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COMMENTARY

Federalism and exit costs

A comment on: C. Mantzavinos, federalism and individual liberty

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1 Introduction

In a recent paper in this journal, Mantzavinos (2010) discussed the relation between federalism and individual liberty. Federalism leads to greater diversity among political units. Between this diversity and individual liberty he presumed two relations. (a) Greater diversity enhances individual liberty insofar as it increases the choice set of the citizens. (b) Greater diversity reduces individual liberty insofar as it increases exit costs. Thus, he arrives at an optimal degree of federalism. Both of these relations, but their combination in a common model in particular, have to be questioned. His first relation is in the dimension of rights, the second one, however, in the dimension of costs and benefits and to compare them causes problems. Moreover, his first relation is correct whenever we evaluate individual liberty in the dimension of rights, but not necessarily in the dimension of individual benefits. His second relation neglects the most important part of exit costs which usually decrease

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with greater liberty. Thus, the opposite relation between diversity and exit costs seems to be more plausible. In the following, these points are discussed.

2 Rights versus benefits

In his famous paper about the liberal paradox Sen (1970) shows that the introduction of individual liberal rights can lead to a Pareto suboptimal situation. In our situation, something similar can happen: An increase in individual liberty might reduce the benefit of some individuals.

If we stick to the dimension of individual rights, we might accept that greater diversity among political units goes along with greater individual liberty (or does at least not reduce it), because it increases the choice set, even if the additional elements in the choice set are clearly dominated by the already existing ones. In this perception, only the number of elements in the choice set counts, irrespective of the utility I gain if I choose one of these elements. To state it differently, preference intensities do not play a role in such a perspective once we consider rights. As Hausman and McPherson (1993, pp. 693ff.) mention, many (economists) believe in such a Kantian perspective, i.e. that liberty rights are intrinsically valuable and should not be traded against aspects of well-being. Such arguments dispense with consequentialism, the usual philosophy behind economic reasoning, and take on a deontological instead of a teleological perspective.[1]

Nevertheless, in our everyday life we weight quite often individual liberties against aspects of well-being, individually as well as politically. Moreover, there are only very few moral dilemma situations where our common moral conviction prohibits the evaluation of costs and benefits of an action as, for example, in the case of torture. Thus, it is totally acceptable to consider the problem of individual liberty in the case of federalism from a welfarist point of view.[2] The analytical approach to analyze the relationship of federalism and liberty chosen by Mantzavinos (2010) builds on a direct individual welfare component in his concept of liberty. He states that with increasing diversity an individual has more options to choose a policy bundle according to his preferences ("desires"). Hence, the "[···] degree of freedom is augmented, because in a federal system he can choose to live in the jurisdiction that offers him the best set of institutional rules" (Mantzavinos 2010: 105). It is thus, an interesting question to ask whether an increase in the choice set generally also increases (or at least does not diminish) the utility of an individual. The following conceptualisation illustrates our case.

Let us assume a unidimensional policy space with individual preferences uniformly distributed over the interval [0,1]. An individual $i = 1,\ldots, n$ with a preferred policy x_i living in a country with a number of different jurisdictions $m = 1,\ldots, M$ chooses the jurisdiction $j = 1,\ldots, m$ with a policy z_j^m closest to his own preferences. The utility loss of this individual is defined as $u_{ij}^m = -|x_i - z_j^m|$, which is the modulus of the difference between his preferred policy x_i and the closest

[1] See for this discussion Hausman and McPherson (1993, pp. 693ff.).

[2] Even though Mantzavinos (2010) argues in the dimension of rights, his actual concept is in terms of benefits, which is necessary in order to compare it with his concept of costs later on in the manuscript.

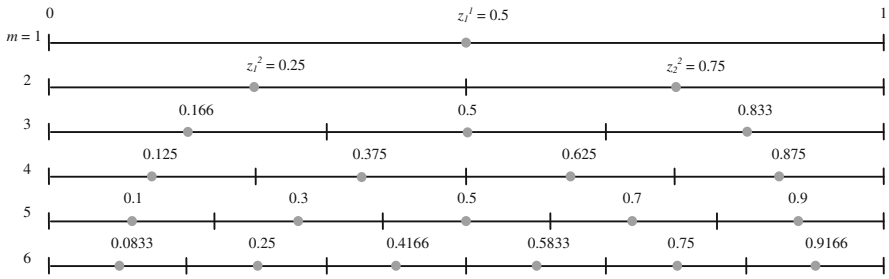

Fig. 1 Utility and diversity

available policy bundle z_j^m, i.e., the utility loss an individual suffers from a deviation of the actual from his/her preferred policy.

Given our assumptions the policy z_j^m of a jurisdiction j equals the mean preference in the jurisdiction. Hence, in a centralized country where $m = 1$ the available policy bundle is $z_1^1 = 0.5$. Any individual i with preferences $x_i \neq z_j^m$ suffers from a utility loss due to the deviation from its preferred policy. In the case of $m > 1$ individuals can choose among different policy bundles in the m non-overlapping jurisdictions. An individual chooses the jurisdiction j out of a total number of alternative jurisdictions m with the smallest deviation from its preferred policy and hence, minimizes his utility loss.

The example in Fig. 1 illustrates the case: An individual k might have preferences according to $x_k = 0.7$. In a unitary state with $m = j = 1$ and $z_1^1 = 0.5$ he suffers from a utility loss $u_{k1}^1 = -|x_k - z_1^1| = -|0.7 - 0.5| = -0.2$. In a state with two jurisdictions, $m = 2$, he can choose from $z_j^2 \in \{0.25, 0.75\}$. Maximizing his utility he will choose jurisdiction 2 and suffers from a utility loss of $u_{k2}^2 = -|0.7 - 0.75| = -0.05$. In the case of three jurisdictions, $m = 3$, individual k chooses from $z_j^3 \in \{0.16, 0.5, 0.83\}$ and bears a minimal utility loss of $u_{k3}^3 = -0.133$. If we consider this sequence of utility losses given an increasing decentralization–i.e. an increasing number of policy bundles to choose from–and optimal individual decision making we observe a non-monotonic sequence.

It can be seen from Table 1 that monotonicity assumptions of a sequence of utilities u_{ij}^m for intermediate values of x_i for $0 < x_i < 1$ are violated. However, when the number of jurisdictions goes to infinity ($m \to \infty$) the sequences converge to the same utility loss $u_{ij}^m = 0$. An extreme case would be that there are as many jurisdictions as there are individuals and every individual has its own jurisdiction with a policy according to his preferences.

Given that m is large enough, for each position of an individual x_i, $0 < x_i < 1$, there is a m where the step from m to $m + 1$–i.e. an increase in individual liberty measured in the dimension of rights as an increase in the choice set of alternative policy bundles–reduces individual welfare.[3] Thus, the monotonicity assumption is violated for all but

[3] Because the m individuals are assumed to be uniformly distributed on the political scale between '0' and '1', we can restrict ourselves to rational numbers. For every rational number k/m the increase from m to $m + 1$ will lead to an increase of the utility loss, because of $\frac{k}{m+1} < \frac{k}{m} < \frac{k+1}{m+1}$.

Table 1 Sequences of utilities u_{ij}^m

u_{ij}^m		$m =$										
$i =$	x_i	1	2	3	4	5	6	7	8	9	10	… ∞
1	$x_1 = 0$	−0.5	−0.25	−0.1667	−0.125	−0.1	−0.0833	−0.0714	−0.0625	−0.0555	−0.05	… 0
…												
h	$x_h = 0.5$	0	−0.25	0	−0.125	0	−0.0833	0	−0.0625	0	−0.05	… 0
…												
k	$x_k = 0.7$	−0.2	−0.05	−0.1333	−0.075	0	−0.05	−0.0143	−0.0125	−0.0222	0	… 0
…												
n	$x_n = 1$	−0.5	−0.25	−0.1667	−0.125	−0.1	−0.0833	−0.0714	−0.0625	−0.0555	−0.05	… 0

the extreme values 0 and 1. Monotonicity holds, however, in this model for the *average* distance of the individual position from the position of the closest available policy bundle which is, given the assumptions above, equal to 1/4 *m*. Correspondingly, the *average* utility increases monotonically as well. Thus, while an individual can *expect* that her utility increases with an increasing number of governmental units, she cannot be sure that this really happens in every single step.

A sufficient condition for monotonicity would be that an increase of elements in the choice set leaves the existing elements unchanged. However, if, for example, an existing unit is split into two new units, there are only two possibilities: Either, both units keep to the same position the old unit had taken on, or both deviate from this position. Only the latter situation would, however, really increase the choice set.

3 The problem of exit costs

According to Mantzavinos (2010, p. 107), diversity among jurisdictions "appears to an individual as the difference between the new behavioural routines that he has to get accustomed to in the new jurisdiction minus the behavioural routines of the individual within his initial jurisdiction". Larger diversity leads, according to his argument, to larger differences and, correspondingly, to larger adjustment costs. These adjustment costs are what he calls exit costs in his model.

There are at least two problems with this argument: First, the major exit costs are the costs connected with changing the location. These costs are missing in the model. Second, there is no reason why the adjustment costs considered in his model should be larger in a more decentralised system.[4] Let us discuss this somewhat more detailed:

(1) *Costs of mobility*: Since the famous contribution of Tiebout (1956) it is assumed in the theory of fiscal federalism that people choose the location which has the combination of public expenditure (benefits) and taxes (costs) which is closest to their preferences. This leads to a pareto-optimal allocation. The actual allocation will be the further away from the optimal one the higher mobility costs are. In a unitary state, the costs of mobility are extremely high, perhaps even infinitely. If I am, for example, not satisfied with the French system and if I am merely able to speak French, I have only very few possibilities to move to another location, leaving aside the problem that the right to move to another country is (at last outside the European Union) usually severely restricted. But even if I have this possibility, I might not only have high transportation costs but also all the costs connected with leaving my social and institutional environment. On the other hand, if I am living in a federal country like Germany and not satisfied, for example, with the situation in Bremen, I can move to Lower-Saxony or to Hamburg which implies much lower mobility costs. Thus, the smaller the federal units are, the lower are—ceteris paribus—mobility costs. In a federal country with very small states I can without problems even work in one and live in another state, which can

[4] When discussing problems of mobility (Sect. 8), Mantzavinos (2010) takes only adjustment costs into account but not the full costs of changing location.

reduce mobility costs even further. Hence, high mobility costs due to e.g. a unitary state without alternative options to the status quo impose potentially high cost due to persisting deviations from individual preferences.

(2) *Costs of adjustment*: For the adjustment costs discussed by Mantzavinos (2010) we have a similar situation as with respect to the benefits of decentralisation discussed above. The structure of this argument also applies to costs purely due to adjustment of behavioural routines and hence, we can apply the same logic. In his discussion of the slope of the cost function, which relies exclusively on adjustment costs of behavioural routines, Mantzavinos (2010) argues that the cost function is taking a value of zero in a unitary state and is then strictly increasing. Besides the arguments underpinning the positive slope that will be questioned below, the justification for a value of zero in a unitary state must be challenged. In contrast to Mantzavinos (2010) one could easily argue that adjustment cost in a unitary state are very high (instead of zero) since it would require an individual to move outside the unitary state in order to reduce a persistend deviation from the preferred policy. Similarly, the positive slope has to be questioned. An individual might be able to improve his utility by moving to a jurisdiction closer to his preferences that only differs with respect to some dimensions of the policy bundle while it is very similar with respect to most other dimensions. Such an institutional environment is more likely within a single decentralized country in which jurisdictions share some common national legislation and institutions and differs with respect to local characteristics. Comparing again the case of a unitary state such as France with a more diverse state such as Germany we can easily imagine that moving from Bremen to Hamburg has lower adjustment costs than moving from Paris to Brussels or Quebec, which lie in different countries and differ with respect to many institutional aspects. The more units there are, the closer are the actual adjustment costs to the ones which arise if a governmental unit takes on the optimal position of an individual. However, the convergence to this point (which is reached at the latest if the number of governmental units goes to infinity) is not monotonic, also not in absolute terms. Thus, we might easily face a situation in which an increase in the number of governmental units and, hence, also an increase in the diversity of jurisdictions, decreases (and not increases) adjustment costs.

Taking these arguments together, exit costs might decrease (and, not, as Mantzavinos 2010 states, increase) with an increasing number of governmental units, but this decrease might not be monotonic.

4 Concluding remarks

Following the arguments above, increased decentralisation leads (on average, not monotonolically) to higher benefits and lower mobility costs, while adjustment costs converge to those that are unavoidable whenever individuals find their 'optimal' governmental unit. These are strong arguments in favour of federal structures. They

do, however, not imply, that it is always better to have smaller governmental units. The costs considered here are only part of total costs. As soon as the decentralisation theorem of Oates (1972) is violated—i.e. as long as there exist (e.g. geographical) spillovers which imply that those who pay for the provision of a (local) public good are not identical with those who enjoy the benefits–there will also be valid arguments in favour of centralisation. Thus, even if those costs which are considered by Mantzavinos (2010) are hardly relevant there are other costs which imply that the determination of the optimal degree of decentralisation is not an easy task.

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