1.7 — Efficiency & Justice

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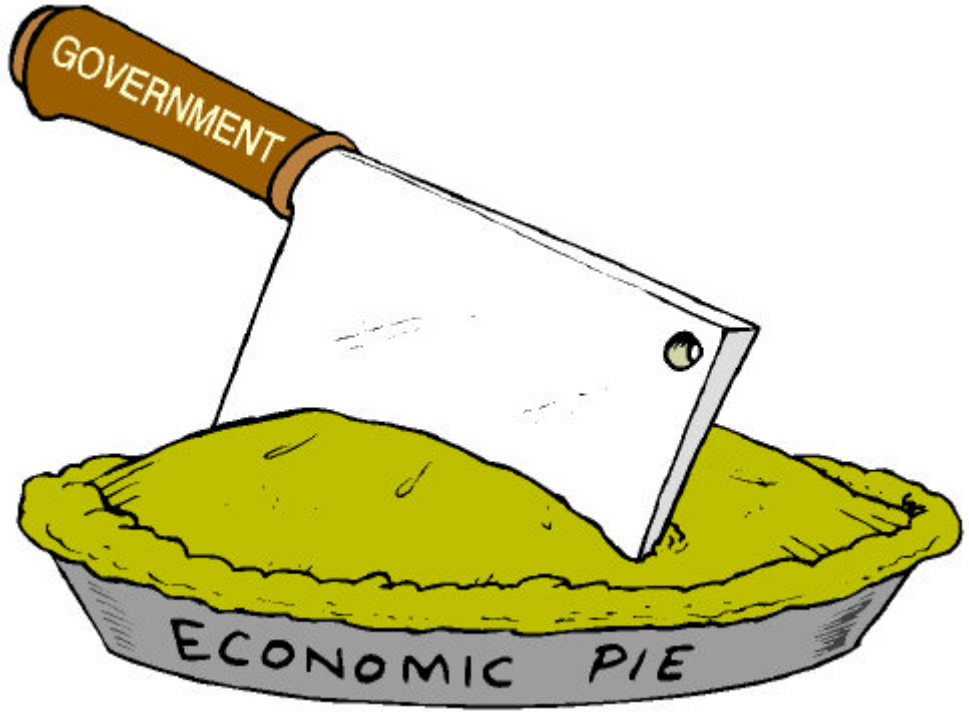
Efficiency

Efficiency

- Common **tradeoff** between **efficiency** and **equity**
- **Efficiency**: efforts to grow the economic pie
- **Equity**: efforts to divide the pie fairly
- What is the role of the government in either?



Markets and Efficiency

- Economists traditionally care most about **efficiency**
- Achieving a **specified goal** with as **few resources as possible**
- **Examples**:
  - driving a car
  - carrying groceries
  - producing jeans

Problem: What "Goal" for Society?

- We will ruminate more in the next few units
- **Society, government, etc. has no single, universally-agreed upon goal**
  - It's not maximizing utility, profit, etc!
- "Society" is not a choosing agent!

Markets and Efficiency

- Preferences are **subjective** and left as given in economics
    - We leave it to individuals to be the best judge of whether they are better off
    - **Egalitarian** to a degree: nobody's preferences are dismissed or discounted
- **Higher incomes + freedom of choice = greater degree of preference satisfaction**
- Harder to directly evaluate outcomes
    - Better to look at basic processes & mechanisms (e.g. exchange)

Voluntary Exchange is Good

- **In a voluntary exchange, both parties expect to be made better off**
- Trade corrects mistakes in resource allocation
- The best justification for reallocation of resources (even via coercion) is consent

Markets and Pareto Efficiency

- Voluntary exchange is a **Pareto improvement**: change in allocation that makes at least one person better off and making nobody worse off
- An allocation of resources is **Pareto efficient** when there are no possible Pareto improvements

Markets and Pareto Efficiency

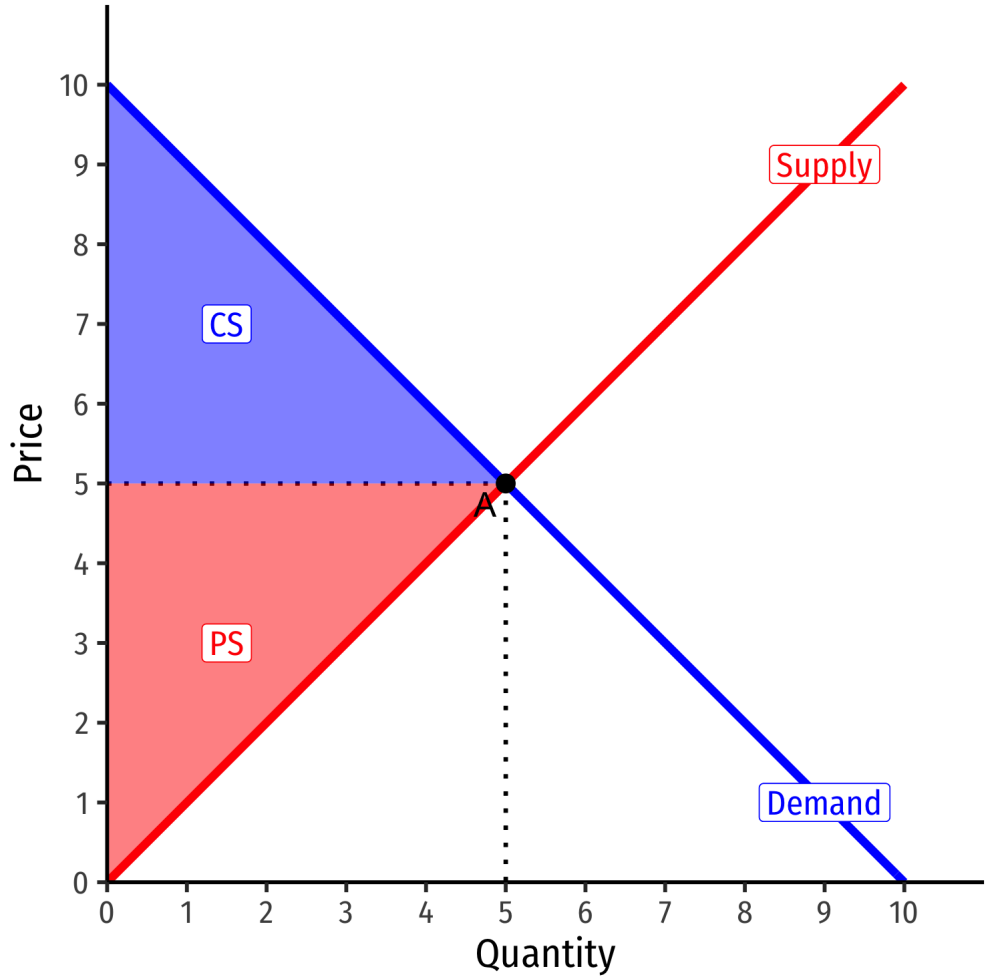
- Pareto efficiency is conceptual gold standard: allow all welfare-improving exchanges so long as nobody gets harmed
- In practice: Pareto efficiency is a *first best* solution
    - only takes one holdout to disapprove to violate Pareto

Markets and Kaldor-Hicks Efficiency

- **Kaldor-Hicks Improvement**: an action improves efficiency its generates more social gains than losses
    - those made better off could in principle compensate those made worse off
- **Kaldor-Hicks efficiency**: no potential Kaldor-Hicks improvements exist
- Keeps intuitive appeal of Pareto but more practical
    - Every Pareto improvement is a KH-improvement (but not the other way around!)

Market Efficiency in Competitive Equilibrium I

- **Allocative efficiency**: resources are allocated to highest-valued uses
  - Goods produced up to the point where $MB = MC$ $(p = MC)$
  - Maximize **economic surplus** = **Consumer surplus** + **Producer surplus**
- **Pareto efficient**: no possible Pareto improvements exist



Social Problems that Markets Solve Well

- **Problem 1**: Resources have multiple uses and are rivalrous
- **Problem 2**: Different people have different subjective valuations for uses of resources
- **It is inefficient (immoral?) to use a resource in a way that prevents someone else who values it more from using it!**

Social Problems that Markets Solve Well I

- **Markets** are institutions that facilitate voluntary *impersonal* exchange and reduce transaction costs

- **Prices** measure **opportunity cost** of a particular use of a resource

Social Problems that Markets Solve Well II

- **Property rights** provide a pattern of ownership
- **Prices** give us information about how to use scarce resources
- **Profits** incentivize production and **Losses** discipline waste

Welfare Economics

- **1st Fundamental Welfare Theorem**: markets in competitive equilibrium maximize allocative efficiency of resources and are Pareto efficient

- Markets are great when they:

1. Are **Competitive**: many buyers and many sellers

2. Reach **equilibrium**: absence of transactions costs or policies *preventing prices from adjusting* to meet supply and demand

3. **No externalities** are present: costs and benefits are fully internalized by the parties to transactions

Justice

Justice

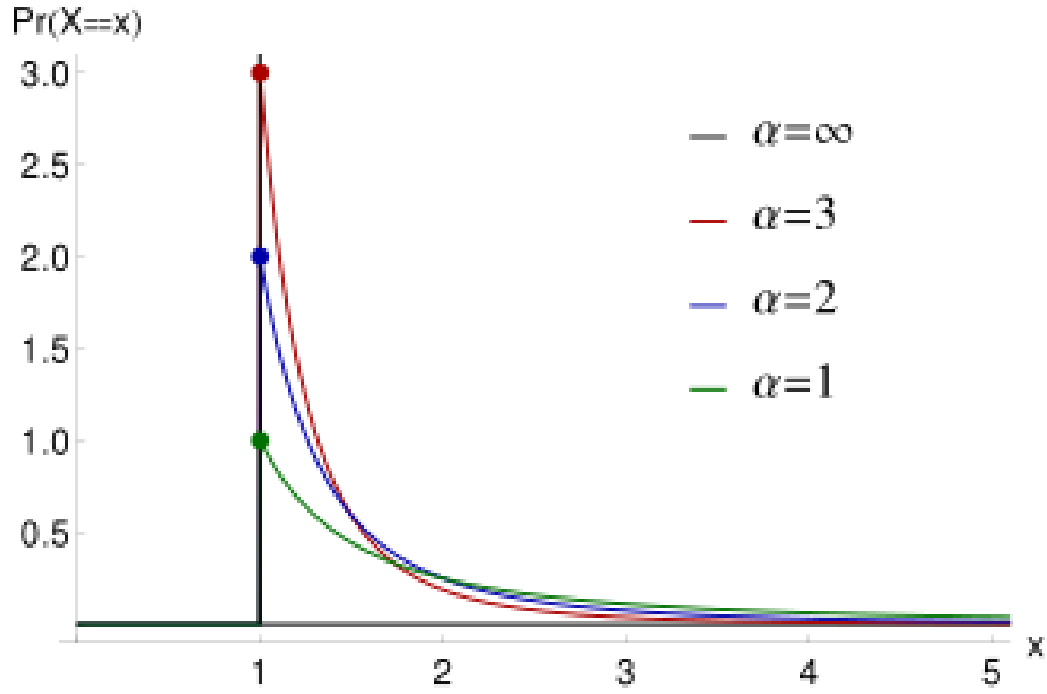
- What *is* **justice?**

> "Fiat justitia ruat caelum"

- Absence of ***injustices***?
- **Utilitarian/consequentialist** vs. **deontological/natural rights** views of justice

Distributive Justice

- **Distributive justice** about the distribution of economic outcomes
  - property rights, income, wealth, political power
  - Overlap with ***social*** **justice**?
- Is the current distribution just?
- Is there a case for reallocating resources (by coercion)?



"Pareto" power-law distribution

(In)equality *within* Countries: Gini Coefficient I

Visual Explanation of the Gini Coefficient

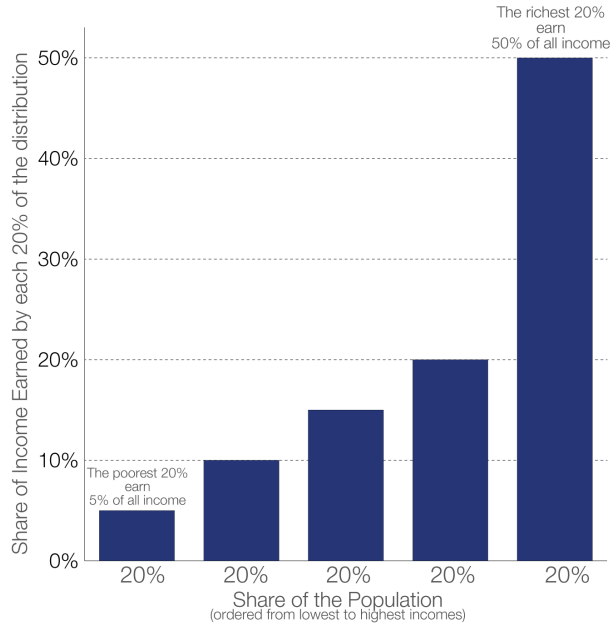
Our World in Data

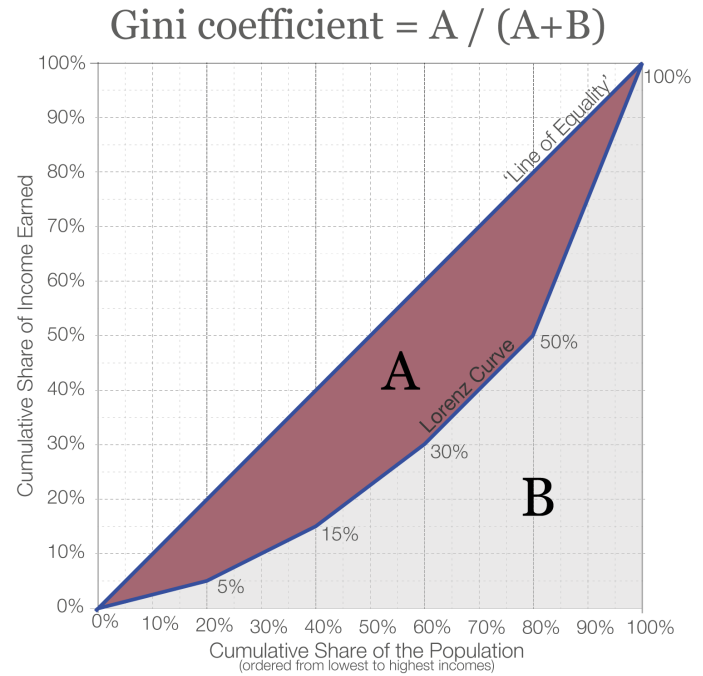
The bar chart on the left shows a simple distribution of incomes. The total population is split up in 5 parts and ordered from the poorest to the richest 20%. The bar chart shows how much income each 20% part of of the income distribution earns.

The chart on the right shows the same information in a different way, both axis show the cumulative shares:
The poorest 20% of the population earn 5% of the total income, the next 20% earn 10% – so that the poorest 40% of the population earn 15% etc.
The curve resulting from this way of displaying the data is called the Lorenz Curve.

If there was no income inequality the resulting Lorenz Curve would be a straight line – the 'Line of Equality'.
A larger area (A) between the Lorenz Curve and the Line of Equality means a higher level of inequality.

The ratio of A/(A+B) is therefore a measure of inequality and is referred to as the Gini coefficient, Gini index, or simply the Gini.





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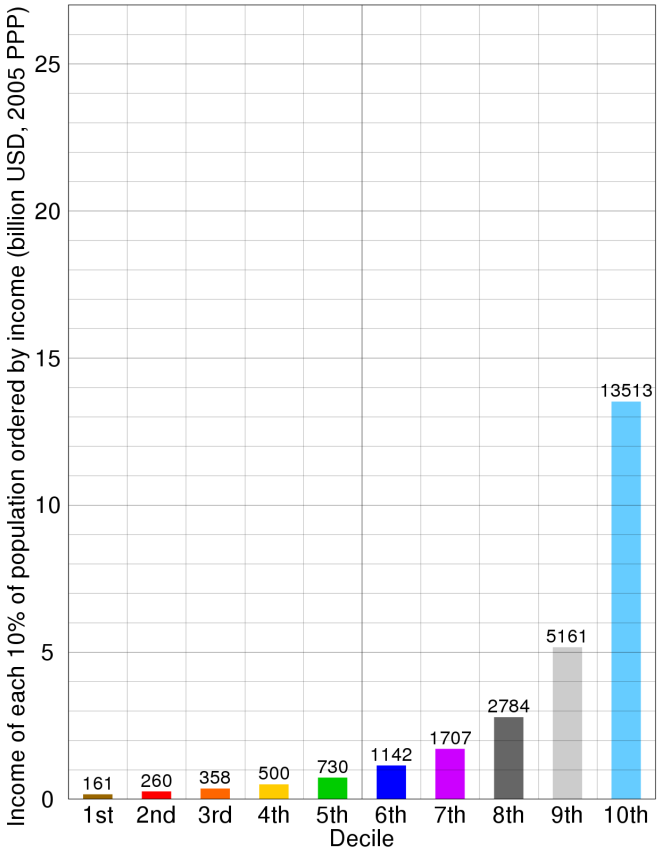
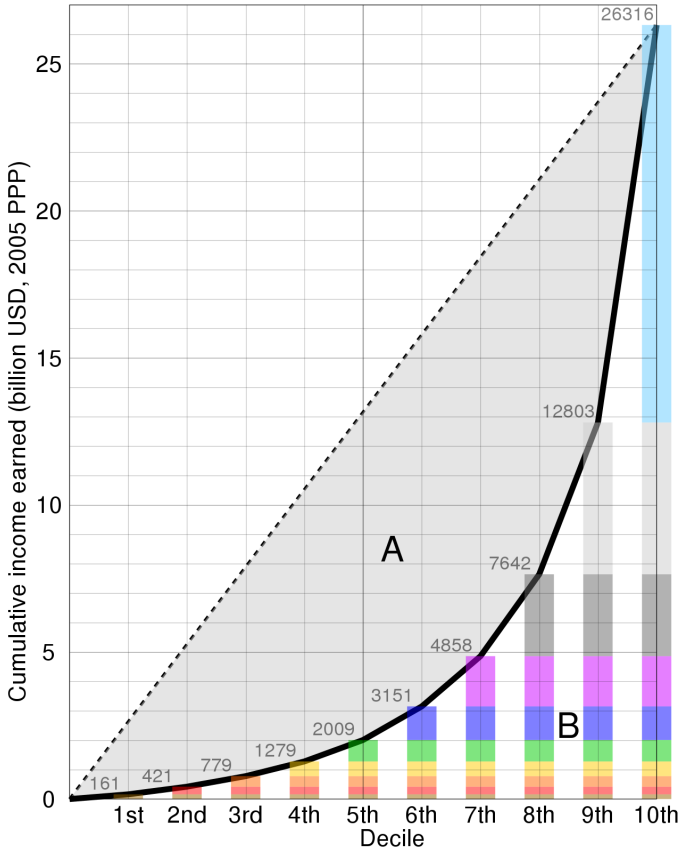
This visualization is available at OurWorldinData.org. There you find research, visualisations and more visualizations on this topic.

(In)equality *within* Countries: Gini Coefficient II

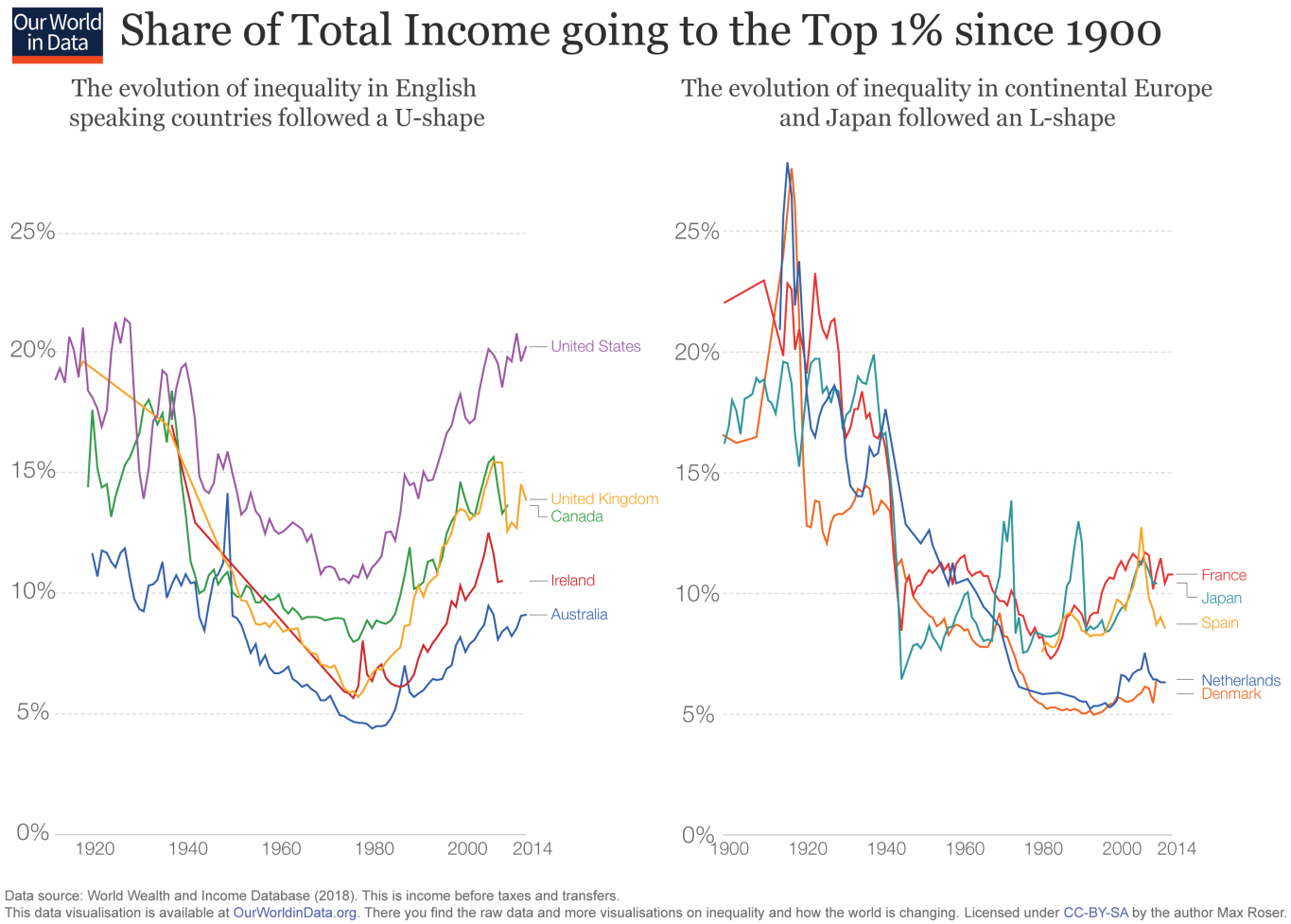




Source: Wikipedia

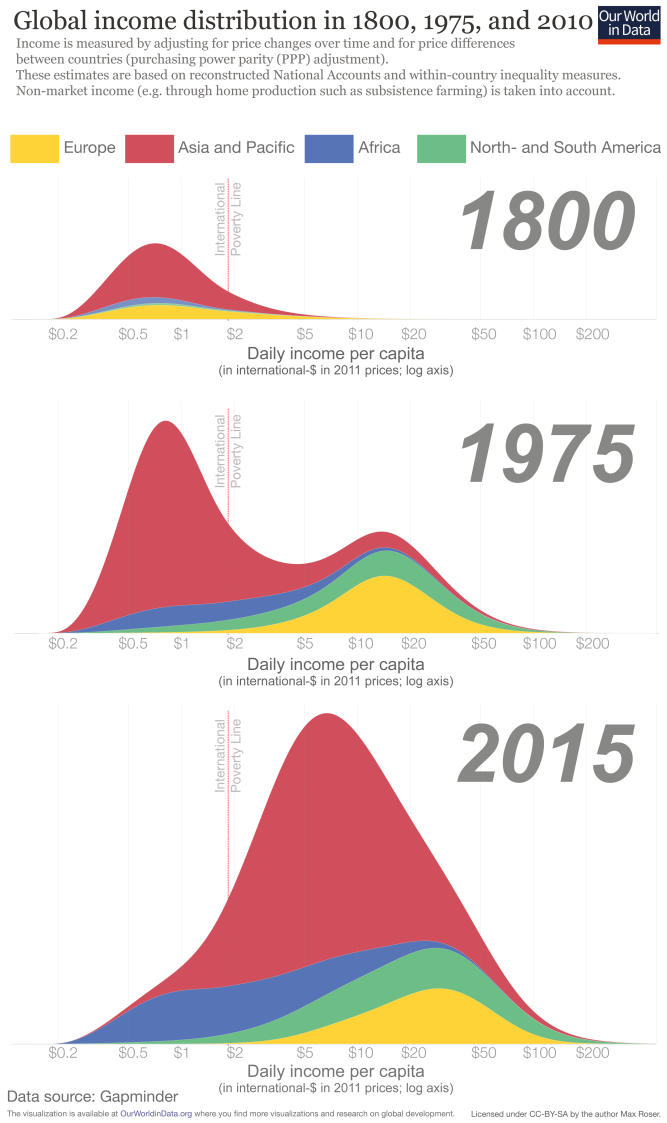
(In)equality *within* Countries: Lower in Wealthier Countries

(In)equality *within* Countries: But Changing Over Time

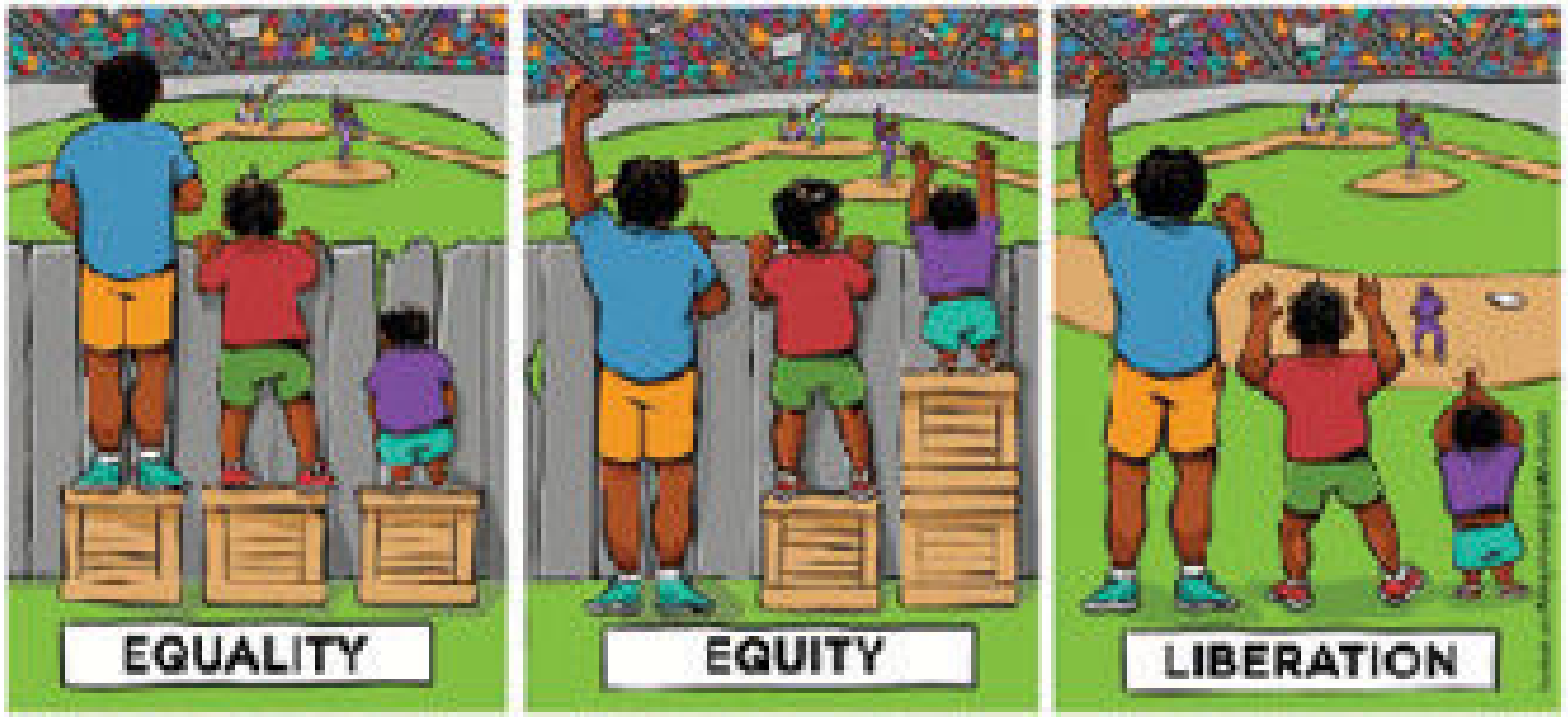


Source: Our World in Data: Income Inequality

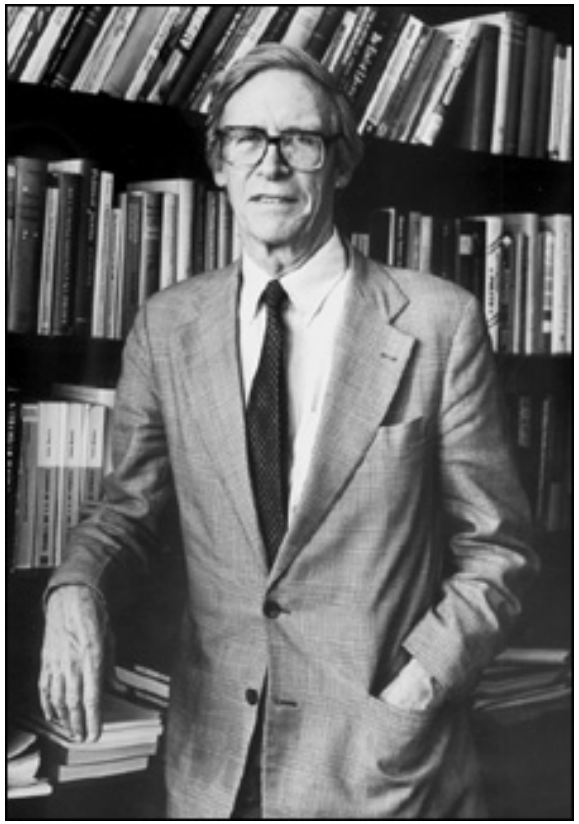
(In)equality *Across* Countries Over Time



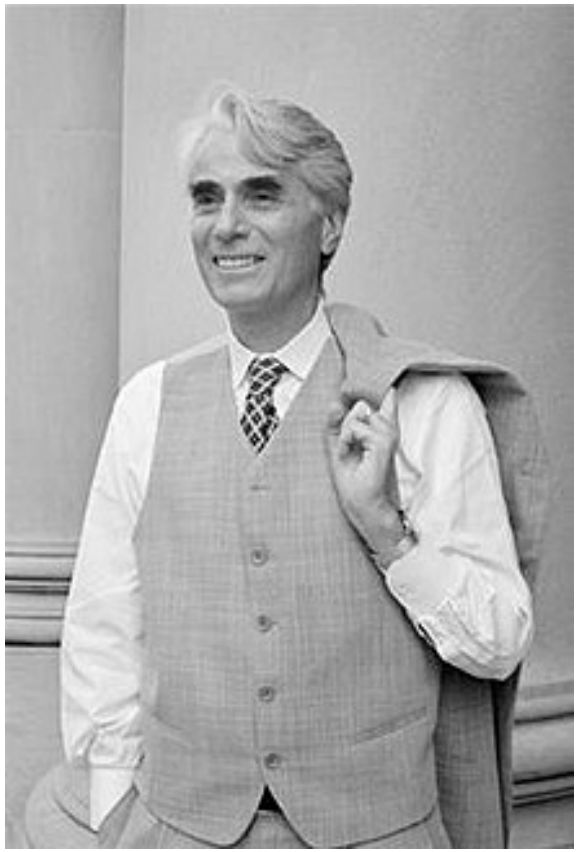
Aside: Equality vs. Equity



Distributive Justice: Rawls vs. Nozick

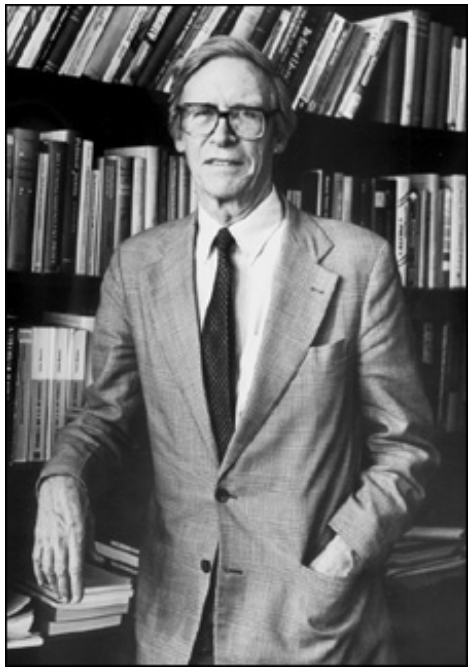


John Rawls



Robert Nozick

Rawls: Overview

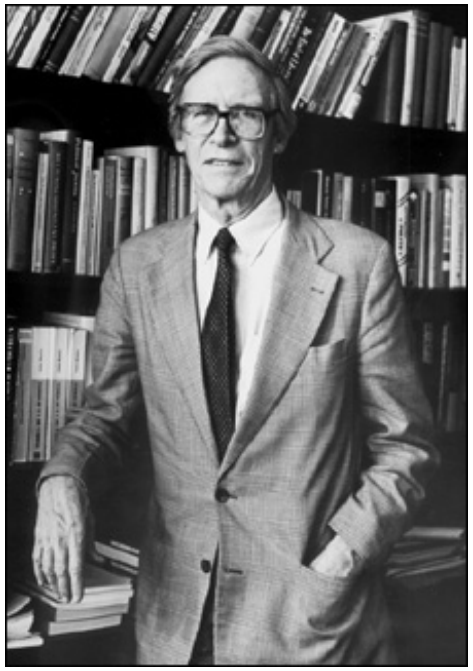


John Rawls

1921--2002

- 1971, *Justice as Fairness*
- One of the most influential political philosophers in the 20th century
- A liberal social contract theory of the State
- Aims to reconcile liberty and equality; uncover principles of justice necessary for a good society
    - Allowing for pluralistic definition of "the good"

Rawls: The Original Position



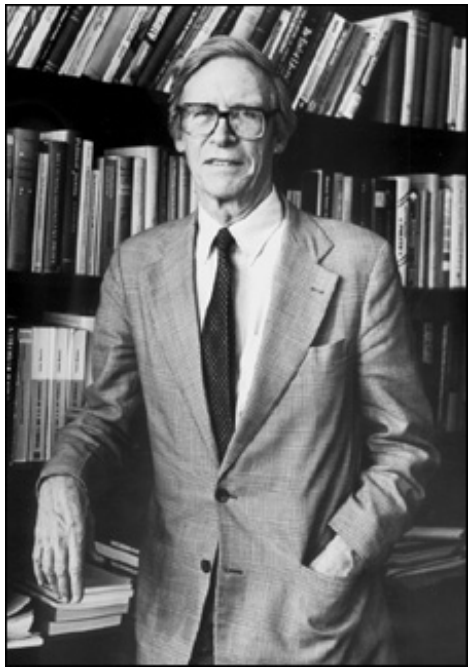
John Rawls

1921--2002

- "Original position" where all participants of society determine the principles of justice for their society behind a veil of ignorance, where

> "...no one knows his place in society, his class position or social status, nor does anyone know his fortune in the distribution of natural assets and abilities, his intelligence, strength, [or even] their conceptions of the good or their special psychological propensities."

Rawls: Reflective Equilibrium

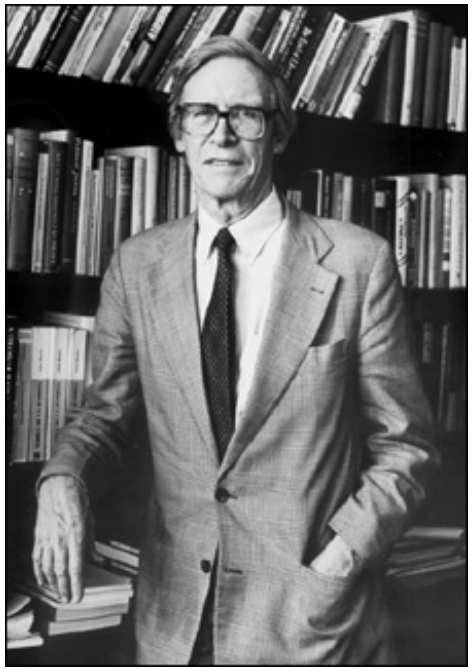


John Rawls

1921--2002

- Rational individuals form a **social contract** to provide rules
- If individuals do not know their relative positions in society, what would the **reflective equlibrium** be for the rules they establish to govern themselves?
- What rules would we expect all rational individuals to agree upon and view as **fair**?
    - Ahistorical, but we can compare real world policies and changes to this ideal outcome

Rawls' Principles of Justice



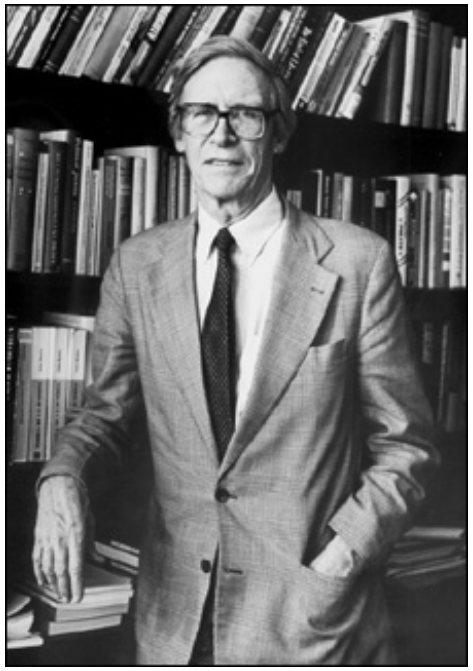
John Rawls

1921--2002

1. **Greatest equal liberty principle**: Each person is to have an equal right to the most extensive total system of equal basic liberties compatible with a similar system of liberty for all

2. **Difference principle**: Social and economic inequalities are to be arranged so that they are both: (a) the greatest benefit to the least advantaged...[and] (b) attached to offices open to all under conditions of fair equality of opportunity

Rawls' Principles of Justice

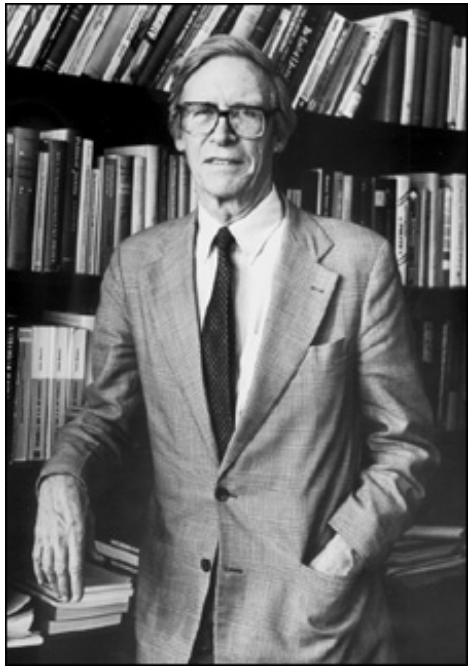


John Rawls

1921--2002

- Liberty is first priority (first principle)
- **Inequalities are permitted** to encourage division of labor and specialization, **provided they benefit the worst off**

Rawls' Justification



John Rawls

1921--2002

- Justification of difference principle:
- Why not a pure **meritocracy** with an "equal start"?
- The start is not truly equal, result of **"morally arbitrary"** factors
  - A genetic lottery of talent, born into family, etc.
  - Hard to claim that people **deserve** better outcomes because of these factors
- So focus on making the worst off best

Distributive Justice: Example

	D_1	D_2	D_3
Person A	10	3	6
Person B	6	3	5
Person C	2	3	4
Total	18	9	15
Average	6	3	5

- **Utilitarian**: maximize total utility (D_1)

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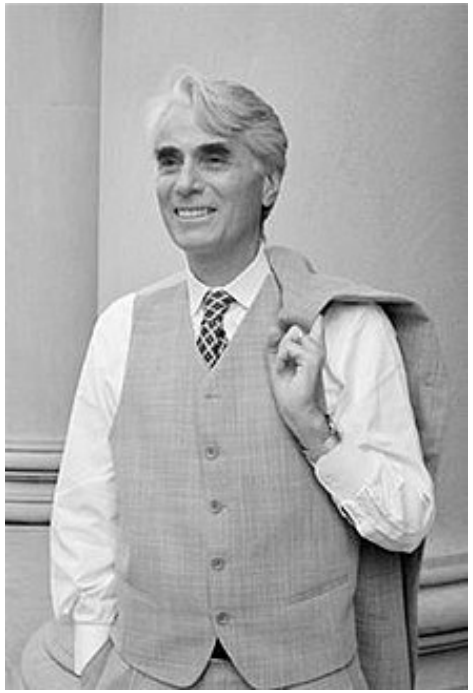
- **Utilitarian**: maximize total utility (D_1)
- **Egalitarian**: equalize distribution (D_2)
- **Rawlsian**: distribution that maximizes benefit to the worst off (D_3)
  - Focus on **absolute** position of worst off, rather than their **relative** position

Nozick: Overview

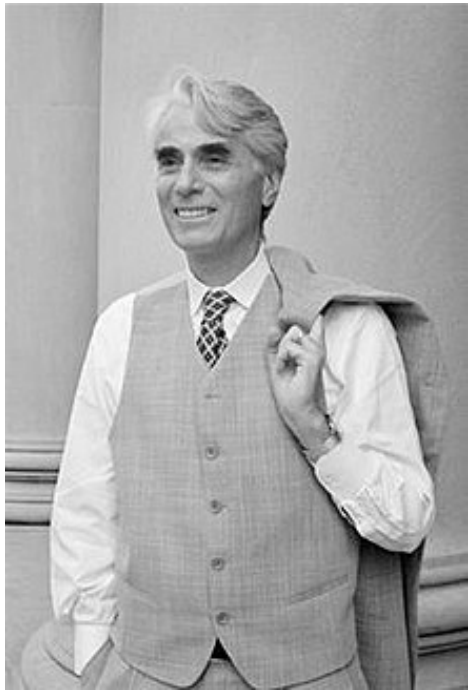


Robert Nozick

1938-2002

- 1974, *Anarchy, State, and Utopia*
- Most influential response to Rawls
- Influenced by John Locke, Immanuel Kant, and F. A. Hayek
- The most mainstream libertarian/classical liberal philosopher in 20th Century
- Gives a libertarian account of rights, the origins of the State, and advocates for a minimalist "nightwatchman" State

Nozick: Distributive Justice?

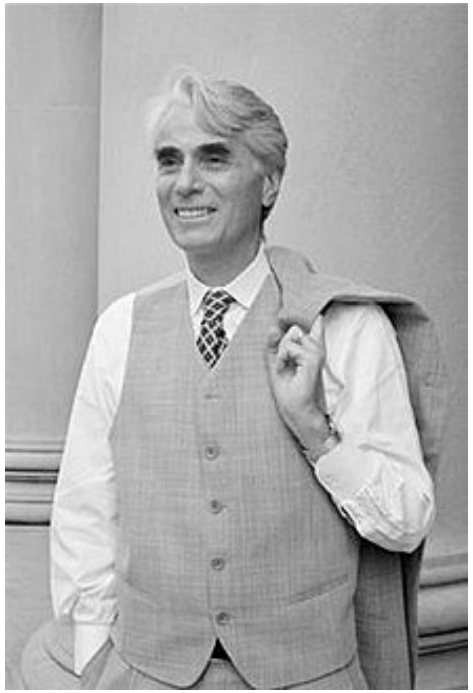


Robert Nozick

1938-2002

- "Distributive justice" is a squishy and non-neutral concept
- A category mistake: there is no "stock" of things *to be distributed* and no "one" *doing* the distributing

Nozick: On Rawls



Robert Nozick

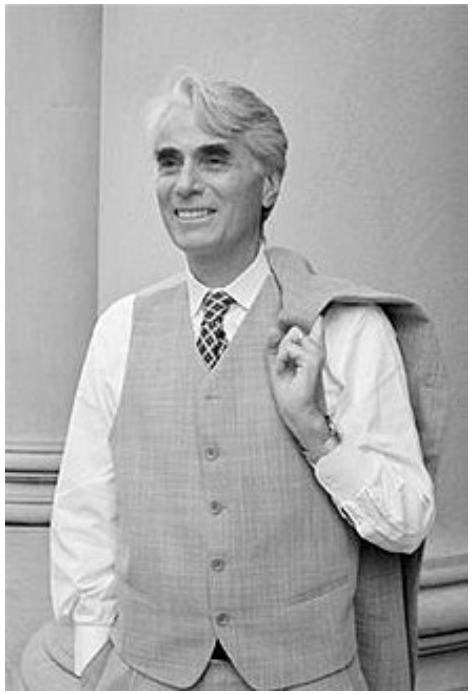
1938-2002

- Rawls' justice is a **patterned** or an **end-state** theory of justice

> *"Liberty upsets patterns"*

- Enforcing the pattern requires continually **violating individual rights**
- Redistribution would have to violate self-ownership and prohibit "capitalist acts between consenting adults"

Nozick's Theory of Justice



Robert Nozick

1938-2002

- Nozick's is a **non-patterned** **entitlement theory** of justice
- Based heavily on John Locke's theory of property

Locke's Theory of Property

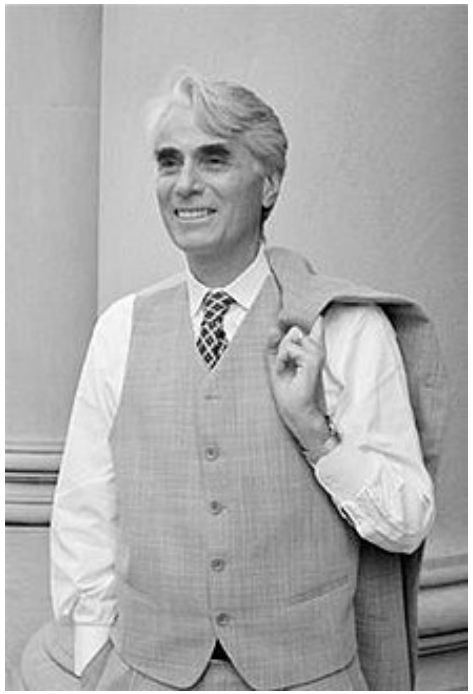
John Locke

1632-1704

> "Though **the earth**, and all inferior creatures, **be common to all men**, yet **every man has a property in his own person**: this no body has any right to but himself. **The labour of his body, and the work of his hands, we may say, are properly his**. Whatsoever then he removes out of the state that nature hath provided, and left it in, **he hath mixed his labour with, and joined to it something that is his own, and thereby makes it his property**...that **excludes the common right of other men**: for this labour being the unquestionable property of the labourer, no man but he can have a right to what that is once joined to, **at least where there is enough, and as good, left in common for others**," (Ch. V).

Locke, John, 1689, *Second Treatise on Government*

Nozick's Theory of Justice



Robert Nozick

1938-2002

- Nozick: individuals are **entitled** to their holdings if:
    1. Their property was acquired justly
    2. They transfer holdings via consent
- Holdings are **unjust** if they violate 1 or 2
    - Rectification to redress these violations is just

Nozick vs Rawls

	D_1
Person A	100
Person B	100
⋮	⋮

Nozick's famous example:

- Imagine original distribution D_1 that satisfies your favorite patterned principle (e.g. Rawlsian)

Nozick vs Rawls

	D_1
Person A	100
Person B	100
⋮	⋮
LeBron James	100

Nozick's famous example:

- Imagine original distribution D_1 that satisfies your favorite patterned principle (e.g. Rawlsian)
- Everyone freely decides to pay $1 to watch LeBron James play basketball

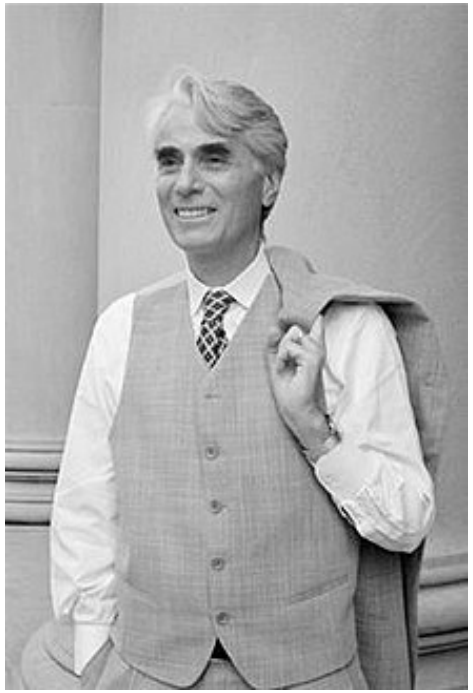
Nozick vs Rawls

	D_1	D_2
Person A	100	99
Person B	100	99
⋮	⋮	⋮
LeBron James	100	1,000,000

Nozick's famous example:

- James now has a million, a much larger sum than any of the other people in society
- D_2 is no longer ordered by our patterned principle
- Nozick: **how can D_2 be considered an "unjust distribution"?**

Nozick's Theory of Justice



Robert Nozick

1938-2002

- How can D_2 be unjust if it was attained by a **just *process***?
- On what grounds can we justify redistribution to maintain a pattern?
- **No patterned principle of justice is compatible with individual rights**