

An Agent-Based Model for Poverty and Discrimination Policy-Making

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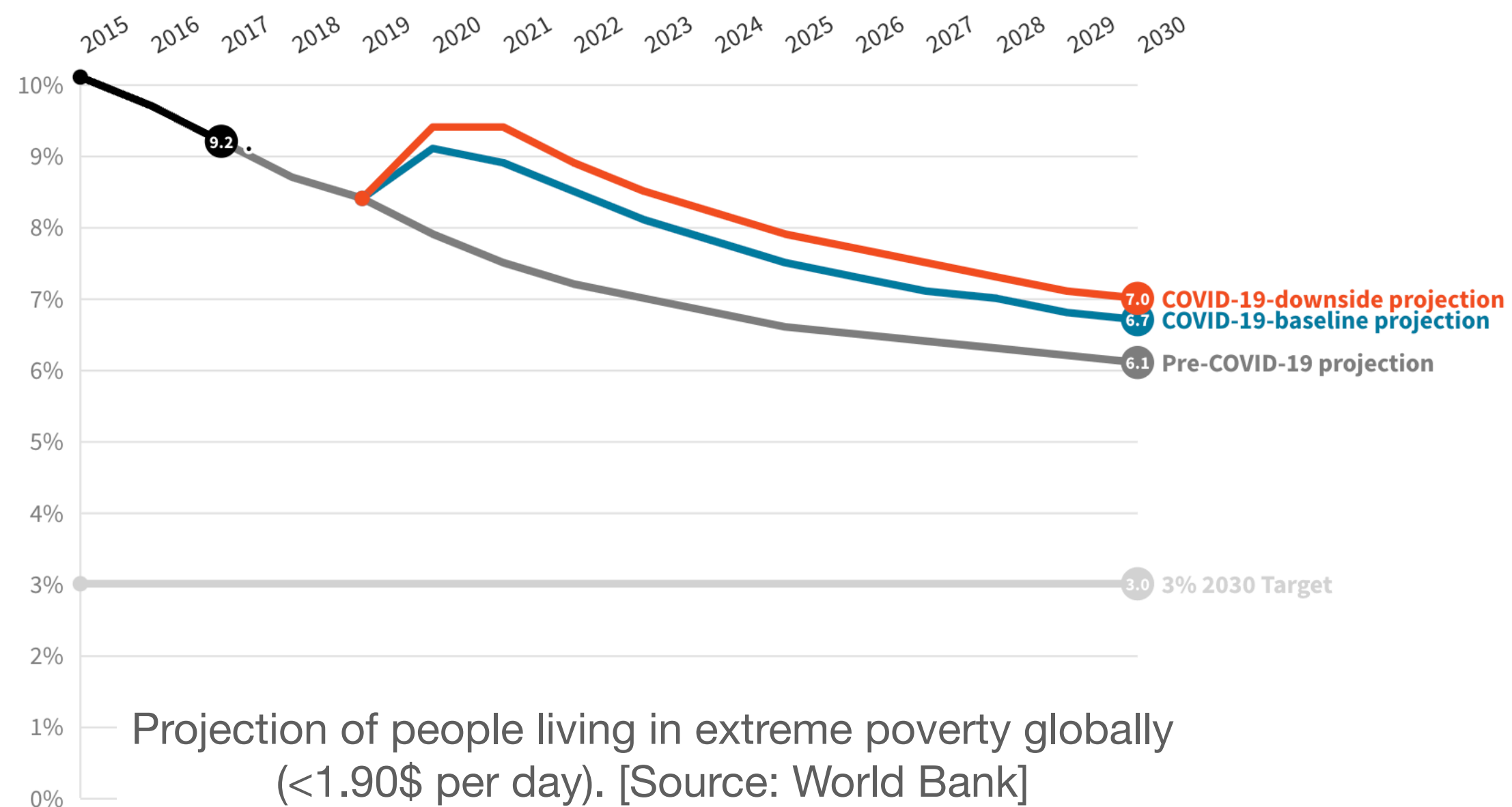
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Scan me!

The Fight Against Poverty

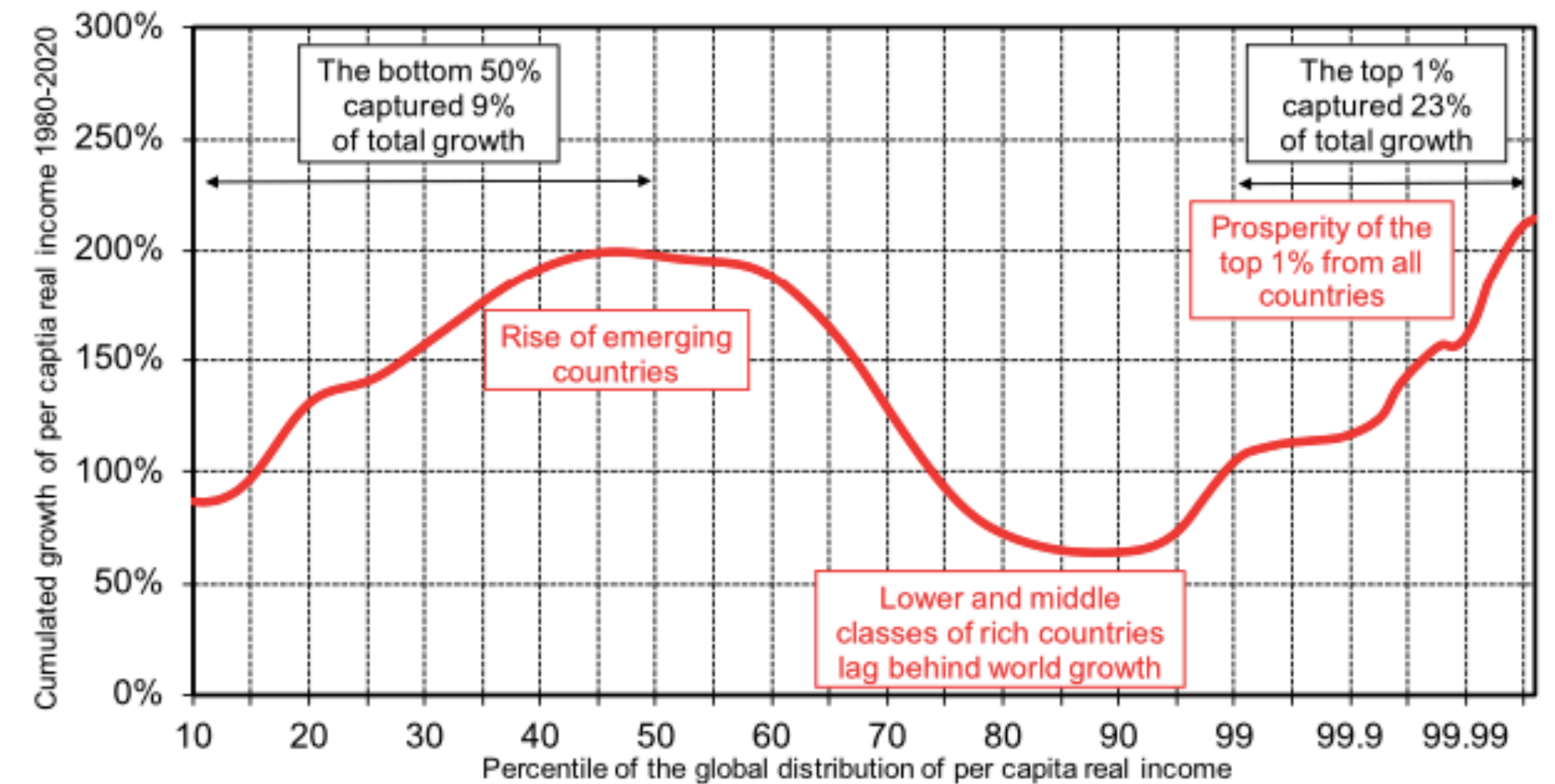
- +600M in extreme poverty — 10% of world population [UN]
- In EU-27 ~96M in risk of poverty or social exclusion [Eurostat 2020]
- Aggravators: Covid-19, Ukraine war, inflation, climate crisis



Redistribution Is Not Enough

What About *Discrimination*?

- Criminalization of the poor
- Caricature narratives:
 - Rich — entrepreneurial, patriotic
 - Poor — waster, looser
- Low social mobility in US and Europe
- Overestimated perception of social mobility



Elephant Curve of Global Income Inequality 1980 - 2020.
[Chancel and Piketty 2021]

**The poor are overwhelmingly
those born into poverty**

Our Proposal

Use the power of **Agent-Based Modeling** to examine the impact of **aporphobia embedded in the legal system** on **poverty** and **inequality**:



Agent

Income
Wealth
Skills
Social relations

...

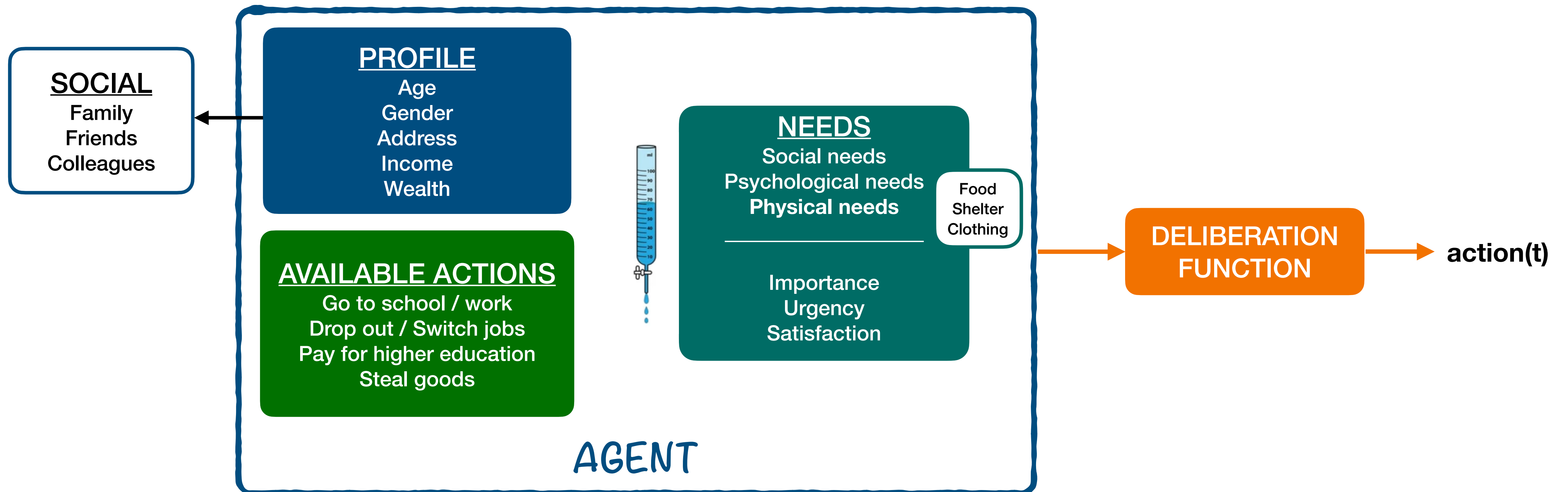
Regulation environment

Access to services
(education, housing,
benefits), fines, ...

An ABM for Aporophobia

Needs-Based Agent Model

Following Dignum et al. (2020) [<https://simassocc.org/odd/>]



The Regulation Environment

Model the introduction of **real-world policies** concerning:

Taxing

Benefits: Services — Funding — Eligibility

Fining

*Parsing **IG 2.0***

Annotated by:

Redistribution and discriminatory character

“Institutional aporophobia” (not individual yet)

Governance level (nation, region, town)

Interplay

Use Case

City of Barcelona

- Fines 100-600€ for “occupation of public space” or “misuse of public furniture” ... *[national]*
- Social emergency as a result of home loss considers situations where the usual home has been lost, and does not apply to the homeless ... *[local]*
- To apply for minimal vital income, it is required to have legal and effective home address and residency in Spain for at least one continuous year prior to application... *[national]*
- Application for minimal vital income does not require a minimum income *[national]*
- Turn access to a dignified home into a guaranteed right within the social services *[regional]*



Upcoming: Johannesburg (South Africa), New York (USA)

Implications and Next Steps

Plus Some Challenges

- New generation of poverty reduction policies: focus on **discrimination**
- **Global** challenge by **local** actions
- What *is* poverty? (Global north vs global south view)
- Multi-dimensional nature of aporophobia:
 - Legal framework: Institutional
 - **Psychological: Individual**

Thank you



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NOA-POVERTY

A Norm Optimisation Approach to tackle poverty

*The use of Artificial Intelligence to mitigate
discrimination against the poor*

*An Agent-Based social model towards the UN
Sustainable Development Goals*

<https://noa-poverty.iia.csic.es/>