

Dave : Here are the pages containing
Usher's model for expansion of the
franchise. (Slipping-slope example). --J.

The Welfare Economics of Markets, Voting and Predation

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positions of authority. Revolution may be a crucial event *within* the slow evolution toward a liberal society; a despotic society is unlikely to transform itself all at once.

Our account of the origin of majority rule voting is of an evolution from the top down. Voting is first adopted for decision-making within the ruling class. The franchise is then gradually expanded to the entire adult population. I think of this story of the origin of voting as a stylized and encapsulated history of England. In the years immediately following the Conquest, England was as despotic as any state in Europe. Thereafter political rights evolved slowly. Barons acquired rights against the King. The King's Council evolved into a Parliament with limited membership and limited powers. The franchise was extended gradually, first to the wealthier members of the community, then to successively lower strata of society, and finally, in the present century, to the entire adult population.²⁴ The model of the birth of the liberal society is an abstraction from these events.

In considering this model, it should be borne in mind that there are really two quite distinct aspects to the development of the independence of Parliament from the King: the growth of the privileges of Parliament and the growth of the franchise. Originally Parliament was called at the King's pleasure, its purpose was largely to facilitate tax collection, its rights were few, and the advantages of being able to assist in the choice of a member of Parliament were questionable. As late as the reign of Queen Elizabeth I, the right of free speech within Parliament was the right to say more or less what one pleased on matters submitted to Parliament by the Queen; certainly not the right to choose topics for debate or to say virtually anything at all, as is the case today. The franchise for such a Parliament was not the sought-after privilege that it subsequently became. Medieval Parliaments were a feature of a society with little in the way of a civil service, and a good deal of local autonomy. In the words of one historian, it was a matter of "self-government at the King's command".²⁵ With the development of the King's civil service the medieval parliaments died in most European countries. The acquisition of new powers in the Parliament of England during the seventeenth century gave the extent of the franchise an importance that it had never had before.

The King is the King because the barons are prepared to obey his commands. If the barons could be kept apart from one another (except when necessary to discipline a rebel against the King), then a strict chain of command could probably be maintained intact. If, on the other hand, the barons must meet as advisers to the King, or if the King simply cannot stop them from meeting, then the barons might assert what would henceforth become their rights: the right to transmit property to their children, a clear specification of their obligations as taxpayers, and so on. Furthermore, the barons cannot exercise collective rights without a mechanism for

resolving disputes among themselves and for determining when a collective decision has in fact been made. A voting rule is required.

Whether barons seek to establish rights against the King depends on several considerations. They would certainly desire security against arbitrary behaviour by the King, against dismissal from the ruling class or confiscation of their estates. They would also wish to keep a large share of the total revenue that is extracted by the ruling class from its subjects. On the other hand, they would have to recognize that defence against their country's enemies or against rebellion at home requires a unified command. The King must not be deprived of the authority and the funds to attend to these matters. Too much liberty for the barons, who may not always acquiesce peacefully to the will of the majority, may be a recipe for civil war that everyone, King and barons alike, would wish to avoid. Even when the franchise is restricted to the barons, voting requires a consensus among the barons as to the extent of their property rights and a prior agreement not to vote about property; voting has to be constrained to prevent a majority of the barons from utilizing the vote to expropriate the rest. The barons might agree to transform the King's Council into an embryonic legislature with a very limited franchise and very limited powers.

The expansion of the franchise can be seen as a gradual process generated by fear of rebellion. The process begins with the establishment of the House of Lords. (Our theoretical England has only one House of Parliament.) Members of the House of Lords would of course prefer not to expand the franchise, but, like the King, they may eventually be confronted with the choice between sharing power and succumbing to rebellion. Their best course may be to forestall rebellion by buying off some of the potential rebels, granting the franchise to classes of people who would be especially dangerous as rebels or would present the least threat within the legislature. The franchise might be granted to occupants of the next rank down the hierarchy or to the wealthiest among the unenfranchised portion of the population.

Return to the assumption already employed in modelling the transition from anarchy to despotism, that societies are organized as complete orderings of their members from top to bottom rather than in ranks with equality among the holders of any given rank, and suppose, for convenience, that wealth and rank are perfectly correlated. In this formulation, the distinction between ruler and subject turns on the right to vote. The enfranchised are the rulers. The disenfranchised are the subjects. To model the extension of the franchise, imagine a society part way along its evolution out of despotism, with the franchise already granted to the top n_v people out of a total population of N , where people are ordered according to their wealth — Mr 1 is the richest, Mr 2 is next, and so on. The electorate consists of Mr 1, Mr 2, up to Mr n_v ; the disenfranchised are Mr $n_v + 1$, Mr

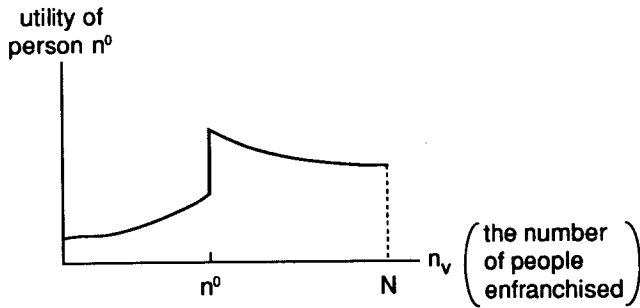


Figure 27 The utility of a person of rank n^0 as a function of the size of the electorate

$n_v + 2$, up to Mr N. Think of membership of the electorate as desirable, because Parliament passes laws that augment the incomes and privileges of the classes included in the electorate at the expense of the rest of the population. To take the classic example, when the time comes to dismantle feudal arrangements, a Parliament of nobles would naturally decide that property rights reside with the nobles, while a Parliament of serfs would naturally decide that property rights reside with the serfs. Consequently, a person's utility is a function of his wealth (which can be represented by n , since people are ordered according to their wealth) and the composition of the electorate, n_v ; that is,

$$U = U(\text{rank, size of the electorate}) = U(n, n_v) \quad (13)$$

Figure 27 illustrates the utility of the n^0 th wealthiest person (shown on the vertical axis) as a function of the size of the electorate (shown on the horizontal axis). His utility increases gradually with the size of the electorate as long as the electorate remains small enough that he himself is not entitled to vote, that is, if $n_v < n^0$. His utility increases abruptly when he becomes enfranchised because his interests are taken into account in public decisions; $U(n^0, n_v)$ increases abruptly at $n_v = n^0$. However, his utility declines as the electorate increases still further because there are fewer and poorer people left to exploit.

Utilities of different people are compared in Figure 28. Now points on the horizontal axis represent different people as indexed by their order, n , on the scale of rich and poor, and the vertical axis represents utility. Each curve in Figure 28 is drawn for a given franchise, n_v , and it shows how utility declines with n . The decline is steady and continuous except for a sharp drop in utility at $n = n_v$. The two extremes of the franchise are represented by the unbroken curves. The lower curve, labelled $U(n, 0)$, shows utility as a function of wealth (more precisely, of one's order on the scale of wealth) when nobody is entitled to vote. The higher curve, labelled

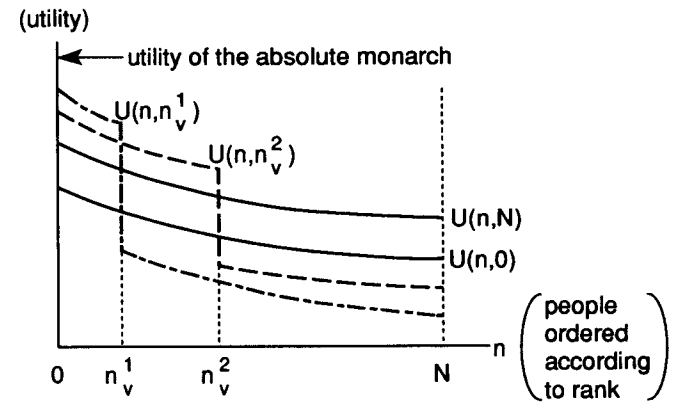


Figure 28 Utility by rank for four values of the size of the electorate, 0, n_v^1 , n_v^2 and N

$U(n, N)$, shows utility as a function of wealth when everybody is entitled to vote. Otherwise all curves are broken. They are drawn on the assumption that any increase in the franchise, n_v , (that is, any reduction in the amount of property one must possess in order to be entitled to vote), increases the utility of the newly enfranchised people but reduces the utility of people who were already entitled to vote.

The curve $U(n, n_v^1)$ shows the utility of wealth as a function of n when only the first n_v^1 people are entitled to vote and the rest are disfranchised. This curve starts quite high because voting is a valuable privilege when the electorate is small, but it falls below the curve $U(n, 0)$ for people ($n > n_v^1$) not included in the electorate. Now suppose that the electorate is increased from n_v^1 to n_v^2 . The shape of the curve $U(n, n_v^2)$ is similar to the shape of the curve $U(n, n_v^1)$, but $U(n, n_v^2)$ is substantially greater than $U(n, n_v^1)$ in the range between n_v^1 and n_v^2 because this range covers those people who are entitled to vote when the franchise is extended to the first n_v^2 people but who were not entitled to vote when the franchise was restricted to the first n_v^1 people. In a society where property is respected and where the franchise depends on wealth, it is in each person's interest to expand the electorate up to, but no further than, the point where he is included in the electorate.

The franchise expands when a majority of those already entitled to vote can expect to gain from the enlargement of the electorate. The model of utility and the franchise as illustrated in Figures 27–8 does not so far provide the electorate with the appropriate motive because the utility of each original voter decreases, rather than increases, as the franchise expands. Something extra is required. The postulated motive is fear.²⁶ The electorate extends the franchise as a defence against rebellion by the disfranchised. The franchise is extended to the wealthiest among the

The welfare economics of markets, voting and predation

disfranchised in the belief that they would be the the least disruptive within the legislature and the most dangerous if excluded. The natural leaders of the rebellion are co-opted into the ruling class.

The main ingredients of this analysis are the probability of the occurrence of rebellion (p) and the probability of the success of the rebellion (π). At any given time, both probabilities are decreasing functions of the size of the electorate, that is,

$$p = p(n_v) \tag{14}$$

$$\pi = \pi(n_v) \tag{15}$$

where n_v is the size of the electorate, $p' < 0$ and $\pi' < 0$. Both functions can be thought of as shifting over time or in response to changes in society and in technology so that the equilibrium size of the electorate today is not the same as it was yesterday or will be tomorrow. Now make the following assumptions.

(i) Decisions regarding the size of the electorate are made in accordance with the interests of the median voter on the scale of rich and poor. Voters wealthier than the median voter would probably want a smaller electorate. Voters less well off than the median voter would probably want a larger electorate. In this context, the median voter is to be understood as the median among the electorate, not among the population as a whole.

(ii) In the event that a rebellion is successful, the expected utility of the members of the deposed ruling class (the former electorate) falls to U_s , which reflects their new low status as subjects of the new ruling class. Even if the rebellion is unsuccessful, the utility of the members of the ruling class is reduced somewhat, for there is a cost, in income and risk of injury, to suppressing a rebellion. Define the utility of the n th member of the ruling class in the event of an unsuccessful rebellion to be $U(n, n_v; \#)$. Necessarily,

$$U(n, n_v) > U(n, n_v; \#) > U_s \tag{16}$$

as long as the ruling class would rather suppress the rebellion than be suppressed by it.

The equilibrium number of voters, n_v^* , at any given time is that which maximizes the utility of the median voter, $n_v^*/2$. If there is such an equilibrium, it is determined by the maximization with respect to n_v of the expression

$$(1 - p) [U(n_v^*/2, n_v) + p(1 - \pi) [U(n_v^*/2, n_v; \#) + p\pi U_s$$

where $n_v^*/2$ in the first argument of the utility function is treated as a constant in the maximization procedure. The expression is the expected

utility of a voter of rank $n_v^*/2$ as a function of the size of the electorate, n_v . The weights $(1 - p)$, $p(1 - \pi)$, and $p\pi$ are, respectively, the probabilities that there is no rebellion, that there is a rebellion which is defeated by the ruling class and that there is a successful rebellion. An equilibrium franchise is one for which the value of n_v which maximizes this expression is just equal to n_v^* .

Maximization of this expression with respect to n_v yields a first-order condition

$$p' [U - (1 - \pi)U_{\#} - \pi U_s] + \pi' p[U_{\#} - U_s] = U'(1 - p) + U_{\#}' p(1 - \pi) \tag{17}$$

that must hold whenever the franchise is in accordance with the wishes of the median voter. In equation (17) the term U is shorthand for $U(n_v^*/2, n_v)$, the term $U_{\#}$ is shorthand for $U(n_v^*/2, n_v; \#)$ and the terms U' and $U_{\#}'$ respectively are their derivatives with respect to n_v . The equation may be interpreted as follows. The size of the electorate is optimal for the median voter when the expected increase in safety resulting from a small expansion of the electorate is just worth the corresponding expected loss of income and privilege. The value of the expected increase in safety, represented on the left-hand side of the equation, is the combined effect of the reduction, p' , in the probability of rebellion and of the reduction, π' , in the probability that a rebellion succeeds. The first of these gains is $p'[U - (1 - \pi) U_{\#} - \pi U_s]$, where the term in square brackets is the expected loss of utility in the event of a rebellion. The other gain is $\pi' p[U_{\#} - U_s]$, where the term in square brackets is the reduction in utility when a rebellion succeeds. The value of the expected loss of income, represented on the right-hand side of the equation, is the sum of the expected losses of utility, $U'(1 - p)$ and $U_{\#}' p(1 - \pi)$, if the rebellion does not occur and if the rebellion occurs but is unsuccessful. The electorate is too small if the risks of the occurrence and of the success of rebellion are both rather high and the gain from reducing these risks by expanding the franchise more than outweighs the loss of privilege to those originally entitled to vote. The electorate is too large if the opposite is the case.

Thus our model of the growth of the electorate becomes a model of the forces causing the components of equation (17) to change over time. First, and perhaps most important, improvements in communication coupled with ever-increasing urbanization lead to increases in p and π for any given n_v and presumably in p' and π' as well. The disenfranchised constitute a greater danger to the state when they are concentrated in a place where they can hear the call to rebel than when they are scattered about the country, unable to communicate with one another or to rise simultaneously. As $p(n_v)$ and $\pi(n_v)$ increase for any given n_v , the optimal n_v must increase as well. Second, changes in the technology of redistribution may have given the rich less cause to fear the enfranchisement of the poor,

thereby reducing U' and increasing the median voter's preferred value of n_v . It is one thing for the rich to acquiesce in the enfranchisement of the poor when the poor are expected to use their votes to increase the progressivity of the income tax or to raise welfare payments; it is another when the poor, having no other means of redistribution, are expected to use their votes to expropriate the property of the rich. Third, economic growth converts the poor into supporters of the system of private property. The higher the general standard of living the larger is the fraction of the population that can be admitted into the electorate without fear that property will be expropriated. Of course, the dispersion of the income distribution is also relevant, but for any given distribution, as represented, for instance, by the Gini coefficient, one would expect support for the institution of private property to increase together with the general standard of living. Thus economic growth lowers U' in our equation and increases the equilibrium value of n_v .

That completes the account of the transformation of despotism into the liberal society. The account is not put forward as an inevitable development of despotism, but as a possibility, even a remote possibility. Despotism does not often evolve into a liberal society. It may persist indefinitely, with the occasional reversion to anarchy and periodic changes in the personnel of the ruling class. Nor is the account put forward as in any way original. I hope the reader's reaction to the account will be that it is more or less what he was taught in school and that I am formalizing what is already well known.

I would emphasize, however, that this story is quite different from the story of the spontaneous emergence of institutions or from the story of the social contract. My main objection to those stories as explanations of the birth of the liberal society is that they require the introduction of implicit or explicit cooperation in the entire population. It is far more likely that cooperation would begin on a small scale and that the first cooperators would cooperate in exploiting the rest of society and not just in passively protecting themselves. The institutions of property and voting are not the natural successors of anarchy, for they are both dependent on a degree of order and security that they cannot themselves supply. Despotism supplies the order within which these institutions may evolve.

To be sure, the institutions of the market may evolve spontaneously under the umbrella of the magistrate or the prince. The courts may well come to respect traditional business practice or social customs. But commercial institutions cannot evolve, spontaneously or otherwise, unless a degree of order is first established. The picture I want to convey is of a liberal society as the end product of a complex, long and often brutal evolution. Reform is often possible and desirable, but not, as is sometimes supposed, by returning to the state of nature and building a new structure from the ground up.

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