Collective choice and individual action: Education policy and social mobility in England

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Abstract

It is recognised that expressive preferences may play a major role in determining voting decisions because the low probability of being decisive in elections undermines standard instrumental reasoning. Expressive and instrumental preferences may deviate and in electoral settings it is more important to make policies expressively appealing. But policies are even more attractive if they can be made both expressively and instrumentally appealing. This paper studies education policy in England and proposes that the argument for increased state spending in school education is expressively appealing as it appears equitable, but the allocation of students to schools by catchment area is also instrumentally appealing to middle-class families. Allocation to schools by lottery may be expressively but not instrumentally appealing. Cutting education spending and dividing the proceeds between a tax cut to the affluent and a cash transfer to the poor may be instrumentally but not expressively appealing. The effort to provide instrumentally appealing policies with sufficient ethical content to satisfy expressive preferences may lead to inefficiency and distract attention from more serious ethical problems related to the policies.

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1. Introduction

The idea that expressive preferences are the key determinant for individual decision making in collective choice situations, such as voting, has now received wide acceptance. Furthermore, in many situations it would also seem that expressive preferences are quite different to the standard instrumental preferences that economists traditionally consider. This means that expressively made collective decisions may differ significantly from collective decisions that would have been predicted to have been made under instrumental logic. This paper aims to pick up on a variation on this theme. While it is true that expressive logic may imply a different collective choice than instrumental logic, in certain circumstances it may not differ so radically. It could be that a policy option is expressively appealing because it has been packaged in expressively appealing language that would appear to make the policy run contrary to the instrumental interests of the voter, but in truth, the policy largely aligns expressive and instrumental preferences. While a policy must be expressively appealing for it to be favoured by voters, it is even more appealing if the policy can be presented in such a way that it is both expressively and instrumentally appealing. This paper will investigate education policy in England as an application of this idea. A further serious implication of the insight that policies that are instrumentally appealing may require expressive packaging is that inefficiencies may be generated that would not exist if the expressive veneer was not required to win votes.

A more detailed elaboration with regard to the concepts just described is required. Expressive logic addresses the simple idea that actions undertaken by individuals in collective settings are likely to be conducted in order to generate direct benefits associated with the action itself. Action X is not conducted to generate a set of benefits associated with the outcome Y that may result from the set of individual actions that produce the collective action. Conventional economic logic focuses on these instrumental benefits so action X is considered in relation to the benefits that outcome Y will produce. The problem with the conventional instrumental logic for collection action scenarios is that the probability of an individual action X bringing about outcome Y is very small. Indeed, for actions such as voting in mass elections the probability of being decisive is approximately zero. If there is any cost associated with voting (or other actions in collective settings) then it is very hard to see how instrumental logic can explain participation in collective actions at all. Expressive

logic provides an explanation for participation. The benefit associated with the action itself is sufficient to outweigh the cost.

Expressive logic explains the decision to vote, but this is arguably not the most important insight. If expressive preferences exactly match instrumental preferences, the problem as to why people vote is solved, but the prediction as to how they vote remains the same. This limits the extent to which we should be interested in expressive logic. However, it is logical and evident that in many cases the choice that an individual makes expressively differs from that which would have been made instrumentally. For example, wealthier individuals may choose to vote for higher levels of redistribution when they know their vote has no consequence compared to the level of redistribution they would choose if they were informed that their vote is decisive in determining the outcome of the election. This means that understanding expressive logic is crucial in understanding not just why individuals participate in collective action, but how they are likely to act or choose given their participation.

Much of the attention in the literature on expressive choice has focussed on this deviation in expressive and instrumental choices. Individuals may use the opportunity that collective settings, such as voting, provide to express personal identity, which is not expressed in their behaviour in individually decisive settings such as market choice. The result is that policies are enacted that run contrary to the instrumental interests of many people who nonetheless voted for them. This insight runs contrary to the conventional economic wisdom, that people vote for their instrumental interests.

The analysis here shifts the attention from the deviation of the expressive from the instrumental. It starts from the same premise that if two policies are presented to a voter the one which is expressively preferable will be voted for rather than the one that is instrumentally preferable. However, policies can be packaged in language that makes policy choice more nuanced. If a policy can be made to be both expressively and instrumentally attractive this will be preferred to a policy that is expressively (but not instrumentally) attractive. If such policies can be found, policy outcomes might not be so different from those that would have been predicted using conventional economic logic. However, in a crucial way they might be different and different in a way that implies inefficiency caused by the necessity to coat policy in an expressive veneer. It could be that policy options that are Pareto superior are rejected because it

is impossible (or at least extremely difficult) to provide them with an expressive justification.

To put flesh on the rather abstract idea just presented, education policy in England will be used as an application. The precise details will be presented in Section 3 but the broad idea can be presented now. Education policy is obviously an area that is intimately linked to ethical issues concerned with equality, both in terms of equality of opportunity and as a form of redistribution as a benefit in kind paid for through the tax system. Allocation of students into schools may not foster equality of opportunity to the extent that it is primarily determined by place of residence or catchment areas. This leads potentially to a divide between 'good' state schools in wealthy areas and 'bad' state schools in poor areas. A parent in a wealthy area might like to view themselves as an ethical individual who is concerned with equality in both the senses described. At the same time they wish to do what is in the best interest of their child, which is likely to be living in an affluent area so their child can attend school with other children from affluent backgrounds.

If a choice is presented between a system of school allocation which is random such as a lottery versus allocation based on catchment areas, the wealthy parent is likely to trade their ethical desire for equality of opportunity in favour of the use of catchment areas to favour their child. This is the case if their choice is decisive. If they were, instead, one of thousands voting on the issue they are more likely to expressively vote for a lottery as their ethical stance is given more weight. However, there is another form in which choice regarding education policy could be presented. It does not mention any change in the system of catchment areas, but rather presents the choice as spending more rather than less on education. For a wealthy person higher spending implies a higher tax rate and redistribution as a benefit in kind to the poor. For expressive reasons they might vote for higher education spending, which they would not approve if they were decisive. The crucial point is that higher education spending may simply be providing an expressive veneer to what is otherwise an education policy (allocation by catchment area) that works entirely for the benefit of wealthier parents. It could well be that lower education spending is more efficient and more equitable as follows. Since equality of opportunity has been undermined by division by catchment area, a cut in education spending which could be distributed between a tax cut to the wealthy and a cash transfer to the poor could be Pareto superior to high spending on education. The problem, of course, with this

proposal is that it is unappealing expressively in that it offers a tax cut to the rich and cash transfers to the poor which does not carry the same ethical force as an argument for redistribution as a benefit in kind. The policy that wins is one that is expressively and instrumentally appealing versus options that are either instrumentally appealing and more efficient, or expressively appealing and more equitable. Empirically, a policy may win because it has instrumental appeal. But the argument put forward here is that we should look carefully for the use of expressive packaging before we conclude that expressive logic is undermined empirically.

In the next section background and related literature will be outlined, in Section 3 the details of the analysis applied to education policy will be provided, Section 4 will provide a discussion and Section 5 will offer some concluding remarks.

2. Background and related literature

An early statement of the expressive perspective can be found in Tullock (1971) in which he considers the extent to which a genuine concern for the affluent towards the poor (as analysed by Hochman and Rodgers (1969)) is actually reflected in policy. His conclusion is that Pareto optimal redistribution plays only a very minor role in the redistribution that is actually implemented by the state. He argues that one might expect it to be higher given the incentives for the affluent to appear charitable. If a sufficient number experience this desire, then in a setting such as voting large levels of redistribution might be expected as no single individual is decisive in bringing such redistribution about. He concludes that redistribution of this type is limited because politics is dominated by the middle-classes and it is more likely that it would be the very wealthy that would be concerned about appearing selfish. The middle-classes may experience this concern but not to the same extent as the wealthy. Tullock argues that redistribution actually goes to the most organised groups and these tend to be middle-class. He gives education as an example of middle-class redistribution as middle-class children are likely to benefit more from equal units of education than the poor.

Expressive logic has developed enormously since Tullock's insight. Major statements of the importance of expressiveness in understanding democratic procedures and outcomes can be found in Brennan and Lomasky (1993) and Brennan and Hamlin (2000). Hillman (2010) directs us to the importance people attach to their sense of identity and how a collective action setting such as voting allows them to

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express their identity at low cost. Therefore, individuals who are not actually charitable in their everyday lives, nonetheless vote for higher levels of redistribution in order to confirm their self-identity as generous people. In aggregate this could lead to higher levels of transfers than would be observed if individuals vote instrumentally. Hillman also introduces the idea of an expressive policy trap. Inefficient policies may emerge due to collective decisions being made expressively. The analysis presented here identifies the possibility of an expressive policy trap in the area of education policy. Hamlin and Jennings (2011) provide a definition of expressive choice and a comprehensive survey of the literature up to that point.

Recall that in this paper a new angle with regard to expressive choice is presented. It starts from the same premise that for a policy to be electorally competitive it must be expressively appealing. However, if the policy can be framed and presented in such a way that it is both expressively *and* instrumentally appealing this will be even more powerful than a policy which is expressively appealing but would, in fact, carry significant costs to an individual if it were to be implemented. The idea will be fleshed out with the example of education policy in England. The idea is that a blunt presentation of a policy such as a proposal to spend more may appear to be pro-poor and thus expressively appealing to middle-class voters. This is because it represents a benefit in kind where the middle class pay the bulk of the cost of state education spending. However, what might be left out of the presentation of the policy proposal is how state education is organised. If it is organised in such a way that it promotes little in terms of equality of opportunity for the poor then spending more money may do little to improve the lives of the poor. As such, high levels of education spending which may appear to be kind is expressively appealing to middle-class voters but as it may do little to alter social mobility it is also instrumentally appealing to the same set of voters.

A long standing debate in the economics of education is the extent to which inputs of education increase productivity (Becker 1964) versus the extent to which education is a signal of underlying ability (Spence 1973). Clearly the argument for significant state spending is stronger on the first theory than the second, although signalling still plays a socially useful role in matching jobs to abilities even if education itself did not increase ability. When inequality of income is introduced to the discussion a further argument is introduced. Education, as well as possessing intrinsic benefits in terms of consumption and investment, is also a positional good.

Inequality of income and the benefit of being able to place a child in a school with children of other wealthy parents may provide an opportunity to climb to a higher position than would have been possible in a system where children are schooled with a representative sample of the population. The converse is that children from poor backgrounds who would otherwise have climbed to a high position are held down by a school environment in which they are segregated with children overly represented by poor backgrounds. If this positional aspect to education being driven by family wealth is true, then clearly the problem will persist throughout generations and undermine social mobility. This insight does not mean that all schools should be identical in terms of intake. This may imply efficiency losses that outweigh equity benefits. However, it strongly suggests that schools should not be different due to family income. Improved social mobility is not only an argument for improved inter-generational equity but it also strengthens efficiency as poor children can develop realistic aspirations and affluent children cannot simply assume their place in the social hierarchy.

The focus of the paper is on the English school education system. England is stressed rather than the UK because education policy is devolved to the governments in Scotland, Wales and Northern Ireland which creates differences in policy in these regions. Since the focus of the paper is on education policy as an example of expressive voting, the description of the English education system will be fairly broad and not venture into its many complexities. A cursory inspection would suggest that England operates a two-tier system with private schools accounting for about 7% of schools and the rest provided by the state. Much of the popular debate surrounding education concerns the role of private education as undermining equality of opportunity versus the freedom to choose and the possible role of private schools in training the future elite. Often the debate does not progress beyond whether private education should be allowed. If one views the debate through this lens, an affluent parent might expressively vote to ban private schools if such a choice were to be offered, but at the same time send their child to private school. In the case of a vote the cost of voting to ban private schools is essentially zero, whereas actually choosing not to send their child to private school may be very costly. Parents who could afford private schooling but chose to send their children to state schools would seem to be able to claim the moral high ground. They appear to be making actual sacrifices to support the principle that schooling should be state provided.

This argument is based on a very simple view of education provision in England. In truth, the system is not private versus uniform state provision, but rather private, superior state provision and inferior state provision. At one time this was explicit when selection was used broadly for admission to state-run grammar schools for the children who were successful in a test taken at the age of 11 and secondary schools for those who were unsuccessful (see Seldon and Hupkau (2014) for a history of education policy in England). Such a system was explicitly three-tier. In the 1970's grammar schools were largely abolished (although a small number remain) in favour of comprehensive schooling. Arguments for comprehensives were and are made both on equity and efficiency grounds. On equity grounds the grammar schools were condemned for being largely dominated by children from affluent backgrounds and that they unfairly scarred the life chances for any student who is unfortunate enough to fail a test at the age of 11. Efficiency could be enhanced by abolishing selective schooling if there could be shown to be productivity gains from the expected improvement in education for those that failed to enter grammar schools to compensate for any loss in productivity caused by the loss of grammar schools.

An affluent parent who supported the move from selection to comprehensives could claim that they are making real sacrifices as their child would likely have been admitted to grammar school but for the sake of social cohesion and social mobility they support comprehensive education. But did the scrapping of grammar schools, in actual fact, make life *more* comfortable for affluent families? Comprehensive schools obviously have capacity limits and the most relevant criterion for determining the allocation of children to schools is location and the use of catchment areas. Given that we observe significant differentials in the relative prosperity of different catchment areas, schools in affluent areas will tend to be overrepresented (relative to the general population) by children from affluent backgrounds and the converse is true for schools in relatively poor catchment areas. Indeed, going further Tough and Brooks (2007) describe how schools are significantly more segregated than their neighbourhoods. In such a system an affluent parent sending their child to state school could claim the moral high ground because they did not send their child to private school or support grammar schools, but yet their child is the beneficiary of a highly segregated system determined by place of residence. We should be wary of claims of sacrifice without investigating the socio-economic background of the children at the school.

For this reason there is clear evidence of a premium placed on housing in good catchment areas (Leech and Campos (2003), Allen (2007) and Gingrich and Ansell (2014)). Gibbons, Machin and Silva (2013) calculate that a school at the top of the league tables attracts a premium, in 2006, of 12% in house prices, which was equivalent then to roughly £21,000. This suggests that choosing state over private education for parents who can afford these premiums is not, perhaps, so deleterious to the future life chances of affluent children. Furthermore, if the state education system were truly egalitarian it would be harder to explain the poor level of social mobility in England. Numerous studies have focussed on the inequitable nature of the English education system and the negative impact on social mobility (see Blanden, Gregg and MacMillan (2007), Schuetz, Ursprung and Woessmann (2008), Burgess and Briggs (2010), Freeman, Machin and Viarengo (2010), Lindley and Machin (2012) and Crawford, MacMillan and Vignoles (2014)).

Proposals for improvement come in different forms. One idea is to remove allocation by catchment area and replace it with random allocation by lottery. In 2007 Brighton and Hove implemented what superficially seemed to be such a system for oversubscribed schools. Allen, Burgess and McKenna (2013) study some early results and the effect of the lottery is not so encouraging. The reason seems to be that catchment areas still exist, but now there is a lottery within those areas. The catchment area effect seems to dominate the lottery effect. Another development is the emergence of schools which are independent of local education authorities and can set their own admissions criteria. These fit with the rationale underlying quasi-markets to provide a more competitive environment amongst schools. The hope would be that choice would lead to a wider representation of social background. Allen (2007) finds, though, that choice seems to increase segregation compared to postcode allocation. Burgess and Briggs (2010) similarly find that that the lower chance of poor children attending a good school is essentially unaffected by the degree of choice. The reason, perhaps, is that if schools control their own admissions they are more likely to admit children from affluent backgrounds. Another proposal is, ironically, a return to grammar schools. They may be dominated by the affluent but at least some talented children from poor backgrounds will be admitted. A similar suggestion is to subsidise places for high ability poor children at private schools. Seldon and Hupkau (2014) and The Sutton Trust, Mobility Manifesto (2010) cover a full range of proposals from the minor to the radical.

A key argument for the use of catchment areas is a practical one of transport issues and time-saving. A true lottery would imply that great effort would need to be made to provide free transport for those from poor backgrounds. Rather than bus students around, a proposal that often arises is to allocate greater spending to schools in poor areas compared to schools in affluent areas. Whether increased spending leads to improved qualifications that would translate into improved social mobility is questionable. Hanushek (2003) and Hanushek and Woessmann (2011) cast serious doubt over the wisdom of simply devoting more resources to education, but instead point to structures such as competition and school autonomy in decision-making. Given the earlier discussion of competition potentially increasing segregation, perhaps it could be combined with a voucher scheme such as that proposed by Jencks (1970) in which low-income parents receive a larger voucher and where schools are over-subscribed they must allocate at least half of their places by ballot.

The key question for any proposal is whether it is politically feasible. The standard model for thinking about public spending (such as education) is Meltzer and Richard (1981). This puts political power in the hand of the median voter and since the median voter (assuming everyone votes) will have an income lower than the mean, we should observe an inefficiently high level of education spending as the median voter can tax the rich to pay for the bulk of state education. The evidence for Meltzer and Richard is questionable. Pecoraro (2014) fails to uncover evidence that the mean-to-median income ratio is relevant for predicting redistribution. Barnes (2012) also fails to find support for the Meltzer and Richard model. Indeed, she finds results that run contrary to its prediction, for example, to the extent that the income of the median voter matters for spending outcomes, it is richer rather than poorer ones who demand higher redistribution. These findings, I think, pick up on two themes. First, is Tullock's insight that political power lies with the affluent middle-class. The poor do not extract the level of redistribution that their numbers and the Meltzer and Richard model suggest they should. Second, middle-class power does not necessarily imply low levels of redistribution. Expressive logic can explain why we might observe wealthier voters choosing higher levels of redistribution. The perspective in the analysis presented here is that such a choice may, in fact, be made so long as the underlying structure of education provision caters to the needs of the middle-classes. High spending satisfies an expressive desire to appear egalitarian without fundamentally altering the positional (determined by income) outcomes of the

education process. High spending may allow a blind eye to be turned to the role of background and catchment areas for education outcomes although the latter are more important. This desire of citizens to think of their education system as egalitarian and non-elitist (even if it is not) is commented on by Cremer, de Donder and Pestieau (2010). Speciale (2012) also picks up on how the perception of education spending as egalitarian can differ from reality.

To satisfy a sense of identity as a fair person, it is not surprising that an affluent individual will express support for a higher level of education spending than would be instrumentally predicted. Furthermore, silence on the role of catchment areas ensures that ultimately the crucial instrumental interests of the affluent are protected. Such an approach is, therefore, both expressively and instrumentally appealing. A proposal to cut education spending and provide a tax cut to the affluent and a cash transfer to the poor would be defeated as it would be hard to package expressively even though it may be in the instrumental interests of both rich and poor. Cutting education spending just looks inequitable (even if it need not be).

In a penetrating analysis of the moral dilemma facing parents, Swift (2003) considers the choice of rules for education provision versus choice within rules. He argues powerfully that if a vote is held on whether to ban private and selective schooling then one ought to vote for a ban. However, in a system in which private and selective schools exist, one may be morally justified in sending children to these types of schools if the non-selective state option is not good enough. Swift acknowledges the important role that catchment areas play in determining schooling and proposes that more is spent on schools in poor areas than in affluent areas. It is curious though that he focuses his attention on whether private and selective schools (which make up only a small proportion of schools in England) should be banned, but does not call for a ban on catchment areas and the use of random allocation instead. Is it that the arguably, more explicit unfairness of private and selective schooling allow the unfairness of catchment areas to slip under the radar? As such, the inequalities inherent within what is the largest bulk of education provision can go largely unrecognised and indeed parents may perceive the system of location allocation to be fair precisely because it is not private or selective. Once the fairness of the current system is established in the minds of those that benefit from it, arguments for fairer methods of organising education will be hard to make especially if they imply real instrumental costs. There will be resistance to viewing the current system as unfair.

Likewise, arguments that explicitly demonstrate how the system is unfair but since it will not be changed should not be so heavily funded will also be hard to make. The politically powerful middle-classes may not want to hear this uncomfortable message even if it makes them (and the poor) better off.

A recent attempt to reform education in 2009 in Hamburg was made which would have involved extending primary school attendance by 2 years.[1] The proponents argued that this would improve the chances of children from poor backgrounds being selected for the elite *Gymnasien*. That this proposal was subsequently defeated in a referendum the following year could on first inspection be interpreted as undermining expressive logic as middle-class interest groups ensure the continuity of privilege. This outcome does indeed undermine a purely expressive logic that suggests an expressive concern with equality should be expected to trump a purely instrumental concern with protection of privilege. However, the result of the referendum is precisely in line with the analysis of this paper. Middle-class parents ideally prefer a policy that is both instrumentally and expressively appealing. In the example discussed here, parents were able to provide an expressive justification for their support for the existing system. This focussed on the long-standing nature of the traditional curriculum at the Gymnasien or that the current system would be improved by greater investment in early-childhood education. There are sufficient expressive arguments available so that they are not forced to say that they strongly support the current system purely because it benefits their children at the expense of children from poor backgrounds. In England if there were to be a referendum on banning the use of catchment areas in favour of random allocation, I have no doubt that such a referendum would lose. However, the reason for the defeat would not be couched in terms of instrumental self-interest by most families, but rather that the status quo satisfies equity concerns with regard to funding and it is this crucial expressive element that preserves the status quo. Indeed, maintenance of the current method of allocation alongside generous funding for education seems to be a necessary package for political competition. In the coming 2015 election, the Conservatives have promised to ring-fence education spending despite promises for deep cuts in overall public spending. Such a promise would be unnecessary, indeed potentially counter-productive, if middle-class voters choose purely instrumentally.

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[1] See 'The angst in Hamburg: A revolt against school reform in Hamburg has wider repercussions'. The Economist, December 10th, 2009.

3. Analysis

This section will present a model to capture the key arguments. It is based closely on the presentation in chapter 5 of Checchi (2006) which is itself based on Stiglitz (1974). This captures individual choice of private schooling versus collective choice of state schooling. We consider a two period model. In the first period of life agents invest in education, while in the second they obtain an income from work which is positively correlated to the education acquired in the first period. The income is divided between consumption and a bequest to their offspring.

The educational production function is as follows

$$H_{it} = E_{it} \tag{1}$$

where H_{it} is the human capital stock observed by individual i born in generation t that is equal to the resources E_{it} invested in his/her education. Earnings W_{it+1} are assumed to depend on ability A (which will be assumed homogenous) and H_{it} which experiences decreasing returns

$$W_{it+1} = AH_{it}^{\beta} \tag{2}$$

where $0 < \beta < 1$.[2] Individual preferences are defined over second period consumption C_{it+1} and the bequest X_{it+1} to be left to offspring as follows

$$U_{it} = C_{it+1}^{\alpha} X_{it+1}^{1-\alpha} \tag{3}$$

The budget constraint is given by

$$Y_{it+1} = C_{it+1} + X_{it+1} \tag{4}$$

Maximising (3) with respect to (4) gives the indirect utility function V_{it} as a linear function of total income

$$V_{it} = \alpha^{\alpha}(1-\alpha)^{1-\alpha} Y_{it+1} = aY_{it+1} \tag{5}$$

where $a = \alpha^{\alpha}(1-\alpha)^{1-\alpha}$.

3.1 Private sector benchmark

We now consider as a benchmark a system where schools are provided only privately. Available resources to an individual are given as

$$Y_{it+1} = (X_{it} - E_{it}) + W_{it+1} = (X_{it} - E_{it}) + AE_{it}^{\beta} \tag{6}$$

where we assume for simplicity that there is no interest on savings. The agent chooses the optimal amount of education by maximising indirect utility as given in (5)

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[2] For simplicity, the presence of positive externalities will not be considered in the analysis.

$$\begin{matrix} max \\ E_{it} \end{matrix} (aY_{it+1}) = \begin{matrix} max \\ E_{it} \end{matrix} \left(a\left[(X_{it} - E_{it}) + AE_{it}^{\beta} \right] \right) \tag{7}$$

The optimal demand for education under private schooling is

$$E_{it}^{priv} = (\beta A)^{\frac{1}{1-\beta}} \tag{8}$$

So far the analysis has (with minor adjustments) followed Checchi (2006). In his analysis capital markets are assumed perfect so that individuals could, if necessary, borrow to purchase the optimal amount of education. If capital markets are imperfect (which for education they are likely to be) individuals will be restricted by their income to spend at most X_{it}. To make matters more simple and to reflect the idea that education is not, in reality, a continuous good, we will assume that either private education is consumed at the level shown in (8) or not at all. Therefore for incomes $X_{it} < E_{it}^{priv}$ education consumption will be zero.

3.2   Voting on uniform state provision

With the private benchmark established, we now turn to state schooling where education is freely and uniformly provided and is financed through wealth taxation.[3] From the government budget constraint we obtain state education expenditure

$$E_{it}^{state} = \frac{\tau_t \sum_{i=1}^{n} X_{it}}{n} = \tau_t \overline{X_t} \tag{9}$$

where τ_t indicates the tax rate chosen by generation t, n is population size and $\overline{X_t}$ is the average inheritance. We allow for the possibility that state schooling may not be as productive as private schooling due to socio-economic peer effects and refine individual income as

$$\begin{aligned} Y_{it+1} = X_{it}(1 - \tau_t) + W_{it+1} &= X_{it}(1 - \tau_t) + AE_{it}^{\gamma} \\ &= X_{it}(1 - \tau_t) + A(\tau_t \overline{X_t})^{\gamma} \end{aligned} \tag{10}$$

where $0 \leq \gamma \leq \beta$. Each individual will have an instrumentally preferred tax rate found by maximising (10)

$$\begin{matrix} max \\ \tau_{it} \end{matrix} (aY_{t+1}) = \begin{matrix} max \\ \tau_{it} \end{matrix} \left(a[X_{it}(1 - \tau_{it}) + A(\tau_{it}\overline{X_t})^{\gamma}] \right) \tag{11}$$

which gives the following result

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[3] The assumption here is that all tax is collected and distributed equally as spending per pupil. Tax is modelled, for simplicity, as proportional. Modelling a more progressive form of taxation would not alter the analysis in any significant way.

$$\tau_{it} = \frac{1}{\overline{X_t}} \left(\frac{\gamma A \overline{X_t}}{X_{it}} \right)^{\frac{1}{1-\gamma}} \tag{12}$$

We can see from (9) that $E_{it}^{state} = \left(\frac{\gamma A \overline{X_t}}{X_{it}} \right)^{\frac{1}{1-\gamma}}$ so state education would be greater if

chosen by poorer individuals. Given single–peaked preferences the Meltzer and

Richard (1981) model would predict that spending would be determined by the

median voter (median wealth). Furthermore, a social planner would choose spending

according to mean wealth. Given that median is lower than mean wealth state

spending, in the Meltzer and Richard model, would be greater than is socially optimal,

that is

$$\left(\frac{\gamma A \overline{X_t}}{X^{median}} \right)^{\frac{1}{1-\gamma}} > (\gamma A)^{\frac{1}{1-\gamma}} \tag{13}$$

However, as discussed earlier the evidence for Meltzer and Richard is very weak

despite its widespread use. One explanation familiar from public choice and favoured

by Tullock is that political power is not equally spread. The poor are not as politically

organised as middle class groups with higher than mean wealth, so power is likely to

lie at a higher wealth level than median wealth. If so, education spending may be

lower than socially optimal because the wealth of the politically powerful median

voter is greater than the mean. But note the finding by Barnes (2012) discussed

earlier. This gave a contrary result to Meltzer-Richard in that redistribution seems to

be greater the wealthier the median voter. An explanation for this may be that the

affluent vote expressively and that expressive choice is more generous than

instrumental choice to satisfy an identity as a benevolent person. The choice of

spending in this case could be increased by two factors. First, affluent expressive

voters may adopt the position of a social planner to take a societal rather than narrow

perspective and choose as though $X^{median} = \overline{X_t}$ although X^{median} is actually greater

than $\overline{X_t}$. Second, they may ignore the possibility of peer effects and assume that

$\gamma = \beta$. This would give state education spending identical to the private solution

identified in (8) of $E_{it}^{state} = (\beta A)^{\frac{1}{1-\beta}}$. This may be even greater than the Meltzer-

Richard solution of $\left(\frac{\gamma A \overline{X_t}}{X^{median}} \right)^{\frac{1}{1-\gamma}}$ if β is sufficiently greater than γ.

We can place this discussion in terms of the standard voting calculus in which

both instrumental and expressive concerns feature, but that instrumental concerns are

discounted by the low probability of being decisive in determining the outcome of the election. Suppose a member of the politically powerful middle-class is offered two possible levels of spending. The first is that which will maximise instrumental utility $\left(\frac{\gamma A \overline{X_t}}{X^{median}}\right)^{\frac{1}{1-\gamma}}$ where $X^{median} > \overline{X_t}$. Alternatively, it is argued that a more generous level of spending $\left((\beta A)^{\frac{1}{1-\beta}}\right)$ may be expressively appealing to the extent that it concurs with a sense of social justice. If the voters were decisive they would choose their instrumentally preferred level of spending as this matters more to their utility than expressive concerns. However, if the voter realises the probability of being decisive is very low, they will choose higher spending as this choice is expressively preferable and made with no instrumental consequence.

3.3   Post-electoral education choices

Now we consider the possibility that education is not provided uniformly to all children. Wealthier parents can in their post-electoral lives choose a superior education for their children either by going private or spending more to live in a good catchment area. This would seem odd if the level of spending per child has been expressively chosen to be $(\beta A)^{\frac{1}{1-\beta}}$ as this is the same solution for optimally chosen private education. Why would wealthier families choose to spend even more on education than they are obliged to under the electorally determined tax rate and spending? The reason is if $\gamma < \beta$ so that the actual value of state education is lower than the resources expended on it. This could happen as a self-fulfilling process. Middle-class families vote expressively for relatively high taxes and spending on education on the principle that all children will experience a uniform, high-quality education financed in a redistributive fashion through the tax system. In the everyday world of market behaviour, wealthier families choose instrumentally and decide that they want to separate their children from those of a poorer background. This results in a lower quality of basic state education for those who cannot afford more, due to the absence of middle-class families who tend to provide a higher level of monitoring of school standards relative to poorer families. For this reason those that can afford it should want to spend extra on securing a better education for their children.

Supposing the electorally chosen tax rate to be $\tau_t = \frac{1}{X_t}(\beta A)^{\frac{1}{1-\beta}}$, the indirect utility for the *i*-th individual available from entering basic state education is as follows

$$V_{it}^{state} = a\left[X_{it}\left(1 - \frac{1}{X_t}(\beta A)^{\frac{1}{1-\beta}}\right) + A(A\gamma)^{\frac{\gamma}{1-\gamma}}\right] \tag{14}$$

A wealthier individual can alternatively pay for private education, to give the following indirect utility function

$$V_{it}^{mix} = a\left[X_{it}\left(1 - \frac{1}{X_t}(\beta A)^{\frac{1}{1-\beta}}\right) - E_{it}^{mix} + AE_{it}^{mix\beta}\right] \tag{15}$$

The solution for optimal E_{it}^{mix} is the same as (8). For those that have sufficient after-tax income to afford it, (15) will be preferred to (14) if

$$A(A\beta)^{\frac{\beta}{1-\beta}} - (A\beta)^{\frac{1}{1-\beta}} > A(A\gamma)^{\frac{\gamma}{1-\gamma}} \tag{16}$$

and this can happen if β is sufficiently greater than γ.

Alternatively, a superior state school could be chosen by spending more to live in a good catchment area. Here the payment could be viewed as a supplement to the true value of the basic state education that has been paid for through taxes. Due to the peer effects, the assumption is that the returns to education are given by β rather than γ. Such a supplement will be paid by those that have sufficient after-tax income if

$$A(A\beta)^{\frac{\beta}{1-\beta}} - \left((A\beta)^{\frac{1}{1-\beta}} - (A\gamma)^{\frac{1}{1-\gamma}}\right) > A(A\gamma)^{\frac{\gamma}{1-\gamma}} \tag{17}$$

The LHS of (17) is greater than in (16). As presented here, it is not rational to choose private school education over superior state education. This draws attention to missing features of the model such as a perception of higher ability (which would increase education spending) by the wealthy or certain types of consumption benefits that may be used to justify private education.

3.4. Potential Pareto improvement

Finally, we can see how a Pareto superior policy might exist. This would be to cut the tax rate (and thus education spending) below $\frac{1}{X_t}(\beta A)^{\frac{1}{1-\beta}}$. It is possible that if peer groups effects are predominantly driving the value of γ then this will benefit all taxpayers including the poor. But even if spending cuts did reduce γ to such an extent that the poor would be made worse-off, compensation could be paid in a cash transfer to those who remain in basic state education out of the savings made by the tax cut for

those that opt out of basic state education. The key point is that such a proposal is most unlikely to be popular with the dominant middle-class voters. At the voting stage they like to believe in the rhetoric of equality of opportunity, and large returns to education spending even if their subsequent behaviour undermines this. So long as rhetoric is robust they can vote expressively for what seems to be an ethical policy even if such a policy is not actually implemented in reality. Furthermore, so long as the rhetoric is truly robust a *truly* redistributive education policy such as allocation by lottery or relatively higher spending in schools in poor areas will fail to garner support because affluent voters will already perceive their support for high funding of state education to have sufficiently satisfied their expressively held ethical standards.

4.   Discussion

The logic of expressive choice has presented a challenge to the standard economic reasoning usually applied in models of political economics. Reasoning derived from market behaviour cannot simply translate to political settings where decisions are made collectively. In many situations we might expect the logic that would drive choice as if it was consequential and thus instrumental to be different to choice that would be made when it is non-consequential and thus expressive. An example often considered is redistribution. Affluent people seem likely to be more generous when voting for redistributive policies because their vote is non-decisive than they are in their everyday life as measured, for example, by charitable donations in which a cost is actually incurred.

In terms of public policy, a paternalistic desire might exist to redistribute but only if it can be linked to spending on a merit good such as education. In this case, affluent individuals may vote for much higher levels of taxation to be spent on education to satisfy an expressive desire, than they would choose if their vote were actually decisive. It is tempting to observe high education spending and conclude that although it may have been achieved via hypocrisy it, at least, redistributed resources in a sensible manner from rich to poor. From a social welfare perspective, a good outcome has arguably been achieved. However, if one looks beyond spending and considers organisation of the state education system it is clear that tiers exist within it and in such a way that the system strongly favours the affluent. This should cause us to be concerned about the merits of voting outcomes in this case. If equality of opportunity is actually determined by residential location and the education system

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both reflects and reinforces this, the redistributive argument for ever greater education spending is much weaker. If the complexities of state education are ignored and it is presented as uniform across all classes, an ethical veneer can be provided to make the policy expressively appealing. This is particularly convenient for the expressive voter who also benefits from the (in actual fact) inequitable organisation of the education system.

The focus of the analysis has been on the education of children. It might also shed light on the debate over funding of higher education. In recent times in England fees have been greatly increased. They do not have to be paid up front, but can be borrowed from the government and repayment will only start once incomes are above a certain level. This policy has been attacked as unfair. The argument for unfairness usually focuses on two elements. First, that education of any kind is a special good that should always be free and second, that students by definition are poor and cannot be expected to pay. These arguments ignore the significant signalling aspect associated with higher education and crucially that free higher education is actually regressive if we consider the transfer from the taxpayer to the university student as a future high earner. Often the argument that graduates go on to earn significantly more than non-graduates is accepted, but the focus then switches to arguing that fees deter potential students from poor backgrounds to attend university. This argument is made, despite the fact that fees are only repaid if the poor graduate goes on to earn above a certain level and indeed, ignoring that a system of grants exist for students from poor backgrounds that may exempt them from fees. The argument is that such students suffer from debt aversion. Debt aversion may, indeed, be a real phenomenon, but there is a clear sense that these debates about the fairness of higher education funding are a useful distraction from a more fundamental unfairness than deterring poor students from attending university. This is that, by the age of 18 so few students from poor backgrounds are qualified to attend university and this is caused by the inequality of outcome based on inequality of income that occurs in pre-18 schooling. In terms of the analysis presented here, it is in the instrumental interest of affluent families to be provided with free higher education. However, the regressive nature of such funding is not expressively attractive. Focussing on education as a good so special that it should be free and focussing on the very small minority of students from poor backgrounds who may be adversely affected by fees provides useful

expressive justification to support a system of higher education funding that benefits the affluent.

Does the theory presented in this paper apply to other areas of public policy? If we take health policy, for example, it is not so clear it does. The key difference is that due to scale, it is difficult for the affluent to access differential state-provided health treatment. So an expressive vote for increased health spending is likely to entail genuine redistribution from the affluent to the poor. This, of course, does not rule out that spending may still be excessive. The logic described for education may apply to a greater extent for cash benefits. An affluent voter may expressively support substantial cash transfers that may not be supported instrumentally. The support for cash transfers may be strengthened if they are a substitute for policies (such as reform of education) that would provide greater equality of opportunity. The generosity of the cash transfers provides sufficient ethical satisfaction so that social immobility can be sidestepped in political debate. Earlier, I described the potential for a Pareto superior outcome of a cut in education spending to be divided between a tax cut to the affluent and a cash transfer to the poor. In contrast, a cut in cash benefits would clearly create losers, namely those that lose benefits. What if the proposal was to match reduced cash benefits with an increase in opportunity? Despite tax cuts, some affluent families would lose out from a more meritocratic social system and some poorer families would not be able to take advantage of greater opportunity but will have had their benefits reduced. Nonetheless, it seems a reasonable argument that equality of opportunity should always be preferred to cash transfers both on the grounds of efficiency and social justice. Large cash transfers have an ethical attraction which provides their expressive attractiveness but, like excessive education spending, diverts attention from the more serious problem of systematic social immobility and it is this that gives such a policy instrumental appeal.

To successfully package a policy it must be expressively appealing and if expressive preferences differ from instrumental preferences the policy might be surprising in that it attracts votes from people who would be made worse off by it. However, if a policy can be made expressively *and* instrumentally appealing then this is even more attractive. The problem is that the successful amalgamation of expressive and instrumental policy appeal may cause policies that are clearly preferable in terms of efficiency or equity or both to be defeated because they can only appeal on one of the two dimensions.

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