

## Agnotology in the Situation CoviD:

## A Historical Event, Orphaned of the Scientific Regard

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## A Historical Event, Orphaned of the Scientific Regard

Ignacio Chapela. Dept of Environmental Science, Policy and Management, University of California, Berkeley.

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### **The Scientific Regard**

### SCIENCE: Sustained, Collective, Critical Enquiry –Iain Boal

# **The Scientific Regard**

**SCIENCE:** Sustained, Collective, Critical Enquiry

—Iain Boal

### ENSSER

### **European Network of Scientists for Social and Environmental Responsibility**

Science that is

Context-sensitive,

Time- and Space- Relevant,

Responsive,

Responsible,

Discipline-aware, interdisciplinary.

# Part I

# The Scientist's View

# Part I

# The Scientists' Views

# Agnotology

(Boal and Proctor, 1992)

A relatively new discipline: the systematic enquiry into what is **not** studied. Even more interestingly: the study of how (and why) ignorance is induced.

A very fruitful application of Agnotological analysis is the study of **the roads not taken**, **the questions not asked**, **the knowledge suppressed and the promises not kept**.

# Agnotology

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### In ENSSER

# An exercise not in giving answers but in outlining

# A Landscape of Enquiry.

A Taxonomy of Open Questions.

# Part II

# The Ecological View

### SARS-Cov-2

### Covi **D**-19

```
S A R S – Cov - 2
```

(The Virus)

**Relevant Measurements** 

Infection Rates ≠ Incidence #

```
Reproduction Number "R, R_t, R_0..."
```

Test with RT-PCR, LAMP, i.e. genomic amplification, or antibody tests against viral proteins.

```
Covi D-19
```

(The Disease)

**Relevant Measurements** 

Medical statements.

Mortality/morbidity rates.

Immunity development.

Test with antibody tests against immune-response proteins.



Published: 04 January 2011

# The good viruses: viral mutualistic symbioses

Marilyn J. Roossinck

*Nature Reviews Microbiology* **9**, 99–108(2011) Cite this article

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Herd-Immunity vs Evolutionary Attenuation vs Universal Vaccination ??





#### THE PREPRINT SERVER FOR HEALTH SCIENCES

Posted July 14, 2020.

# The infection fatality rate of COVID-19 inferred from seroprevalence data

John Ioannidis

doi: https://doi.org/10.1101/2020.05.13.20101253

This article is a preprint and has not been peer-reviewed [what does this mean?]. It reports new medical research that has yet to be evaluated and so should *not* be used to guide clinical practice.

# PLOS MEDICINE



ESSAY

# Why Most Published Research Findings Are False

John P. A. Ioannidis

Published: August 30, 2005 • https://doi.org/10.1371/journal.pmed.0020124

### "...a research finding is less likely to be true

when the studies conducted in a field are smaller;

when effect sizes are smaller;

when there is a greater number and lesser preselection of tested relationships;

where there is greater flexibility in designs, definitions, outcomes, and analytical modes;

when there is greater financial and other interest and prejudice; and

when more teams are involved in a scientific field in chase of statistical significance.

Simulations show that for most study designs and settings, it is more likely for a research claim to be false than true.

Moreover, for many current scientific fields, claimed research findings may often be simply **accurate measures of the prevailing bias.**"

John Ioannidis, 2005

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# Part III

# The Social Scientists' View

Disciplines Driving Policy/Story-Making

Virology

Molecular Biology

Mathematical modelling

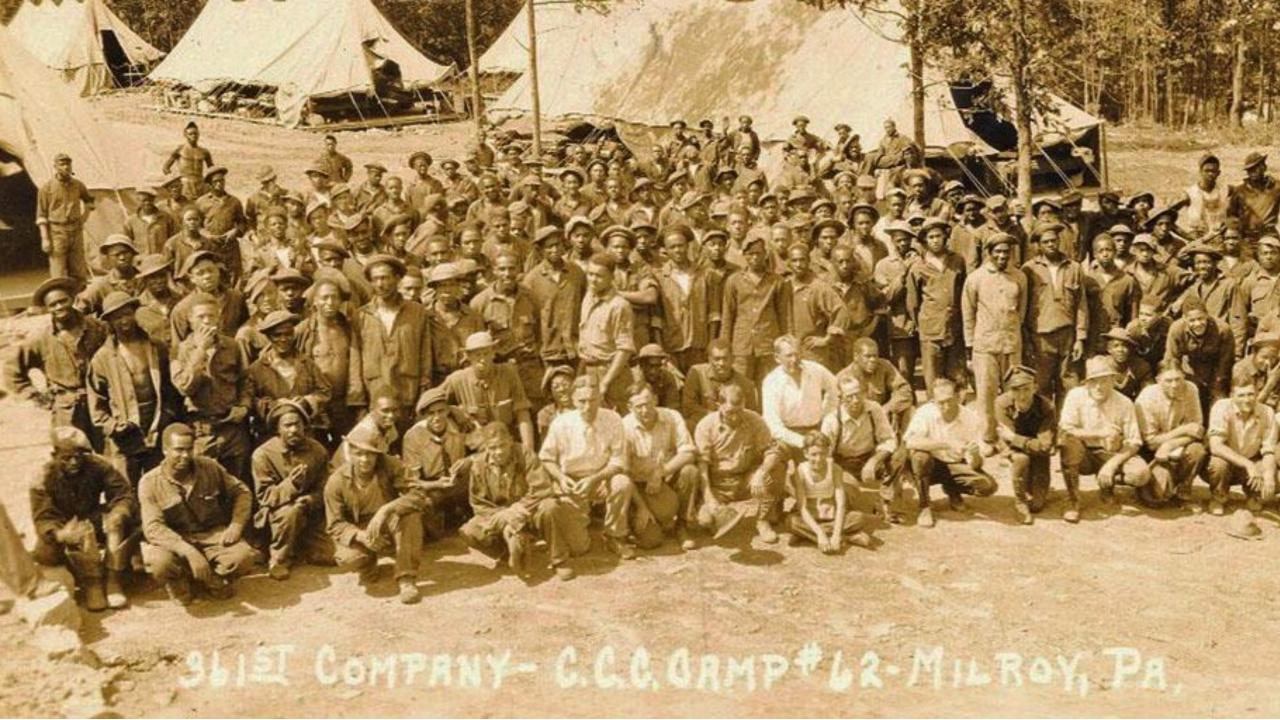
Mechanistic/Industrialized Medicine Disciplines Left Behind (to our peril)

Agnotology Sociology Anthropology **Ecological Economics Political Sciences** Evolution Ecology Education History Psychology ...and many more...

## The New Normal?







When the problem—whatever it may be—is viewed to demand a single Unified Command (cf. California's and Australia's megafires of 2020)...

More teams are involved in a scientific field in chase of statistical significance (loannidis)... and a single view to rule the world → Rule by Consensus, at best.

Dissent, even questioning and enquiry, must be suppressed at any cost → Rule by Technical Expertise (not by science).





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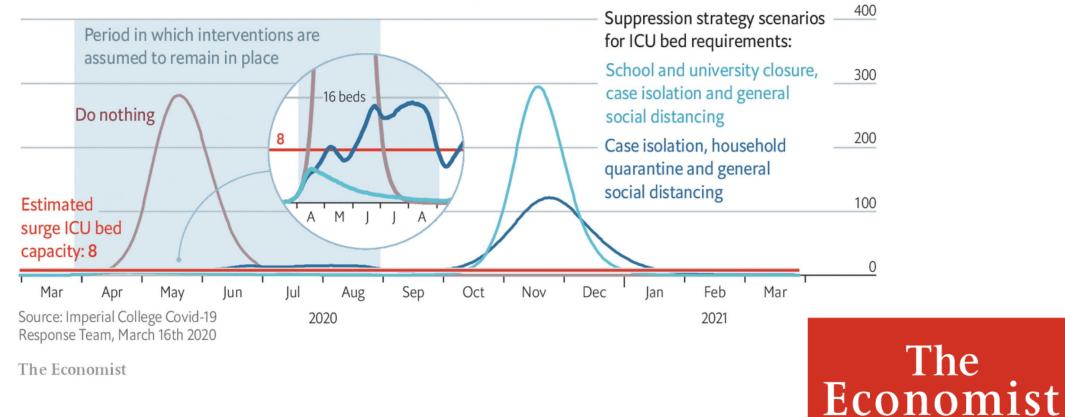
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# The chart that changed the world • Schools go online • The global recession • India next?

#### Anticipating an encore

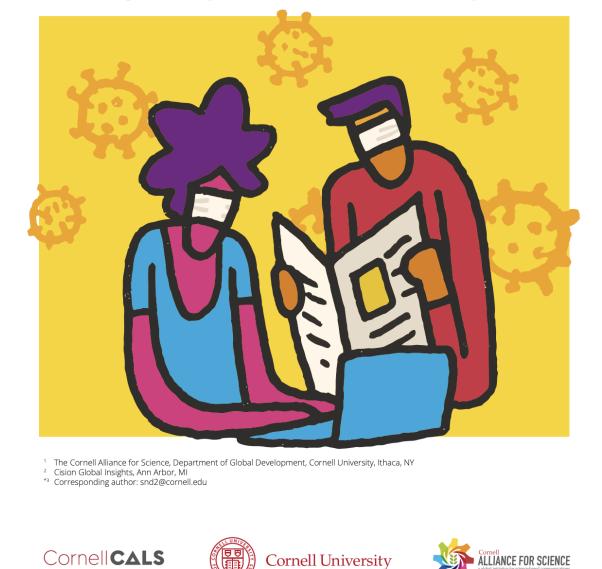
Britain, covid-19, critical-care beds occupied per 100,000 population



### **CORONAVIRUS MISINFORMATION:**

# Quantifying sources and themes in the COVID-19 'infodemic'

Sarah Evanega<sup>1,3</sup>, Mark Lynas<sup>1</sup>, Jordan Adams<sup>2</sup>, Karinne Smolenyak<sup>2</sup>



College of Agriculture and Life Sciences

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# Who makes/is the Consensus? Who vets the expert?







**Cornell University** 





# Let's Claim Back Science!

... and so we are left under the virologist's rule: Isolated, disorganized, disoriented, Hiding behind masks and closed doors And behind an overwhelming fear of Death, Waiting for a vaccine that may or may not come That may or may not be available to each of us, Descended from Olympian heights, Yet, a vaccine that we all must take Before we are allowed back Into our lives.

Orphaned of the Regard of Science

A New Normal, it is called...