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NORMS, STANDARDS, RIGHTS

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Abstract

Preparing European unification and the internal market in 1993 European legislators are changing fundamentally important parts of the law systems of the member states. Furthermore, the internal market will cause many additional social interactions between the European citizens. These interactions are influenced not only by law but also by social norms in the different countries. This paper discusses the question how different social norms and different law systems work together, if there is a need for state intervention not acknowledged before, what the advantages of a uniform European law are and what kind of equilibria are to be expected.

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A. Introduction

Preparing European unification and the internal market in 1993 European legislators are changing fundamentally important parts of the law systems of the member states. Furthermore, the internal market will cause many additional social interactions between the european citizens. These interactions are influenced not only by law but also by social norms in the different countries. This paper discusses the question how different social norms and different law systems work together, if there is a need for state intervention not acknowleged before, what the advantages of a uniform European law are and what kind of equilibria are to be expected.

The answer will be that many social and legal norms can be best understood as standards with network externalities, creating sometimes separating equilibria, or one dominating equilibrium which may or may not be welfare optimal but will nevertheless

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prevail over competing alternatives thriven by selfenforcing network advantages. Like an avalanche, some social norm or a legal regulation can be self-enforcing, snowballing and irrevocable even if its initial choice or existence was completly arbitrary or has proved to be a mistake in the long run. Furthermore, the chaos-like self-enforcing development of some social or legal norms restrict the practical realm of the *Coase*-theorem. Coordination against excess inertia or excess momentum and compensating people's losses in the standardization process and influencing the different developments at the very early stages may be an additional important welfare improving activity of the state. The first part of the paper will discuss the problem wether social or legal norms can be best understood as means to produce efficiency.

B. The Controversy on the Efficiency of Social and Legal Norms

The importance of social and legal norms was not overlooked by economists. With any new intellectual instrument, successfully tested in economics, social and legal norms were tractated shortly afterwards. A major point of interest and discussion was if social and legal rules were "efficient".

I. On the Efficiency of Social Norms

The main economic approach to sociology tried to explain social norms as efficient means to organize exchange, insurance,

production of public goods and to correct market failure.[1] *J. Elster* heavily criticized this economic approach to sociology.[2] He emphazises that the emotional content of social norms can trigger irrational and destructive behavior. In his widely used example of the law of revenge, the vendetta, he overlooks the argument given by *R. Frank*[3] that the irrationality of passions is necessary to lend credibility to threats because it is *T. C. Schelling's* commitment[4] device. If there is no state, "irrational" passions allow reaping the advantages of human cooperation by credible deterrence of torts.

J. Elster's further attack on the economists efficiency claims of social norms by imagening socially useful norms that do not exist is mislead. The economic argumentation on the efficiency of an existing norm is based on partial equilibrium analysis. The discussed welfare criteria pretend not to be complete excluding other possible efficient equilibria.

More important, *J. Elster* argues that the beneficial or optimal nature of social norms is often controversial or arbitrary. Any

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[1]See for example *R. Posner*, The Economics of Justice, 1981, A Theory of Primitive Society, pp. 146 ff. with further references.

[2]*J. Elster*, Social Norms and Economic Theory, 3(4) Journal of Economic Perspectives, 1989, pp. 99 ff.

[3]*R. Frank*, If Homo Economicus Could Choose His Own Utility Function, Would He Want One with a Conscience?, 77(4) American Economic Review 1987, pp. 593 ff. See also the comment by *J. E. Harrington*, 79(3) American Economic Review 1989, pp. 588 ff. and the reply by *R. Frank*.

[4]T. C. Schelling, The Strategy of Conflict, 1960, chapter 1-3.

economist worth his salt could tell a story or produce a model which proves some kind of individual or collective benefits derived from the norm. The very ease with which such "just-so stories" can be told should suggest skepticism.[5] Confessing not being able to offer a theory how norms emerge and disappear, *J. Elster* himself argues that his confidence concerning the benefits of social norms in economic models were much higher if a mechanism of the evolution of social norms could be demonstrated.[6] *J. Elster* concludes that there are not many plausible candidates for a feedback mechanism, since the benefits derived from efficient norms are collective rather than individual. On his view, "social norms spring from psychological propensities and dispositions that, taken separately, cannot be presumed to be useful, yet happen to interact in such a way that useful effects are produced."[7] So, the question asked by *J. Elster* is if there is a mechanism which produces different social norms, efficient in some well-defined circumstances, even if these norms are in contradiction to each other. Furthermore, he asks if it is possible that social norms exist, which are stable and widely enforced without having any inner value for the people enforcing them, so that they came into existence only by

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[5]J. Elster, Social Norms and Economic Theory, 3(4) Journal of Economic Perspectives, 1989, pp. 99 ff.(113).

[6]J. Elster, Social Norms and Economic Theory, 3(4) Journal of Economic Perspectives, 1989, pp. 99 ff.(113).

[7]J. Elster, Social Norms and Economic Theory, 3(4) Journal of Economic Perspectives, 1989, pp. 99 ff.(114).

arbitrary historic accident or by early preferences of some "venerable founding fathers" which made a carrier also by historic accident. As there are many very different cultures for which this description may be true, an explanation of its stability given their arbitrareness seems to be interesting.

II. On the Efficiency of Legal Norms

Prominent in the approach to explain Common Law by the idea that the judges maximize efficiency in the sense of the *Kaldor-Hicks Criterion*[8] when they decide cases is *R. Posner*. In his book "Economic Analysis of Law" *R. Posner*[9] argues that Statutory Law in comparison with Common Law is used much more widely for redistribution thereby losing its efficiency while the Common Law is more efficiency oriented. This argument has important shortcomings: international comparisons of law show that many regulations are very simular[10], independent of the source of the

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[8]A Pareto–improvement is a social change from which at least one person gains and nobody loses. A Pareto–optimal state is one from which no Pareto improvement is possible. A Kaldor–Hicks improvement is a potential Pareto–improvement: a social change which would enable the gainers to compensate the losers while continuing to gain themselves. Since the compensation need only be hypothetical, a Kaldor–Hicks improvement offers only a potential Pareto improvement. Because the conditions for Pareto superiority are almost never satisfied in the real world, the pratical operating definition of efficiency in economics is not Pareto superiority but Kaldor–Hicks improvement.

[9]R. A. Posner, Economic Analysis of Law, 1986, pp. 21; 23–24; 229–233; 240 f.; 527 f.

[10]H. Kötz, Rechtsvergleichung und Rechtsdogmatik, in: K. Schmidt, Rechtsdogmatik und Rechtspolitik, Band 78, Hamburger Rechtsstudien, 1990, pp. 75 ff. (84).

norms and independent of the reasonings given.[11] Moreover, Statutory law is sometimes much more efficient than Common Law. For example, the German land registration system by public recording of title to land allows land transactions, especially credit granting, with very low costs compared to the US-system.[12] Judgemade Common law has the disadvantage not to be able to implement a system of rights which has to be supported by an administration to be efficient.[13]

This paper however, does not want to revitalize the discussion on the efficiency question of Common Law but takes as given that many efficient legal rules exist. The intent of the paper is to

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[11]For a recent criticism of the German "Rechtsdogmatik" see H. Kötz, Rechtsvergleichung und Rechtsdogmatik, in: K. Schmidt, Rechtsdogmatik und Rechtspolitik, Band 78, Hamburger Rechtsstudien, 1990, pp. 75 ff. (84).

[12]See S. Jancyzk, Land Title Systems, Scale of Operations, and Operating and Conversion Costs, 8 Journal of Legal Studies, 1979, pp. 569 ff. R. Cooter/T.Ulen, Law and Economics, 1988, p. 150.

[13]An attempt by judges to introduce such a system would be regarded as a violation of the constitutional principle of the separation of powers. The reason that some legal regulations, be Common Law or Statutory Law, are more efficiency oriented while others intend to serve more redistributional goals has much more to do with the possibility to expropriate sunk costs in favor of the clientel of political entrepreneurs, see C.C. von Weizsäcker, Effizienz und Gerechtigkeit, erschienen in: M. Neumann (Hrsg.) Ansprüche, Eigentums- und Verfügungsrechte, Schriften des Vereins für Socialpolitik Band 140, 1984, pp. 123 ff.; G. S. Becker, A Theory of Competition among Pressure Groups for Political Influence, Quarterly Journal of Economics 1983, pp. 371 ff. with further references. See for example, the regulation of rent control.

In Germany, the Supreme Court, "Bundesverfassungsgericht", had to overrule decicions of courts as unconstitutional because they favored renters so much that they were seen as an expropriation of the landlords. Even judges seem sometimes to be sitting in the "Zeitgeist"—Café looking for "appropriable quasi—rents" passing.

show how the many different "just-so efficiency stories" on norms in the law and economics literature with contradictinionary content can be reconciled. This means answering the question if there are locally stable and internally efficient equilibria and which mechanism can bring them about.

C. Social and Legal Norms as Standards in Networks

I. Some Forgotten Externalities

Many analysts take it as given that the effect of norms are not very much connected to each other. The *Coase*-theorem[14] assume implicitly that norms or private contracts are "context-free". The First Optimality Theorem of welfare theory makes good sense only if the amount of externalities is limited.[15] In his famous article on the architecture of complexity *H. A. Simon*[16] argues convincingly that many complex social, biological and physical

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[14]A clear statement of the so called "Coase—Theorem" is to be found in P.R.G. Layard/A.A. Walters, Microeconomic Theory, 1978, p. 192: "Coase—Theorem. If costless negotiation is possible, rights are well—specified, and redistribution does not affect marginal values, then
1. The allocation of resources will be identical, whatever the allocation of legal rights.
2. The allocation will be efficient, so there is no problem of externality. Furthermore, if a tax is imposed in such a situation, efficiency will be lost."

[15]The First Optimality Theorem states: "Ressource allocation is Pareto—optimal, if there is perfect competition, no technological externalities, and no market failure connected with uncertainty". See for the proves K. J. Arrow/ F.H. Hahn, General Competitive Analysis, 1971, chapter 5.

[16]H. A. Simon, The Architecture of Complexity 106 Proceedings of the American Philosophical Society, 1962, pp. 467 ff.

systems consist of "hierachies", i.e. local stable subsystems. This means that the interactions in the system are overwhelmingly concentrated in the local subsystems. Any part of the system interacts with any part of the system only on a very small scale, which means that the system is "nearly decomposable". Even if the underlying assumptions of these theories make sense for many parts of the economic system there also exist social or legal norms wich are not "nearly decomposable" in their effects but are heavily connected and produce important "network effects".

In economic literature *T. C. Schelling*[17] has clearly expressed that markets and the underlying contracts appear to work towards greater harmony than they do. "A market appears to do a pretty good job of allocating houses to people who need places to live. But it matches people only with living quarters, not with neighbors; the demographic, ethnic, and cultural patterns of living will be determined in the entire interactive process of choosing homes and neighbors and neighborhoods. The market transactions involve only the landlord and tenant. The market may appear to work well for the production and distribution of perfumes, deodorants, and portable radios, but there is no market which determines their use or non- use by locally interested parties. The market for pets does not reflect the interest of bird lovers in the market for cats, or of cat lovers in the market for dogs, or the interest of people who walk sidewalks in

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[17]T. C. Schelling, Micromotives and Macrobehavior, 1978, pp. 34 ff.

the market for animals that foul the footpath." In his book *T. C. Schelling* explains convincingly the interaction of choosing neighborhoods but he omisses the explanation why people prefer or dislike to flock together wether by cultural, ethnic or demographic reasons. An attempt to do that will follow and characterize some specific externalities of social norms producing separating cultures, attitudes or even legal norms.

II. Network Externalities, Kompatibilities, Standards[18]

Social and legal norms can produce standards of conduct which have no particular advantage in comparison with others. They only coordinate people's actions by an arbitrary choice of rules and make their actions compatible. An example of such a standardization with relevant compatibility advantages are many traffic regulations. Even if the obligation to drive on the right side is as good as the one to drive on the left side, the choice of one of them in a well-defined area produces standardized conduct and reactions with interesting compatibility advantages for all. Compatibility means that parts of a system work easily together. Standardization organizes conduct so that actions are compatible. Compatibility is usually not a matter of yes or no.

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[18]This paragraph draws heavily on the work on standardization issues by J. Farrell/G. Saloner, Competition, Compatibility, and Standards: The Economics of Horses, Penguins and Lemmings, in: H.L. Gabel (ed.), Product Compatibility as a Competitive Strategy, 1987, pp. 1 ff. sowie J. Farrell/G. Saloner, Installed Base and Compatibility: Innovation, Product Preannouncement, and Predation, 76(5) American Economic Review, 1986, pp. 940 ff.; M. L. Katz/ C. Shapiro, Network Externalities, Competition and Compatibility, 75 American Economic Review, 1985, pp. 424 ff.

Usually there are degrees of compatibility. Examples for compatibilities are hydrants and hoses, peripheral and CPU equipment for computers, cameras and lenses, cameras and film, railway gauges and rolling stock,[19] video players and recorders.[20] Many times compatibility benefits result from the fact that people are connected by networks. These networks can be technical or be produced by social or legal norms. Network means that people are linked together and the value of these connections depend on the number of the participants. For example, my own telephone becomes more valuable the more people link to my telephone network.[21] Also, the regulation of a driving side becomes more valuable the more people choose the prescribed one of the two sides. A standardization of conduct or of technical properties, for instance of telephone equipment, determines the size of the network and therefore the size of the possible compatibility benefits. These positive[22] network

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[19]J. Farrell/G. Saloner, Competition, Compatibility, and Standards: The Economics of Horses, Penguins and Lemmings, in: H.L. Gabel (ed.), Product Compatibility as a Competitive Strategy, 1987, pp. 1 ff.

[20]M. L. Katz/ C. Shapiro, Network Externalities, Competition and Compatibility, 75 American Economic Review, 1985, p. 424.

[21]M. L. Katz/ C. Shapiro, Network Externalities, Competition and Compatibility, 75 American Economic Review, 1985, p. 424.

[22]This chapter discusses mainly positive network externalities. Negative externalities arise, for example, if any new user of a telephone produces higher costs by congestion imposed on the old users and vice versa by the old users to the new ones. The causation of negative or positive externalities is symmetric, see for a more general discussion of the "causation principle" in an environmental protection context M. Adams, Das Verursacherprinzip als leere Worthülse, Juristenzeitung 1989, pp. 787 ff.

externalities can arise also on a more indirect way. For instance, the more people use a given computer operating system like DOS or UNIX, the more software is likely to be written for that system, and so the more choice and competition will be available.[23]

The benefits of compatibility encourage people to do what others do. This means that a network shows a positive feedback. When a system proves to be self-enforcing by positive feedback many textbook wisdoms based on convexities, diminuishing returns, can be misleading. A positive feedback makes a system snowballing and this means that it may become irrevocable and self-enforcing. For instance, the obligation to the rule to drive on the right side of the street is much more enforced by its compatibility benefits[24] than by police. The more people drive on the right side, the higher are the compatibility benefits, the more the system is self- enforcing.

Furthermore, if there are two equivalent regulation systems at the beginning, like right side or left side driving, the emergence of one of them crucially depends on historic accidents,

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[23]Entry, competition and innovation may be easier if a competitor only needs to produce a single better component, than if each innovator must develop an entire system. See F. M. Fisher/J.J. McGowan/J. Greenwood, Folded, Spindled and Mutilated – Economic Analysis and U.S. v IBM, 1983, chapter 8 and J. Farrell/G. Saloner, Installed Base and Compatibility: Innovation, Product Preannouncement, and Predation, 76(5) American Economic Review, 1986, pp. 940 ff.

[24]Compatibility benefits are also those losses which are avoided when a person gets involved in an accident.

i.e. its emergence is arbitrary, but nevertheless, from one point on inevitable. Even if originally equivalent, the development path of one of them leads to complete nonexistence, while the other dominates. If there is a possibility of clustering, like driving regulations in different nations, there are multiple separating equilibria possible, with one system dominating in one country, while the other dominates in another.

Network externalities give rise to difficult welfare problems because it is possible that a system which is wanted by all parties will not succeed, (excess inertia), or a system which should not be changed or changed later will nevertheless prevail or change too fast, (excess momentum).

Excess inertia will prevail if not enough users go out of the existing compatibilities and build up new ones. This will be the case if existing network compatibility benefits are important and if there is uncertainty wether others will follow or how much time it needs. Insofar excess inertia is only a coordination problem, which can be overcome by contracts, an important first user, private communication or coordination delivered by the state.[25]

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[25]In their thorough examination and critique of the example of the Dvorak typewriter keybord given by P. David, Clio and the Economics of QWERTY, 75 American Economic Review, 1985, pp. 332 ff. S. J. Liebowitz/S. E. Margolis, The Fable of the Keys, XXXIII(1) Journal of Law and Economics, 1990, pp.1 ff. argue that adherence to an inferior standard in the presence of a superior represents a loss of some sort which "implies a profit opportunity for someone who can figure out a means of internalizing the externality and appropriating some of the value made available from changing to the

More difficult problems arise if the preferences of the parties differ because of different investments in the old norms.[26] Since the old choice is embodied in costly physical and human capital, in the so called "installed base", the optimal decision must depend on the gross benefits from switching and the costs of replacement of physical and human capital and disruption of complementary markets and the future availability of still better alternatives. Countries that have switched from the left side driving rule to the right side driving rule like Sweden, had to weight the costs of many hundreds of millions of dollars for the future compatibility benefits with the equally arbitrary right side driving rule prevailing on the continent. Even if all

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superior standard"..."Observable instances in which a dramatically inferior standard prevails are likely to be short-lived, imposed by authority, or fictional." If a change of a social or legal norm does not offer any appropriable profit, by which reason however, excess inertia of inferior norms is possible and not contested by market forces. This situation can arise in many legal and social norm contexts.

[26]A key distinction for the use of standards as a means of competition is wether the standard is proprietary ("sponsored") or in the public domain ("open standards"). With a proprietary standard price becomes a strategic variable. M. L. Katz/ C. Shapiro, Technology Adoption in the Presence of Network Externalities, 94 Journal of Political Economy, 1986, pp. 822 ff. have shown that a seller may be willing to price below cost temporarily, a strategy called "penetration pricing", in order to build an "installed base" of users and thus make its technology more attractive to later users. If just one of the competing technologies is sponsored it has a strategic advantage, since its rival cannot engage in penetration pricing. If there is no state intervention a marketplace standardization is biased towards the choice of sponsored technologies over equally good or even better unsponsored technologies. If both rival technologies are sponsored, then M. Katz and C. Shapiro found surprisingly, that there is a tendency that the one which will be superior in the long run to win the bandwagon competition, if the first technology comes at the cost of some reduction in quality or cost competitiveness.

Swedish had prefered to move to the new continent compatible driving technolgy they would not have succeeded getting out of the old traffic system without the coordination by the Swedish state. This happens because the group is tied together by the understandable reluctance to sacrifice the benefits to be compatible with other Swedish drivers. *J. Farrell* and *G. Saloner*[27] formalized this by a model in which each of a number of user (driver) chooses in a predetermined order to switch to a new technology (right side driving). Of course, whatever choice a user makes, he will prefer others to make the same choice. If the preferences, for example by having invested in a car adapted to left side driving, differ, then the early movers have considerable power to determine the outcome by the snowballing bandwagon effect. If the new users only come to the market with a limited number and only have incomplete information about others preferences, no user can be sure that it will be followed in a switch to the new standard. So the new users may buy the old technology, so that the diffusion of the new technolgy never gets started. This give rise to excess inertia. This is most likely when network externalities are strong because the early new users have to bear the cost of incompatibility disproportionately or when there is a great deal of uncertainty about wether and when a lead will be followed by other new users. Because of this, they may be unwilling to adopt it, even if in the long run it were

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[27]J. Farrell/G. Saloner, Installed Base and Compatibility: Innovation, Product Preannouncement, and Predation, 76(5) American Economic Review, 1986, pp. 940 ff.

desirable to do so. Moreover, if the first users choose the old technology and reinforce its network benefits further, later arrivals would have to show still higher preferences for the new technology to overcome the more attractive old technology. Thus the preferences, expectations and choices of the early choosers have a great deal of power on the final outcome. Their preferences may or may not reflect the preferences of all influenced by their decisions.

In other cases, these pivotal new users may find the new technology attractive and adopt it, thus exerting a negative externality on the old users, the installed base, by stranding their commitments to the old standard. These earlier users may lack a voice in this decision, and so there can be excess momentum. If there is fear of such stranding early potential users may be deterred from adopting the old technology even if the adoption of the old technology would have been (temporarily) efficient.

In such a situation, the welfare analysis of private or state measures to favor the adoption or the status quo is ambiguous without precise knowledge of the preferences and relative benefits of the competing systems.

This analysis had the striking result that excess momentum can arise in all models in which excess inertia is possible. This suggests that some form of commitment to an early choice of standard my be socially desirable. Furthermore, there may be a

need for an agency, private or state, which organizes some internalization of the stranding externality.

III. Social and Legal Norms as Standards

Compatibility and its benefits can produce separating equilibria where only the particular elements of the different systems are working well together. The English measuring systems with units like inches and foots and the continental metric system with centimeters and meters are an example of this. If you want to manufacture a car you should not use different metric systems because your cost for tools and equipement and that of your distributer too, will double. An important reason that English motorbikes failed economically on the European market in the fifties and sixties and always remained exotic strangers, though they were very competitive on any other quality level, was that the bike, its spare parts and the necessary tools were standardized on the English metric system making its full price for vendors and buyers on the continent too high. The compatibility benefits of the metric systems caused two separate, locally stable systems and markets, where convex combinations were rare.

In an "open society" different legal and social norm systems compete with each other. People have the right to change their preferences, life stiles, their basic cultural norms. The institutions trying to stick people to their traditional ways of life are competing and have no overwhelming coercive power. So

people could choose a convex combination of many cultural norms to find their own best suited blend. With the concept of "westernizing" this kind of adoption and recombination of cultural norms is described. But it seems to be true that this process is very slow with regard to the "basic" norms of the different cultures. Many social norms seem to be very stable even for centuries of daily contact with other cultures. So cultures show for many of their norms separating equilibria. The reason for the stability of these separating equilibria is that an arbitrary combination of social norms from different cultures has the disadvantage that the people would loose the benefits of compatibility produced by norms of one culture. The compatibility benefits caused by cultural norms are derived from much easier coordination of comportment, expectations and actions. Even very simple transactions need a huge background of commonly agreed pattern of behavior. Usually fulfilled expectation helps understand the other parties will and its future conduct and avoids distrust and costly protection measures against unexpected dimensions of conflict.[28] The peoples of Europe, for example, benefit heavily in politics, business and social life by commonly

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[28]Problems of trust and not fullfilled expectations are a major reason for slow progress in developing countries. Cultural standarization can help here to understand risks, and where costly precautions are necessary and when not. E. G. Banfield, The Moral Basis of a Backward Society, 1958; K. Arrow, Political and Economic Evaluation of Social Effects and Externalities, in: M. Intriligator, (ed.), Frontiers of Quantitative Economics, 1971, pp. 3 ff. Vgl. hierzu auch D. S. Landes, Why Are We So Rich and They So Poor?, 80(2) American Economic Review, Papers and Proceedings, May 1990, pp. 1 ff.

acknowledging "western democratic values" because these agreed standards avoid complicate disputations and contracting on basic principles in all day transactions and their possible conflicts. Standardization by culture means that the methods of competition in business and society and the systems of conflict solving and its applications are reduced in their possible dimensions thereby avoiding unsolvable questions of multidimensional principles of values. This means that cultural norms produce separating equilibria of social norms which are by their compatibility benefits "internally efficient". Even if the cultural norms are completely abitrary - be isolated or in comparison with another cultural systems -, cultural norms can be nevertheless self-enforcing and locally snowballing by their compatibility benefits.

Nevertheless, there is a worldwide competition of cultural systems, too. So the question arises if this local stability of cultures, based on compatibiliy benefits, can end in one common world "culture" driving to extinction all others by its compatibility effects. If there are substantial never ending economies of scale by the network benefits of this culture the answer is yes, even if there is no inherent advantage in this final winner net of the compatibiliy benefits. Even an inferior cultural system may defeat others if it is the first to get momentum.

Furthermore, it is possible that only those parts of a culture,

where the compatibility benefits are strongest, dominate over the competing rules, while other parts of a culture remain unaffected. Some of us, translating their original poetrylike formulated paper in more or less rough and baffling English will be aware of the huge power of compatibiliy benefits with economies of scale which the English language provides. The not really overwhelming success of the French goverment programs to spread the use of the French language in the world, makes clear how joyless it is to ski against an avalanche of compatibilities, competitors enjoy.

The not too rarely made observation of cultural tensions, the reflexive "aversion against strangers" may be explained by the feeling of the members of the different cultures that their compatibility benefits may be endangered. The great interest of parents and all other members of a society in what happens in the socialization systems like families, schools, peer groups, television and universities is well founded, because it is there where the cultural network and its future compatibility benefits will be build up, interesting especially for the "old users" of the culture. The interest of all members of society to arrange socialisation so that the existing users do not lose their compatibility benefits with the young generation is underlined by the fact that even a modern society with an elaborate legal system has much to rely on "implicit contracts". Many working contracts cannot be made "complete" and therefore give an

opportunity to opportunistic strategies.[29] Furthermore, many traditional societies rely widely on such implicit contracts, especially for the fullfillment of the "contract between the generations" which regulates the transfers in the family and especially the duty to subsidize elderly relatives. No wonder, that much socialization effort, including the invention of elaborate religious systems, is directed to create social norms which help to avoid the life endangering breach of this implicit contract by the young generation.

The theory of standards suggests to understand these cultural norms as the "installed base" of the old user of the cultural system. If there is a switch in the enforcing scheme of this intergenerational contract by the possibilty to fly by night from the village into the anonymity of the city, the eldery will orphane on their "installed base" with personally desastrous consequences.[30]

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[29]See for example M. Adams, Höchststimmrechte, Mehrfachstimmrechte und sonstige wundersame Hindernisse auf dem Markt für Unternehmenskontrolle, Die Aktiengesellschaft, 1990, pp. 63 ff. (73 f.) with further references.

[30]This means that the intergenerational family transfer system has to be replaced by other means, state or private institutions like insurances. So it seems not to be neither reasonable to praise the life style and social institutions of traditional societies and to complain on "westernizing" nor to allow modernization revolutions without regarding the consequences for the multitude of implicit contracts and the orphaning of many people with their learned attitudes loosing their cultural network benefits and its expected growth. If institutions, arranging compensations, for those loosing their "installed base" do not exist or fail, "fundamental" opposition can be expected giving political entrepreneurs their market share.

This argumentation allows to reconcile the opinion by *R. Posner* that many Common Law rules are efficient and the opposite one of the defenders of the Statutory Law and also the criticism by *J. Elster* that the economic arguments on the efficiency of social norms are "just-so" stories. The attempt to make these divergent opinions compatible works by understanding these social und legal rules as building up an efficiency producing network (only) by their internal network compatibility benefits, which are lost if the rule is moved out of the network context. This means that social and legal rules can be efficient in one cultural or legal system and inefficient in another. Also the emergence of very different social norms, even if their origin is completely arbitrary and produced by an historic accident, can be explained by their economics of scale in compatibility benefits.

Furthermore, *J. Elster*[31] asked for the mechanism which produces the alleged efficiency of social norms. What this theory of norms as standards has to offer is that the very beginning is "chaotic" without any deeper sense and not forseeable[32] and therefore "not explained". But if the system has started by some historic accident its irrevocable force comes from producing self-enforcing compatibility benefits if the cultural system produces

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[31]J. Elster, Social Norms and Economic Theory, 3(4) Journal of Economic Perspectives, 1989, pp. 99 ff.

[32]See for a presentation of such system W. J. Baumol/J. Benhabib, Chaos: Significance, Mechanism, and Economic Applications, 3(1) Journal of Economic Perspectives, 1989, pp. 77 ff.

at the aggregated level the net result[33] that there is advantage to do what others do. The invincible power of such a mechanism may be found in the examples of driving on the right or left side in separated locations or of writing from the left to the right side or vice versa in different cultures. These arguments have consequences for some well-known theorems and some institutions like the state.

IV. Network Externalities, Coase-Theorem and the State

The concept of legal rules, sometimes building up a network with externalities, means further important limitations of the *Coase*-Theorem, which - abbreviated - states that legal norms do not matter and no externalities occur when contracts are feasible without high costs between all and well-informed parties involved in the transaction.[34] Network externalities of contracts change the tool of internalization, the private contract, to a fabric of externalities. These externalities can be negative or positive. Important negative externalities occur when the contract hurts the "installed base" of the old users which has no direct parallel in contracts without network effects. "If I develop a new mousetrap and you choose <u>not</u> to buy it, you as the not-buyer will not be harmed by my development. If I develop a new computer

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[33]This means that on the micro level of the culture some situations can exist where there are advantages not to do what others do. But if all in all aggregated, the culture shows compatibility effects if uniform comportement is rewarded.

[34]For a more technical definition see footnote 14 supra.

operating system, incompatible with the old one you already own, and you choose again not to buy it but millions of others do, then you will find your network benefits much diminished as a consequence of my innovation."[35]

An internalization of such network effects by a *Coasian*-contract would require that all parties involved, past and future buyers and producers, participate. Obviously, such an arrangement is impossible. First, the huge number of participants to the contract are a source of prohibitive transaction costs, well known from the public choice literature. Second, possible users are not knowable because of the described very "chaotic nature" of the self- enforcing path the system will take and force ultimately into the system.

This means that institutions, prominently the state, are necessary to help coordinate people, alleviate contracting problems and internalize important network effects of social and legal rules.

One prominent function of the state will be coordination. It was shown supra that coordination problems can cause excess inertia, even if a change is unanimously preferred. Take as an example the retardation of the use of exhaustion catalysators in cars in Germany 1985. On one side, the car industry wanted to wait with

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[35]The example was drawn from J. Farrell, Standardization and Intellectual Property, Working Paper No. 89/7 School of Law, Center for Study of Law and Society, University of California, Berkeley, 1989.

the installment of catalysators in cars until the necessary unleaded fuel was available everywhere, while the oil firms, on the other side wanted to wait until enough cars with catalysators guaranteed sufficient demand for unleaded fuel to justify its supply. To solve this problem of excess inertia the state has to determine a binding introduction period which is essentially only coordinating the expectations of the market participants and making these expectations self-fullfilling.

Institutions which have - by which reason whatsoever - the power to coordinate expectations have real power.[36] As network benefits make even arbitrary choice self-enforcing, such a possibility needs no administration to supervise. And vice versa: the state has difficulties to stop a self-enforcing rule if it proves socially devastive.[37]

Network effects make state interventions necessary not only as a help in coordination but also for internalization reasons. As demonstrated supra, the interests of the old users with large installed bases, loosing their present and expected future

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[36]For this power on product markets see M. L. Katz/ C. Shapiro, Technology Adoption in the Presence of Network Externalities, 94 Journal of Political Economy, 1986, pp. 822 ff. See also T. C. Schelling, Micromotives and Macrobehavior, 1978, pp. 211 ff.

[37]J. Farrell/G. Saloner, Competition, Compatibility, and Standards: The Economics of Horses, Penguins and Lemmings, in: H.L. Gabel (ed.), Product Compatibility as a Competitive Strategy, 1987, pp. 1 ff.(16) stressed the point that the market, whatever this means, always produces some result, for example a de facto standard which is not to be confused with success. "Lemmings would be well advised to look before they leep."

network benefits are not necessarily heard in the process of changing rules. The same may be true for new user which have no installed base problem but are not well organized around their sunk costs.[38] *J. Farrell*[39] points out that we can see a lot of state activities against stranding. For instance in the ongoing development of high definition television the FCC has prohibited the stranding of the current NTSC - colour sets. Owners of existing capital goods, who benefit from the status quo are expected to have excessive political power relative to those harder to identify, organize, and even those unborne, who would benefit from a change. What is needed by state intervention is an integrated view of the interests of all parties involved. In the case of the stranding users a compensation scheme may become necessary while in the case of the unorganized future generation the state has to guarantee an open future for the young against excessively early preferences of venerable founding fathers or abitrary historical accidents.

With regard to the momentary speed of the European legislation to create the internal market it can be noticed that many parts of

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[38]For the importance of sunk costs as a motive to organize in political enterprises see C.C. von Weizsäcker, Effizienz und Gerechtigkeit, erschienen in: M. Neumann (Hrsg.) Ansprüche, Eigentums- und Verfügungsrechte, Schriften des Vereins für Socialpolitik Band 140, 1984, pp. 123 ff.; G. S. Becker, A Theory of Competition among Pressure Groups for Political Influence, Quarterly Journal of Economics 1983, pp. 371 ff. with further references.

[39]J. Farrell, Standardization and Intellectual Property, Working Paper No. 89/7 School of Law, Center for Study of Law and Society, University of California, Berkeley, 1989, p. 15.

this legislation are designed to create compatibilities by normative standardizations. Early standarization has the important advantage that it yields a longer and earlier flow of benefits from compatibility which hastens the growth of the market. If there is not the danger mentioned before, choosing a wrong standard by disregarding important groups, early and even arbitrary standardization is good and beneficial.

To summarize: The structure of society is heavily influenced by social and legal rules showing important network externalities which give rise to separating equilibria, but also dominating equilibria to arbitrarily chosen rules. The domain of classical economic theory with the assumption of diminishing returns is left. Therefore, the design of all kinds of standard setting institutions in social, public and economic life, like states, churches, public communication, should be a point of major interest, because they can produce with very small inputs an avalanche of effects, possiblely effective for centuries. To paraphrase a famous statement of a bankrobber asked why he attacked the bank: It is there where the power is.