

# NEW RESEARCH POLICY and THE ECONOMICS of SINGULARITIES



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# INTRODUCTION

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- **THE PROBLEM** : Is the New French Research Policy (2006) scientifically and rationally justified by mainstream economics?
- **OUTLINE**
  - 1) The New French Research Policy and its theoretical justifications
  - 2) Its interpretations by the E.S



# PART ONE

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- THE NEW FRENCH RESEARCH POLICY



# THE NEW PUBLIC MANAGEMENT

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- Reinventing the State
- Goals: Efficiency and Cutting public expenditure
- In France, the 'New Public Policies' are the same in every public activity : research, education, administration
- Central mean of action : the greater competition the greater efficiency
- How to measure individual results ?



# MEASUREMENT TOOLS : GENERAL CHARACTERISTICS

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- Ranking scientific quality of papers and therefore of scientists
  - The value of the scientific paper = the value of the journal publishing it
  - Ranking journals → rating and calculation
  - Indicators: excellence vs productivity
- Association of ranking of scientific value with an incentive system. And public funding distribution
- Measurement tools replace “peer review” combined with collegiate power



# JUSTIFICATIONS for the NEW RESEARCH POLICY (1)

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- With or without digitized metrics (French social sciences), from hard sciences as well as from soft sciences → numerous international scientists' criticisms of the measurement tools
- Without any impact. Why ?
- Because the fundamental justification of science is given by mainstream economics
  - Efficiency increases with competition
  - Profit seeking strengthens competition



# JUSTIFICATIONS for the NEW RESEARCH POLICY (2)

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- NPM → '...a mixture of ideas drawn from corporate management and from institutional economics or public choice' ( Hood, 2010)
- But the research system isn't a market: no supply and demand, no price, no self regulating mechanisms → the market theory isn't relevant



# JUSTIFICATIONS for the NEW RESEARCH POLICY (3)

- **The Tournament Theory**
- For an interesting contest: uncertainty, the best competitors and above all strong competitors' **level of effort**
- The greater the potential gain, the greater the effort and the better the results → Conditional relations
- The greatest the gain, the greatest the level of effort (competition) and the greatest the efficiency
- Scientific demonstration of the validity of the new research policy.





# PART TWO

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- The Economics of Singularities



# The ECONOMICS of SINGULARITIES (1)

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- Refusal of the gain/competition/efficiency proposition as a general proposal
- Refusal of the postulate of goods and services general equivalence
- Refusal of the usual goods and services definitions based either on differentiation or on the distinction between 'experience' and 'research' products



# THE ECONOMICS of SINGULARITIES (2)

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- Characteristics of singularities
- Homo singularis,
- Judgment devices
- Qualification



# CHARACTERISTICS of SINGULARITIES

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- Combined Characteristics
  - Multi-dimensionality
  - Incommensurability → Commensurability according to each different point of view
  - Radical Quality Uncertainty → even probabilistic calculation of the activity/actor is impossible (Knight, Akerlof)
- Research activity as a creative activity and therefore as a singular activity.



# HOMO SINGULARIS

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- Homo economicus = one orientation of action (profit maximization)
- Homo singularis = Two orientations of action (M. Weber):
  - Symbolic action = value criteria
  - Material action = profit maximization
- Production/Reproduction of singularities implies the primacy of symbolic action over material action.



# JUDGMENT DEVICES

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- With the singular products how shall one choose the “good” or the “right” product ? “Good” or “right” according to the different peculiar points of view → Judgment but how dissipate opacity?
- Judgment devices : brands, critics, guides, networks, Top-te
- **Cognitive supports**, → They are necessary to bring **oriented** knowledge to the actors
- Research judgment devices : journals, critics, networks



# JUDGMENT DEVICES' QUALIFICATION

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- What are the effects of judgment devices' on the singularities and on the actors ?
- Qualification --> Interpretative or material operations that transform the products : “good” or “bad” article
- Different effects according to different types of qualification
- **Substantial devices (Product Content)** (Critiques, Peer Review) **vs Formal devices (Product Ranking )**
- **New Research policy:** Replacement of substantial devices by formal devices → fragility of singularities



# AS A CONSEQUENCE

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- Anything that threatens the primacy of symbolic action over material action, which implies the primacy of symbolic competition over material competition, threatens the production/reproduction of (scientific) singularities
- A General Relation





# SPECIFIC NEGATIVE INFLUENCE on SCIENTIFIC CREATION BY

Peculiar Propositions :

- Systems of material incentive, all the stronger when the incentives are short term.
- Strong material competition which reinforces the salience of material action
- Control of action: formal judgment devices
- **Opposite results** to those derived from the neoclassical theory



# SOCIAL PSYCHOLOGY SCIENTIFIC RESULTS

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- Social psychology : T. Amabile and creativity
- Numerous empirical studies and results based on two main distinctions :
- Intrinsic vs Extrinsic Motivation → “a person is said to be intrinsically motivated to engage in a activity if that person views such an engagement as an end in itself”
- Algorithmic tasks (routine) vs heuristic tasks (uncertainty concerning means and/or ends),<sub>8</sub>



# HEURISTIC TASKS- PROPOSITIONS

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- Intrinsic motivation is conducive to creativity and extrinsic motivation is detrimental to creativity as it impairs internal motivation
- Extrinsic Motivations
  - material incentives
  - too much extrinsic competition
  - control

# COMPARISONS of EFFECTS ON SCIENTIFIC PERFORMANCE

	ECONOMICS SINGULARITES	SOCIAL PSYCHOLOGY
REWARDS and PERFORMANCE	-	-
STRONG COMPETITION and PERFORMANCE	-	-
CONTROL and PERFORMANCE	-	-



# CONCLUSION

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- Nothing should be taken as granted

# COMPARISONS of EFFECTS on SCIENTIFIC PERFORMANCE

	TOURNAMENT THEORY	ECONOMICS of SINGULARITES
REWARDS and PERFORMANCE	+	-
STRONG COMPETITION and PERFORMANCE	+	-
CONTROL and PERFORMANCE	+	-

# TWO THEORIES AND TWO OPPOSITE INTERPRETATIONS (1)

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- Because the activity of research revolves around creation (and therefore radical uncertainty) it is not amenable to mainstream economics
- According to the economics of singularities, **the French New Research Policy is DETRIMENTAL to scientific creation** → a **general proposition** that may be extended to other countries →

# TWO THEORIES AND TWO OPPOSITE INTERPRETATIONS (2)

- Australia 1988-1988 → Rise of the share of publications and decline of the share of citations  
But in France, no tool for “measuring” the changes in the levels of quality : a move toward disaster.
- What is true for scientific activity is true for all the other singularities : reasonings, results and action of the ES are not only different to those derived from the neoclassical theory, they may be absolutely opposite.
- Which is also true for the market