

Robustness: The inefficient truth?

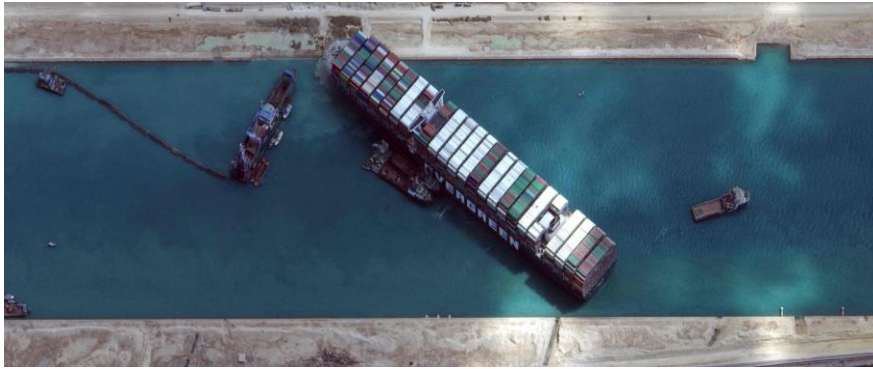


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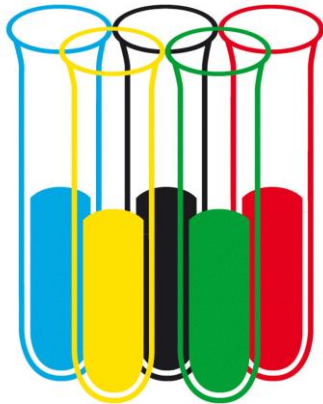
The era of performance



Performance is counterproductive



Optimization weakens



Goodhart law: « When a measure becomes a target, it ceases to be reliable »



Rebound effect

A planetary feedback: the era of fluctuations



Ressource scarcity



Climate crisis



Biodiversity collapse



Global pollutions

Robustness is built against performance

Biological robustness is built on:

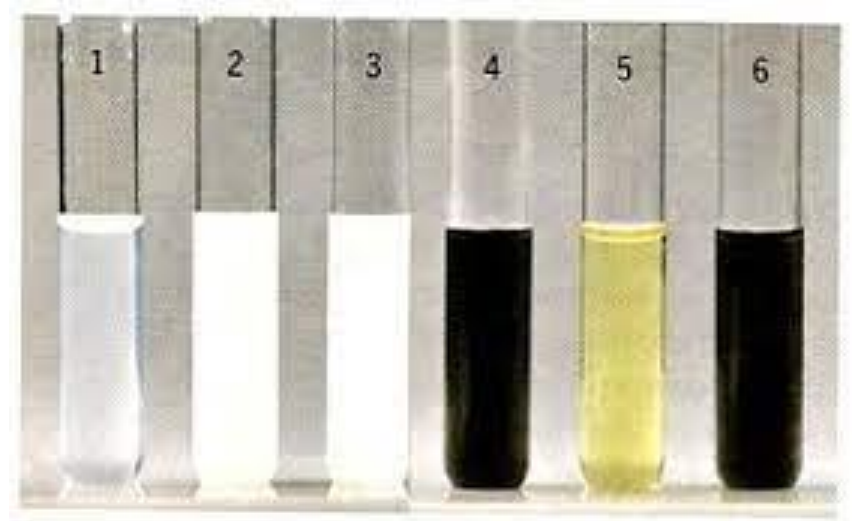
- Inefficiency
- Heterogeneity
- Randomness
- Slowness
- Redundancy
- Inconsistency
- Incompleteness
- ...



Living systems are sub-optimal



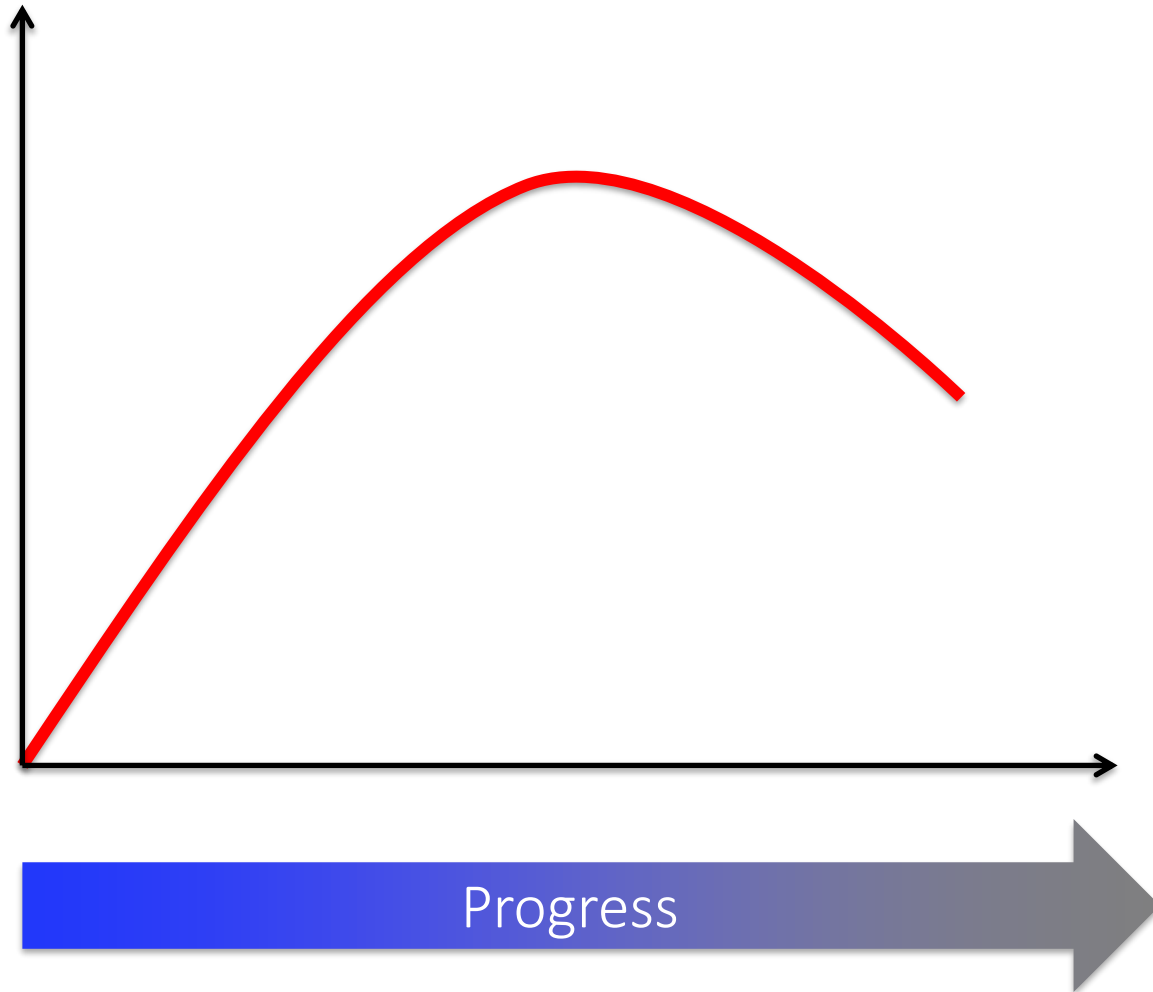
Body temperature: 37°C



Enzyme optima: 40°C

Performance gains are counterproductive

Robustness



Performance

Reinventing progress in the 21st century: robustness



Systems change from their periphery



Agroecology

Use ecosystems
to increase production

TOWARDS

How production
can feed ecosystems



The all-repairable era



New engineers: from smart cities to smart citizens

Performance increments
through technical delegation

TOWARDS

Robust & techno-diverse solutions,
through the technical autonomy
of citizens

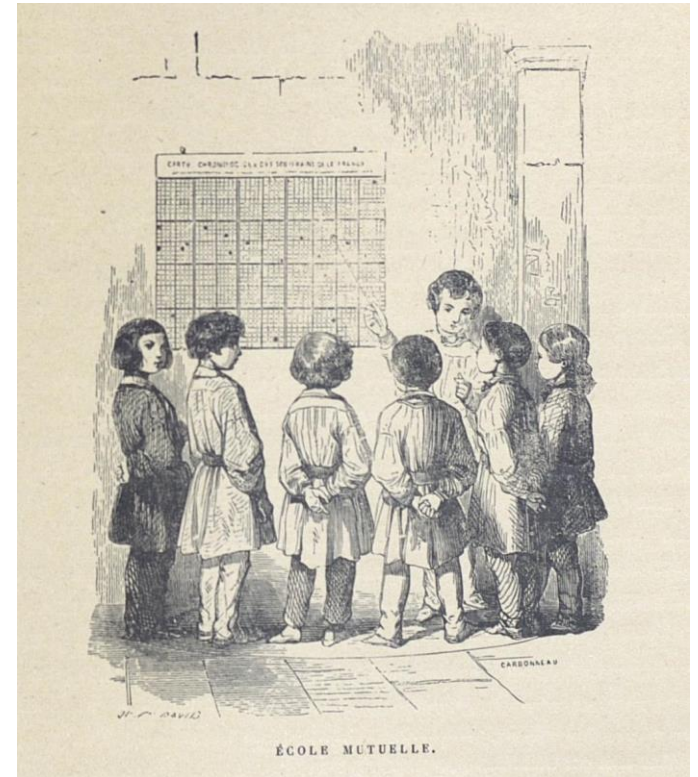


Campus de la transition à Forges 2021 – Le Monde

Education: towards a school of cooperation?

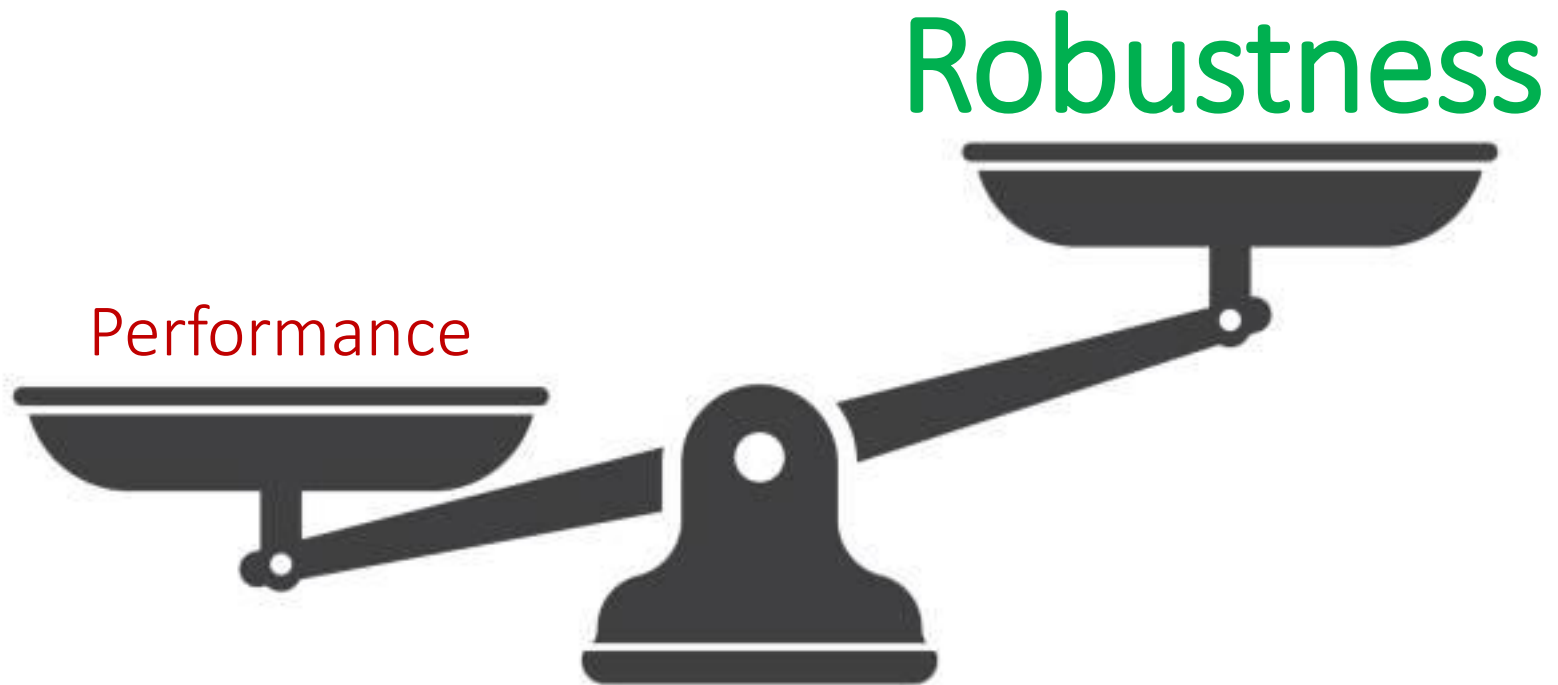


Cooperative housing



Cooperation
and robust learning

A new balance

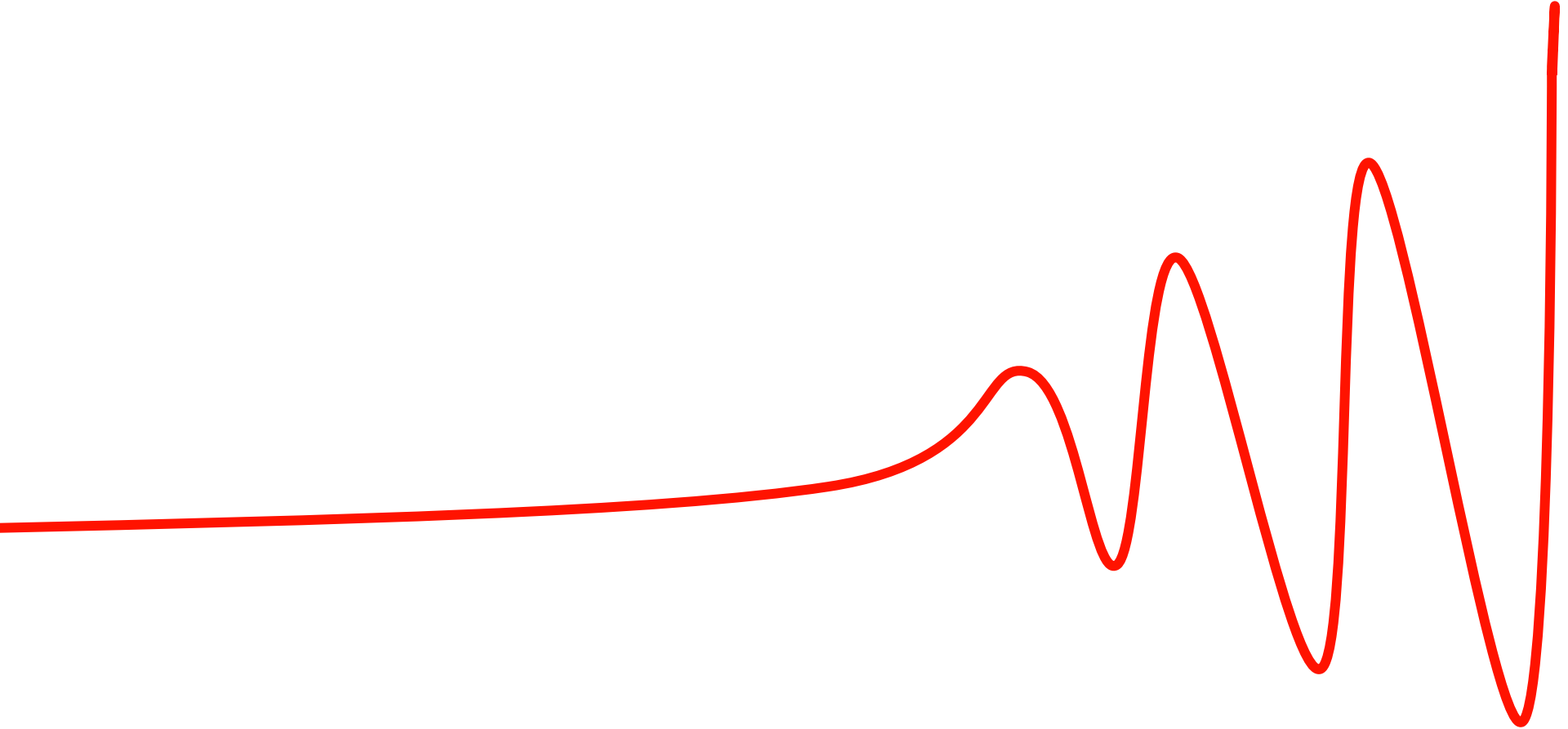


Dynamic tools

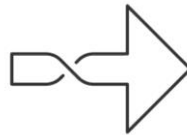


Indicators
of performance

Dynamic tools

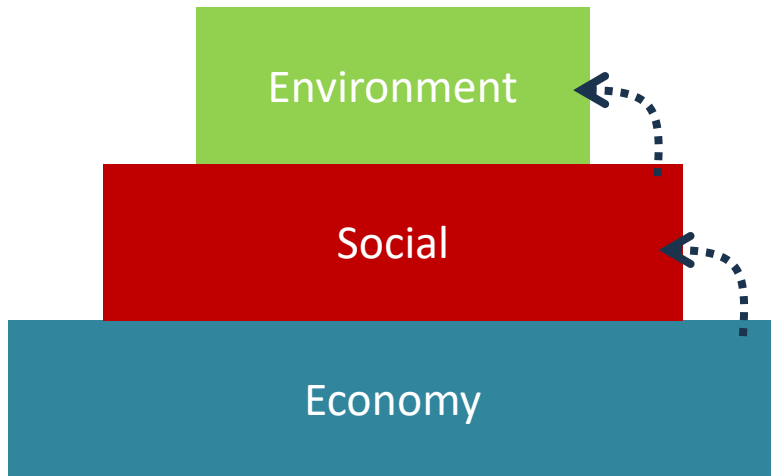


Indicators
of performance

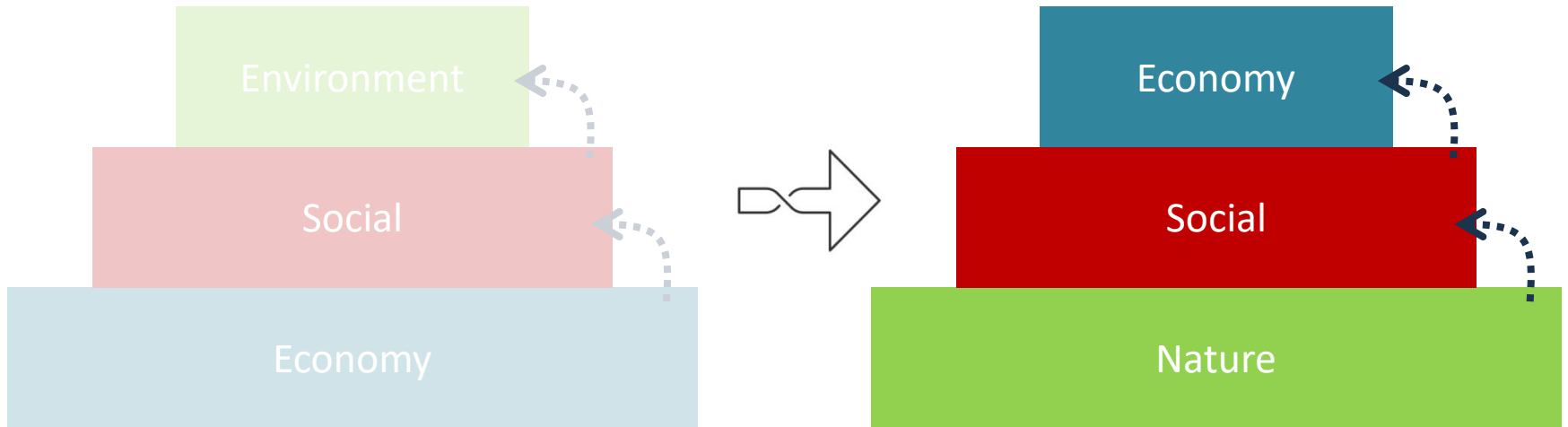


Stress
tests

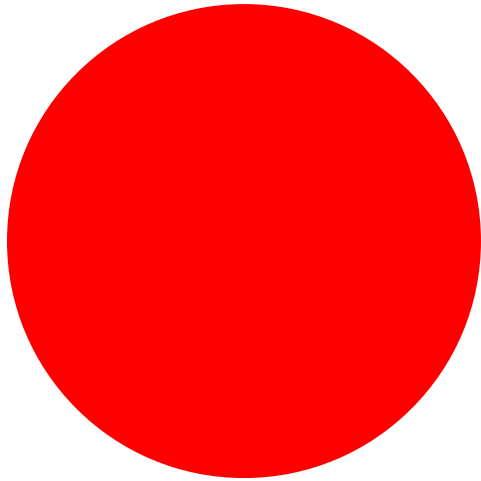
Common health



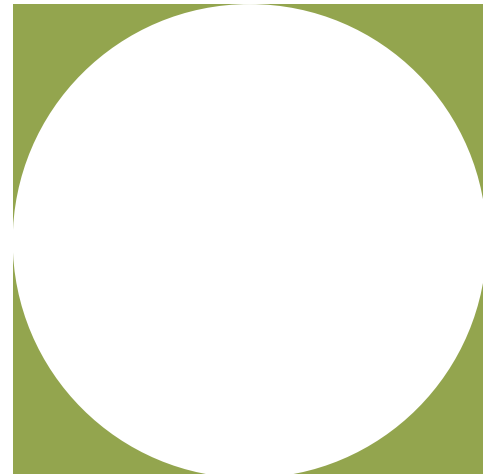
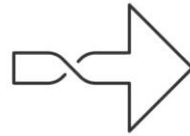
Common health



A question of posture



« I want »
« I know »



« I would like / I hope »
« I don't know »

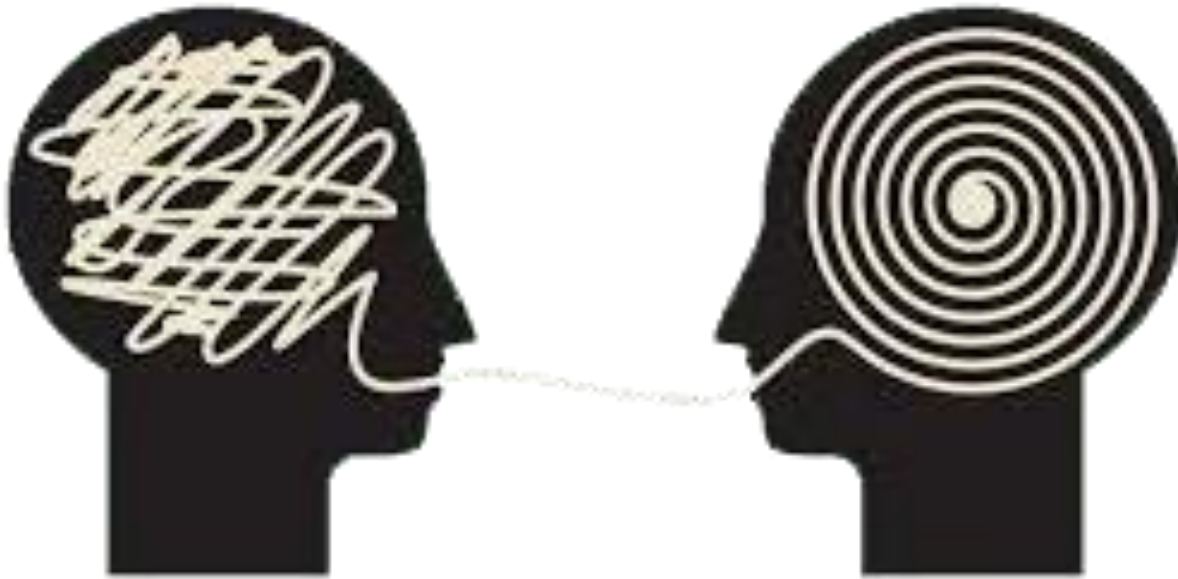


Conclusion

Language: sharing thanks to approximations

**Aoccdrnig to a rscheearch at Cmabrigde
Uinervtisy, it deosn't mttar in waht
oredr the ltteers in a wrod are, the olny
iprmoetnt tihng is taht the frist and lsat
ltteer be at the rghit pclae. The rset can
be a toatl mses and you can sitll raed it
wouthit porbelm. Tihs is bcuseae the
huamn mnid deos not raed ervey lteter
by istlef, but the wrod as a wlohe.**

Suboptimal exchanges



« Understanding is a special case of misunderstanding »
Antoine Culioli, 1990



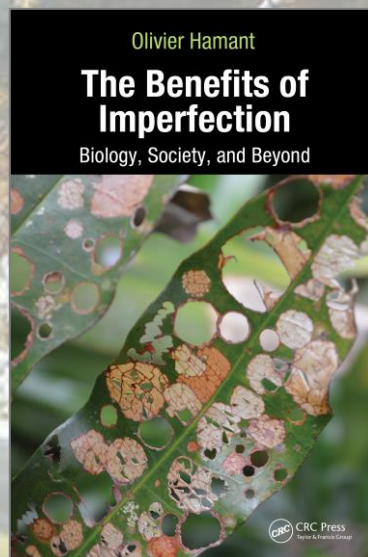


OLIVIER HAMANT ANTIDOTE TO THE CULT OF PERFORMANCE

ROBUSTNESS FROM NATURE



N°50



SATOR

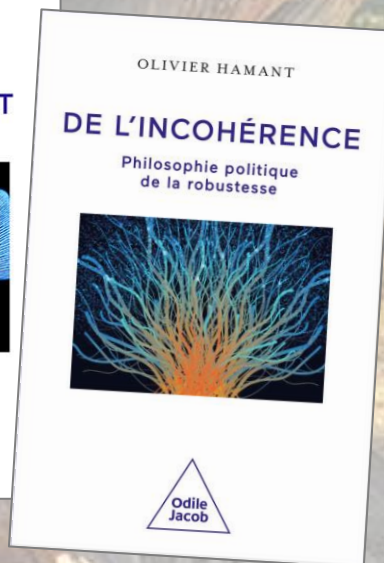


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LA ROBUSTESSE DU VIVANT



3,90€ / N°50



TEDx



