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The Normative Co-evolution of the Market Economy and Democracy[1]

Abstract: Deliberative democracy requires a market economy as a system of economic competition. This can be proved using Popper's concept of an open society with piecemeal engineering. For the coherence of an open society presupposes, in the case of endogenously influenced preferences, that these preferences are adaptive. Without a market economy, adaptive preferences would lead to social stagnation. – On the other hand, the legitimation of the market economy also requires a deliberative democracy. In order for the interpersonal influences on preferences and values to be legitimized, they need competition between these influences, which can only exist within the framework of a democratically structured public. The coherence of such a system is supported by the fact that such interpersonal preferences can often be seen as being analogous to adaptive preferences. This is particularly valid for the universal phenomenon of imitation.

JEL Classification: D03, D11, D60, D61, P10, Z10.

1

Contents

A: Introduction and Summary

B: Common Requirements: Constitutional State, Progress and State Monopoly on the Legitimate Use of Force

C: The Terms "Preferences" and "Freedom"

D: Adaptive Preferences: On the Coherence of the Principles of the Open Society

E: Democracy Presupposes a Market Economy. Part 1

F: Democracy Presupposes a Market Economy. Part 2

G: The Market Economy is Legitimized by Democracy. Part 1

H: The Market Economy is Legitimized by Democracy. Part 2

I: Concluding Remarks

Appendix 1: Theorems 1 and 2

Appendix 2: A Simple Example for the Formal Equivalence of Imitating and Adaptive Preferences

References

A: Introduction and Summary

Looking at the common good means considering society as a whole. This age-old insight from the realm of social philosophy was not forgotten by the progressive thinkers of a good economic order. This is proven in the works of Eucken, Rüstow, Röpke, Hayek and others. In the pure theory of economic systems, however, one can observe a disassociation between the common good at large and the "economic" common good. This disassociation has been one reason for certain teething troubles during the establishment of economics as a science.[2] One point of criticism of the liberal political economy is that isolating the "purely economic" aspect is not admissible. Both the conservative and socialist critique of liberal economic theory is to a large degree based on the problem of this disassociation.

However, there are two reasons that defend liberal theory in favour of this disassociation – apart from the claim that it is intellectually more accessible. First, there is the phenomenal success of the liberal economic system: By establishing an economic and state order according to liberal teaching, and by implementing this disassociation, the "Great Transformation" (Karl Polanyi)[3] was achieved, which significantly increased the material standard of living of the population and also doubled or tripled life expectancy. However, if depoliticizing the economic sector of society produces such success, it should be legitimate to analyse the phenomena of the purely economic common good separately from all other aspects relating to the common good.

The second defence of an analytical disassociation is also founded on an experience in history, namely 20th-century totalitarianism. The movements that had begun with the self-proclaimed intention of securing the fortune of mankind by striving towards a common good ended up abolishing the freedom of citizens, in the (alleged) interest of public welfare – and failed. In his *Open Society and its Enemies*, Karl Popper formulated his criticism of a political utopia most clearly of all,[4] by exposing the mental connection between utopian thinking and totalitarian practice. Or, as one might rephrase it: The primacy of politics over other areas of life, as Mussolini, Stalin and Mao Tse-tung wished to claim for themselves, proved a failure. Hayek has argued in a similar vein to Popper, in his critique of "constructivism".[5]

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[2] In 1749, the second volume of Montesquieu's *L'Esprit des Lois* was published, which begins with Part 4 of the work. This part was devoted to "Commerce". Montesquieu opens only this part with a plea to the muses, asking them to help him master the difficult subject matter. Montesquieu's views on economic policy were positively received by John Maynard Keynes. In his preface to the French edition of his *General Theory*, Keynes wrote: "Montesquieu was the real French equivalent of Adam Smith. The greatest of your economists, head and shoulders above the physiocrats in penetration, clear-headedness and good sense (which are the qualities an economist should have)." Keynes (1939).
[3] Polanyi (1944).
[4] Popper (1945).
[5] Hayek (1944).

The neoclassical orthodoxy was pretty successful with regard to the normative penetration of the matter, insofar as the economic common good is concerned. I am thinking, in particular, of the well-established field of "welfare economics", with its practical implementation in the guise of the partial equilibrium cost-benefit analysis. However, welfare economics also encountered fundamental problems, which are especially manifest in the criticism of *homo œconomicus*. Can normative economic theory overcome *homo œconomicus*? The answer is yes, as I shall outline. At the same time, however, my development of this normative theory also provides the chance on the one hand to justify the disassociation of the economic common good from the comprehensive common good, mentioned above, and on the other hand to partly overcome it. Thereby I create a new bridge to the general theory of the state, as it is practised in philosophy and in legal studies. This contribution hence sees itself in the tradition of Montesquieu, a way of thinking that has for the most part been forgotten by mainstream economics. At the same time, the paper sees itself as pertaining to the area of economics commonly referred to as "public choice".

My analysis leads me to the following two theses: 1. The market economy is a condition for a basic democratic order of the state. 2. Political democracy is a condition for a justifiable and hence stable market economy.

Both the economic and the political system are subject to a constant process of evolution. There is therefore also a co-evolution of both systems. To quote Habermas, this goes not only for the level of "Faktizität" (facticity), but also for the normative level of "Legitimität" (legitimacy) or "Geltung" (validity).[6] I refer to this finding as the "normative co-evolution of the market economy and democracy".[7]

Economists and social philosophers have also reflected on the factual – as opposed to the normative – co-evolution of the market economy and democracy. For instance, the thesis of Hayek and Friedman holds that the market economy is a basic prerequisite for a liberal democracy. However, this is not the main topic of this study.[8] I presume that a stable symbiosis of market economy and democracy is also based on such a symbiosis also existing at the normative level.

<u>Summary of the following</u>: I am primarily concerned with normative theory on an individualistic basis. We assume as given the state monopoly on the legitimate use of force (Gewaltmonopol), a functioning constitutional state and the orientation of the "open society", as described by Karl Popper, towards the principle of incremental progress. This progress should be firmly tied up with the citizens' preferences. What I show is that a preference system with endogenously changing preferences (instead of the fixed preferences of *homo œconomicus*) can only have a coherent notion of progress if these preference adjustments are *adaptive*. This ties in with a normative up-valuing of the status quo. Were all decisions made centrally, as in a primacy of politics, then the democratic majority votes would lead straight into stagnation as a result of this up-valuing of the status quo. Only a decentralization of decisions, i.e., a competitive market economy and a system of research freedom in science, can successfully overcome this status-quo orientation in society. Decentralised decisions are those that are unburdened from the direct orientation towards the common good. The

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[6] Habermas (1992).

[7] So as not to go beyond the intended scope of this article, I have to leave out the aspects "justice", "welfare state" and "social market economy" here. These aspects shall be discussed elsewhere. The same goes for ecological aspects.

[8] On Hayek and Friedman, see the work of Lawson et al. (2010).

institutional framework of society intends to assure that decentralised decisions, made selfishly, should also serve the common good.

On the other hand, the preferences of citizens can only be legitimized as a source of social values if this occurs in a system of deliberative democracy. In that case, I would suggest that results of interpersonal influences on preferences can only be legitimized if there is competition between the "influencers". The fact that such competition dominates at least with regard to the influences on adults means that one is close to the goal of a deliberative democracy. We can show that interpersonal influences on preferences lead to a coherent idea of progress if the imitation of other people's behaviour dominates in these preferences.

Habermas's ideal of a domination-free discourse under the "eigentümlich zwanglosen Zwang des besseren Arguments" (the strangely unconstrained constraint of the better argument) can never be realised in its pure form, being ultimately based institutionally on the unanimity principle. In a society with a state monopoly on the legitimate use of force and with constitutional procedures, however, this would lead to stagnation, since the opponents of a suggested deviation from the status quo would have power of veto. In this sense, a society that is geared towards progress cannot do without the majority decision principle. Majority decision, however, also means that a particular majority dominates a particular minority. Abuse of majority decisions must be regulated in the constitution by means of establishing basic rights. These rights – in particular freedom of opinion, freedom of the press, freedom of assembly and freedom to pursue a profession – are then also a form of protection of the sanction-weak free discourse against the solidification of majority opinions.[9]

B: Common Requirements: Constitutional State, Progress and State Monopoly on Use of Force

There are many forms of democracy. US democracy is different from German democracy, just as the latter is different from French, Swiss or British democracy. There are also many forms of market economy. Erhard's "social market economy" corresponds to a rather different economic style than US capitalism or the Japanese system. From the perspective of a general system theory or a general theory of economic order, these variants should be regarded with some ambivalence. On the one hand, theoretical insights may well be a reason to criticize individual, or indeed all, forms of democracy or market economy that can be found. On the other hand, the variants can also be understood as examples of a massive game of "trial and error". This second view corresponds to Popper's philosophy of an "open society", which is, after all, characterized by "piecemeal engineering" and "trial and error", thus presenting an alternative plan to overall concepts of politics

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[9] There is an interesting formal similarity between the level of discourse in society and the level of competitive market activity. Habermas's ideal of a domination-free discourse corresponds, in this formal comparison, to Eucken's ideal of perfect competition, where the market participants do not have any pricing power. In the latter case, this ideal is disturbed by Schumpeter's innovator, who keeps on introducing pricing power into the market by way of his innovation, thus contributing to economic progress. In the former case, the ideal of domination-free discourse is disturbed by the respective majority decisions, which obviously mean exercise of power, despite ensuring at the same time that the power of veto of the opponents to changing the status quo is broken. In the political sphere, majority domination has to be limited by way of constitutional barriers, in particular basic rights and constitutional procedures. In the economic sphere, the innovator's potential market power must be limited by pricing competition of imitators. At both levels, we are talking about an optimal compromise between an ideal, albeit one that preserves the status quo, and a power-generating disruptive factor that leads to progress and yet needs to be kept under control.

and society that fall into line with Hayek's "Anmaßung von Wissen" (pretence of knowledge) verdict.[10]

The approach as a massive game of "trial and error" corresponds to my own outline. Criticism of individual forms of democracy or the market economy is possible, and indeed helpful. But this criticism is valid only in the overall understanding that one can learn from mistakes and erroneous developments and that something positive can thus be gained from a criticized fault: One learns how not to do something.[11] And it is not clear ex ante whether a certain future development will have good or bad consequences.

Popper's recipe of "*piecemeal engineering*" corresponds to an acknowledgement of an existing *status quo*. If a "trial and error" philosophy means thinking about a new experiment, then there is always the possibility of staying with the respective status quo, thus doing without this social experiment. We speak here of a "*default option*": If nothing is decided with regard to a hypothetical experiment, the status quo remains unchanged. In other words, any deviation from the status quo is connected to a conscious and explicit decision to change something.

The two theses formulated in the introduction only make sense once the terms "democracy" and "market economy" are clearly defined. It is therefore necessary to define a core inventory that separates democratic systems from other political systems, and the market economy systems from other economic systems.

Both terms should have in common the condition that there exists a *state monopoly on the legitimate use of force*. Democracy is founded on the principle that a majority of citizens, who are eligible to vote, freely decide whether or not the status quo at state level should be changed. In addition, the majority choice must be implementable without much resistance. Should there be violent resistance against the legitimate majority choice, this constitutes a grave deviation from the democratic principle. The occurrence of a majority decision also has to be legitimized by citizens being able to vote freely, which means in particular that there must not be any form of threat by a third party. This is why a functioning democracy requires the existence of a state monopoly on the legitimate use of force; it also requires the state to be strong enough to be able to suppress as far as possible any illegitimate use of force by others.

The same goes for the market economy. A major component is voluntary exchange. This may only occur in a society if there is no threat of violence among citizens. This also leads to a state monopoly on the use of force. In addition, a market system requires secure ownership rights. These require a functioning legal system, with the aid of which any claims arising from ownership or contracts can be enforced in court, rather than through the private use of force. For this, too, a state monopoly on the use of force is essential.

At the same time, a common requirement for both the market economy and for democracy is that the state is organised as a constitutional state. As we have already ascertained, this is a requirement for a system of freedom of action and freedom of contract to function. The constitutional state,

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[10] Hayek (1973).
[11] I think the analysis developed here becomes more convincing if we bear in mind the past experience of the centralised economy failing. This failure had been predicted by Hayek and was brilliantly explained ex post by Kornai, who endured it personally. Cf. Kornai (1992).

however, is also a requirement for democracy. As already mentioned above, democracy attains its decision-making capacity by way of the majority principle. However, state power must be restrained by the legality principle and by an independent jurisdiction. Montesquieu's separation of powers is hence also a condition for democracy and the market economy.

On the basis of a state monopoly on legitimate force, a further common denominator between democracy and the market economy ensues: Deviations from the status quo during the "trial and error" path should lead to *progress*, not to regression. From a normative perspective, the introduction of a new product into the market is legitimized by the fact that one expects it to be a boon to society overall, rather than expecting it to have a detrimental effect. A change to a law, voted on by a majority, aims to have a positive rather than a negative effect on society overall. Both the market economy and democracy are beholden to progress, being results of the Enlightenment. Only with this are they also compatible with Popper's open-society approach, in which changes to the status quo occur by way of "piecemeal engineering" and "trial and error".

An important difference between democracy and the market economy lies in the decision structure. Democracy is about decisions that, as decisions, are made centrally by all citizens and in the name of everyone. In the market economy, decisions are made peripherally and are of a private nature. So which decisions are made politically, i.e., centrally, and which are made privately, i.e., peripherally? This is one of the major questions of any society.

Obviously there are centralizing structures in the market economy as well, just as there are decentralizing structures in politics. In a company, many decisions are made centrally within the enterprise, in other words by the company's board. Within the state apparatus, secondary decisions are delegated to individual parts of the administration; for the most part, they do not concern all citizens, but only a part of them, at times merely a small part. Companies, on the other hand, are legitimized in their existence by competition in the marketplace, i.e., by a decentralised principle. And decentralised or peripheral decisions in the state sphere are legitimized through the delegation of powers by the top political headquarters.

Additional characteristics of democracy, on the one hand, and of the market economy, on the other, will come into play in the course of the further line of argument. First, however, the following two parts shall explain in more detail the term "preferences" and the logic of "piecemeal engineering".

C: The Concepts of "Preferences" and "Freedom"

In the case of robots or computers, we do not say – so far at least – that they have preferences. They are programmed cybernetic systems that have no will of their own and obey the laws of physics alone. In the normative theory of economics or of other social sciences, however, one needs the notion of free will on the part of the actors. The term "preferences" functions as follows: It is meant to describe the behaviour of people, of whom we assume that they have a free will. Observed behaviour can be explained by a causal analysis or by referring to preferences, in other words the person's free will. The choice one makes to explain behaviour depends on the programme of insights one wishes to follow. We distinguish here between positive and normative theory. In positive theory, the goal is to explain as well as possible the behaviour of people, in accordance with the causality principle. Pointing to preferences here is in actual fact an acknowledgement that behaviour cannot

(yet) be fully explained causally.[12] In the normative theory of "normative individualism", one seeks to describe the person's *civil liberty*. The explanatory dualism of limitations or constraints (e.g., of the budget) on the one hand and preferences on the other here serves to explain the behaviour with practical constraints (i.e., limitations), on the one hand, and with the person's free decision (preferences), on the other. Where limitation and preference intersect depends, in normative theory, on the facts one wishes to make accessible to economic and political availability, and which one wishes to leave entirely to the citizens' private lives. In the latter case, the citizen's decision is socially legitimized as an expression of the citizen's preferences or personal freedom.

An example for this is the political election or vote in a democracy. The ballot is secret, so as to prevent the voter from being exposed to social pressure. The election is part of the sanction-free area of acting within a society. The voter's ballot counts and is therefore legitimized as an expression of this voter's preferences, regardless of how he or she votes. The causes leading to the voting decision are completely irrelevant with regard to whether or not the vote counts. By contrast, both empirical election research and the parties that are up for election do have an interest in the causes of an election decision. But that does not change the fact that these causes do not play any role in the legitimizing of the voting process.

Psychologists develop causal models, for instance in the form of an empirically supported regression analysis, where the explaining variables are interpreted as the cause and the variable that is explained is interpreted as the effect. A *connection* between the election cause and the election result is thus established. In order for a democracy to function, however, it is decisive that a *cut* be made between cause and effect, as far as the legitimacy of the voting decision is concerned. The cognitive process that leads to a particular voting decision is *the voter's purely private affair* from the perspective of the normative legitimacy of ballot casting. Only because of this *cut* can an election result be definite on election night and can the country's politics continue working thanks to this definite result.

Analogously, one can view the citizens' consumer behaviour as an expression of preferences and explain it by way of the practical constraints. In a particular legislative status quo of the observed "open society", as defined by Popper, the citizen has certain areas of freedom that depend on his or her personal situation, in particular the economic situation, but also on the general legal situation. Within these areas of freedom, we model the citizen's decision as an expression of his or her preferences. If for pragmatic reasons there is some kind of dissatisfaction with the status quo, then these reasons – leaving out questions of distribution for the time being – usually exist because one believes one can see problems that are opposed to many citizens' higher welfare. In that case, the respective problems must be explicitly modelled. They are taken from the explanation scheme "preferences" and placed in an actual causal analysis. After this causal analysis, perhaps laws are amended, which means in consequence that now the limitations for citizens' actions also change.

As an example, let us take the door-to-door sales technique. As long as no problem is seen for the citizens' general freedom to act, the decisions of citizens who buy goods from vendors at their own front door are simply interpreted as an expression of buyers' preferences. If an awareness of problems ensues, i.e., if we observe that many citizens later regret their purchases at the door, then

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[12] That is the key feature of the famous essay by Stigler and Becker (1977) and its title, "De gustibus non est disputandum".

one is analysing the situation more closely and may perhaps reach the conclusion that there should be an inalienable right of the buyer to return purchases bought at the door within a certain time period and with full reimbursement of the purchase price. This means the legislator consciously limits the citizens' freedom of contract by stating that the purchase at the door can only be a preliminary purchase and sale in the moment of the decision. This might reduce the attractiveness of door-to-door sales for the sellers, as a result of which the number of such sales also decreases; perhaps to the benefit of many citizens, and perhaps also to the detriment of some who are now offered fewer goods at the door, the purchase of which they would not have regretted.

In addition to this example of increasing regulation, we might add another example, this time one of less regulation: the legalization of homosexuality. As long as homosexuality was punishable by the law, this norm was defended by a causal theory of the consequences of homosexuality. Its legalization means sexual practices become a private matter and are therefore simply an expression of citizens' preferences. They are thus legitimized by society.

In dealing with the term "preferences", we therefore see a certain parallel between positive theory and normative theory, inasmuch as we can treat the latter within the framework of the concept of "open society". In positive theory, the term "preferences" represents the remainder of unexplored causality in the behavioural analysis of the economic subject. In normative theory, the term "preferences" represents the citizen's scope for action, which is currently not problematic politically. At the same time, these preferences are a benchmark for the evaluation of consumer possibilities. They are the evaluation benchmark for that part of civil private autonomy that is currently not questioned by society.

This procedure simultaneously leads to the possibility of general theories on the welfare effects of markets or other institutions, since one can define the consumer and producer surplus in a partial equilibrium analysis. One may reach the conclusion that, in general, more competition is good for welfare. Such an analysis, moreover, might be called into question for certain parts of the markets, because one can point to information deficits, for instance, on the part of the demanders. These criticisms of the general theory are often also connected to legislative reform ideas, i.e. proposals for government intervention by regulation.

In an open society, there are no definitive truths and evaluations. By recognizing new problems as they arise, and hence by questioning parts of the civil private autonomy, the behaviour of citizens may be explained less by preferences and more by a more precise way of seeing, through the eyes of the "social engineer", what "true" citizen welfare means. On the other hand, technical progress or changed values, for example, mean that new alternatives for action arise for the citizens, and this increases the explanatory share of "preferences" rather than causal analysis.

This understanding of "preferences" as a welfare benchmark presupposes that these preferences change with time, and subject to what happens in society. The fixed preferences of *homo œconomicus* do not fit this scheme of things. On the one hand, the possibility is opened up to search for hidden constraints, in the sense of "Sozialkritik". These constraints might be concealed behind the supposedly free decision of the citizen. Such critique of the free market society is to be understood in the concrete and local sense of "piecemeal engineering", rather than as the propagation of a "cultural revolution". On the other hand, this approach can also be used in the intervention-critical sense, namely by taking the term "civil liberty" seriously and testing the

suggested state interventions, as a social engineer might, for their possibly problematic model assumptions: This understanding of "preferences" implies that the interventionist has the burden of proof[13].

D: Adaptive Preferences: On the Coherence of the Principles of the Open Society

For Popper, the intellectual basis of totalitarian regimes lay in the uniform assignment of all politics to a faraway and therefore abstractly defined goal, a utopia. Popper countered this with his anti-totalitarian concept of an "open society". I shall not dwell here on the details of this concept. Rather, I concentrate on the goals that government policy of such an open society should pursue. Popper gave the answer, mentioned above, of "piecemeal engineering", of progressing through "trial and error". The term "incrementalism" is also used in this context. The reason for this suggestion is that there are no definitive truths and values in politics (and according to Popper, the same goes for science). In politics, one does not know in advance what goals one will follow in the future.

Although this is not expressly formulated like this in Popper's work, it must follow from his approach that there is a *status quo* that provides a starting point for the next stage of piecemeal engineering. Since any conscious transformation always has consequences that crop up successively rather than instantaneously, the consequences of different transformation decisions are sure to overlap. The status quo should therefore not be understood as a stationary condition; due to various earlier transformation decisions, which have consequences even today and will do in the future, it has the appearance of a more or less large dynamic. A further transformation to be decided about shall be called "project" here. The decision whether or not to undertake a certain "project" is therefore taken with the expected dynamic of the whole system in mind. The expected world, as it were, is compared as it might be with and without the implementation of the project.

Examples for such projects in a modern, developed society could be: 1. changes to a law by the legislative authority; 2. the changed jurisprudence of the supreme courts with regard to existing laws or the constitution; 3. the construction of a bridge spanning a river, or any other infrastructural project; 4. a company's launch of a new product on the market. All these examples make it quite clear that the respective effects happen over time and therefore overlap with the effects of other "projects".

Goods that are at the disposal of citizens of a state change over time, as do their evaluations. These evaluation changes are also determined endogenously. In other words, the evaluations depend on the experiences people have in this society. The question arises whether such a practice of piecemeal engineering can display coherence of a kind, considering that the evaluations and aims of the citizens of a country change endogenously.

Let us note that neo-classical economics has developed a methodology, in the form of cost-benefit analysis, to evaluate "projects" that displays high coherence, if the citizens' preferences are fixed, i.e., if we reckon with *homo œconomicus*. I shall say no more at this point about the details of the additional conditions under which cost-benefit analysis works. An economist's keyword here is the

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[13] I have applied this understanding of the concept of "preferences" in a book review of Akerlof and Shiller (2016). See von Weizsäcker (2016).

"theory of the second-best". Ultimately (and implicitly, i.e., usually without economic researchers being aware of it), what is meant is Herbert Simon's system theory, namely the assumption that Simon's theory also applies to economic systems: all complex systems are characterized by the principle of "near decomposability".[14] Partial equilibrium analysis (Partialanalyse) is only possible on the basis of this near-decomposability.

What I wish to address are the possibilities of coherent action in society if the preferences and valuations of people constantly change, and this change is caused endogenously. I remain true to the normative individualism approach: valuations that are relevant to society should be traceable to the individual preferences and valuations of a country's citizens.

If we assume normative individualism, the next logical step would be to search for coherence conditions of social action where the social valuations and aims are rooted: in the individual, the individual citizen. I work on the basis of a hypothesis: Coherence cannot be expected from social action in a society of free citizens if the individual action is typically not coherent.[15] Under this coherence hypothesis, the coherence of individual action is therefore a prerequisite for a certain degree of coherence of social action. I deliberately refrain here from giving a concluding definition of the term "coherence". Such a definition is bound to be difficult if it is to be compatible with certain specificities of the "open society", in which there are changing majorities and hence contradictory decisions, just as there is the phenomenon of constantly and endogenously changing individual preferences and valuations. The idea of coherence, meanwhile, is connected to the notion of a certain amount of stability of society. History has taught us that "open societies" are not necessarily stable.

In order to avoid any misunderstandings, let me emphasize here that coherence in the behaviour of individuals does not imply the coherence of social decision-making. The coherence of individual decision-making is therefore helpful, but not sufficient for the coherence of social decision-making. For the latter, one prerequisite, apart from the state monopoly on the legitimate use of force, is that centrally made – i.e., political – decisions occur with a certain leisureliness that makes it possible for this decision to have been sufficiently reflected upon and debated beforehand. This is another reason why the respective political status quo has such importance.

In the following, I shall outline my theory of the coherence of individual behaviour. I am able to show that coherent individual action presupposes that the preferences and valuations of citizens are "adaptive". The term "coherence" is closely bound to the term "progress sequence" and its non-circularity.

Let us assume that citizens' preferences are endogenously influenced. We observe a citizen's status quo, for instance through a commodity basket x, consumed by the citizen in the space of a year. (Allow me to add that the formal model observes "commodity baskets" as they are treated in microeconomic theory. However, I am convinced that the theory can also be extended to other objects of choice.) Each commodity basket x that is actually consumed now *induces* certain preferences $\rho(x)$. (in the simplest model, with a delay of one year). The expression $y\left(>;\rho(z)\right)x$

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[14] Simon (1963).
[15] I am aware of approaches showing that results in market events can also be "rational" if we make behavioural assumptions that do not correspond to the standard rational model. Cf. Sugden (2004), for example. However, I do not believe that similar results can be found for political behaviour.

means the following: In the case of the preferences $\rho(z)$ induced by commodity basket z, the citizen prefers commodity basket y to commodity basket x. The expression $y(<;\rho(z))x$ means the following: In the case of the preferences $\rho(z)$ induced by commodity basket z, the citizen prefers commodity basket x to commodity basket y. We now (within the framework of the simplest model) look at a series of annual commodity baskets $x^0, x^1, x^2, \ldots \ldots x^T$ with the following characteristic:
$x^0(<;\rho(x^0))x^1(<;\rho(x^1))x^2 \ldots..x^{T-1}(<;\rho(x^{T-1}))x^T$.

Put into words, the series of annual commodity baskets should have the characteristic of always preferring the very next commodity basket to the previous one, if the preferences induced by the previous commodity basket prevail. We refer to such a series as an "*improvement sequence*". Note that it is possible, due to variable preferences, for the last commodity basket *not* to be preferred to the first one, if we apply the preferences that are induced by the first basket. In this case, we may say that the last basket is not directly, but *indirectly preferred* to this first, since the *improvement* requires several stages in between.
Now we can assume that citizens see it as rational to prefer a "better" basket to a "worse" one, according to the respective preferences. However, citizens will not wish to speak of "real" rationality of behaviour if they are being led around in a circle in the course of an improvement sequence, i.e., if they end up where they started. Therefore, in order to make their own preferences the guideline of their actions, they must presume that such improvement sequences are non-circular. *The non-circularity of improvement sequences can therefore be understood as a coherence condition for the policy of "trial and error".* And the idea of an "indirect preference" only makes sense if improvement sequences are non-circular.
To give this idea some more clarity, allow me to evoke the fairy tale *Hans in Luck* (*Hans im Glück*) by the Brothers Grimm. Hans starts off with a lump of gold and keeps on moving along an improvement sequence that ends up making him destitute. If we assume that he would once again accept a lump of gold as a gift, Hans would be moving along a circular improvement sequence. If Hans in Luck were typical for a citizen of the open society, then we could not recommend Popper's model.

However, I am of the opinion that Hans in Luck is not typical of the citizens of an open society. One important reason for this opinion is the following: I can prove, using a formal model, that a certain preference structure, which I call "adaptive preferences", suffices for each improvement sequence to be non-circular (Theorem 1 in von Weizsäcker (2013)). Conversely, the following is also valid: If a citizen has the characteristic that every improvement sequence is non-circular, then that citizen's preferences are adaptive (Theorem 2 in von Weizsäcker (2013)). I consider it a realistic hypothesis that the way in which citizens' preferences change is adaptive – in other words, that preferences are adaptive.

Adaptive preferences can be defined as follows: They are valid when $y(>;\rho(x))x$ implies $y(>;\rho(y))x$. Under adaptive preferences the probability of any randomly picked commodity basket x being less valued than a given basket y is highest when we work with preferences induced by y itself. In this sense, we can refer to adaptive preferences as *preference conservatism*. People have a strong tendency to stay where they are. This should not be confused with the hypothesis of fixed preferences, which corresponds to the image of *homo œconomicus*. For a Frenchman's preferences are typically different to a German's preferences. And the average Frenchman has a much higher preference for all things "French" than for all things "German". And the average German has a much

higher preference for all things "German" than for all things "French". Fixed preferences – the assumption that the preferences are not influenced by the inducing status quo – are formally a special case of the hypothesis of adaptive preferences.

For reasons of space I cannot outline in detail exactly why I consider the "adaptive preferences" hypothesis realistic. I have provided basic outlines elsewhere.[16] However, there is one issue I would like to mention explicitly in this context. As outlined in part C of this paper, the cut we make between the group of explanations called "limitations" or "constraints" and the group of explanations called "preferences" exists because of the area of freedom available within the status quo framework. In this area of freedom, as it is defined by society, there are a certain number of "constraints" for citizens and their habits, which are not of any interest to society, however. The hypothesis of adaptive preferences in this context means that these "hidden", so to speak "entirely private" factors influencing the citizen's decision favour the respective status quo of the citizen's consumption, precisely *because* it is the status quo. In other words: private constraints or habits always have as a characteristic that they mean limitations to the *possibilities for change*, which are not acute anyway as long as one stays in the status quo. "Habit formation" is one of the most-confirmed phenomena of empirical consumer research. The well-known phenomenon of "switching costs" also only arises when we stray from the status quo. The same goes for the information problem: Since the status quo is best known, searching costs arise particularly once the status quo is strayed from.

A further coherence condition of the open society is this. The "projects" that are undertaken to stray from the status quo are undertaken because – with the citizens' current preferences and insights – one sees the result of a project as an improvement compared to the status quo. A project is therefore decided because one favours a project with the *ex-ante preferences*. Now, since the preferences change with the implementation of the project, the question arises whether the project would still be supported with the *"ex-post" preferences*. If this were not the case on a regular basis, then society would not tolerate such incremental deviation from the respective status quo in the long term. That, however, would have to render the recipe of "piecemeal engineering" unacceptable. It now can be shown that adaptive preferences of citizens are a good prerequisite for projects to be welcomed with the "ex-post" preferences, as long as they were endorsed "ex-ante" (Theorem 3 in von Weizsäcker (2013)). The analysis of this fact is not quite straightforward, which is why it cannot be undertaken here.[17] Conversely, it is highly probable that anti-adaptive preferences will lead to projects which are endorsed ex-ante, but which are regretted ex-post. Thus, anti-adaptive preferences are incompatible with the incrementalism of an open society.

In real life there are many reasons why implemented projects may be regretted afterwards. One reason is the uncertainty connected with the cost and the effects of a project. In order to stabilize a willingness within a society to keep embarking on projects, reforms and innovations, this must have been preceded by the experience of these changes, once they have been undertaken, not being regularly disavowed afterwards by induced preference changes. In this study, I concentrate on the problem evoked by endogenously caused preference changes. I do not therefore discuss the social decision problems that already exist without endogenous preference changes. For the latter context,

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[16] See von Weizsäcker (2013).
[17] Cf., however, von Weizsäcker (2013) and von Weizsäcker (2014a).

I refer the reader to Albert Hirschman's interesting observation on the "Principle of the Hiding Hand".[18]

Appendix 1 contains a formal depiction of the two theorems, mentioned above: 1. Adaptive preferences imply the non-circularity of progress sequences; 2. If all progress sequences are non-circular, then preferences are adaptive.

The bottom line of this section is this: A coherence prerequisite for the "open society" is that the citizens' preferences are adaptive. The adaptivity of citizens' preferences is a condition for the vision of "progress" being filled with logically consistent content.

E: Democracy Presupposes a Market Economy. Part 1[19]

We are now in a position to infer that democracy can only function if the economic section of social life is organized as a market economy.

Merely using the majority principle to define democracy is not enough. The majority principle is a necessary part of a democratic commonwealth. For unanimity cannot realistically be demanded for political decisions. In case of unanimity, the parties interested in maintaining the status quo – would always win. For, as stated above, there is always a "default option" that is implicitly chosen as long as no decision has been made explicitly. This implicit decision is always a decision in favour of the status quo. In order to prevent the status quo from becoming too powerful, a higher decision power is necessary to overcome resistance against change. In a democracy, however, a majority must be found to deviate from the status quo, as long as we are talking about political – i.e., centrally taken – decisions. For some fundamental decisions, "qualified" majorities may even be required, fpr example a two-thirds majority.

Yet, democracy also requires a public, as well as public discourse. It is public discourse that can also facilitate a change of opinions and that can prevent further entrenchment of the power of a majority that has been formed. This is also referred to as the ideal of a "deliberative democracy". Changes to laws are preceded by extensive public discussions. Habermas called it the ideal of a domination-free discourse ("herrschaftsfreier Diskurs). The participants in this discourse are equals and uninhibited in their arguments by the exercise of power of other participants. There should be no outside pressure in the debate, apart from that derived from the better argument – what Habermas called the "eigentümlich zwanglosen Zwang des besseren Arguments." Habermas wants the "lebenspraktische Vernunft" rather than the "instrumentelle Vernunft" to prevail: practical reason, as opposed to instrumental reason, the latter being understood in the sense of the reason of goal-oriented action,[20] and the former as communicative reason, which also puts the own aims into perspective. This domination-free discourse is hence also a discourse about the sense and legitimacy of one's own goals.

For the economy, on the other hand, being a part of what Habermas calls instrumental reason, there is a constraint, namely the constraint of competition. This competition is characterized by a system of effective sanctions: Those who produce cost-effectively, in other words those who use resources sparingly, can prevail in competition, because they can offer their products at low prices. Those whose methods of production are too costly because they waste resources will perish. Those who

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[18] Hirschman (1967).

[19] The main idea of this part E can already be found in von Weizsäcker (2003).

[20] Habermas (1981).

deliver good quality at acceptable prices and manage to break even will make a tidy profit and will survive the competition. Those who do not deliver acceptable quality at acceptable prices will lose customers and perish.

There is hence a *sanction-strong* area of life in society, to which the economy belongs, as it produces in competition and in an encompassing system of the division of labour. And ideally we also have a *sanction-weak* area of the public, the public discourse, in which one's spoken words and actions are neither negatively nor positively sanctioned.

For the two areas, the sanction-strong and sanction-weak area, to co-exist in the same society, they have to be separate. Therefore, in the ideal form of a functioning democracy and the functioning, i.e., prosperity-oriented, economy, a *system of separation* dominates: the economy is *depoliticised*. A depoliticised economy is a market economy. A politicized economy, however, would be one in which either there are no sanctions or else one in which the public sphere is also permeated by strong sanctions. In the latter case, we would be far from a sanction-free public discourse and hence far from a deliberative democracy. The respective majority in power would use its power over the economy to suppress oppositional criticism, thus perpetuating its position of power. In the first case of a sanction-weak economy, the firms are taken out of the competition constraint; as a result, the economy is no longer capable of adjusting itself flexibly and generating prosperity. Firms without competition freeze. In such companies, the resistance to change – coming from within – dominates.

In this sense, we have shown that the market economy is the prerequisite for a functioning deliberative democracy, as long as one does not wish to do without the goal of prosperity. Obviously, the system of separation, described here, has not been realized anywhere on this planet in its ideal form. Lobbies and major international corporations always have access to political circles and are able to influence these according to their desires. This influence already stems from the fact that politicians usually do not know much about economics. For, in a modern democracy, one qualifies as a politician, as for any profession, by specializing from a young age in making a career for oneself in politics. This leaves little time for acquiring expertise in economics. The competitive market economy can therefore always be improved, particularly with regard to the interdependence between economic interests and politics. However, the requirement of a separation between the competitive economy and politics is a result of the separation principle between the sanction-strong economy and the public sphere of free deliberation which ideally is sanction-weak.

F: Democracy Presupposes a Market Economy. Part 2

However, we can go one step further by taking into account the coherence requirements of the open society, derived in the previous part E. We may assume, in the sense of the coherence of Popper's concept, that the preferences are adaptive and therefore oriented towards the status quo. Only in a society of conservative citizens can an anti-totalitarian concept of piecemeal engineering function. *Homo œconomicus* may be a special case of adaptive preferences, but it lies at the borderline between *adaptive* and *anti-adaptive* preferences[21] – and this "dangerous" proximity of *homo œconomicus* to Hans in Luck (as the prototype of anti-adaptive preferences) leads to people being

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[21] Anti-adaptive preferences are defined as follows: If $y\left(<;\rho(x)\right)x$, then $y\left(<;\rho(y)\right)x$. Fixed preferences are a special case of adaptive as well as anti-adaptive preferences. However, they are the only such special case.

strongly adaptive in their preferences. There are strong quasi-"sociobiological" arguments for strongly adaptive preferences: in a highly uncertain world, an excessively strong tendency to escape the straightforward and therefore relatively secure status quo significantly increases the danger of perishing for the individual. People are very attached to the status quo. They may be unhappy with it, but they are not easily persuaded to deviate from it.

This analysis does not rule out that many people might be taken in by demagogues. On the contrary, it is precisely the conservative setting, due to adaptive preferences, that makes them refuse small steps towards change. The consequence can be that charismatic seducers, promising a complete revolution and a better world, are preferred to pragmatic reformers who propose small changes. However, we cannot dwell on the "psychology of the masses" here.[22] Let us only say this much, in order to avoid any misunderstandings: Wishful thinking that is unrealistic and can be fueled by demagogues is not impossible in any society. What I mean to say is that, within realistic and hence carefully balanced alternatives to the status quo, the adaptivity of preferences plays a decelerating role, as it were.

Now, if the citizens' basic attitude is oriented towards the status quo and hence adaptive, the principle of majority decisions means that overcoming the status quo is barely possible in a deeply politicized society in which everything is centrally decided. Change in modern society comes from the decentrally established decision systems. These are, first, the market economy in its competitive form, second science in a regime of free research, and, third, civil society, for instance in the form of spontaneously formed "non-governmental organizations" (NGOs). Local decisions are not taken in the interest of the common good. Neither entrepreneurs nor scientists nor civil-society actors are subject to an individual-case review to check whether they are acting in the interest of the common good. Decentralised decision structures are literally *defined* by the fact that the decision-making parties are *not encumbered* by the orientation towards the common good. They may legitimately pursue their own interests. Then it is the function of a suitable institutional framework (which can be gradually improved by "piecemeal engineering") to ensure that the orientation towards individual welfare of the decentrally organized decision-makers serves the common good as well. Entrepreneurs who rationalize their production activities in the interest of their own profit contribute to the common good if the factors of production which they have released soon find other employment and if they are forced by competition to pass on their cost reduction by means of a price decrease. If the scientists are part of a scientific system in which employment is gained not through nepotism, but through scientific achievement, then they contribute to the common good by using all their power to discover something new, albeit in the interest of their own careers. Relieving the local decision-maker of the orientation towards the common good is a prerequisite for the decision-maker to decide against the status quo so often. Were the decision-maker directly beholden to the common good, and were this obligation laden with sanctions, it would be most convenient for the decision-maker to choose the respective default option, i.e., the status quo. Then society would hardly be able to prove any wrongdoing on the part of the decision-maker. There will always be excuses for why something new is not possible. They are much easier to find than proof that a planned evasion from the status quo actually serves the common good. It is difficult for a state to punish inaction, but it is far easier to define wrong actions ex-post and then to punish them. The best strategy for survival in a bureaucracy is the prevention of change.

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[22] Cf. Le Bon (1895).

Using an entrepreneur's launching of a new product as an example, I show how the preference conservatism of a majority of citizens can be circumvented in the interest of progress. I speak here of a *preference entrepreneur*. If the consumers' preferences can be influenced, in particular if they are adaptive, then there is a possibility for the innovator to be successful on the market with a product, even if the acceptance of such a product before its launch would not suffice to cover the costs of development, launching and production. For citizens' preferences can change precisely because of the presence of a product on the market, so that demand is much higher after the launch than it would have been with the ex-ante preferences. This preference change in particular corresponds to the idea of adaptive preferences, but it contradicts the idea of fixed preferences. A good example for such a *preference entrepreneur* is Steve Jobs, whose innovative products made the Apple Corporation very successful, although a political decision-making process with regard to such products would probably always have come to a negative end.

Democracy would be misunderstood were it understood as a system of a "primacy of politics". A democracy in which all important decisions are made centrally would be reduced to stagnation because of adaptive preferences. In that case it would fail in its potential to serve the common good of the citizens. This can even be easily depicted analytically for the case of variable preferences, by means of improvement sequences, the non-circularity of which they owe precisely to adaptive preferences. Democracy is only compatible with the call for prosperity if the economy and the sciences are locally established and relieved of the orientation towards the common good. As long as a majority of people is not prepared to forego prosperity lastingly, we need the market economy to stabilize democracy.

G: The Market Economy is Legitimized by Democracy. Part 1

Democracy not only corresponds to the majority principle, but also to a public discourse that should be as free of sanctions as possible. The expectation or hope of the Habermas school is that the "eigentümlich zwanglose Zwang des besseren Arguments" should prevail. Regardless of whether one shares this expectation or not, and regardless of which theory of truth one follows, the public sphere is marked by a battle or competition of opinions. For there are no definitive truths and no definitive values. That is why both must be fought for constantly.

Political competition dominates democracy anyway. It is, on the one hand, a competition between people and groups of people, such as parties. On the other hand, it is a competition of opinions and of methods of recognizing and interpreting the social and natural reality. And finally, it is also a competition of preferences.

Democracy cannot be understood if one does not acknowledge that people influence each other's preferences. This is not just about preferences of goods bought on the market. It is also about preferences for ideas, moral values and aesthetic ideals. Even the preferences for certain goods are often an expression of preferences for certain ideals, moral or aesthetic values or for a certain way of understanding the world. The most obvious examples are to be found on the market for books, films and the media in general.

Common welfare economics has concentrated on a way of thinking in which the preferences are clearly specified. Correspondingly, the public choice literature focuses on models in which the agents

have fixed preferences. However, the interpersonal influence on individual preferences and values is the rule rather than the exception. Human civilization is based in no small part on these interpersonal influences. Think only of the upbringing of children by their parents.

I divide the interpersonal influences on preferences into the following categories. Initially I distinguish between the *influencer* (person B) and the *influenced* (person A). We now separate the influences that are *intended* by the influencer B and those that occur *unintentionally*, as a sort of side effect of influencer B's behaviour. From the influenced party A's point-of-view, our distinction is made depending on whether B's influence is *dominant* or whether it is *in competition with other influences* on A. In the following table, I give one example for each of the four classes of influences that emerge from this double dichotomy:

Example for four classes of interpersonal influences	Influence on A is dominant	Influence on A in competition
B's influence is intentional	Parents (B) educate their children (A)	Commercial advertising on markets with competition
B's influence is unintentional	Psychological dependence of A on his idol B	Herd instinct; "psychology of the masses"

As the examples demonstrate, the transitions are fluent. Apart from the initially dominant influence of parents on their child, for instance, more competing influence factors emerge as the child grows older. Of these, some are perhaps "delegated" influences, by which the parents ask other people to influence the child's upbringing. Other influences on the child may be of the kind that parents would desperately want to prevent. This therefore causes a kind of competition between influences. The child's adolescence might be understood as the period in which the dominating parental influence is replaced by a competition between various influencers, in other words by a competition between various influences.

There is also a fluent transition between intentional and unintentional influences. Without a doubt, parents want to influence their children. However, they also have an unintended influence on them. If they are smokers, for instance, the chances are that their children will also become smokers, without this influence on the part of the parents having been intentional. Still, the parents may have been aware of this influence, which is then accepted as a side effect of their own actions. This is, so to speak, an interim level between intentional and unintentional influence.

The question I am ultimately interested in is which behaviour and hence which preferences of the citizen are legitimized by the state. With regard to preferences, this question does not arise if we assume that the preferences are given. If one acknowledges that there are interpersonal influences on the preferences, the following *legitimation question* does indeed arise: What influences on the preferences of others are suitable for legitimizing the resulting preferences in society?

Social legitimation of the actions of citizens is necessary for a society of free citizens, due to the *state monopoly on the legitimate use of force*. This means that only what the state tolerates occurs,

without resistance from other citizens, in other words whatever the state sees as legitimate action. Because the *citizen's freedom* presupposes the state monopoly on the use of force, the result is that any free action on the part of the citizen only exists as long as it is an action that is legitimized by the state and by society. This means a permanent danger to civil liberty, i.e., the danger of a majority deciding to curtail excessively the citizen's framework for action, thus disregarding the citizen's freedom. Constitutional clauses, such as the basic rights embedded in the German *Grundgesetz* or the amendments to the United States Constitution, primarily have the function of preventing this danger of such deprivation resulting from a majority decision.

Let us stay with the basic concept of a liberal society and rest our argument on the approach of normative individualism. This means, however, that we cannot subject interpersonal influences on the preferences to an extensive "quality control" by the state. On the other hand, it is also problematic to allow any kind of manipulation of citizens by other citizens.

The term "manipulation" can be placed in close proximity to the class of dominant and intentional influence, discussed above. But even if citizen A is manipulated by citizen B in this sense, the result need not be a bad one. The example of children's´ upbringing proves this. That said, parental education is also subject to a certain amount of control by the state – albeit rather wide-meshed, at least in a liberal state. This control seems appropriate and in the interest of the children. Compulsory schooling may also be considered a form in which this control is indirectly exercised. The prohibition of child labour can also be seen in this light.

The term "private autonomy" is derived from legal science. Without wishing to enter into an extensive discussion of the term, suffice it to say that a main component of the term can be seen in the following statement: A social system of legal provisions corresponds to the principle of private autonomy, if its architecture lives up to the assumption that a normal adult citizen knows best which of his or her alternatives for action best serve the citizen's own welfare.

If one wishes to maintain this principle of private autonomy even in the case of the universality of the interpersonal influences on preferences and values being accepted as fact, then one arrives at the competition of the influences on the preferences, or else at the competition of opinions as a criterion for the social legitimation of these influences.

My thesis is therefore this: Interpersonal influences on preferences are usually not an obstacle to acknowledging citizens' preferences as a legitimate benchmark in the welfare of these citizens, as long as various influencers are in competition with each other while influencing the citizens, i.e., as long as the citizen is not subject to an influence monopoly.

This is not the place to concretize this thesis and make it more graphic. For the moment, let us say the following: It contradicts – or at least clashes with – the claim that a citizen in the "capitalist" world has no possibility of acting autonomously. This claim was repeatedly put forward by the "Frankfurt School" of sociology and social philosophy, for instance. In the capitalist society, there is usually a competition of influences and hence a "freedom of choice" for the citizen. It should be conceded that this freedom of choice with regard to the adoption of different preferences is always limited in its concrete guise, but that should not lead one to negate it completely just because the ideals of the social philosophers are not part of the current alternatives from which one can choose. On the other hand, "critical theory" should be taken seriously in the competition of opinions, and its fundamental critique of the dominating system should not be ignored. In turn, "critical theory"

should also grapple with Popper's open society approach and with the problem, discussed here, of the tendency of stagnation in an over-centralised decision structure.

The following statement is related to our thesis: The communication structure of a deliberative democracy is a condition for the preferences of citizens being accepted as a legitimate measure of citizen welfare.

In this sense, democracy not only presupposes the market economy; in turn, the legitimacy of the market economy presupposes a deliberative democracy in the context of endogenous preferences and, in particular, interpersonal influences on preferences.

H: The Market Economy is Legitimized by Democracy. Part 2

I now return to the topic of coherence and hence stability of piecemeal engineering. In part D, I pointed out that the citizens' adaptive preferences are a prerequisite for improvement sequences always being non-circular, and for the term "progress" being filled with meaningful content. The formal axiomatic theory at the basis of this (see Annex 1 below) was developed using the example of *intrapersonal* feedback between the goods and the preferences for goods. However, it turns out that the corresponding formal theory is more general and also includes at least some important forms of *interpersonal* preference influences. At the moment it is hard to tell how far the formal theory can still be generalized.

Perhaps the quantitatively most important form of interpersonal preference influences is imitation. It can be constantly observed in everyday life. We do not wish to analyse it here in detail, though a few words are in order on this topic. As outlined in part C above, our understanding of the term "preferences" is such that it encompasses all areas of the freedom of people in the respective status quo. Imitating other people is therefore also understood as an expression of preference, unless this behaviour has already been examined in the context of reform suggestions for legislation. For the most part, however, this is not the case with imitation. Imitation is surely very often one of the most efficient kinds of behaviour in a situation of incomplete information or uncertainty.[23] The child instinctively learns a lot by imitating the people who surround it. It learns to speak by imitating its mother's speech (hence the term "mother tongue"). However, older people also know that it would be too cumbersome to become informed in detail before each action; to save time, they frequently rely on the strategy of imitating other people, whose knowledge they expect to be better. Customs and traditions are acquired through imitation. The same is true for goods that are new on the market. Our neighbour buys an article and seems happy with it – so we try out the same article ourselves.

We can show that imitation corresponds formally to the intrapersonal pattern of adaptive preferences, so that theorems 1 and 2 can also be applied to imitating behaviour. To make the fundamental idea of this theory clear, I use a theoretical example that is as simple as possible. But the theory is a lot more general. I outline this example in Appendix 2. What I do not outline is the general mathematical theory that has led me to believe that, with interpersonal preference

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[23] Cf. John Maynard Keynes, who said: "Worldly wisdom teaches that it is better for reputation to fail conventionally than to succeed unconventionally." Keynes (1936), chapter 12.

influences that take the form of imitation, it always emerges that improvement sequences are non-circular. I stress in this context that the model I use to prove the existence of non-circularity of improvement sequences in imitation behaviour corresponds to the idea that either there is competition between various persons that are to be imitated, or else the person is not interested in a manipulation of the imitator. If neither of the two conditions applies, there may be reasons for the state to intervene, even if this is possibly a case of non-circularity of improvement sequences. In another essay, I have dealt with the theme of "commercial advertising" under this aspect of possible state intervention. Questions that are addressed include the danger of addiction due to advertising[24] for certain products. I claim that this intervention by the state is "non-paternalistic". Here is not enough space to enlarge on this topic.

In the previous part, I argued that deliberative democracy is a suitable platform for preferences that are exposed to interpersonal influences being legitimized. However, this is subject to the reservation of the "coherence" of the system as a whole. The non-circularity of improvement sequences is a good indicator for this. In this respect, the possibility of formally subjecting large parts of interpersonal preference influences to the calculation we developed for adaptive preferences is a good indication that coherence also exists with interpersonal preference and value influences.

This non-circularity of improvement sequences is something Habermas, too, must presume when he propagates his ideal of a domination-free discourse. Surely the "eigentümlich zwanglosen Zwang des besseren Arguments" must mean that a "memory" of some kind is inherent in this discourse, which enables one to reject positions later that had already been overcome by better arguments, i.e., argumentative progress. I presume that we need a similar structure of adaptivity of this persuasiveness of arguments, so that one can also prove such non-circularity of progress sequences for the domination-free discourse. Not only Karl Popper is unable to populate his open society with all the "Hanses in Luck" there may be; Jürgen Habermas, too, must rein in the argumentative "Hanses in Luck".

The question that I can no longer address in this essay is the question of interdependence between the market-economy system as a condition for democracy and deliberative democracy as a condition for the market-economy system. It should suffice to say the following:

The market-economy system has engendered a communication infrastructure that had not been expected in this form in its centralizing and decentralizing effects. Because of the internet, the "public sphere" is quite different from what it used to be. The same goes for the market economy itself. The calls for the state to survey such structures and corporations as Google and Facebook are frequently heard nowadays. Is the autonomy of these information structures detrimental to the deliberative-democratic community? Or is it merely the pronounced preference conservatism of the commentators which lies at the root of these assumptions? Or are we perhaps even in the process of developing new forms of democracy which, once they are established, will come to be regarded as far superior to those older forms, in accordance with the principle of adaptive preferences?[25]

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[24] Von Weizsäcker (2014b), see also von Weizsäcker (2016).
[25] On these questions, see Sunstein (2007).

The massive scope of political donations by wealthy people, large corporations and religious groups, such as it can be observed in the USA, leads us to ask whether there should be limits to the interest-bound influencing of the political process.

I: Concluding Remarks

Modern society can be understood as a system of competition. This competition is not only between corporations, people or production processes, but it is also a competition between the influences on preferences and citizens' values. The first kind of competition we ascribe to the market economy. The second competition type is what we associate with the idea of "deliberative" democracy. Following Karl Popper's suggestion, we can make the concept of the open society our own. The open society must display characteristics of coherence, so that it will be possible to derive a concept of improvement or progress which is itself consistent. A condition for this coherence to exist is the characteristic of adaptivity in the endogenously determined preferences. This characteristic is empirically given. And interpersonal influences on preferences, particularly the imitation of others, also have characteristics that are similar to adaptive preferences. In this sense, the coherence of the open society may also be assumed in interpersonal preference influences.

There are indications that an enlightened, optimistic belief in progress still provides a guideline today for thinking about how the common good can best be advanced. But because there is a competition of opinions and values, the debate on good state and economic order will never end. Searching for better answers is part of the open society. The danger of a free society failing can never be excluded either. There are no definitive truths or values or preferences.

Appendix 1: Theorems 1 und 2

Here is a short description of two theorems concerning adaptive preferences.

We assume that the person is characterized by a *preference system.*

The preference system $\mathcal{P}$ consists of three components. 1. A space $\mathcal{X}$ of objects x, which are evaluated by means of a preference order. We speak of commodity baskets x. 2. A space Q, of different preference orderings q; one such preference ordering is applicable at any given moment of time. 3. A „law of motion" $\dot{q} = f(x; q)$, which describes, how the applicable preference ordering changes through time, depending on the basket x actually consumed and depending on the preference ordering q actually applicable.

The preference system $\mathcal{P} = \{\mathcal{X}; Q; f\}$ is specified by means of the following assumptions.

Assumptions on the object space $\mathcal{X}$. It is a subset of the $n-$dimensional Euklidian space R^n; for example a compact subset of the positive orthant of non-negative baskets $x \geq 0$.

Assumptions on the preference space Q. 1a. The preference orderings q contained in Q, are *continuous* as defined in mathematical economics (cf. e.g. Debreu (1959), p. 56). 1b. Moreover there is *continuity in the transition from one preference ordering to another in the following sense*: Der expression $y(>; q)x$ means: with the preference ordering q basket y is preferred over basket x. We

assume that each basket x from $\mathcal{X}$ *induces* a preference ordering $\rho(x)$ contained in $\mathcal{Q}$. Intuitively this means: if basket x remains constant through time then the applicable preference ordering converges to $\rho(x)$. Continuity of the transition of preference orderings means: If $y(>;\rho(z))x$, then there exists a neighbourhood $\mathcal{U}(z)$ of z such that for $w\epsilon\mathcal{U}(z)$ we also have $y(>;\rho(w))x$. 2. Moreover all preference orderings in $\mathcal{Q}$ are characterized by non-satiation: For y larger than x in each component, we have for all $q \in \mathcal{Q}$ that $y(>;q)x$. 3. The preference orderings exhibit the property of *regularity*. In the two commodity case it means the following: for any given basket x and any two different preference orderings q and r consider the indifference curves going through x. Then these two indifference curves either are identical or they do not cross again at a different basket. I call this the *single crossing* property of the preference system. This regularity of preferences in the two goods case can be generalized to n commodities in a natural way which I don´t describe here. I then speak of "*extended regularity*".

Concerning the laws of motion of preferences I distinguish between two models. 1. The "Class Room Model" and 2. The "Real World Model". In the Class-Room Model I work with discrete time periods. I call them "years". Here I assume that the inducement of preferences takes exactly one year. Thus the preferences applicable in year t are the preferences induced by the basket one year before. Hence $q(t) = \rho(x(t-1))$. In the Real World Model I use continuos time. The law of motion here is a differential equation . In the Real World Model the concept of induced preferences is only well defined when the preference space $\mathcal{Q}$ is defined as atoplogical space. Although some mathematical effort is involved no fundamental difficulties arise in this more general approach.

Adaptive preferences were already discussed in the text above. Preferences are defined to be *adaptive* if the following holds: 1. If $y(>;\rho(x))x$ then also: $y(>;\rho(y))y$.   2. If $y(=;\rho(x))x$ then either $y(>;\rho(y))x$ or $y(=;\rho(y))y$, which we can write as: If $y(=;\rho(x))x$ then $y(\geq;\rho(y))x$.

In the Class-Room-Model a progress sequence is defined as a sequence of baskets with the following property: $x^0, x^1, x^2, \ldots . x^T$ are such that: $x^0(<;\rho(x^0))x^1(<;\rho(x^1))x^2 \ldots \ldots \ldots x^{T-1}(<;\rho(x^{T-1}))x^T$.

Theorem 1: Under Assumptions 1a, 1b, 2 und 3 about the preference system the additional assumption of adaptive preferences implies that all progress sequences are non-circular.

This theorem applies to the Class Room Model and the Real World Model. The proof is rather lengthy. But in the Class Room Model and for the case of $n = 2$ the proof is rather straightforward.

A proof of Theorem 1 in the general case is given in von Weizsäcker (2013).

Theorem 2 is more general than is presented here.

Here I present

Theorem 2 (simple form): Let a preference system $\mathcal{P} = \{\mathcal{X}; \mathcal{Q}; f\}$ satisfy Assumptions 1a, 1b und 2 (continuity and non-satiation). If all progress sequences are non-circular then preferences are adaptive. .

<u>Proof for the Class-Room-Model:</u> (by contradiction). Assume preferences are not adaptive. Then we either find a case such that: $y(>;\rho(x))x$, but $x(\geq;\rho(y))y$ or we find a case in which $y(=;\rho(x))x$, and $x(>;\rho(y))y$. In the first case we could find a vector $\varepsilon e > 0$ with a positive real number ε and

vector $e = (1,1,1,....1)$ such that $y(>; \rho(x + \varepsilon e))(x + \epsilon e)$ und $(x + \varepsilon e)(>; \rho(y))y$. This, because of continuity and non-satiation. But then we have a circular progress sequence: $x + \varepsilon e; y; x + \varepsilon e$, which violates the non-circularity assumption. In the second case we simply have to switch the roles of x and y and we get the same result. QED.

Proof of a more general form of Theorem 2 is in von Weizsäcker (2013).

Appendix 2. A simple example for the formal equivalence of imitative and adaptive preferences

We consider two persons who consume in a two commodity world. Person A is the imitator, Person B is the person imitated by person A. There exists then an inter-person influence from person B to person A. Both persons are part of a larger economy. I assume that for person B her influence on person A is irrelevant for her own well-being. For person A the behaviour of person B is important as she imitates her to a certain degree. For simplicity of exposition we assume that person B has fixed preferences.

Furthermore we assume that demand for the two goods depends on their market prices and on their respective income. For simplicity of exposition we assume that the income of person A is constant. Thus changes in A´s demand for the two goods are only caused by price changes and by changes in the demand by person B. We assume further that the demand functions of the two consumers are invertible: this means that for given preferences and incomes each demand-basket is determined by exactly on price vector.

Assumptions concerning the influence of person B on person A: For each price ratio $p = \frac{p_1}{p_2}$ we look at the Engel curve s of person B. Each of these Engel curves gets a "name" s; without loss of generality we can chose the name so that we have $s = p$. Now we assume that person A´s preferences are determined only by the value of $s = p$. Let q be the preferences of person A. We then have $q = q(s)$. Now we look at the demand function of person A. it can be written as: $x = f(p_1, p_2; q(s))$. The inverse demand function then can be written as: $\pi \equiv (p_1, p_2) = g(x; q(s))$. Since person A imitates person B we can assume: the larger the value of s ist, the smaller is demand for good 1 of person A at given prices; and the larger is demand for good 2 at given prices.

Now we define the "induced" preferences. Preferences of person A induced by x are then defined as follows. We have the inverted demand function $\pi = g(x; q(s))$. But, because $s = p$ is also determined by π we can write $q = q(\pi)$ und hence $\pi = g(x; q(\pi))$. For any given x this is an equation for π. It has a unique solution if preferences of A only depend on s and if both goods are "normal" goods for person B. Thus we can write $\pi = G(x)$ und wir *define* the preferences *induced* by x as: $\rho(x) = q(G(x))$.

Now we look at two baskets x and y of person A. Let $y(>; \rho(x))x$. We want to show that $y(>; \rho(y))x$. if y larger than x in both components, then $y(>; \rho(y))x$ due to "non-satiation", which we assume to hold, like in theorems 1 and 2. So we look at the case that y is smaller than x in one component. Let $y_1 > x_1$ and $y_2 < x_2$. But then obviously $p(y; \rho(x)) < p(x; \rho(x))$. Hence the value of s smaller at y than at x. But because of imitation, the indifference curve through y, which corresponds to preferences induced by y is steeper at y than the indifference curve through y, which corresponds to the preferences induced by x. As is shown in the figure below, $y(>; \rho(y))x$ follows. The proof is

analogous for the case $y_1 < x_1$ and $y_2 > x_2$. Hence we have shown (for this very simple case) that imitative behavior also corresponds to the behavior derived from adaptive preferences.
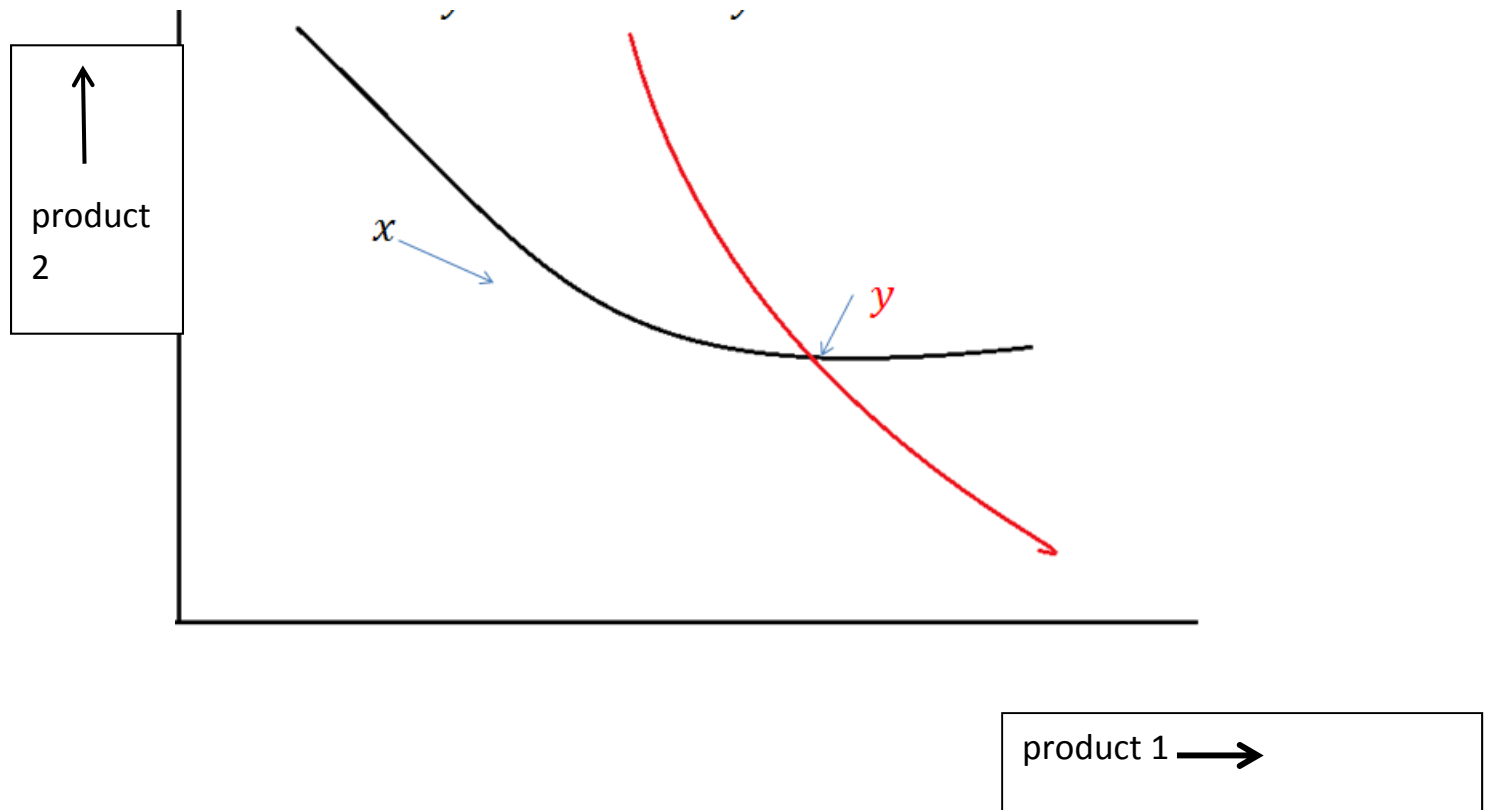
References

Debreu (1959), Gerard Debreu, Theory of Value, New York, 1959

Habermas (1981), Jürgen Habermas, Theorie des kommunikativen Handelns; Two Volumes, Frankfurt, 1981

Habermas (1992), Jürgen Habermas, Faktizität und Geltung, Frankfurt 1992

Hayek(1944), Friedrich August von Hayek, The Road to Serfdom, London 1944

Hayek (1973), Friedrich August von Hayek, Die Anmaßung von Wissen, Ordo 1973

Hirschman (1967), Albert O. Hirschman, Development Projects Observed, Washington DC, 1967

Keynes (1936), John Maynard Keynes, The General Theory of Employment, Interest and Money, London 1936

Keynes (1939); John Maynard Keynes, Preface to the French Edition of the General Theory, quoted from The Collected Writings of John Maynard Keynes, Vol VII, The General Theory of Employment, Interest and Money, p. XXXIV, London 1973

Kornai (1992), Janos Kornai, The Socialist System: The Political Economy of Communism, Oxford 1992

Lawson et al (2010), Robert Lawson and Jeff R. Clark, Examining the Hayek-Friedman Hypothesis on Economic and Political Freedom, Journal of Economic Behavior and Organization 74, 230-239

Le Bon (1895), Gustave Le Bon, Psychologie des Foules, Paris 1895

Polanyi (1944), Karl Polanyi, The Great Transformation, New York 1944

Popper (1945), Karl Popper, The Open Society and its Enemies, Two Volumes, London 1945

Simon (1962), Herbert Simon, The Architecture of Complexity, Proceedings of the American Philosophical Society, Vol 106, No 6, 1962, p. 467-482

Stigler, George and Gary Becker (1977), De Gustibus Non Est Disputandum, American Economic Review, 1977, p. 76-90

Sugden (2004), Robert Sugden, The Opportunity Criterion: Consumer Sovereignty Without the Assumption of Coherent Preferences, American Economic Review, 94, 1014-1033

Sunstein (2007), Cass, Republic.com 2.0, revised edition, Princeton 2007

Von Weizsäcker (2003), Carl Christian von Weizsäcker, Logik der Globalisierung, 3. Edition, Göttingen 2003

Von Weizsäcker (2013), Carl Christian von Weizsäcker, Freedom, Wealth and Adaptive Preferences, Manuscript 2013, 123 Seiten; can be downloaded from my homepage (http://www.coll.mpg.de/team/page/carl-christian_von-weizsaecker)

Von Weizsäcker (2014a), Carl Christian von Weizsäcker, Adaptive Präferenzen und die Legitimierung dezentraler Entscheidungsstrukuren, , in: T. Apolte, M. Leschke, A.F. Michler, C. Müller, R. Schomaker, D. Wentzel (Hrsg.), *Behavioral Economics und Wirtschaftspolitik, Schriften zu Ordnungsfragen der Wirtschaft,* Stuttgart, 2015, Bd. 100, p. 67-98, see also: (http://www.coll.mpg.de/team/page/carl-christian_von-weizsaecker)

Von Weizsäcker (2014b), Carl Christian, Konsumentensouveränität und beeinflussbare Präferenzen. Ist Laisser Faire bei Werbung das Richtige? *List Forum für Wirtschafts- und Finanzpolitik,* special issue 2014, S. 258 – 274, see also: (http://www.coll.mpg.de/team/page/carl-christian_von-weizsaecker) .

Von Weizsäcker (2016), Book Review of Akerlof & Shiller, Phishing for Phools, 2016, in: Journal of Economics 2016); see also: (http://www.coll.mpg.de/team/page/carl-christian_von-weizsaecker)-