

CRIMEA FEDERAL UNIVERSITY



EUGENICS: IS THIS SCIENCE?



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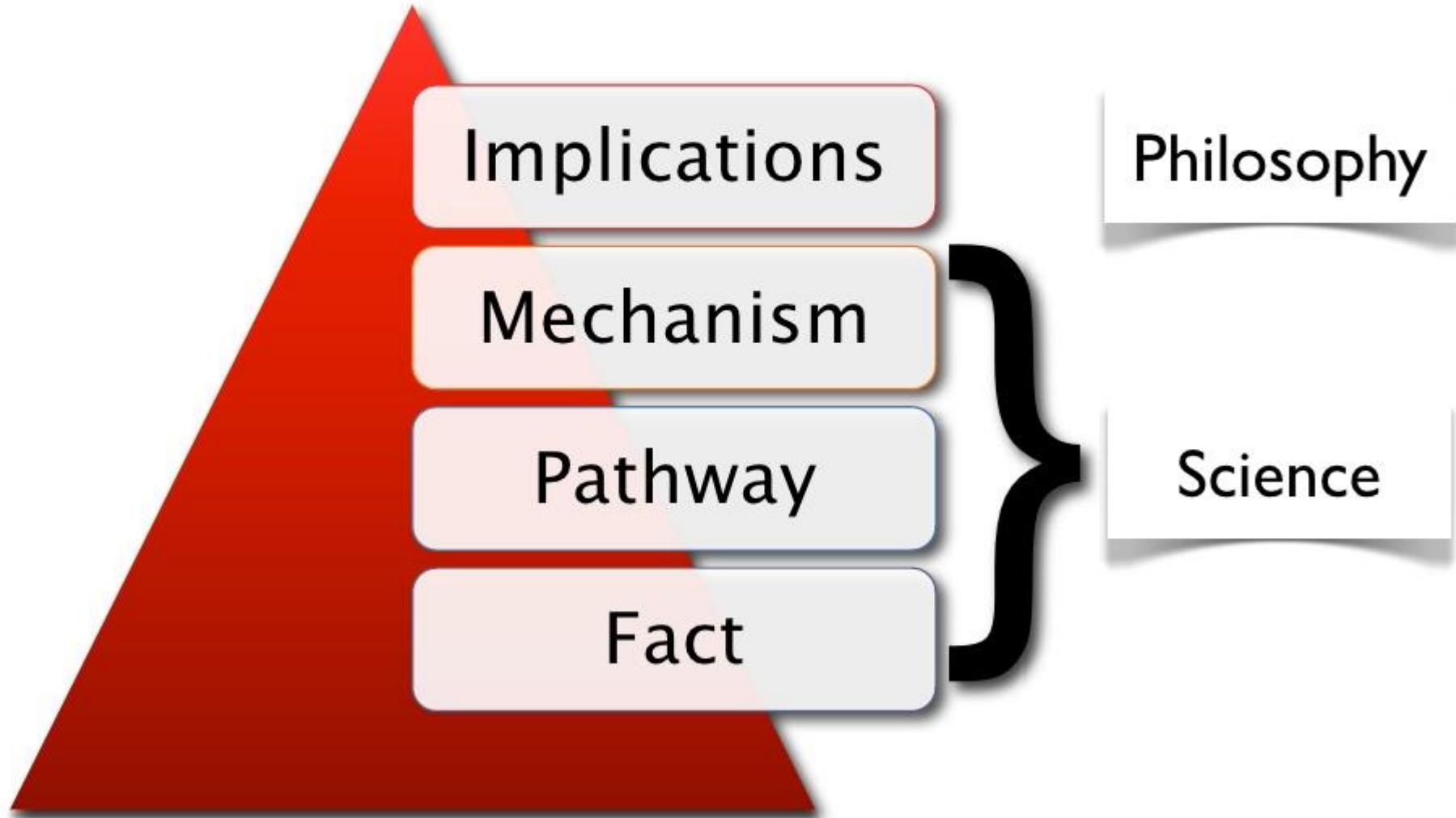
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(Gr.-191B)

WHAT IS EUGENICS?

Eugenics

- ◉ From Greek (eugenes) "well-born" from eu, "good, well" and genos, "race, stock, kin"
- ◉ It is a set of beliefs and practices that aims at improving the genetic quality of the human population.

Evolution





The “science” of breeding
“better” humans.

Take decisions about
reproduction out of the
hands of individuals

Positive and negative
eugenics

Sir Francis Galton



- ◉ Inspired by Darwin's *Origin of Species*
- ◉ Believed societies in favor of spending resources on the weak were in opposition to natural selection
- ◉ Elitist, believing strongly that some people were both mentally and physically superior to others
- ◉ Thought we should make "enhanced" humans by essentially speeding up evolution
- ◉ His approach to eugenics was based upon social statistics

Positive vs Negative Eugenics

- ⊗ Positive eugenics (Francis Galton):
Encourage people with “good genes” to have more children
- ⊗ Negative selection: Don't allow “bad genes” to be reproduced
 - ⊗ Forced sterilization or abortion
 - ⊗ Marriage restrictions
 - ⊗ “Euthanasia”

REFORM EUGENICS

IMPROVEMENT OF GENETIC QUALITIES OF POPULATIONS

POSITIVE EUGENICS
Encourage breeding of those
with desirable characteristics

NEGATIVE EUGENICS
Discourage or prevent

Reproduction by
"the unfit"

Birth of
"the unfit"

"HEREDITY CLINIC"
Institutionalization
Contraception

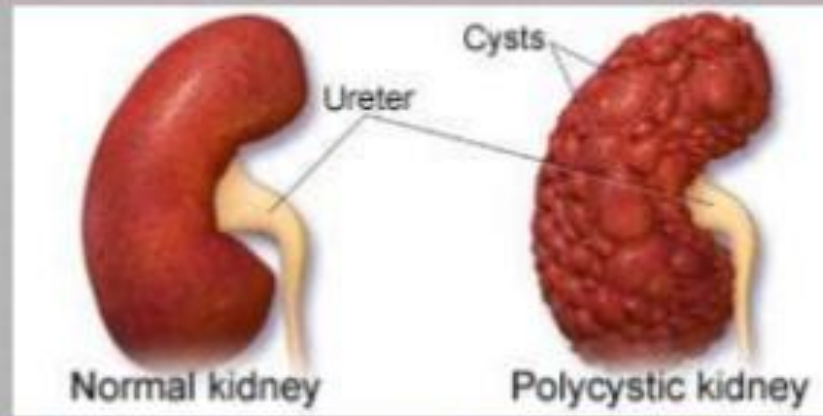
Abortion

VOLUNTARY

Genetics and Medicine

- Genetic testing
- Prenatal genetic testing
- Pre-implantation genetic diagnosis
- Genetic counseling for prospective parents

Genetic Testing



Normal kidney



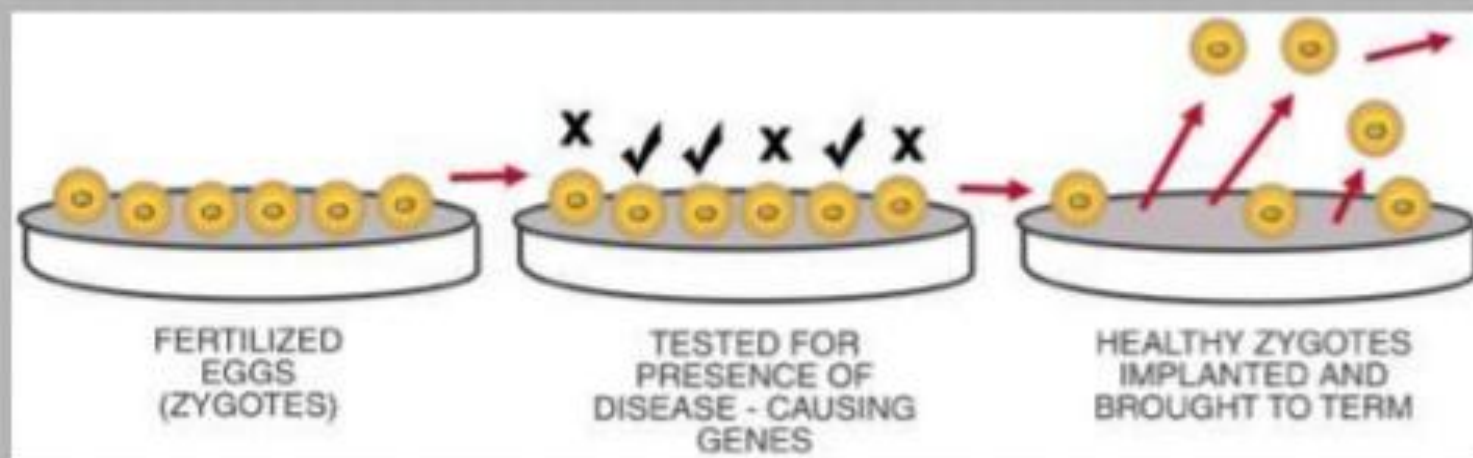
Polycystic kidney



Genetic Testing

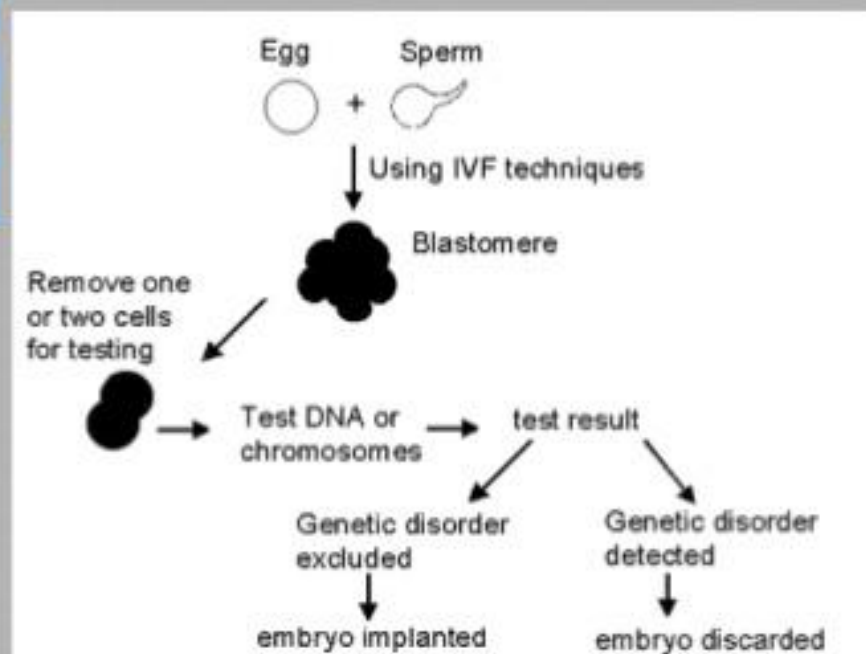
- ☼ Predictive testing: Polycystic kidney disease
 - ☼ Fluid-filled sacs grow on kidneys, possibly other organs
 - ☼ Autosomal dominant (50% chance if one parent is affected)
 - ☼ Onset: 30 to 40 years, possibly earlier/later
 - ☼ No cure available; life-prolonging treatment possible (dialysis or kidney transplantation)

Prenatal Genetic Testing



Pre-implantation genetic diagnosis

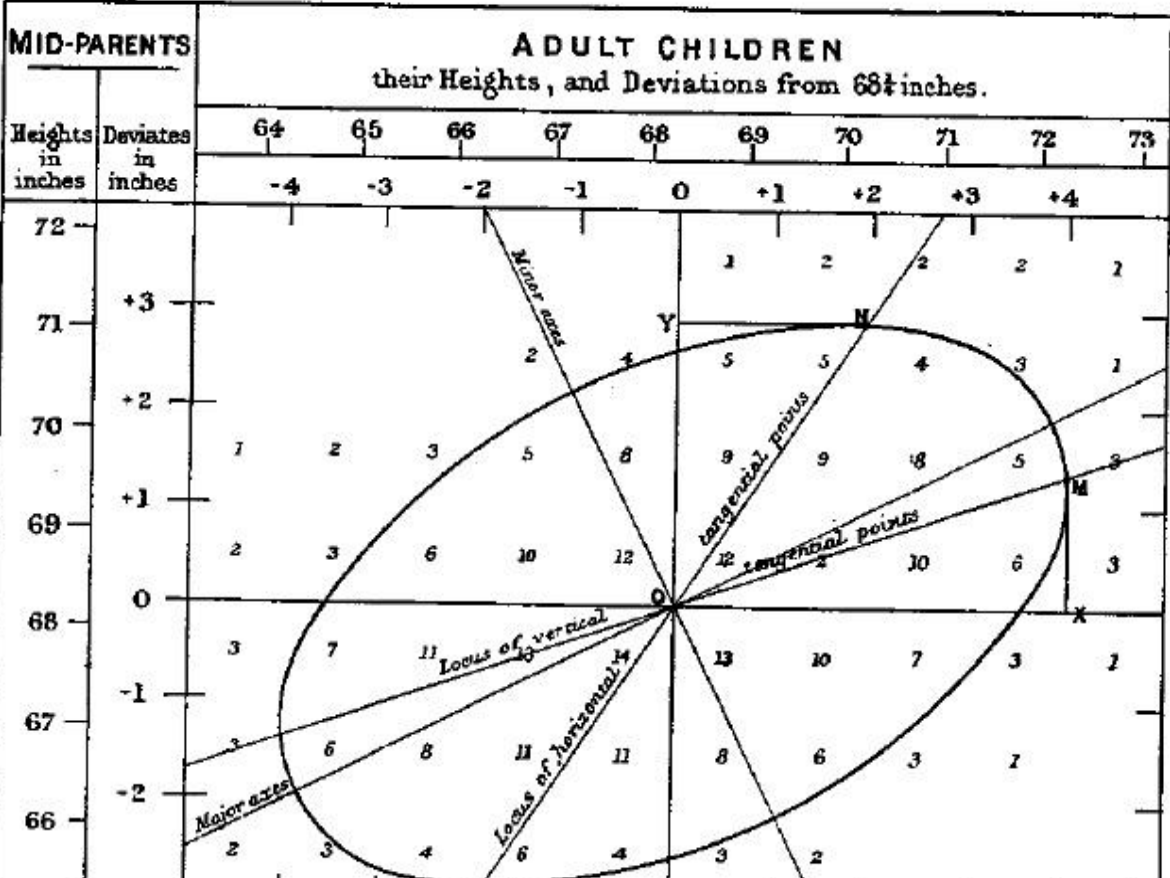
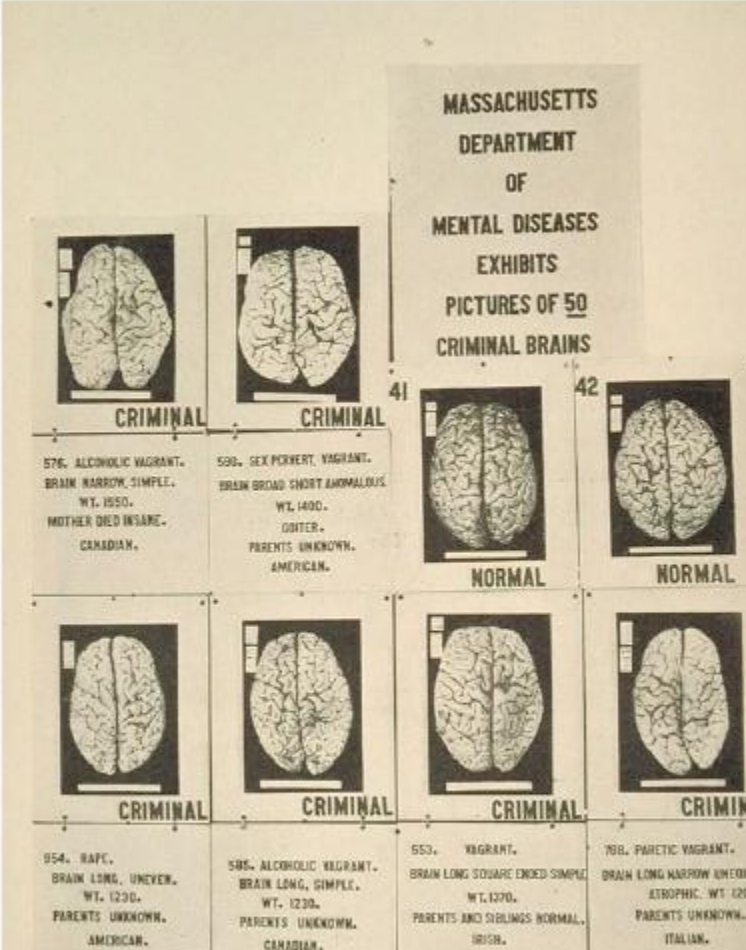
Prenatal Genetic Testing



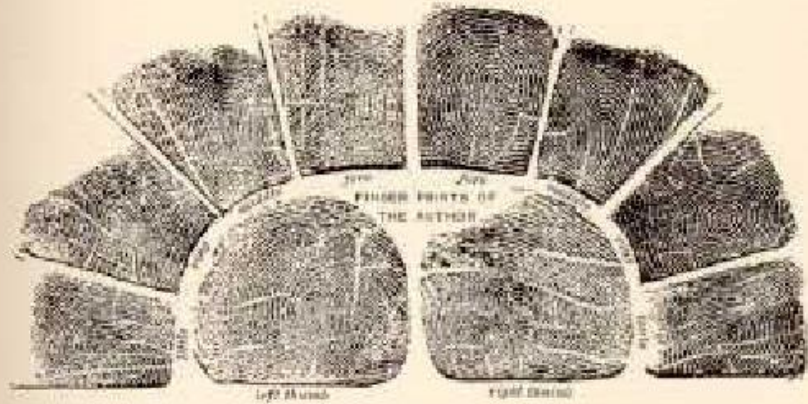
Nash Case

- ☼ Fanconi Anemia:
 - ☼ Recessive (25% offspring affected)
 - ☼ Dismorphologies, mildly reduced IQ, leukemia by 6-7 years old, require hematopoietic stem cell transplant (bone marrow) to survive, donor must be HLA (human lymphocyte antigen) matched

EXAMPLES USING SCIENTIFIC EXAMINATION TO PROVE EUGENIC CERTIFICATION (POSTNATAL GENETIC TESTING)

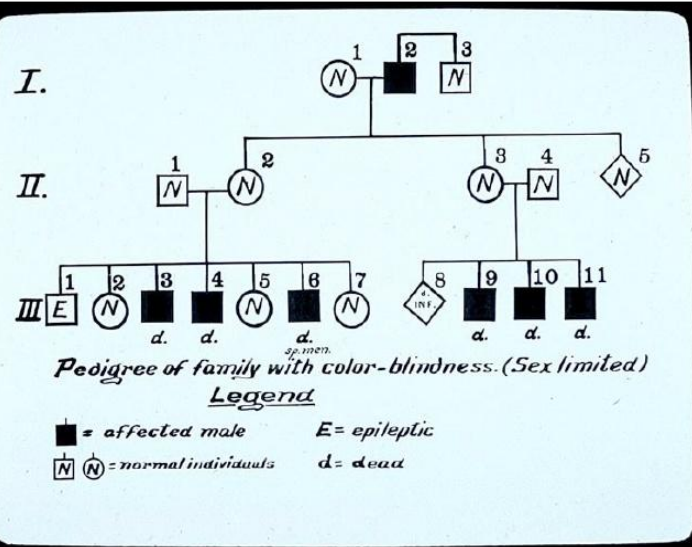


FINGER PRINTS



IV
FRANCIS GALTON, F.R.S., ETC.

Fig. 24.
V. H. H-D at 24 in 1877,
and again as a boy in Nov. 1890



NEGATIVE IMPACT

Darwin - *Descent*

“Man scans with scrupulous care the character and pedigree of his horses, cattle, and dogs before he matches them; but when he comes to his own marriage he rarely, or never, takes any such care. ... Both sexes **ought to refrain** from marriage if they are in any marked degree inferior in body or mind; but such hopes are Utopian and will never be even partially realised until **the laws of inheritance** are thoroughly known. Everyone does good service, who aids towards this end.”

Negative Eugenics = Selective Breeding

Eugenicists discouraged reproduction of the "*unfit*" (the 'bad' genes) including criminals, alcoholics, psychotics, mentally and physically disabled, paupers, and those in poor physical health.

Eugenicists argued that many social problems could be eliminated by *discouraging or preventing reproduction* of individuals deemed genetically unfit.

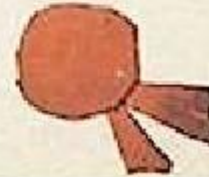
EUGENIC CERTIFICATE

EUGENIC CERTIFICATE

THIS GUARANTEES that
I have examined the sender
of this card and find a perfect
PHYSICAL and MENTAL BALANCE
and unusually strong
EUGENIC LOVE possibilities,
well fitted to promote the
happiness and future welfare
of the race.



Sam & Julia M.D.



310-10.

You Must have
a Eugenic Certificate



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