

Equality of Opportunity and Equality of Outcome: Parents, Children, and Luck

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Outline

- Motherhood and Apple Pie
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- What's Left of Equality of Opportunity?

Motherhood and Apple Pie (1)

- “Equality of Opportunity” is the new motherhood and apple pie. It is compared favorably with “Equality of Outcomes.”
- “Equality of Outcomes”: utopian, infeasible, bad for incentives, inequitable and unjust if outcomes depend on individual effort, etc.,.
- “Equality of Opportunity”: leveling the playing field, equal start, making most of inherent talents, etc.,

Motherhood and Apple Pie (2)

- No question that the label “Equality of Opportunity” is less contentious in the policy discourse. Who could be against it?
- So egalitarians have been drawn to using that label and that packaging in the policy domain to advance an egalitarian agenda.

Motherhood and Apple Pie (3)

- But remember that “Equality of Opportunity” was, is, and always will be the battle cry of non-egalitarians opposed to actual redistribution of income and wealth.
- Indeed, one response in the “Post-Piketty” ferment has been that it is not inequality of income or wealth which matters, it is inequality of opportunity.

Motherhood and Apple Pie (4)

- In this presentation I will argue that inequality of opportunity cannot be seen independently of inequality of outcome.
- Indeed, attempts to give inequality of opportunity normative primacy over inequality of outcome are fraught with empirical and conceptual problems.

Motherhood and Apple Pie (4)

- I will view Opportunity and Outcome through the lens of Parents, Children, and Luck.
- I will first consider two relatively old perspectives on PCL—PCL I and PCL II.
- Then, in the main part of the presentation, I will focus on a more recent literature which has philosophical roots but is being implemented empirically for developing countries through the work of the World Bank and others—PCL III.

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Parents, Children and Luck I

(1)

- Start with the standard income transition equation between log income y of generation $t-1$ and generation t :

$$y_t = \beta y_{t-1} + \varepsilon_t; \quad \varepsilon_t \text{ is } N(0, \sigma^2)$$

- So we have Parents, we have Children, and we have Luck. And the value of β is a measure of “inequality of opportunity.”
- Steady state inequality is given by:

$$\sigma_y^2 = \sigma^2 / (1 - \beta^2)$$

Of course $\beta < 1$ is needed for convergence.

Parents, Children and Luck I

(2)

- But now note The Great Gatsby relationship: the closer is β to 1, the greater is observed inequality.
- However, the causality in this model does not run from σ^2_y to β . Rather, it runs from β to σ^2_y
- The discussion around this curve has posited a number of mechanisms through which the causality might run the other way.

Parents, Children and Luck II

(1)

- A second literature, also with quite old roots, approaches the question through transition matrices.
- Transition Matrix A : a_{ij} gives the probability of the child of a parent with income y_i having an income y_j .
- So, we again have Parents, we have Children, and we have Luck.

Parents, Children and Luck II

(2)

- Transition Matrix A versus Transition Matrix B.
- Which of A or B is “more mobile”? (Answer: Some version of “smaller diagonal elements”)
- Which of A or B shows more “equality of opportunity”? (Answer: Some version of “rows closer to being identical to each other”).

Parents, Children and Luck II

(3)

- An old literature shows that these two views are not necessarily consistent. How to choose between the two when they conflict?
- Kanbur-Stiglitz (2015): Use the criterion of “Dynastic Inequality”. By Dynastic Inequality is meant inequality of the vector of Dynastic Expected Present Discounted Value of Income.
- So the question becomes: Which of A or B gives lower “Dynastic Inequality”?
- This is not an easy question to answer— everything is changing as we go from A to B.

Parents, Children and Luck II

(4)

- Kanbur-Stiglitz (2015). Restricted Answer: Within the class of bistochastic transition matrices, if there exists a bistochastic matrix Q such that

$$B = (1/\delta)[I - Q] + AQ$$

where δ is the discount factor, then (and only then) will A give lower Dynastic Inequality than B .

Parents, Children and Luck II

(5)

- B can be interpreted as being a weighted average of the scaled identity matrix $[(1/\delta)I]$ and A, the weights being Q and $[I - Q]$

$$B = [(1/\delta)I][I - Q] + AQ$$

- Thus, in this sense, B is “closer” to the identity matrix than A and, also in this particular sense, has “larger” diagonal elements than A.

Parents, Children and Luck II

(6)

- Thus the Dynastic Inequality perspective supports the “less weight in diagonals” view rather than the “rows are closer to being identical” (“equality of opportunity”) view of a “better society.”
- To eliminate dynastic inequality, it is not enough to give the poor the same opportunity as the rich. “Clogs to clogs in three generations” is what is needed.

Parents, Children and Luck III

(1)

- Now consider a recent but burgeoning empirical literature influenced by the formulation of Roemer (1998):
- “separate the influences on the outcome a person experiences into *circumstances* and *effort*: the former are attributes of a person’s environment for which he should not be held responsible, and effort is the choice variable for which he should be held responsible”

Parents, Children and Luck III

(2)

- Philosophical roots: Egalitarian angst on personal responsibility; long philosophical literature eg Dworkin, Cohen, Arneson etc.
- Empirical implementation. First systematic effort by de Barros et. al. (2009) for Latin America; now being applied to (almost) every country under the sun.

Parents, Children and Luck III

(3)

- “When some of the inequality observed in the outcome of interest can be attributed to exogenous circumstances, such as a person’s gender or family background, it reflects inequality of opportunity in a society.
- In an ideal world, inequality in outcomes should reflect only differences in effort and choices individuals make, as well as luck.” (de Barros et al, 2009).

Parents, Children and Luck III

(4)

- Circumstance Variables actually used in de Barros et. al. (2009):
 - Gender
 - Race/Ethnicity
 - Birthplace
 - Mothers' Education
 - Father's Education
 - Father's Occupation

Parents, Children and Luck III

(5)

- Decompose inequality of the outcome (income or consumption) into within group and between group components.
- “The difference in outcomes *between cells* can be attributed to inequality of opportunity, while the differences *within cells* can be considered the result of effort or luck.” (de Barros et. al. (2009))
- Also, parametric analogs.

Parents, Children and Luck III

(6)

- Empirically, the between cell component is usually less than 50%, typically much less—around 25%.
- So the headline finding: Inequality of Opportunity is 25%!

Parents, Children and Luck III (7)

- This interpretation and its likely use and misuse in policy discourse invites close scrutiny. Kanbur and Wagstaff (2015).
- For example, Inequality of Opportunity as measured through the between cell contribution depends on the number of cells ie the number of circumstance variables and the number of categories within them.

Parents, Children and Luck III

(8)

- If the number of cells differ, the measure is not comparable across countries and over time.
- To achieve comparability across countries, only those circumstance variables for which data exist for all countries will have to be chosen (as is done in De Barros (2009) and in most subsequent cross-country work).
- But then the normative measure of Inequality of Opportunity is determined by casual properties of data availability.

Parents, Children and Luck III

(8)

- But perhaps more fundamentally, there are two issues of *principle*.
- What happens when one person's effort becomes another person's circumstance?
- What happens when luck determines difference between opportunity and outcomes?

Parents, Children and Luck III

(9)

- If parents choose to exert little effort and indulge profligate tastes, so they do not have sufficient resources to educate their children, the “circumstances” doctrine would say the education outcome for the children should be corrected.
- But this would surely violate the “effort and tastes” doctrine applied to parents, which would say that the outcomes are fine as they are.
- If our moral intuitions side with the first bullet above, what then is left of the “effort and tastes” component of the distinction between “inequality of opportunity” and “inequality of outcome”?

Parents, Children and Luck III

(10)

- “for I, the Lord your God, am a jealous God, visiting the iniquity of the fathers on the children, and on the third and the fourth generations of those who hate Me”
(Deuteronomy 5: 9)
- "Fathers shall not be put to death for their sons, nor shall sons be put to death for their fathers; everyone shall be put to death for his own sin." (Deuteronomy 24: 16)

Parents, Children and Luck III

(11)

- The issue of children and parents also brings us to the question of “talents”.
- We can think of ourselves as starting life endowed with innate talents, inherited from our parents, which we can cultivate during our life. The talents we start our life with affect where we end up. We’re unlikely to become an accomplished concert pianist if we start life with no musical talent.
- Since we have no control over our innate talents, by lumping all talent with effort we end up underestimating the true amount of inequality of opportunity.

Parents, Children and Luck III

(12)

- Alongside the luck of inherited talent is the environmental luck which determines outcomes.
- All of these are also put in the residual in the post-Roemer empirical literature; in other words they are not counted in the measure of inequality of opportunity.
- “The difference in outcomes *between cells* can be attributed to inequality of opportunity, while the differences *within cells* can be considered the result of effort or luck.” (De Barros et al 2009)

Parents, Children and Luck III

(13)

- “Consider a group of individuals who initially have equal endowments and who agree voluntarily to enter a lottery with very unequal prizes. The resultant inequality of income is surely required to permit the individuals in question to make the most of their initial equality...Redistribution of income after the event is equivalent to denying them the opportunity to enter the lottery.” (Milton Friedman, *Capitalism and Freedom*, 1962)

Parents, Children and Luck III

(14)

- Many, many, aspects of this discourse on luck and inequality.
- For example, Dworkin's distinction between brute luck and option luck. Luck would belong alongside "effort" if we could eliminate risk from our lives and choose not to do so.
- But we cannot. Much of the risk we are exposed to is linked to activities we have to engage in to get through the day, if not survive. Often the risks involved are not known with certainty by the scientific community; when they are known, they are not always disseminated in an accessible way, and there are commercial pressures to ignore them.
- Diet is a good example. We have to eat to survive. Yet dietary risks account for more deaths worldwide than alcohol and tobacco combined. Commercial pressures encourage a default diet that poses risks to health, and we have to make a conscious and determined effort to eat in a way that lowers health risks.

Parents, Children and Luck III

(15)

- This takes us to the case of extreme outcomes. Are we OK with destitution if it is the outcome of freely chosen lotteries?
- The key point is that the measures of inequality of opportunity which are now being churned out at the World Bank and elsewhere in the policy discourse are largely innocent of these considerations.

What's Left of Equality of Opportunity?

(1)

- Any attempt to separate outcome from opportunity, circumstances from effort, and to identify that portion of the inequality of outcomes which is a legitimate target for redistribution, is fraught with empirical and conceptual difficulties.
- Fine-grained distinctions between inequality of opportunity and inequality of outcomes do not hold water in practice, and we are likely to greatly underestimate inequality of opportunity and hence the need for intervention.

What's Left of Equality of Opportunity?

(2)

- Further, what if one person's effort becomes another person's circumstance, as when income generated through parents' effort provides a better start in life for some children? Or when freely made choices by one group of upper income house purchasers push up prices for others who may have lower incomes? Is it legitimate or is it not legitimate to intervene in this case?

What's Left of Equality of Opportunity?

(1)

- These arguments support the case for generalized social protection in dimensions such as income, health and education, irrespective of whether the outcomes can be specifically attributed to circumstance or to effort.
- The important questions then relate to what the best available policy instruments are for delivering this social protection, what effects they have on incentives, and how best they can be deployed.

What's Left of Equality of Opportunity?

(1)

- To be sure, we may make some Type I and Type II errors in doing so: we may penalize effort when we should not, and we may not fully compensate for circumstances when we should.
- But this is preferable to being frozen into perpetually underestimating the need for intervention by a focus on that will o' the wisp, inequality of opportunity.

What's Left of Equality of Opportunity? (1)

- So, a health warning:
- “Equality of Opportunity—Egalitarians Use With Extreme Caution!”

Thank You!