

# Employing Agent-Based Computer Simulations in Developing Theories of Distributive Justice

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- question of high importance
  - unjust distributions may have enormously adverse consequences for certain members of society
  - long-term health of overall society may be affected as well

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Our claim:

- Debates over the right principle to use can be informed by an agent-based computational approach



## 'Justice as Fairness' (Rawls, 1999)

**First Principle of Justice:** *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.*

**Second Principle of Justice:** *Social and economic inequalities are to be arranged so that they are both:*

**2a)** *to the greatest benefit of the least advantaged, consistent with the just savings principle, and*

**2b)** *attached to offices and positions open to all under conditions of fair equality of opportunity.*

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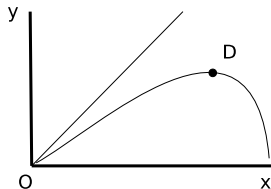
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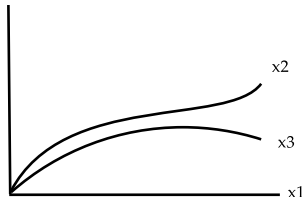


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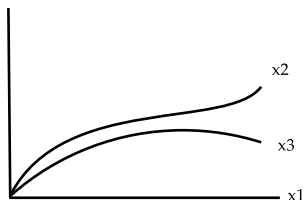
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Close-knitness:

- expectations of  $x_2$  and  $x_3$  always either rise or fall (i.e. no flat stretches) given an increase in the expectations of  $x_1$



## Social Primary Goods

- rights, liberties, opportunities,
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→ variable (governed by difference principle)

# The Original Position

## 'Strains of commitment'

“They cannot enter into agreements that may have consequences they cannot accept. They will avoid those that they can adhere to only with great difficulty. Since the original agreement is final and made in perpetuity, there is no second chance. In view of the serious nature of the possible consequences, the question of the burden of commitment is especially acute. A person is choosing once and for all the standards which are to govern his life prospects. Moreover, when we enter an agreement we must be able to honor it even should the worst possibilities prove to be the case. Otherwise we have not acted in good faith.” (Rawls, 1999, §29).

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**2a)** *governed by “the principle of average utility subject to a constraint that a certain social minimum of well-being be maintained for every individual” (Waldron, 1986, p. 22).*

**2b)** *attached to offices and positions open to all under conditions of fair equality of opportunity.*

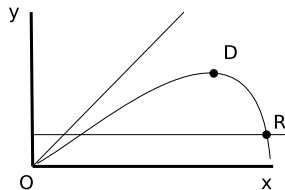
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- more benefit to society as a whole
- other principles of justice (equal liberty, fair equality of opportunity) are affirmed
- social minimum is set to what social psychologists consider necessary for leading decent and tolerable lives
  - not just bare subsistence.

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  - In a broader sense?

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- "Difference factor"
  - Possibility of capping the difference between minimum and maximum levels of wealth

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- Results compared after a certain timeframe

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- Caveat : Within a certain timeframe, random factors seem to be very important
- Total wealth in JF framework can reach similar or greater levels of wealth, usually with a lower difference factor

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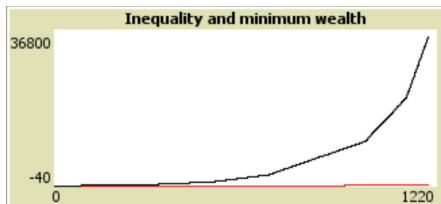
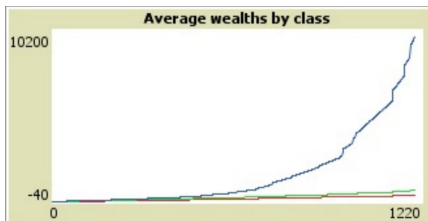
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# Overall Findings

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- To implement the difference principle in the spirit of JF, the difference factor must be “relatively small”

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  - Wealth distribution, level of (dis)satisfaction, and political stability
  - Which difference factor maximizes both wealth and political stability

Thank you.

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