent. The reason for this failure is twofold: first, the choice of grandfathering for the initial allocation of allowances, and second, the low trading price for emission allowances which in all circumstances makes it cheaper to buy emission allowances than to invest in emission reduction technology. The low price has different causes such as a general slow-down of economic growth, the monopoly structure of utility companies which allows them to forward purchase prices for emission allowances to the consumers, the possibility to acquire emission allowances through II and CDM measures, and the possibility to buy emission allowances from countries who allowed themselves undemanding reduction targets in the Kyoto round.

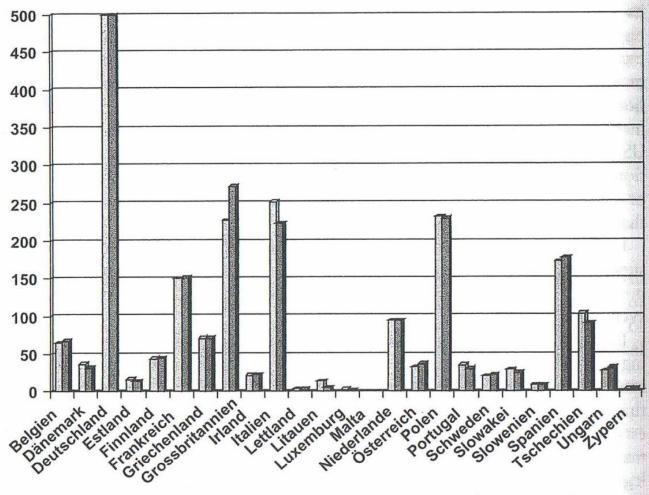


Fig. 3: Allocation of emission allowances by the EU Member States (from Point Carbon, Carbon Market Monitor, Mai 2005; cited in Michaelowa 2005). The left (grey) column represents the allocated allowances, the right (black) the factual emissions at the date of allocation. The difference is very small indicating that almost no reduction effect was attained in the first round.

Looking at the post-Kyoto prospects in the EU, we see that the failure to reduce emissions in the first round has fostered expectations and plans to do better in the second round, beginning in 2008. However, grandfathering will certainly continue if the current economic crisis (which caused the resistance to reductions) prevails until then.

It is general agreement among states that the Kyoto targets must be tightened if anything at all shall be agreed regarding climate policy. It seems that the EU, a long-time pioneer in international climate policy, has lost its courage. As to the overall goal, it will renounce mitigating any temperature rise. In concrete terms, this means it will accept a 2° centigrade temperature rise with all the damage this will cause to certain world regions. The new reduction target the EU will run for will even be much below the level needed to reach the 2° centigrade target.² This means that the EU has finally given in to the attitude of the US.

² The necessary reduction would be 60%–80% by 2020, the commitment realistically to be expected is 15%–30%. See Michaelova, 2005.

(b) Reconstructing the EU and US contributions

In what follows I will summarise the major legal policy arguments exchanged in the formation of the regime and legal concepts inscribed in it. Even though I allocate different lines of thought to the EU and the US this does not mean that 'European' concepts are not also to be found in the US, and 'American' concepts in the EU. My focus here is not on the whole picture in all its detail but rather on the basic traits and ideal types. I distinguish the following dimensions of discourse:

- On global justice: The EU believes that industrialised nations must act first expecting that others will emulate. The US, by contrast, rejects any pioneering because with major emitters like China, India and Brazil the benefit of climate protection would be small for the US compared with the high costs. This is a rational position from an individual perspective, but it disregards the potential of pioneers to mobilise followers. Even more recent US considerations to renegotiate Kyoto are based on this individualistic view: a Coasean deal should be struck between those states which benefit from climate protection and those which benefit from climate change, the former having to compensate the latter in order to make them willing to also contribute to climate protection (Stewart/Wiener 2003).
- On risk assessment: The EU was prepared to act on the basis of predictions on climate change of the panel of experts of the Framework Convention on Climate Change (FCCC), accepting that the final proof of the human share in climate change was still missing. Given the seriousness of possible consequences, precautions should accompany every action made. In contrast, the US has required insistently for a long time that better scientific ground for incurring costs be taken. It was only very recently that a majority of US states and scholars agreed that there was sufficient evidence to take action. This conviction was much furthered by the damage caused by the Hurricane Katrina on 30 August 2005. This incident has been taken as an indication that climate change costs may outweigh costs of preventive measures.
- On instruments: The EU started the negotiations favouring conduct measures, such as requiring the implementation of the so-called BATNEEC ('best available techniques not entailing excessive costs') criterion. The appropriate measure would be to establish thresholds for concentrations or freights of climate gases in the emissions of industry. Contrastingly, the US proposed and advocated incentive measures using emissions trading in order to provide maximum flexibility for the individual emitter. In order to facilitate agreement the EU accepted the US position, not altogether unwillingly though, because emissions trading had won support within the European Commission which had

already earlier adopted a more neo-liberal position. However, the EU even though accepting the flexible approach in principle insisted that it be put into a regulatory framework, for instance by requiring comprehensive action plans and setting caps for JI and CDM projects. This should ensure that the flexible mechanisms do not undermine and discourage other climate protection measures that the states introduce or are required to introduce under the FCCC and the Kyoto Protocol.

2. Hazardous chemicals and the horizontal diffusion of national concepts

The second case I present is that of chemicals regulation. This can serve as an example for the horizontal diffusion of policies. The history of emergence of the regimes can be described as follows.

(a) History

Since the early 1990s European Community law and national law transposing it3 required that chemical substances had to be notified by the producer or importer before they could be placed on the market. Extensive data on the properties and prospective uses of the chemical had to be submitted, with variations according to the marketed volume. For 'existing substances', ie chemicals which were marketed before the introduction of the notification requirement, a phase-in scheme was applied. Producers and importers of high-volume substances had to submit the data at their disposal. On this basis priority substances were to be identified, for which obligatory data sets (again varying with volume) had to be submitted. Ideally the data for new and existing substances had to be assessed and risk reduction measures were to be taken on that basis, either by the member states or the EC. In the US4, although new chemicals were also to be notified, the data sets were less extensive and therefore less costly. More data were to be submitted only upon individual order by the responsible agency. In the case of existing substances, no phase-in scheme existed at all. The agency could however ask producers to submit data when it was able to show that there was a reasonable risk to human health or the environment.

In the late 1990s NGOs in the US alleged that there was wide 'toxic ignorance', ie next to nothing was known about the risks of tens of thousand chemicals traded on the market (Winter, 2000). The reason for this was that in the US the Environmental Protection Agency (EPA) rarely asked for the generation and submission of in-depth data. Later on, the same allegation

³ For overviews see Rehbinder, 2003 and Callies, 2003.

⁴ For an overview see Spiecker genannt Döhmann, 2004.

was raised by European NGOs claiming that also in the EC the authorities were lacking adequate data to assess and manage risks of existing chemicals, the reason being that industry although under legal obligation widely refused to comply. The sanctions—namely fines—were almost never applied and enforced.

The public protest was taken seriously both by the US and EU. But they reacted differently. The US government relied on voluntary measures. It encouraged a voluntary commitment from industry to submit the relevant data for 1,000 HPV (high production volume) substances within five years. The EU also welcomed a voluntary commitment from producers, but in addition the European Commission elaborated a proposal for a stricter scheme for existing chemicals, the so-called REACH proposal (Registration, Evaluation and Authorisation of Chemicals). This proposal extends the strict notification (now, registration) requirement to existing substances thus phasing them into the risk assessment realm. While the manufacturers and importers of substances are the primary addressees of the registration duty, downstream-users are also included into the obligation to generate and submit risk relevant data. For substances (both new and existing) found to be dangerous an authorisation requirement and a streamlined empowerment to restrict substances are proposed.

The European Commission instigated a worldwide hearing procedure on the REACH proposal.⁶ About 6,000 comments were submitted from all parts of the world, including the major chemical producer and trading associations. The US government launched a strategy of lobbying at EU and member state levels of yet unknown intensity. All in all, the REACH hearing was probably the biggest public inquiry ever, and a striking example for a new procedural dimension of law-making in the era of horizontal diffusion of regulatory concepts.

US and EU firms submitted expertises claiming tremendous costs of REACH for industry. While they did provide detailed information about the regulatory costs they however failed to do so for the benefit for human health and environment prospectively derived from REACH. The EU mandated counter-expertises showing that the costs were overstated (SRU, 2003).

Since 2004 and subsequently in many other states it has been discussed whether the REACH approach should also be introduced in their own jurisdiction. For instance, Japan is considering to adopt REACH. Moreover, it seems that non-EU producers will adapt their products to REACH-requirements even if they are not placed on the EU market. Such so-called voluntary

⁵ Commission Communication Com (2003) 644.

⁶ See http://ec.europa.eu/enterprise/reach/consultation_en.htm.

trading-up occurs if economies of scale can be obtained from generalising standards of a significant market such as the EU demand for chemicals. A chemical may also sell better if it can be labelled 'REACH-registered'.

Speaking about outcomes the voluntary commitment of industry in the US and the EU has not reached its target. Data sets for 250 substances were submitted by the deadline, ie one quarter of the targeted data sets for 1,000 substances. In the US about 20 risk assessments were made by governmental agency, in the EU the number was about 140.

(b) Reconstructing the EU and US contributions

- On global justice: although the EU and the US are the main producer countries this global dimension was hardly discussed in the EU or in the US. Even if long-term and long-range effects of certain chemicals came into view, the focus was on effects on the domestic environment.
- On procedures of law-making: the EU invited comments to its regulatory plans from the global civil society. Knowing that the new scheme would have an impact on global production and trade, it felt that those affected should be able to participate. Contrastingly, although based on intense public debate, the US policy changes are the outcome of the American population's stance rather than the global community's.
- On instruments: although the EU welcomed voluntary commitments
 of industry, it insists on strict regulation, establishing registration,
 restrictions and authorisation requirements. The US has more extensively relied on voluntary measures. The approach in relation to new
 substances is regulatory also in the US, but with less strict requirements than in the EU.
- On risk assessment: the EU requires the submission by industry of ambitious data sets in order to be able to conduct profound risk analyses. In a way the burden of proof is laid on the producers of risk. In the US the public agencies must generate information in order to determine whether there is reason to go into more detail. Only in this case can more comprehensive information be required from industry.
- On risk management: The interesting question here is if measures are taken on the grounds of inconclusive knowledge, and to what extent regulatory side-effects are taken into consideration:
 - In the EU the precautionary principle is enshrined in both primary law and the REACH-proposal, ie restrictions on chemicals and the denial of authorisation of placing on the market chemicals can be based on grounded suspicion, in absence of full scientific proof. In the US, although the law uses a language comparable to EU formulations, courts have required a firmer scientific basis for such restrictions.

• In the US before a chemical is restricted a full cost-benefit-analysis must be elaborated. In the EU restrictions are based on risk assessment alone cost considerations only playing a role in cases of extreme imbalance between costs and benefits. Although the REACH-proposal does introduce a more extensive version of balancing costs and risks its focus is on substitution analysis, ie the present or future availability of substitute substances or technologies as a consideration in the decision-making on the authorisation or restriction of a dangerous substance. This means that whilst in the US the primary concern is with the costs of regulation to industry, in the EU it is the drawbacks (or substitutability) of consumer concerns. In Marxian terms one could speak of the US looking at exchange values and the EU at use values.

3. Biotechnology and national contributions to the global whole

My third example deals with the law of genetically modified organisms. It shall serve as an illustration for national contributions which each have their own share in the global environmental development. Although international regime formation was also involved it covered only a segment of the problems which were to be tackled. I distinguish between law that allocates property rights on genetic resources, and law that regulates the risks and benefits of biotechnology. Once more the development of the relevant law is first described and then analysed.

(a) History

(1) Allocation of property rights

Property rights are allocated on two levels, that of the community of states and of individuals.

States have always claimed that sovereignty embraces, along with a territory, domestic natural resources. With the discovery of the genome a debate started on whether genetic resources should not be considered as common heritage of mankind. However, the developing states, for fear of a new biological colonialism, insisted that genetic resources had to be considered as sovereign property. This principle was accepted in the 1992 Convention on Biodiversity. It was however significantly qualified by a kind of *tit for tat* system. On the one side the states hosting resources were obliged to preserve resources, to provide open access to them by third countries and to basically accept intellectual property in genetic resources. On the other hand third states were bound to share biotechnological knowledge, results and benefits with the host state. Rather than common heritage genetic resources therefore became a kind of trusteeship sovereignty (Sand, 2006).

In the EU Article 53(a) of the European Patent Convention of 1973 provides a restriction on the patenting of living organisms. It is stated that 'inventions the publication or exploitation of which would be contrary to ordre public or morality' cannot be patented, and Article 53(b) excludes patents for animal and plant varieties. After long debates about the patentability of life, an EC-Directive based on the Agreement on Trade Related Aspects of Intellectual Property (TRIPS) finally clarifies that genes shall be patentable. In the US patents for life, including animals and plants, have been accepted since the Supreme Court judgment in Diamond v Chacrabarty of 1980.7 This decision displayed a judicial activism extending the notion of new manufacture and shifting moral considerations to the realm of the legislature (Drahos, 1999: 442; Gitter, 2001).

Later on, both US and European practice converged: European patenting practice was extended to animals (onco-mouse), micro organisms (bakers' yeast), plants, and genes (Drahos, 1999: 442).

(2) Risk Regulation

In the US no specific regime for genetically modified organisms has been introduced. The existing regulation of intrinsically hazardous products such as pesticides and drugs is also applied to hazardous products consisting of GMOs (Vogel, 2003). Risks from the genetic modification are only checked if there are indications that they may exist. By contrast, in the EU genetic modification was submitted to a special regime which came as an addition to the existing regulation of hazardous products. Very comprehensive data are to be submitted to the authorisation process for the mere fact that there is genetic modification. For some products the double authorisation was replaced by one (one door-one key principle), as it was done for drugs, but the data requirements and risk assessment obligation targeting specific risks from genetic modification remained applicable.

The scrutiny of risk assessment was even reinforced in Europe after the BSE crisis which made the previously more pragmatic UK join the continental risk aversion in relation to GMOs (Vogel, 2003:17). Directive 2001/18 established a more in-depth risk assessment even introducing assessment of indirect effects. These may consist in consequences of the use of herbicide resistance of seeds for agricultural practices concerning pesticides. The post-BSE scepticism of the consumers in the MS led to a de facto moratorium of the EU and MS authorities in authorising the placing on the market

of GMOs from about 2000 to 2005.

The US and other states initiated a WTO dispute settlement procedure alleging protectionist practices of the EU. The EU reacted by shifting the competence of authorising GMOs to the EU-level, thus aiming at streamlining the procedure (Regulation No 1928/2003). At the same time preventive risk control was relativised: labelling requirements were to inform consumer choice (Regulation No 1830/2003) and coexistence of conventional and GM agriculture was probed as a means to make way for GMO-based agriculture (amended Article 16a of Directive 2001/18). This new EU legislation and the technology mindedness of the new European Commission have recently put the moratorium to an end.

(b) Reconstructing the EU and US contributions

- On global justice: the EU accepted a deal agreeing on sovereign rights of host states in biodiversity in exchange for the duty of host states to open access to their genetic resources. Intellectual property rights in genes and living organisms have to be made available, but property right holders have to share benefits with states of origin. User states shall transfer technology and assist host states in preserving genetic resources. The US, by contrast, does not see its interest in access and exploitation of genetic resources adequately reflected in this deal. In particular, requirements of benefit and technology sharing were refuted. Therefore, the US did not ratify the Convention on Biodiversity (CBD).
- On the perception of environment: In the EU life is regarded a moral or public good which should not be transformed into exclusive rights of economic actors. Although giving in to the privatisation concept the EU insisted on restrictive conditions (moral exception, no patent for animal and plant species). In the US life is understood as a good like any other good of economic value (except for human life). It can be made private property and traded on the market.
- On risk assessment: In the EU there is a basic mistrust in the new technology of genetic engineering; therefore a control regime with extensive data generation has been introduced. The US is more pragmatic: risks of GMOs are checked in connection with hazardous properties that a product may have for other reasons than genetic modification; the checking is based on concrete information and not on general suspicion.
- On risk management: Both the EU and US have stuck to traditional regulatory instruments in the GM field. The US has however simplified the control mechanism thus erecting lower hurdles than the EU for GM industry.

III. CAUSES

Having reconstructed the major characteristics of legal policies I will now put them together on a more abstract level and explain what role they play among the various other factors explaining contributions to global governance. I will do this by first looking at the following supplementary factors.

1. Theories of international relations

Political science research on international behaviour of states usually relates its empirical observations to a number (or catechism) of theories—such as realism, rational choice, problem structure, and constructivism or institutionalism—designed to explain behaviour (Risse, 2003).

These theories assume that the state is a consistent entity operating according to a genuine logic of the international arena. In fact, internal and geographically specific factors also play a significant role (Schreurs, 2002: 1, 241). It is important to address such specific factors if differences in the contributions of states and regions to global governance are to be investigated. Looking at those factors one may come to the conclusion that the two most outstanding theories of international relations, rational choice and constructivism, are 'reified' in the sense that rather than being once for all explanations they characterise US and EU politics respectively, the US tending rather to rationalistic and the EU rather to constructivist attitudes.

2. National peculiarities of the polity and constitutions

One relevant factor is the relative influence of political majorities on external politics. When domestic political majorities change, external environmental policies can also be re-orientated. This was the case, for instance, when George W Bush followed Bill Clinton as president and declined to ratify the Kyoto Protocol.⁸ Unlike in the US, in the EU political majorities have a less dramatic impact on external policies because first of all, given the different orientations of the member states there is hardly something like an overall European political majority. Although the European Parliament does hold a majoritarian position, these majorities often emerge across party lines. The Council is more concerned with approximating member state interests' than with party politics, while the Commission focuses on a genuine European interest, remaining relatively independent from party politics both on the member state and the EU level.

Another factor is the general attitude of states vis à vis international law. While a multilateral approach is widely accepted in the EU, the US has for a

⁸ See on the influence of energy industry on the Bush Administration in the climate field Blanchard/Perkhaus, 2004.

long time followed isolationism and has after a short period of multilateralism—the erection of the UNO—largely turned to unilateralism. This means that it sees international law as an instrument of pursuing national interests (Giegerich, 2006), whereas the EU has tended to use international law as a means to build global consensus.

A third factor is the difference of openness of constitutions to international law. The EC treaties as interpreted by the ECJ are somewhat more open than the US constitution. After a lengthy history of clarification the EC has been recognised to possess wide competences for environmental treaty-making (Krämer 2004). In most cases a qualified majority of the Council suffices for the conclusion of an international treaty. The EC constitution (Article 300 para 7) is interpreted to accept direct applicability of international obligations (provided the wording intends direct effect and is precise and unconditional). International law is even considered to have prevalence over opposing EC law. In contrast to this, in the US a two thirds majority of the Senate is necessary for the conclusion of a treaty. Although in principle following a monist conception in most cases, the US ensures that conventions are formulated in general terms so that federal or state legislation is still needed thus excluding a self-executing effect. The constitution is also understood as excluding the participation of the US in international organisations that have supranational powers.

3. Legal cultures

Besides political and constitutional peculiarities legal cultures must be considered as influential to the contributions of states to global governance. As stated earlier I propose to understand by legal cultures certain basic assumptions of the law about the reality and governability of its regulatory field. In the present context I see the legal contributions of the US and the EU characterised by different ideal types of rationality (in the Weberian sense of an abstraction from a plurality of phenomena). These could be called embedded rationality for the EU and disimbedded or 'purified' rationality for the US. Embedded rationality implies a reasoning which understands itself to be framed and influenced by public discourses, beliefs, norms and social structures (Brand/Reusswig, 2006). Disimbedded rationality means a rationality which is cleansed of the context.

When confronting these types of rationality it is important to remain neutral, ie look at the difference from a more remote position. This leads to the following comparative statements:

Concept of justice: In the US, states and individuals behave egoistically and can only be persuaded to participate in common agreements when they can expect net economic benefits (the Pareto or Kaldor Hicks assumption) (Wiener, 1999: 747). On the contrary, in the EU

states and individuals accept commitments without looking at the precise cost-benefit ratio, assuming that they belong to a community where everybody has to accept a burden trusting that the public interest will in the long run also serve their individual interests.

 Perception of environment: In the US the environment is a resource for humankind; the tragedy of the commons suggests to make the resource individual property in order to exploit the individual's interest in preserving it. In the EU the environment is a public good that

can be managed by reasonable and democratic governance.

• Instrumental design: In the US conduct measures are less efficient than incentives (price based or quantity based), for only incentives can guide the dollar to its maximal environmental policy gain. In the EU conduct measures such as environmental quality objectives and BAT-requirements are largely taken to be more effective. Economic incentives are also used but embedded in a regulatory framework.

• Economic instruments: US: Emissions trading works as elegantly as its theory presumes; therefore no caps, restrictions in banking, and no redistribution is necessary. EU: There will be systemic market failures which will distort the efficiency of the system thus requiring caps, banking restrictions and redistributive measures in order to secure that at least some investment in cleaner technology can be expected.

 Cost-benefit analysis: US: Costs and benefits can be monetarised and thus be exactly balanced; in relation to intangible assets indirect measurement is possible. EU: Some assets—and indeed the most important ones such as human health and the environment—are by their very nature "priceless".

| | embedded rationality (EU) | disimbedded rationality (US) |
|---|--|---|
| concept of justice | fairness | Pareto optimum or Kaldor- Hicks criterion |
| concept of environment | common good commonly to be managed | individual property rights |
| knowledge basis instrumental design economic incentives | suspicion conduct measures enclosed in caps and other regulations | scientific proof incentives for win-win trust in perfect market |
| Cost-risk analysis | substitution and use value | monetarisation |

4. Differences explained

Both of the types of rationality probably have historical roots. In Europe it is possibly the medieval experience of the commons which stands behind

the attitude to trust in collective solutions. Europeans have been used to—often benevolent—autocratic rule and therefore to accept and abide by state based regulation. As long as the conditions are transparent and equal for everybody even hard impositions use to be tolerated by the normal citizen.

In contrast, in the US the spirit of the 'founding fathers' and the experience of open spaces have supported the attitude of individualism both between individuals and between states. Learning is an operation of trial and error, ie it allows for damage rather than preventing it by precautionary means.

5. Differences vanishing?

The fact that the EC has finally adopted emission rights as a model, and that instruments based on homo oeconomicus are increasingly also considered for other areas of environmental law seems to indicate that legal cultures are converging, or, in post-modern terms, that legal concepts float around and are adopted or rejected according to ad hoc conditions which lead away from more deeply rooted cultures. However, I submit that older traditions will prove to be rather resistant. Even if new concepts impose themselves and are adopted, old practices will prevail under the veil of rhetoric. This can be shown with the example of cost-benefit analysis which is being introduced in the EU but with a different content.

In 1981 President Reagan promulgated an Executive Order (No 12292) which demanded a formal analysis of costs and benefits (CBA) for rules which caused significant costs or economic impacts—the so-called Regulatory Impact Analysis (RIA). This reflected a shift of political opinion which could also be observed in legal academia. Back in the 1970s law and economics gained ground in comparison with law and society research. Economic rather than sociological analysis of legal policy became more fashionable. Although only a few environmental statutes explicitly mandate EPA to balance costs and benefits in setting environmental standards, notably the Fungicide and Rhodenticide Act (FIFRA) and the Toxic Substances Act (TSCA), in practice CBAs have been produced even under those Acts such as the Clean Air Act (CAA) and the Clean Water Act (CWA) which do not require or even prohibit a CBA (Navrud/Pruckner, 1997: 9).

In comparison, in the EU the requirement that legal acts must obey the principle of proportionality has been cited as the European counterpart

⁹ Thus Wiener, 2004: 110 who calls this exchange across legal systems hybridisation.

When I studied at Yale Law School in the early 1970s I myself witnessed the exodus (or expulsion) of the sociology of law from there to Wisconsin.

of CBA. Proportionality means that (1) among different measures capable of reaching a given policy objective the least burdensome must be chosen (this is called the test of necessity), and (2) the remaining burden may not be disproportionate in view of the importance of the policy objective (this is called the test of disproportionality). The test indeed resembles the efficiency test which also requires looking for least burdens and the balancing of costs and benefits. But there is a significant difference because CBA is much more precise striving for monetarisation whereas proportionality is a qualitative judgement sorting out clearly disproportionate measures but not requiring sophisticated optimisation. The requirement in Article 174 ECT that benefits and drawbacks of EC policies shall be considered cannot be read otherwise. First, consideration does not mean a precondition of a positive benefit-cost ratio, and second, monetarisation is clearly not requested.

Still, CBA is sometimes found as a requirement in secondary EC legal acts,

but only in a few cases.11

In conclusion, EC law does ask for the balancing of policy objectives and measures but it is nowhere required that this must be done in monetary terms. A qualitative argumentation is perfectly acceptable, a fact which has made American authors suggest that 'time seems ripe for an increased use of valuation techniques in Europe' (Navrud/Pruckner, 1997:1).

6. Differences evaluated

I have tried to remain neutral in analysing the two types of rationality. However given the endangered biosphere, policies must also be evaluated on a global scale.

I believe that, fundamentally, the assumption that states and individuals are behaving according to egoistic and purified rationality is simplifying the complexity of motives, reasons and causes, and disregard the potential for

agreement of the 'transcalculatory' factors.

Taking CBA as an example much of the common and traditional political and qualitative dispute is in CBA only hidden in the tremendously wide discretionary margin the different methods of assessing costs and benefits leave open. ¹² Examples, especially those involving the evaluation of human life, are sometimes bizarre. ¹³ Therefore environmentally and economically

12 See under this perspective the contributions in Bateman/Wellis, 1999.

Only in two cases—the setting of ambient air quality standards for SO₂ and NOx as well as for benzol—was a monetary cost-benefit study commissioned and presented as a justification for the proposed standards. But this went widely unnoticed by the public as well as academia, and in any case it remained a singular case. See Winter, 2001. On the REACH Regulation see above p. 343.

¹³ See Ackerman/Heinzerling, 2004: 234: 'Moreover, through opaque and intimidating concepts like willingness to pay, quality-adjusted life-years, and discounting, economic analysts have managed to hide the moral and political questions lying just under the surface of their precise and scientific-looking numbers.'

minded scholars often disagree about methodology, and even if they apply the same method they often disagree about results. This is due not to an underdeveloped state of the art, but to the very indeterminacy of the object itself. Just like in epistemology, where one distinguishes between the currently unknown and the unknowable, in the framework of assessment there is fundamental unassessability besides the not yet assessed. This is of course not to say that to an extent environmental services and environmental damage do not have a market value. As far as this is the case this must of course be taken into account in theory as well as in practical decision-making.

In addition, disembedded rationality requires more information in order to come to a conclusion unlike embedded rationality where an educated guess is widely accepted. Not only must environmental risk be assessed (this is a prerequisite for both embedded and purified rationality), but the risk must also be monetarised (ie research on contingent costs must be conducted) and costs must be investigated in much more detail than on the basis of a rough proportionality test. Until all this information is collected no measure can be taken. The American experience with CBA based regulation shows that much less has been achieved there than in the risk-based European regulation (Ashford, 2007). Many more examples of delayed response are contained in a collection by the European Environmental Agency (EEA, 2002).

I believe the best approach is to rely on embedded rationality and take egoistic rationality into account as an important element of the reality of decision-making. In instrumental terms conduct measures should be the starting point, but for well-determined areas price and quantity measures should also be applied.

Putting this suggestion into a broader framework we may remind ourselves of Adam Smith's defence of the spirit of the shopkeeper and at the same time of his warning that this spirit while admittedly *influencing* politics shall never *govern* politics:

To found a great empire for the sole purpose of raising up a people of customers may at first sight appear a project fit only for a nation of shopkeepers. It is, however, a project altogether unfit for a nation of shopkeepers; but extremely fit for a nation whose government is influenced by shopkeepers. (A Smith 1775/6 II, 4 Ch 7, Part 3)

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