



Homo Sapiens Sapiens versus Homo Artiflex

The human factors
in the global change

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Summary

1. The mistaken views about environmental destruction
2. The mistaken views about humans
3. The global / local change and human behavior
4. Conclusions (?)

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THE MISTAKEN VIEWS ABOUT ENVIRONMENTAL DESTRUCTION

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Hunter /Gatherers

100
 50
 0
 NORTH-AMERICAN
 MEGAFUNA
 Palaeo-Indian Invasion

100
 50
 0
 AFRICAN
 MEGAFUNA
 End Mousterian

100
 50
 0
 MADAGASCAR
 LEMUROIDS
 Malgache invasion

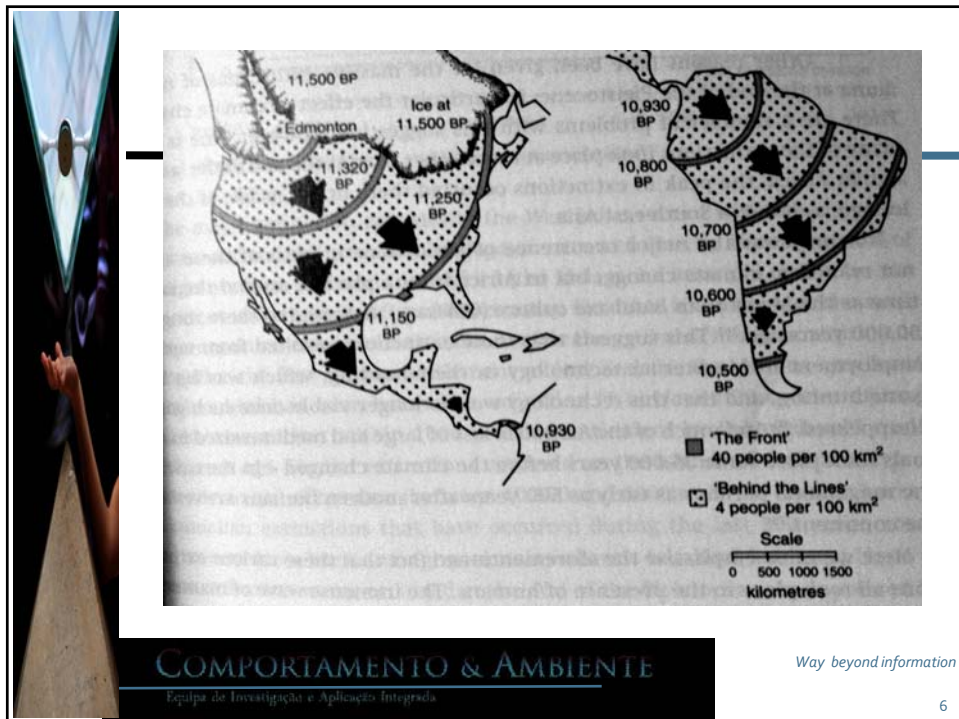
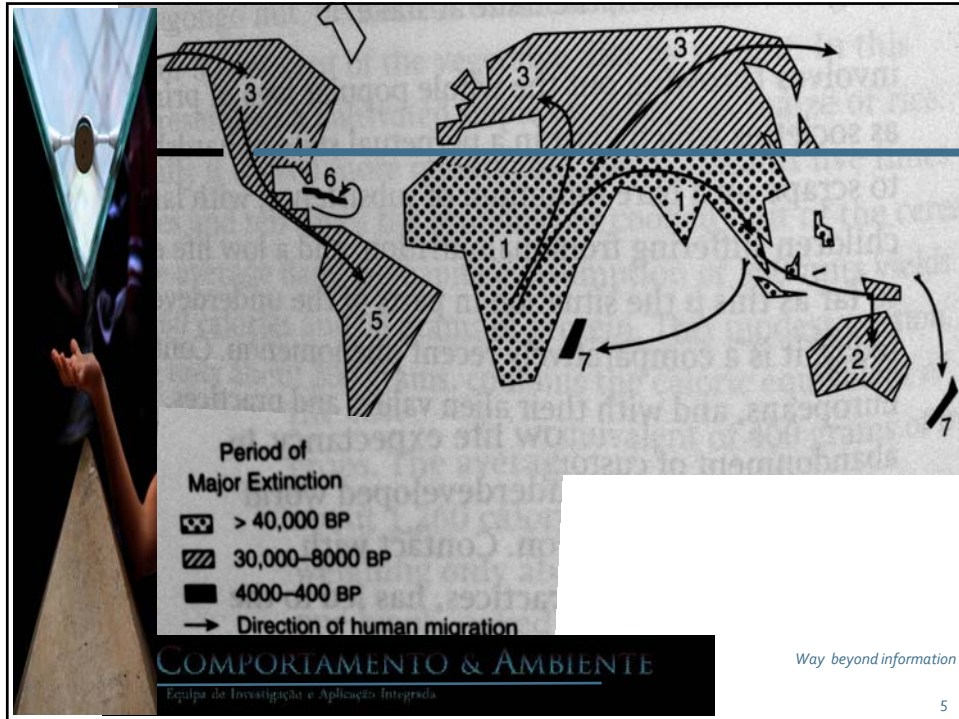
200,000 BP 100,000 BP 10,000 BP 1 AD 1000 BP 100 BP
 WORLDWIDE CLIMATIC CHANGE

North American, African and Madagascar extinctions²⁹⁵

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Neolithic green revolution



Wrong ideia
about the
driving force

Daniel
Hillel

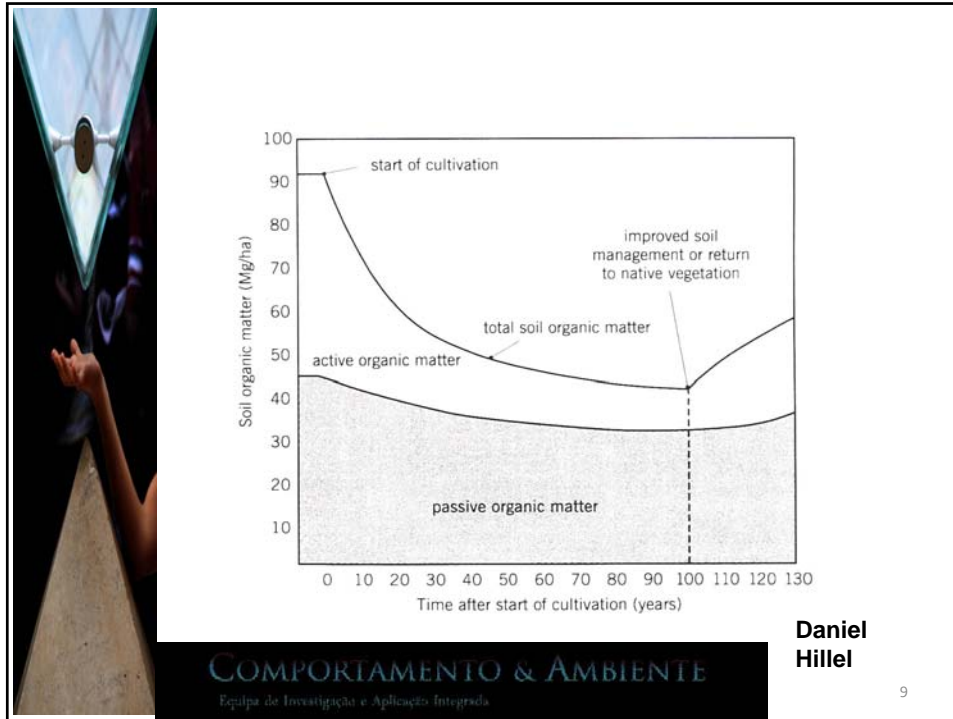
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The relation between Humans and Environment

- “the wrong idea about a primitive unity” between human beings and nature
 - (hunters / collectors changed dramatically)
- Middle East
- Roman Era /
- Northern forests
- Greece /
- “Serra da Estrela” /

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“environmentalism” and drives to
change
“avant la letre”

- Always when it is felt a rupture in the system
 - Greek philosophers (Plato)
 - Alfonse Laws (XIV, Portugal)
 - burning of low quality coal (after XV, London)
 - destruction of land by erosion in ancient Greece and Portugal
 - health conditions in medieval cities



“environmentalism” “avant
la letre”

John Evelyn - 1661, *"Fumifugium;
or the Inconvenience of the Aer
and Smoke of London
Dissapated; Some Remedies
Humbly Proposed"*



Functional relation between animals and nature that is disrupted when certain **factors*** occurs and technology is introduced (and lack of internal checks)


** **human growth**, namely intrusion from outsiders, specialization of production, contradiction between needs in the same ecosystem, etc.*



The vicious circle principle

Humankind's development consists in an acceleration movement from situations of scarcity, to technological innovation, to increase resource availability, to increased consumption, to population growth, to resource depletion, to scarcity once again and so on


Craig Dilworth (2010)



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THE MISTAKEN VIEWS ABOUT HUMANS

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Two contradictory (lay) theories

- human as rational (the information is the key)
- humans as egoistic and irrational (the vigilance and punishment are the key)

– Both wrong and prescriptive views

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Those theories can not answer to simple questions

World, 90

Europe, 95

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Those theories can not answer to simple questions

Current Environmental Evaluation

Nacional

92% sees global change as a severe ou very severe problem

Soils 62,9%
Water 73,8%.
Air 61,7%

Segurança das actividades industriais

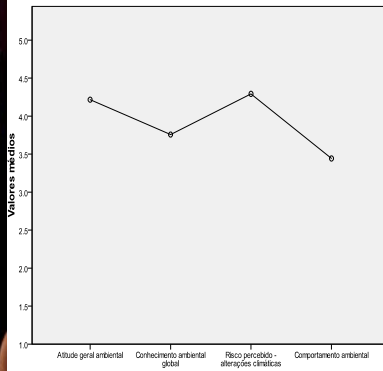
Nacional

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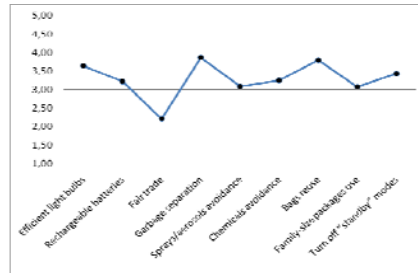
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Those theories can not answer to simple questions



Portugal, 2010



(Ireland, Germany, Italy, Spain, Poland, Portugal, Greece, 2010)

3

THE GLOBAL CHANGE AND HUMAN BEHAVIOR



Homo Artiflex: A descriptive view

- Bounded rationality with use of heuristics
- caring for short time gains (but)
- caring for values and beliefs
- social animals with altruistic behaviors being a part of the evolution
- strong social identities and local adaptations
- Strong search for easiness (obtain the most with the minimum of effort)
- Multiple factors that influence a behavior



Social dilemmas:

the contradiction between individual and collective rationality

Properties :

$$D(m) > C(m+1)$$

$$D(m_1) < C(m_2)$$

when $m_1=0$ e $m_2=N$

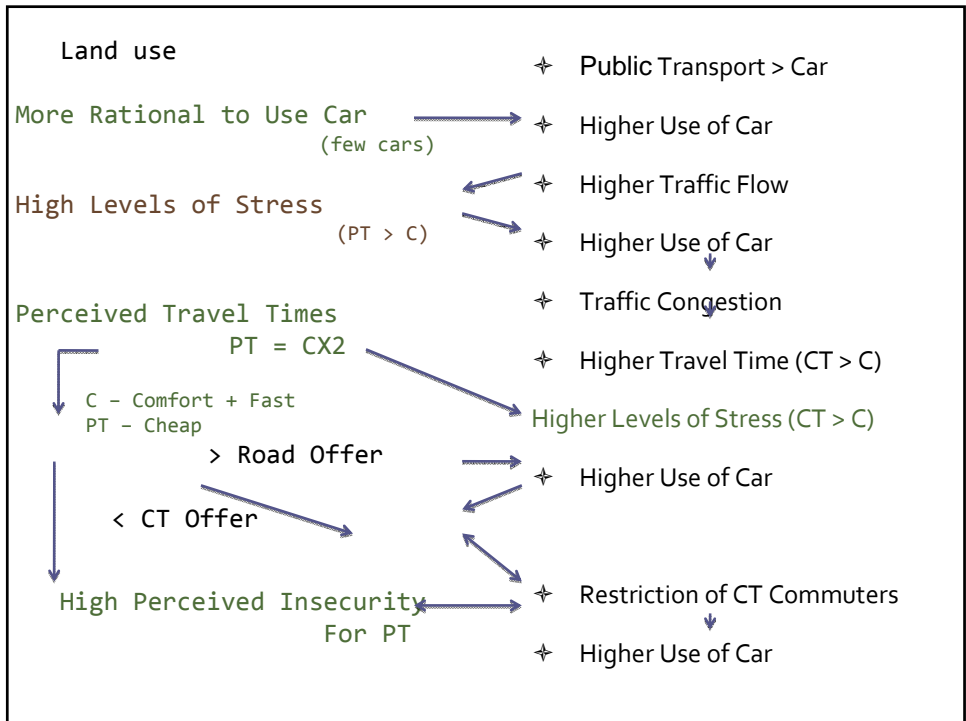
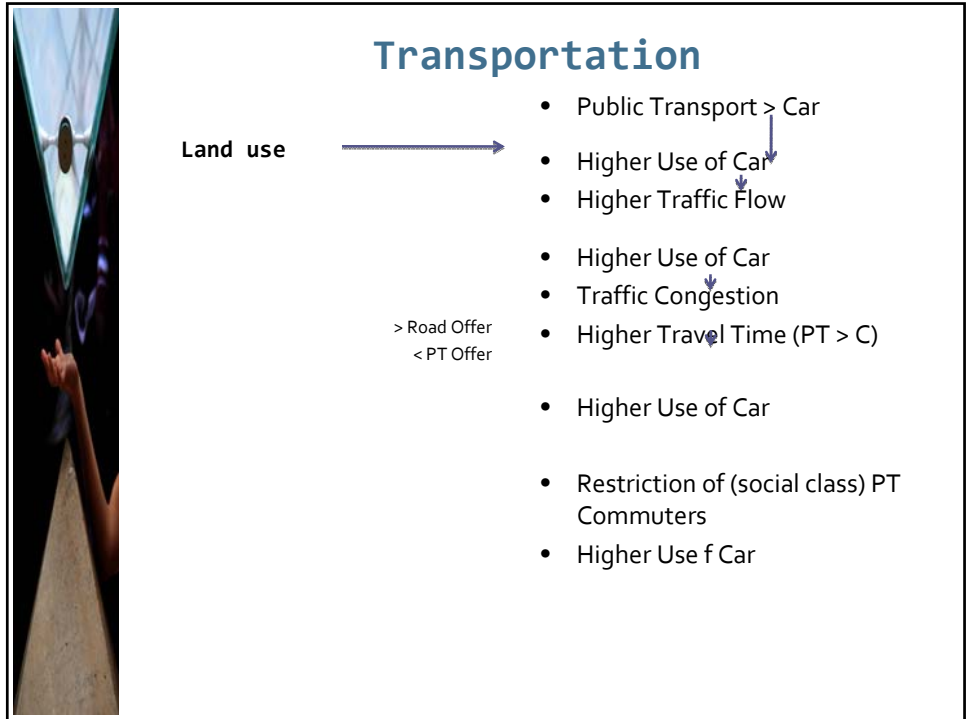
$$D(m) > D(m+1)$$

D = gain of the participant that acts competitively

C = gain of the participant that acts cooperatively

m = Number of participants that either cooperate or compete

N = Total





Transportation

Higher Stress; Higher Travel Time;
Insecurity; Desire for Comfort and
Speed

=

PT Commuters' Higher Switching
Desire



Local (and global) Adaptation

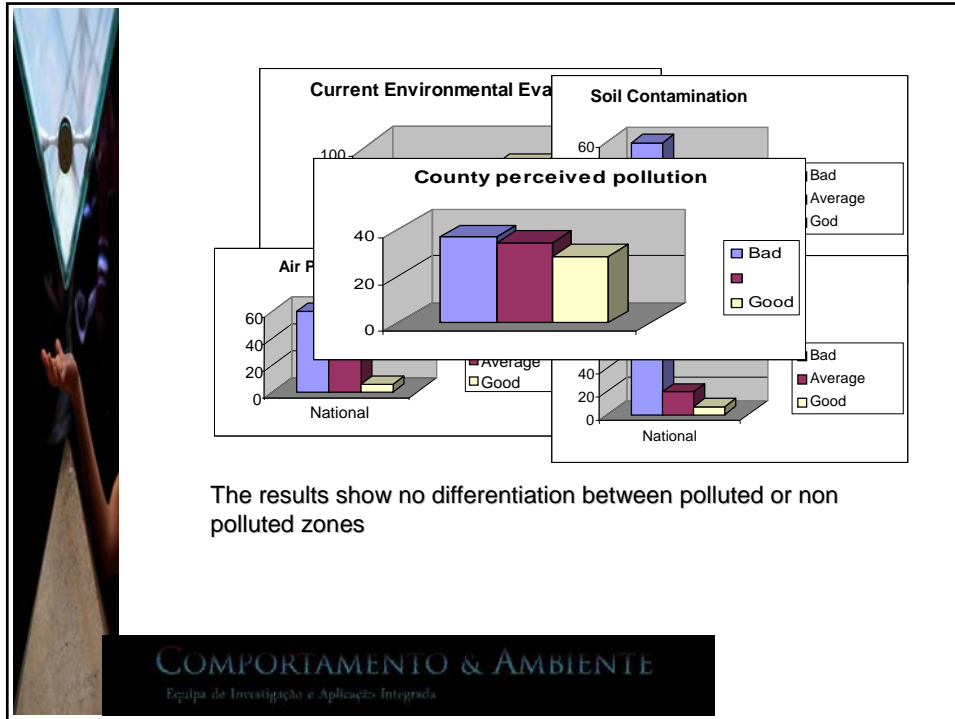
FACT 1

The current mismanagement of certain problems is evaluated as negative and have higher risk. But risk perception of the new solutions can be higher.

(Love in to your death syndrome)

FACT 2

People seems to evaluate much more negatively the global ecosystem/country when compared with the local / regional one



Local study (four Lisbon counties)

But 74% of the representative sample considers that Portugal is currently a polluted or very polluted country

80% evaluates their one county as being in very "good" condition

$F(1,737)=777.25;$
 $p<0.000$

Women are always more negative than men

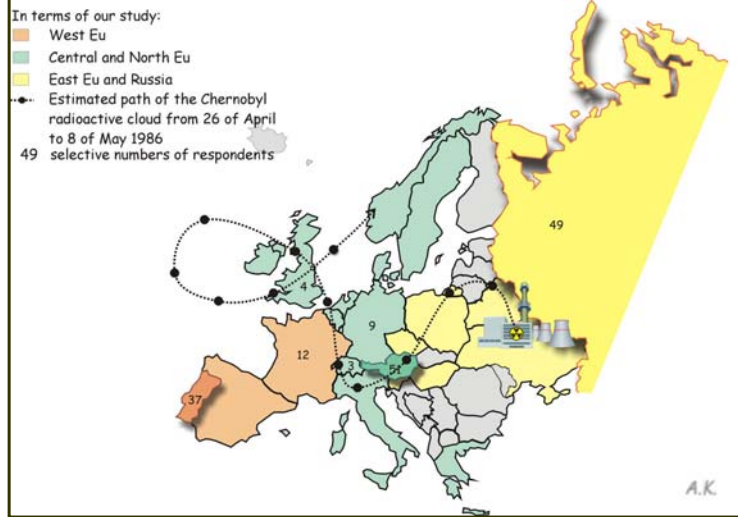
positive relation between local social identity and the local environmental evaluation (.334; $p<0.000$)

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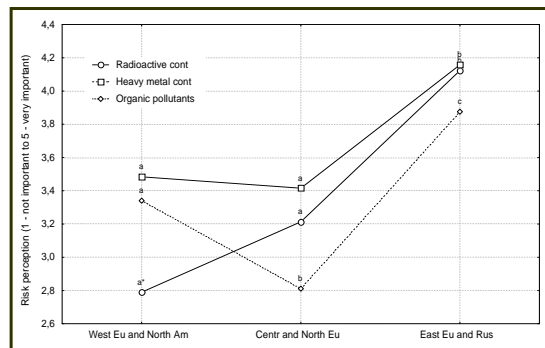
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Regions of Europe represented in the study

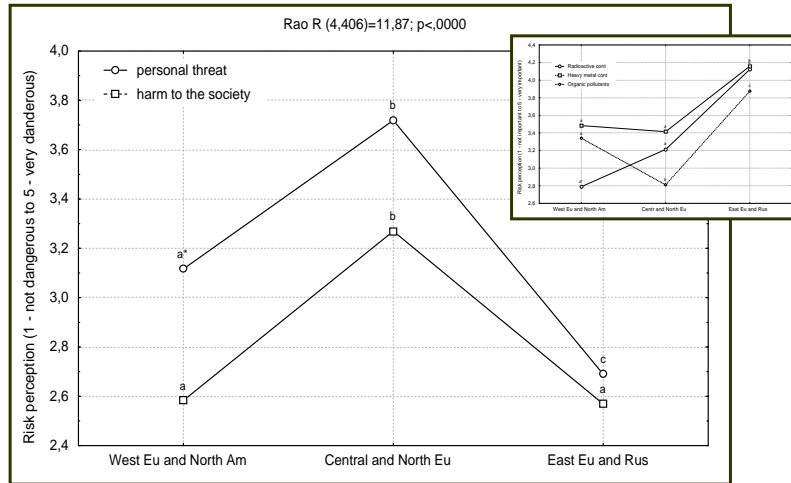


Estimation of Contamination

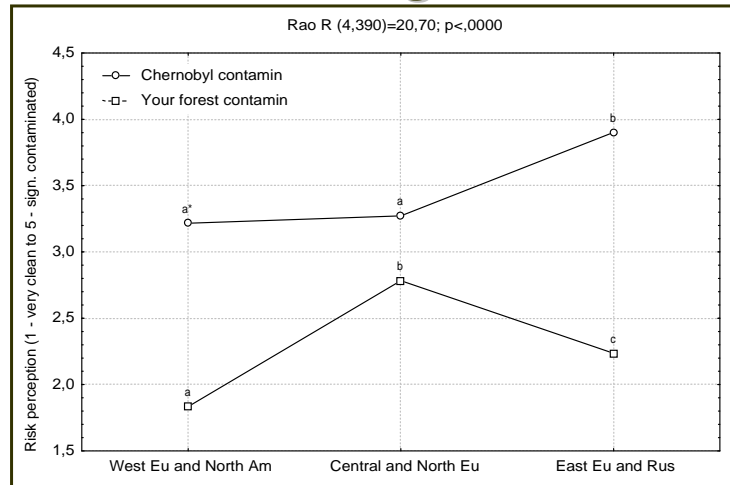




Perception of the personal danger from the consumption of wild products



Contamination of the environment "local - global"





Local (and global) Adaptation

FACT 3

Disaster is easily forgotten as time goes by and is object of different and mostly wrong theories

Example: The ones that need the most are somewhat the ones that do the least about it

FACT 4

People are risk averse and have a difficult time in dealing with low probability and high consequence events

The more fearful is the alternative the higher can be the denial.... Framing is essential (prospect theory)

Conclusions

1. Change the way you see the world and yourself
2. Use a descriptive (explanatory) vision of HOMO not a prescriptive
3. Be specific not global and choose well the best behavior to influence of trying to change
4. Information versus individual and community processing (Influence versus self Influence)




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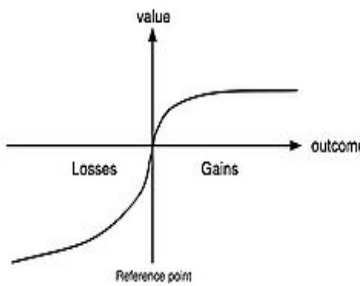
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Saber muito sem saber nada

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Local (and global) Adaptation



there is a bigger impact of losses than of gains

Framing is essential

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