

The Influence of Property Rights on Tastes

by

CARL CHRISTIAN VON WEIZSÄCKER

In the perspective of the Coase-Theorem (COASE [1960]) institutions are to be evaluated by their contribution to the lowering of transaction costs. Transaction costs can be seen as costs of social coordination arising out of the fact that – contrary to collectivist ideas – societies consist of different individuals each endowed with an independent will and intelligence. The groping of a group of individuals towards mutually agreeable changes (by trading for example) is costly. The implementation and monitoring of concluded agreements also implies costs. The size of these costs will decisively be influenced by the institutions which are available in society. Thus for example, the existence of money, a universal medium of exchange, greatly reduces the unit transaction costs of everyday trading – and thereby raises the volume of such trading.

The Coasian perspective thus asks: which institution is best fitted to the tastes of members of society and to its technological opportunities. But it is of interest to note that certainly technology is not exogenous to the institutional set up. There exists an interdependence between technological opportunities and social institutions. Both are endogenous and both influence each other. This is well recognized. Institutions like patent protection of inventions could otherwise not be explained.

There is much greater reluctance among economists to accept preferences as endogenous. In my opinion the reason is that the assumption of endogenous preferences makes it much more difficult to find criteria for the performance of institutions. Fixed preferences can be taken as the measuring rod by which to evaluate institutions in society. The term improvement by mutual agreement (trade) makes unambiguous sense if, what we mean is that, the utility of the concerned parties increases.

STIGLER and BECKER [1977] have advanced the hypothesis that preferences, properly defined, are fixed and indeed are the same for all people. Differences of behaviour of different persons as well as of the same person at different moments of time are to be explained by differences in the opportunity set and not by differences in preferences. There exists of course an ambiguity in the term “preferences”. Preferences with respect to goods traded on the market may differ because people have different information or because their household production functions are different. Thus the only reasonable way

in which the Becker-Stigler hypothesis can be understood is in terms of intrinsic preferences defined with respect to certain more abstract goods. By way of several examples the authors give their hypothesis empirical content.

It is at this time not clear whether the specific form which the Stigler-Becker hypothesis takes in their examples stands up to the empirical facts. But even if it does not it probably can be reformulated and it is not yet refuted as a general hypothesis. But then the question arises: is it at all an empirically refutable hypothesis – or is it rather a tautology? We do not have to decide this issue here. But I believe that substantial methodological as well as substantive difficulties are associated with the Becker-Stigler research strategy.

It is therefore worthwhile to take the alternative hypothesis of endogenous changes in tastes seriously. In this paper I want to concentrate on a specific case study of the general phenomenon, making use of the psychological theory of cognitive dissonance of FESTINGER [1957]. The example is concerned with environmental policy. The problem of social cost is the origin of the Coase theorem. Coase gave a reinterpretation of that problem. Due to the Coase theorem we have since well understood that a government role in regulating negative externalities may be legitimate when a public good is involved. If a large group of people is simultaneously negatively affected by the noise or smell of a nearby production process the abolition of that production process is a public good. In producing it one encounters the usual free rider problems.

Under such conditions, as Coase noted, the allocational outcome does depend on the initial distribution of rights. If we subsume the free rider problem under transaction costs we can apply the formulation that transaction costs may prevent an efficient transfer of rights. Imagine the noise problem caused by an airport. If initially the airport owner has the right to produce the noise the airport may go on to operate despite the fact that its net value – including the negative value of the nuisance to nearby dwellers – may be negative. If initially the nearby dwellers have the right to stop or prevent the operation of the airport it may be stopped or prevented from starting even if its operation generated a positive net value.

In both cases it is the free rider problem which prevents the efficient transfer of rights. If the net value of the airport is negative, but the owner has the right to operate it, the people suffering from the noise would have to compensate him for closing down the airport. They would have to collect the compensation payments from their members somehow in accordance with their individual evaluation of getting rid of the noise. The individual members have an incentive to shirk by telling the others that their subjective suffering from the noise is quite small so that they would only have to pay a small contribution to the compensation sum. Thus as a result the apparent preference for getting rid of the noise is much smaller than the real preference and the compensation offered to the airport operator may be insufficient to induce him to close down the airport. For further reference note this result: if the right

to make the noise exists then there exists a tendency to report low preferences for getting rid of the noise.

If on the other hand the initial right is with the dwellers so that they can prevent the noise of the airport it may be difficult to buy them off in order to be able to start operating the airport even if it generated a positive net value. For the noise compensation has to be distributed among the dwellers somehow in accordance with their subjective evaluation of that noise. They can get more compensation if they overstate their suffering from the noise. As a result the sum total of claimed compensation for the noise may be higher than the profit the airport owner may be able to obtain, despite the fact that with the real preferences the opposite is true. Note for further reference: if the right to prevent the noise exists then there exists a tendency to report high preferences for avoiding the noise.

Government intervention may be warranted in this externality situation due to the public good aspects involved. The role of the government is to redefine rights if there exists the opinion that the previous distribution of rights leads to inefficient results. But we should note that the government has to get that opinion from somewhere. Which pressure group is most successful in influencing the government? I want to contribute to an answer to this question by developing a theory of the dynamics of preference formation which rests on the psychological theory of cognitive dissonance.

Application of the theory of cognitive dissonance to the free rider problem discussed above implies the following: If people have an external incentive to understate their preference for a public good they will develop a tendency to reduce their true preference for the good so as to reduce the discrepancy between what they say and what they really believe. If you say something often enough you start believing it. This theory implies a systematic influence of rights on preferences. If, due to transaction costs, the transfer of a right is difficult then, due to cognitive dissonance, the owner of the right will value it more highly. We would then predict that people who do not have the right to prevent noise will have a greater tolerance of noise (a lower subjective valuation of the absence of noise) than people who have the right to prevent noise.

This particular influence of rights on preferences is a special case of what I call adaptive preferences¹. Adaptive preferences prevail, if there is a positive feedback from the consumption of a good to the preference for it. To be more precise: for any given level of consumption today of a good the marginal utility in terms of money of the good is larger if the past consumption of that good has been larger. In the cognitive dissonance-transaction cost case this positive feedback works as follows: If ownership of a right and high transaction costs imply that a good is consumed in greater quantity than would be the case in the absence of transaction costs then the preference

¹ I develop this concept in an as yet unpublished paper (VON WEIZSÄCKER [1983]).

for the good – in terms of the marginal utility calculus – is greater than it would be in the absence of transaction costs or in the case that the consumer does not own the right. It is the story of sour grapes which you cannot get or of sweet grapes which you cannot sell (ELSTER [1982]).

I offer a test of the theory by pointing to the development of environmental policy in the last twenty five years. Over that period in all Western countries environmental protection has been substantially increased. By all measures which we reasonably can employ it has grown much more rapidly than real income per head. The conventional explanation of the economist is that the demand for a clean and natural environment has a high income elasticity at the income levels relevant in this period. The difficulty with this explanation is the universality of the phenomenon in all industrialized countries despite the fact that real per capital income differs widely in the different countries.

An alternative explanation is that due to additional scientific and medical research one has become aware of greater health hazard of environmental pollution. Here we must distinguish between progress in scientific knowledge available to the expert and public awareness of the health risks. Variations in public awareness of and public interest in any given body of scientific knowledge could be explained by cognitive dissonance processes as we shall introduce them below. As to actual scientific knowledge available to the expert we must be careful not to underestimate what has been known earlier. Although scientists and medical doctors have discovered additional environmental health risks within that period, some other environmental health risks which existed earlier have disappeared or have been drastically reduced due to advances in treatment and prevention technology. Thus for example tuberculosis which was considered to be caused by pollution and bad hygienic conditions in industrial areas, and which was one of the major health risks decades ago, has been almost eliminated. The place where Thomas Mann's Magic Mountain is located nowadays is a major Ski-resort. It would be difficult to argue that today serious experts impute a greater proportion of serious illnesses or death to environmental pollution than, say, twenty or thirty or fifty years ago.

In my opinion the preferences of individuals have changed in the direction of greater emphasis on environmental protection. For any given income level the demand for pollution control has increased without there being a scientific basis for greater health hazards of the marginal level of pollution than in the past. But this shift in preferences is not autonomous. Rather it is induced by a process of cognitive dissonance which I shall describe now.

If we assume that demand for protection against pollution is rising with rising incomes we would expect that low income societies define property rights in such a way as to give producers and consumers of private goods the right to pollute rather than those affected by pollution the right to prevent pollution. In high income countries we would expect a tendency in the reverse direction. There we would expect to see more cases in which government

gives those affected the right to prevent the pollution rather than (potential) polluters the right to pollute. Thus in low income countries property rights are distributed so that there exists a free rider problem among (potential) victims of pollution which induces them to understate their preference for pollution abatement. In high income countries there will be many cases where the free rider problem induces people to overstate their preference for a pollution free environment. Applying then our suggestion above concerning cognitive dissonance we expect a shift of average preferences for environmental protection into the direction of greater preference as income rises. In other words we predict that as income rises the average preference for environmental protection at given incomes rises. This comparative static exercise now can be put into dynamic terms. As income rises through time we predict a redefinition of property rights in the direction of greater rights for (potential) victims of pollution. We further, due to the redefinition of rights, predict a rise of preferences for environmental protection – at given incomes. We then have constructed a positive feedback mechanism between the definition of property rights and the changes in tastes for environmental protection: Driven by gradually rising incomes demand for a better environment rises; this leads to a gradual redefinition of property rights in the direction of a better protection of the environment; this redefinition of property rights raises, for any given level of income, by cognitive dissonance, the preference and hence the demand for environmental protection; this, together with further rising incomes, induces a further redefinition of property rights in the direction of favouring environmental protection which – as described – further raises the preference for such protection and so on.

A conventional theory would predict a steady growth of the demand for and the implementation of environmental protection. Our theory predicts that at some historical stage the demand for environmental protection rises almost explosively. The beginning of that stage is located at the point of time when the first substantial redefinitions of property rights occur so that the positive feedback mechanism described begins to operate. The dramatic growth in the public demand for environmental protection from 1960 to 1980 seems to be more in accordance with our theory than with the theory of steady growth which is the conventional alternative.

Things get more complicated due to international interactions. At the same time they allow us to develop a further test of our theory against the conventional theory. As was said above, the international synchronisation of the environmental waves in the last two decades causes difficulties for the conventional theories due to the fact that per capita income is different from country to country. On the other hand, if we admit endogenous changes of preferences, international communication adds momentum to the positive feedback mechanism described above: here we can return to the issue of health hazards of pollution. Cognitive dissonance theory predicts that exposure to pollution, which cannot be changed, will lead to a deficit in the awareness of health

risks of such exposure (ACKERLOF and DICKENS [1983]). Thus we predict that for any given scientifically known level of hazards public awareness of such hazards will be small in a society which allocates most rights to polluters and it will be high – even to the extent of grossly overestimating them relative to reasonably objective scientific evaluations – in societies with substantial rights of (potential) pollution victims. But public awareness, which naturally feeds back to the redefinition of rights, is no longer only a national phenomenon. It is worth noting that there exist substantial positive international externalities in the creation of news in the media.

If in the most advanced countries a market prospers for news about environmental health hazards then the primary cost of producing such news will be incurred there. The export of those news to other countries then can be accomplished at low incremental cost. Thus the low price of such news in the other countries will create a market there as well, prematurely, so to speak. This will raise public awareness of health hazards in those other countries at lower income levels than it did in the most advanced countries. The other countries then will start the redefinition of their property rights at lower income levels than the most advanced countries. Also the observation that property rights have been redefined in those more advanced countries will encourage initiatives to do the same in the other countries as well. We therefore expect a greater synchronisation of the positive feedback process described than would be expected in the different countries with different incomes if there were no international contact.

References

- AKERLOF, G. and DICKENS, W.T. [1982], The Economic Consequences of Cognitive Dissonance, *American Economic Review*, 72, 307–319
- COASE, R. [1960], "The Problem of Social Cost", *Journal of Law and Economics*, 3, 1–44.
- ELSTER, J. [1982], "Sour Grapes – Utilitarianism and the genesis of wants", pp. 219ff. in: A. Sen and B. Williams (eds.), *Utilitarianism and Beyond*, Cambridge.
- FESTINGER, L. [1957], *A Theory of Cognitive Dissonance*, London.
- STIGLER, G. and BECKER, G. [1977], "De Gustibus non est Disputandum", *American Economic Review*, 67, 76–90.
- VON WEIZSÄCKER, C.C. [1983], "Adaptive Preferences", *Discussion Paper, Bern, Dept. of Economics*, April.

Professor Dr. Carl Christian von Weizsäcker
Abteilung Angewandte Mikroökonomie
Volkswirtschaftliches Institut der
Universität Bern
Gesellschaftsstr. 27
CH-3012 Bern
Schweiz