

Course introduction & Quantification

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EPOG - Heterodox econometrics
IDHES, ENS Paris-Saclay
acides.hypotheses.org

September 19th, 2019

Introduction

Thursday afternoon, 3 hours: 13:30 to 16:30, MSH Paris-Nord.

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Evaluation : replication of an article

Report January, the 20th. ± 15 sheets.



Defense January, the 30th. 15 min.

More details here:

http://www.cepn-paris13.fr/epog/?page_id=1090

R software

For next econometrics class, September the 28th:

- Download and install 
- Download and install 
- Follow the tutorial `swirl`: type
`install.packages("swirl")`
`library(swirl)`
- bring your laptop

- 1 EPOG2: Heterodox econometrics
- 2 History of statistics
 - Statistics as maths
 - Stats as tools
 - Official statistics
- 3 Quantify to objectify?

Origin of Statistics

First statistical tools are developed in context, to answer a specific scientific question

- Census since antiquity.

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- There are more baby girls than boys (107/100)!
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18th Estimation by means of “multiplier coefficient”.

Statistics as maths

Development of probabilities in France and England (Bayes).

18th Bernoulli : law of large numbers

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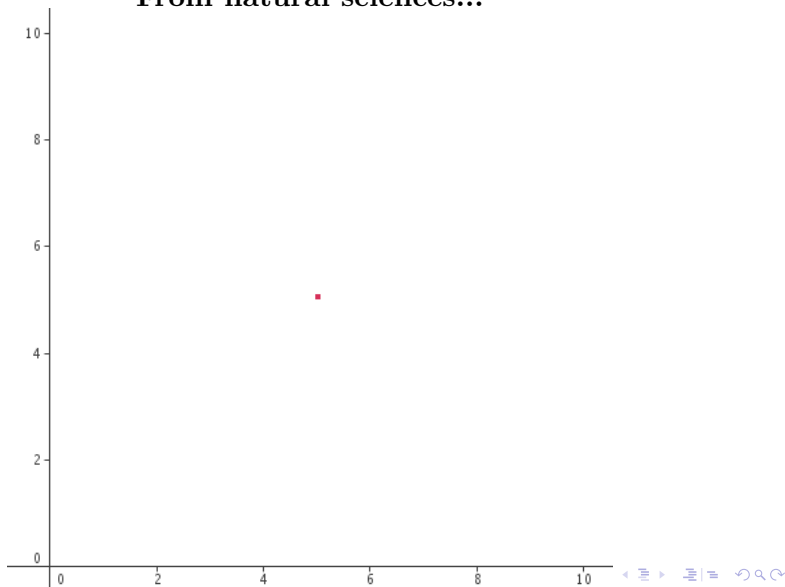
19th Gaussian law

- Gauss : least squares
- Laplace : Central limit theorem

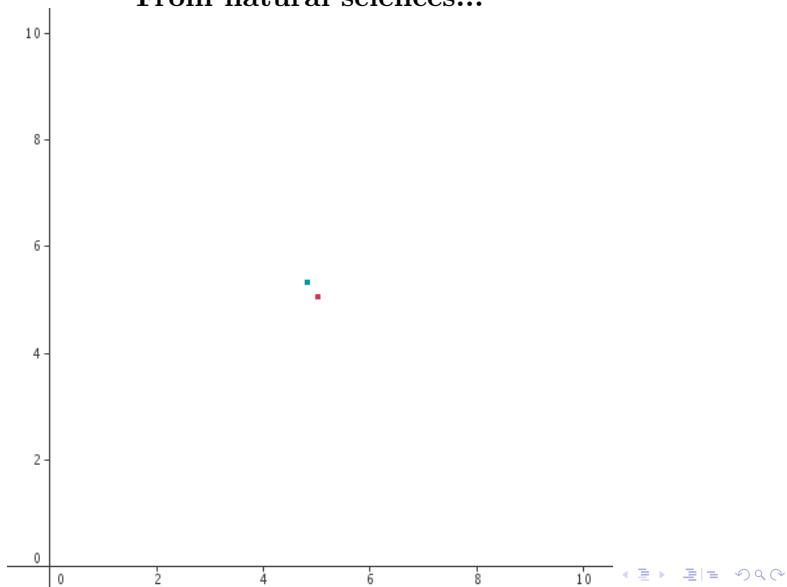
Probabilities (and even more so Stats) have been mathematically grounded in the 1930's.

From natural sciences...

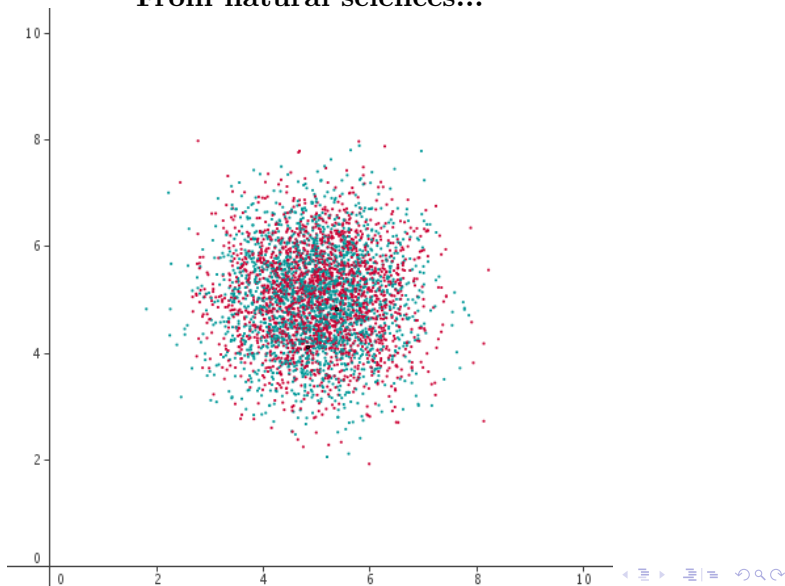
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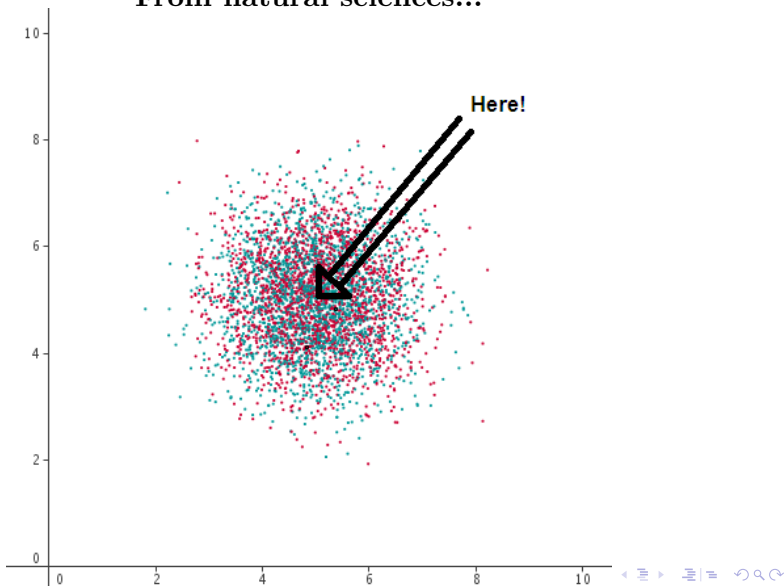
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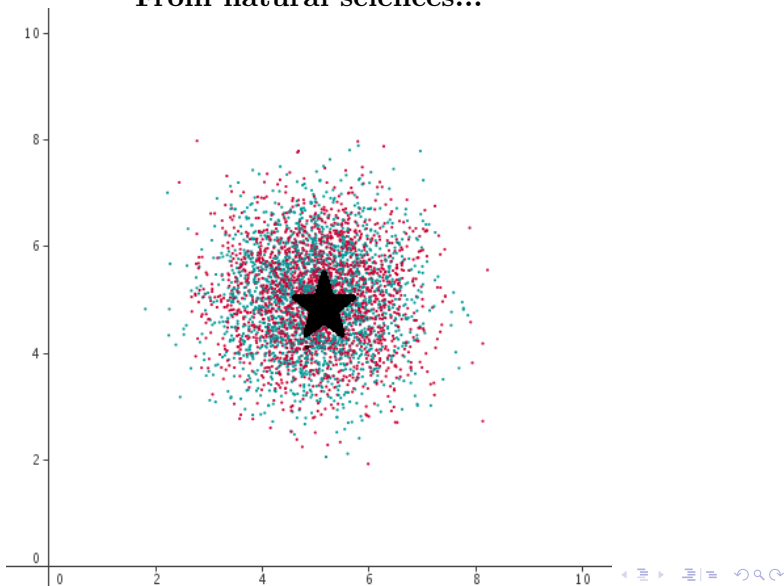
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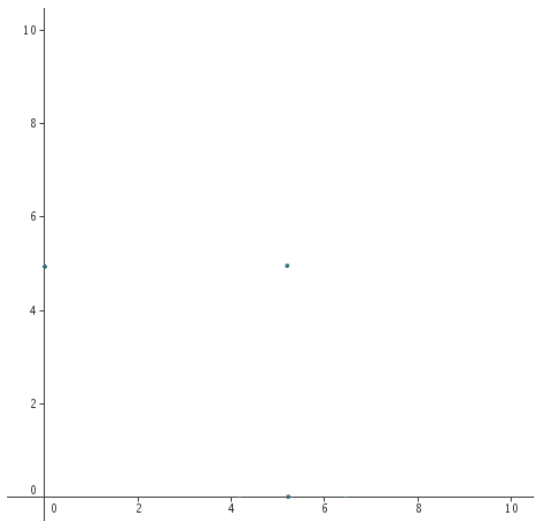


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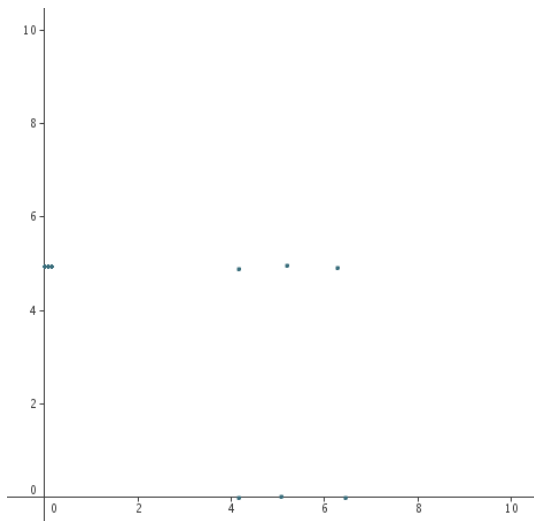


Is measurement errors are “normal”, they distribute according to the Gaussian law (bell curve):

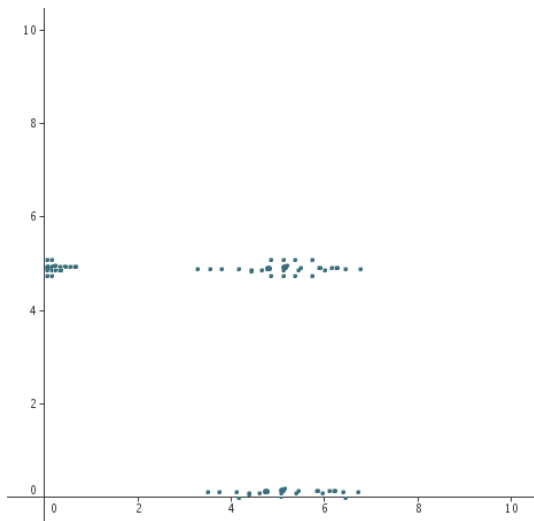
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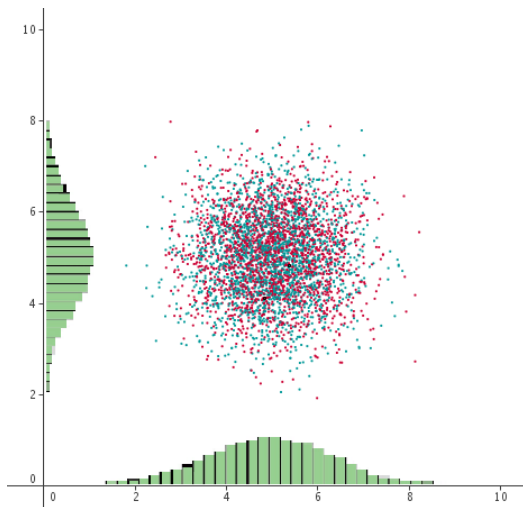
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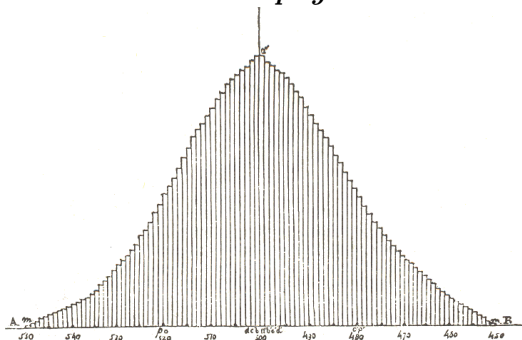
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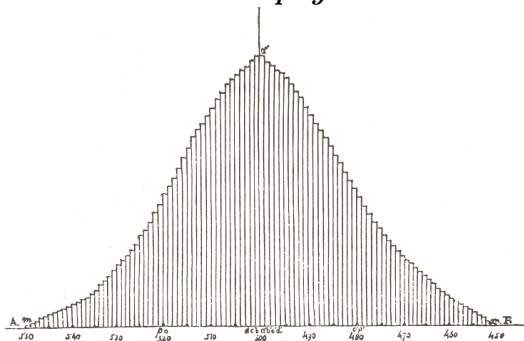


To social physics ?



Quetelet, 1835, soldiers' chest circumferences

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Quetelet, 1835, soldiers' chest circumferences

According to Quetelet, something new but real in it-self, the average man, exists upstream before the individuals different from each other. He is the constant cause of the distribution of the observed heights.”

Desrosières A. (2008, trad. H²K).

Galton and eugenics (1822-1911)

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Fisher : likelihood, experimental design

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And supporter of eugenics:

quantifiable \rightarrow inherited \rightarrow birth control

Anthropometrics

Race	Volume
Caucasian (white)	1426
Mongol (asian)	1360
American (native)	1344
Malaisian (oceanian)	1327
Ethiopian (black)	1278

Cranial volumes according to Morton *Crania Americana*, 1839,
measured using peppercorn.

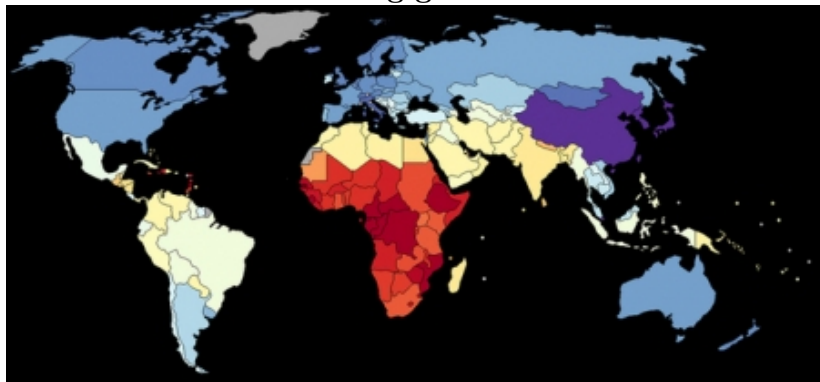
race	initial volume	corrected volume
Caucasian (white)	1426	1401
Mongol (Asian)	1360	1426
American (native)	1344	1409
Malaysian (Oceania)	1327	1393
Ethiopian (black)	1278	1360

Measures using par lead shots and corrected for size and sex
SJ Gould, 1981, *The Mismeasure of Man*

Long gone?

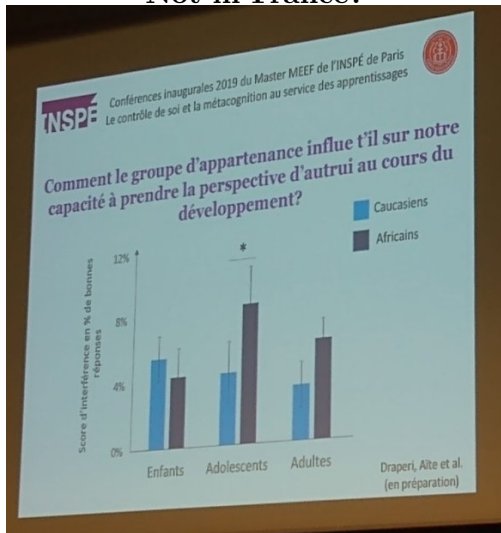


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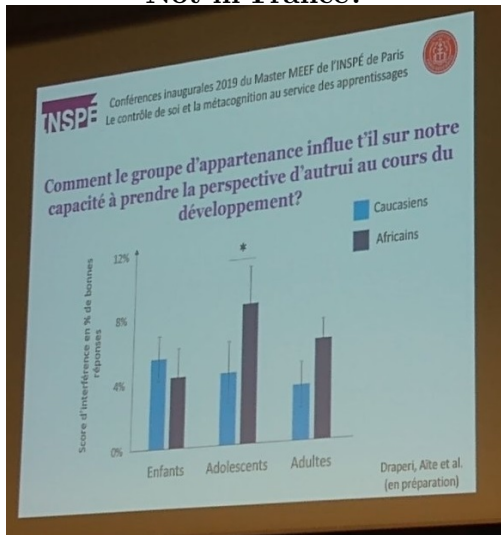
“IQ” by country, Richard Lynn, *IQ and Global Inequality*, 2006.

Not in France?



Opening lecture of teachers training at Paris V Descartes.

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Industrial statistics (20th)

Return to natural sciences

1900-1940

Fisher takes stats to agriculture.
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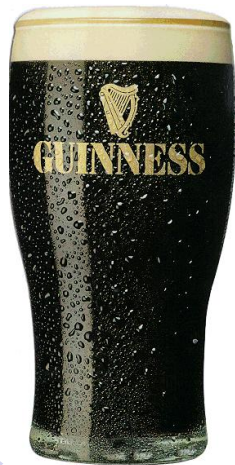
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1940-1970

Shewhart: statistical control in arms
industry, and later Bell

Deming, Weibull: production control.



Official statistics: a typology (Desrosières)

State type	Views on economy	Action mode	Statistics type
Engineer 17th	Hierarchised & rational	Planification & optimization	Inter-industrial exchanges
Liberal 18th	Free market	Anti-trust laws	Economic information
Providence late 19th	Workers protection	Social laws	employment stats, inequalities
Keynesian 1940's	Anti-crisis regulation	Currency and budget	National accounting and macro
Neoliberal 1990	Free market Finance	Incitations anti-trust	Benchmarking and evaluation

Statistics : Quantify to objectify?



How real are statistics?

Statistics : Quantify to objectify?



How real are statistics?

The Wire

Realism

Variables about individuals do exist independently of any judgment or measuring procedure.

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Evidences of original coding act remain visible and important, in view of denunciation as well as collective action.

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Example:

Compensated unemployed person

Index and double consciousness

Index

Indexes explicitly assume a conventional nature, but pretend to reflect some sort of reality.

They need to “hold”.

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Poverty indexes:

$\leq 2\$$, $\leq 1\$$, $\leq 11\$$? UNPD Human poverty index ?

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Double consciousness

Attitude tends to switch with environment.

When speaking conventions with a standard economist (worst, journalist), she will hear reality.

Self-fulfilling prophecies & Performativity

Example (Self-fulfilling prophecy)

“rankings reproduce and intensify the stratification they are designed to measure”^a.

^aEspeland & Sauder, 2007

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Example (Performativity: doing things with words)

“I hereby declare you husband and wife”.
International rankings, like Shanghai ARWU, redefine universities by separating local and “world universities”.

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Bibliography

-  A. Desrosières. *The politics of large numbers: A history of statistical reasoning*.
Harvard University Press, 2002.
-  Gould, Stephen Jay. *The mismeasure of man*.
WW Norton & Company, 1996.
-  Emmanuel Didier, “Do statistics ‘perform’ the economy?”,
in MacKenzie et al., *Do economists make markets ? On the performativity of economics*,
chap. 10, p. 276-310, Princeton University press, 2007.
-  *The Wire* <http://skhole.fr/the-wire>.