# Conceptual challenges in the regulation of human enhancement

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### Introduction

# I - DEFINING ENHANCEMENT

### **II - APPLYING EXISTING RULES**

## Some technologies used / developed



defensesystems.com

theguardian.com

news.brown.edu



Allow the ENHANCEMENT of CAPACITIES

- PHYSICAL +
- ➤ COGNITIVE +
- ➢ INTERACTION HUMAN/MACHINE +

# What's the problem (1) (and why we are here today)

Conceived to

Used to

Augment

capacities



pinterest.com



futura-sciences.com





sudouest.fr

offlabelfilm.com





military.com

cure

# What's the problem (2)



Mythologica.fr

- 'Playing God'
- Hazardous experiments
- > Cheating
- $\succ$  Health risks
- Social cohesion
- Privacy...

Need for some forms of regulation ?



# NO

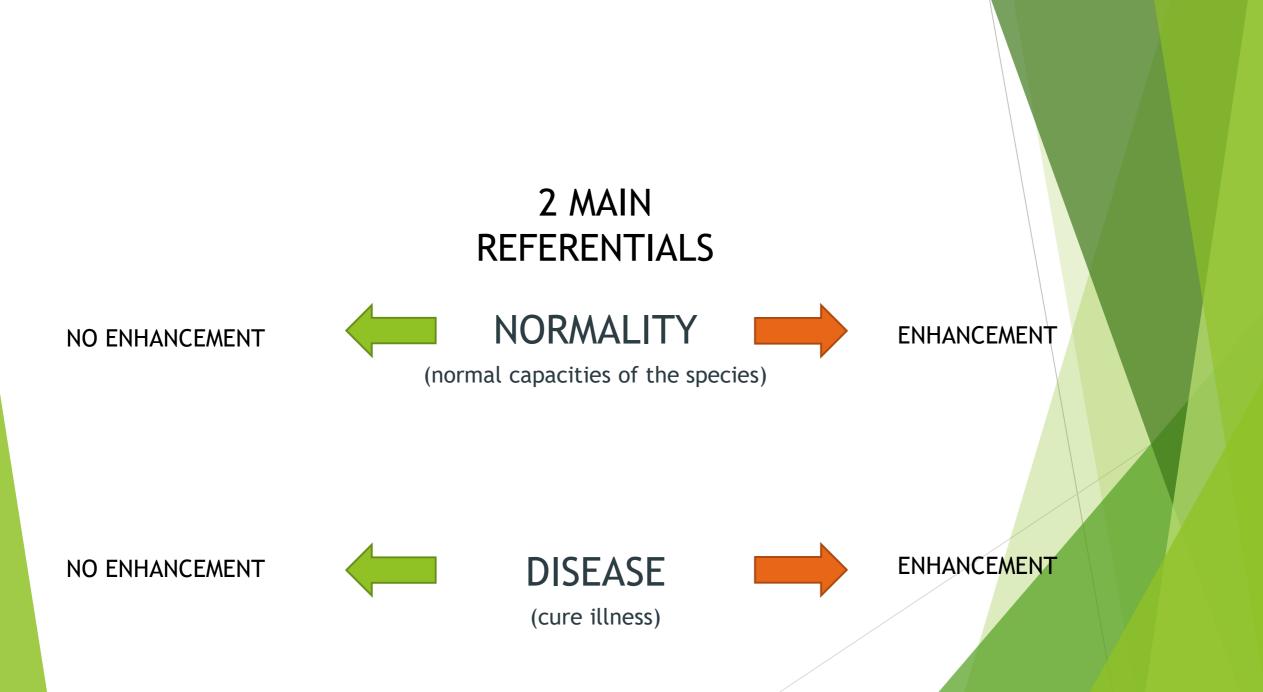
- Normal health is not an absence of need
- Enhancement supports 'well-being'
- Some forms of enhancement already exist + legal (antidepressants, antistress etc)

YES?

# I - DEFINING ENHANCEMENT

# Defining Enhancement (for the purpose of a regulation...)

- Enhancement: 'the process of endowing an individual with an ability that goes beyond the typical level or statistically normal range of functioning for humans generally (or the personal unenhanced capabilities of a particular individual), where the ability is either integrated into the body or is so closely worn or connected that it confers an advantage similar to an internal or organic enhancement that transforms the person' (Harrison Dinniss + Kleffner)
- 'The term enhancement is usually used in bioethics to characterize interventions designed to improve human form or functioning beyond what is necessary to sustain or restore good health' (Juengst)





20minutes.fr

# NORMALITY

(normal capacities of the species)

#### ASSESSMENT

- Gender / Age / Ethnicity
- Referential: 'average human'? Recordmen?
- What if stg happens to someone with superior capacities?

'Thus, if a drug could give an average person the IQ of Einstein, and Einstein does not fall in the species-typical range but exceeds it, then use of the drug in this case is an enhancement and not therapy. However, if Einstein were still alive and suffered a brain injury that reduced his IQ, then his taking of the same drug is not an enhancement, because it serves to restore his abilities back to his normal or baseline level' (Lin, Melhman and Abbey)



#### PROBLEMS

### DISEASE

(cure illness)

•What is a treatment? A disease? (// on the country)

Preventive medicine (vaccination) / esthetic surgery

 Use of medicine on diseases it was not conceived for (McKeown: use of aspirin to reduce bowel cancer)

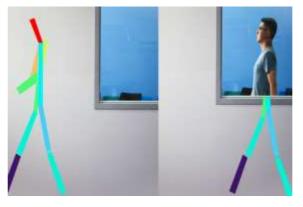
#### ► OTHER DISTINCTIONS

- 1) Natural / artificial
- 2) External / internal



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#### NO ENHANCEMENT





#### NO ENHANCEMENT



Sierra.com



ENHANCEMENT

slideplayer.com

- States = 0 clear answer
- USA + Germany : distinction therapy / enhancement = 0 satisfying
- Switzerland: take the goal into account (therapeutic or preventive)

#### EU:

- 1 treatment with restitutio in integrum = 0 enhancement
- 2 treatment exceeding restitutio in integrum + preventive medicine = therapeutic enhancement
- 3 esthetic surgery + use of medical methods 'for a purely nontherapeutic enhancement' + use of non medical methods for enhancement = enhancement

# II - APPLYING EXISTING RULES TO ENHANCEMENT

- No express regulation of enhancement
- Existence of many non-binding instruments in the field of biomedical research(WMA declaration of Helsinki, Nuremberg code)



# Is an enhanced person still human? (HR)

'Human rights are rights inherent to all human beings, whatever our nationality, place of residence, sex, national or ethnic origin, colour, religion, language, or any other status. We are all equally entitled to our human rights without discrimination. These rights are all interrelated, interdependent and indivisible' (OHCHR)

#### ► PB:

- Cyborgs (robot/human)?
- Lack of empathy?





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Should the rights of the enhanced person be reconsidered? (HR)

- Right to life?
- Resistance to torture / ill-treatments?

Harrison Dinniss + Kleffner: NO  $\rightarrow$  they remain fundamentally human

Lin, Mehlman, Abbey: MAYBE  $\rightarrow$  'we may need to reevaluate those rules where an enhancement might change the pre-suppositions about human limits that motivated those rules in the first place'

# What are the limits of consent? (biomed research

'No one shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment. In particular, no one shall be subjected without his free consent to medical or scientific experimentation' (ICCPR, art 7)

# Evaluation of risk/benefits?

Research on a person may only be undertaken if all the following conditions are met:

i) there is no alternative of comparable effectiveness to research on humans;

li) the risks which may be incurred by that person are not disproportionate to the potential benefits of the research;

lii) the research project has been approved by the competent body after independent examination of its scientific merit, including assessment of the importance of the aim of the research, and multidisciplinary review of its ethical acceptability;

Iv) the persons undergoing research have been informed of their rights and the safeguards prescribed by law for their protection;

V) the necessary consent as provided for under Article 5 has been given expressly, specifically and is documented. Such consent may be freely withdrawn at any time

(Oviedo Convention, art 16)

# May an enhancement/experiment be justified by medical treatment?

- 'no prisoner of war may be subjected to physical mutilation or to medical or scientific experiments of any kind which are not justified by the medical, dental or hospital treatment of the prisoner concerned and carried out in his interest' (art 3 GC III)
- '1) The physical or mental health and integrity of persons who are in the power of the adverse Party or who are interned, detained or otherwise deprived of liberty as a result of a situation referred to in Article 1 shall not be endangered by any unjustified act or omission. Accordingly, it is prohibited to subject the persons described in this Article to any medical procedure which is not indicated by the state of health of the person concerned and which is not consistent with generally accepted medical standards which would be applied under similar medical circumstances to persons who are nationals of the Party conducting the procedure and who are in no way deprived of liberty
- 2) It is, in particular, prohibited to carry out on such persons, even with their consent [...] c) medical or scientific experiments [...] except where these acts are justified in conformity with the conditions provided for in paragraph 1' (art 11 Protocol I)

# Is an enhanced soldier / an enhancement a weapon? (IHL)

A Biological Weapon?

'[e]ach State Party to this Convention undertakes never in any circumstances to develop, produce, stockpile or otherwise acquire or retain [...] microbial or other biological agents, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes' (art 1-1 BWC)

Ex: Lin, Mehlman and Abbey: steroids = biological agents / 0 peaceful purpose on soldiers

#### A weapon subject to review?

'In the study, **development**, acquisition or adoption of a **new weapon**, **means or method of warfare**, a High Contracting Party is under an obligation to determine whether its **employment** would, in some or all circumstances, **be prohibited by this Protocol** or by any other rule of international law applicable to the High Contracting Parties' (article 36 of Protocol I)

Harrison Dinniss + Kleffner: NO  $\rightarrow$  A distinction soldier / weapon = possible Livoja + Chircop: MAYBE one day  $\rightarrow$  if it changes the soldier into a thing

YES  $\rightarrow$  a robotic enhancement = weapon