Equity and Efficiency
Paradigms & Policy Issues

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Technology & Policy Program

Equity Examples - Cake

- Resource Distribution - Cake
  - equal slices, unequal invitations
  - unequal slices for unequal ranks, but equal slices for equal ranks
  - unequal slices but equal blocs
  - unequal slices but equal meals
  - unequal slices but equal value to recipients
  - unequal slices but equal starting resources
  - unequal slices but equal statistical chances
  - unequal slices but equal votes

- Three Dimensions Of Equity
  - Recipients - who received
  - The Item - what is being distributed
  - The Process - how is the resource distribution established and carried out

- Reveals The Underlying Issues
Concepts of Equality
"Same size share for everybody"

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Issue</th>
<th>Dilemma</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>1. <strong>Membership</strong>&lt;br&gt;the boundaries of community</td>
<td>unequal invitations/equal slices</td>
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<tr>
<td>Recipients</td>
<td>2. <strong>Rank-base distribution</strong>&lt;br&gt;internal subdivisions in society</td>
<td>equal ranks-equal slices/unequal ranks-unequal slices</td>
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<tr>
<td>Items</td>
<td>3. <strong>Group-based distribution</strong>&lt;br&gt;major internal cleavages in society</td>
<td>equal blocs/unequal slices</td>
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<td>4. <strong>Boundaries of the item</strong></td>
<td>equal meals/unequal slices</td>
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<td>5. <strong>Value of the item</strong></td>
<td>equal value/unequal slices</td>
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<tr>
<td>Process</td>
<td>6. <strong>Competition</strong>&lt;br&gt;opportunity as starting resources</td>
<td>equal forks/unequal slices</td>
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<td>7. <strong>Lottery</strong>&lt;br&gt;opportunity as a statistical chance</td>
<td>equal chances/unequal slices</td>
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<td>8. <strong>Voting</strong>&lt;br&gt;opportunity as political participation</td>
<td>equal votes/unequal slices</td>
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Justice

- Justice is process
  - **Historical Process Justice**
  - Voluntary and fair process
  - What is a fair process; what is fair about ab initio distributions/transactions

- Justice is social construct
  - **End-Result Justice**
  - Social goods must be distributed equitably
  - What are the characteristics of goods that make them "social;" what are the characteristics of individuals that make them a member of society

- Justice is innate/universally defined
  - Universal standards of justice, independent of context
  - Unjust allocations must be rectified according to these standards
Liberty, Property & Motivation

- **Liberty**
  - Freedom from constraint on action
  - Freedom to act as one wants

- **Property**
  - An individual construct
  - A social construct

- **Human Motivation**
  - Need Motivates
  - Need Inhibits

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Dichotomy?

<table>
<thead>
<tr>
<th>Social Conservatism</th>
<th>Social Liberalism</th>
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<tr>
<td><strong>(Distributive) Justice</strong></td>
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</tr>
<tr>
<td>- Fair Process</td>
<td>- Fair shares of social resources</td>
</tr>
<tr>
<td><strong>Liberty</strong></td>
<td><strong>Liberty</strong></td>
</tr>
<tr>
<td>- Freedom to act</td>
<td>- Freedom from constraints</td>
</tr>
<tr>
<td><strong>Property</strong></td>
<td><strong>Property</strong></td>
</tr>
<tr>
<td>- Individual creation</td>
<td>- Social creation</td>
</tr>
<tr>
<td><strong>Need Motivates</strong></td>
<td><strong>Need Inhibits</strong></td>
</tr>
</tbody>
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"To justify income redistribution, it is necessary to show that individuals somehow do not have a just title to the income they earned"

"All social values -- liberty and opportunity, income and wealth and the bases of self respect -- are to be distributed equally unless an unequal distribution of any, or all, of these values is to everyone's advantage"
**Efficiency**

- "Getting the most for a given input"
- Comparative, By Definition
- Issues
  - Who gets the benefits and bears the burdens?
  - How to measure the values and costs of a policy?
  - What mode of organization will yield efficiency?

**Benefits and Costs - How?**

- Multiple benefits; multiple results of action
- Who should be served?
- Can we distinguish benefits and costs? Should we?
- What resolution/completeness criteria should be applied (when do we stop counting)
- Direct costs, or costs including opportunity costs
- Efficiency vs. waste (e.g. speed vs. utilization)
- Duplication
Benefits and Costs - How?

Output — Who determines what is the correct output goal, or objectives of a program?
   — How should we value and compare multiple objectives?
   — How do different objectives or outputs benefit different constituencies or groups?

Input — How should we count inputs (e.g. labor costs) that are simultaneously outputs to somebody else (e.g. jobs for the local community?)
   — How should we decide which of the many benefits/outputs of any input to count in the equation?
   — How should we count the virtually unlimited opportunity costs of resources used as inputs?

Efficiency Gets Us Into "Value"

- A slippery concept
- How to measure?
- A current answer: the marketplace
- A social construct, circumscribed by the government
  - Framework for enforcement of transactions
  - Definition of property (what can, and cannot, be owned)
- Marked by
  - Voluntary exchange
  - With information
Markets, However, Embed Two Kinds of Value

- Market Value
  - Prices or exchange value

- Consumer Value
  - Value to the trader(s)

- Under specific conditions, markets are efficient
  - i.e., consumer value is maximized

- Why? Because no transaction takes place that does not leave at least one participant better off
  - Could force to make one worse off, but violation of voluntary transaction
  - Could make an ignorant action, but violation of information availability

Pareto Efficiency

- Consider a simple two good economy, with resources (or goods) A & B

- Lines of constant "well being" or "consumer satisfaction" can be posited

- These lines of constant value, or "utility," show the relative value of having different combinations of a resource
Suppose We Have Two Subjects, With Unique Utility Maps

- Resource A
- Resource B

Pareto Efficiency - 2

- Now, Constrain the Resources, A & B
  - Either one subject or the other can have them

- The Two Utility Maps Can Be Flipped and Combined
  - An Edgeworth Box

- The Points Of Tangency Between the Two Maps Are Special
  - No change in resource allocation can be made without making at least one subject worse off
Why?

- Assume that the initial resource allocation is the point marked by the black square.
- All points inside of the shaded area are resource allocations that make BOTH subjects better off (on a higher iso-utility curve).
- At the points of tangency, the "size" of this shaded area goes to zero.
  - There are no alternative allocations that make both subjects better off.
- Pareto Optimal Point.

So, Why Isn't Efficiency Easy?

- Utility Maps Are Not Easy (If Possible).
- Life Gets Complex Outside the Edgeworth Box (multiple participants, objectives).
- Preferences Are Not Aggregable.
- Moreover, Preferences Are Subject To Manipulation.
  - Social Pressures.
  - Market Actors (advertising, etc.).
  - Loyalty.
- And Markets Have Limits.
  - They don't price everything that has value.
  - They are subject to failures of the basic assumptions that are required to achieve to efficiency.
Efficiency - Equity Tradeoffs

- Motivation - How to motivate action if equality is the expected outcome?

- Maintenance - Equality via positive intervention requires tireless and intrusive institutions that will stifle the development of new ways of doing things

- Waste - These institutions are not productive, in an economic sense; a "deadweight loss"

- Equity and Efficiency Ultimately Become A Kind Of Balancing Act For The Policymaker