RISK, SURVEILLIANCE AND SOCIETY

Sara Shaw

Barts and The London School of Medicine and Dentistry

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When you have completed the reading and participated in the taught components for this week, we hope you will be able to….

- Outline different approaches to thinking about and managing risk and the implications for health, illness and society.
- Critically reflect upon the development of medical screening and the way in which it shapes the perceptions and experiences of health and illness.

LECTURE

SEMINAR

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The point of this lecture….

…is NOT to engage in discussion about the relative claims to truth of competing arguments about what phenomena should be considered 'real risks' or not

…is to look at the ways in which CONCEPT of risk operates in society and the implications

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mother
father
What runs in your family?
RISK HISTORY
Four main areas:
1. The rise of 'Risk Society'
2. Risk and culture
3. Risk and surveillance
4. Summary
5. Introduction to virtual seminar - medical screening
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mother
father
What runs in your family?
RISK HISTORY
1. The rise of 'Risk Society'
• Development of modern society
• Increasing significance of risk in society
• Relevance to health, illness and medicine
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Pre-modern ideas of risk
• Early use linked to maritime ventures
• Maritime insurance used to highlight an objective danger or an act of God.
• Risk was a natural event (e.g. storm)
• Human fault or responsibility excluded
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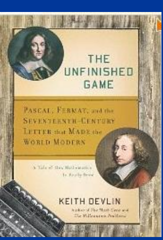
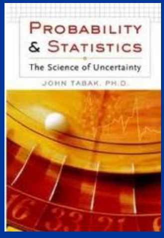
The mastery of risk





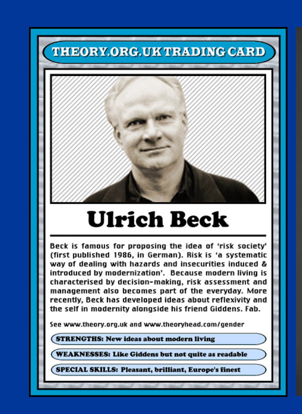
The future is more than the whim of the gods… men and women are not passive before nature

Bernstein, 1996 p1

Modernity

(modern society, industrial civilisation)

- The key to human progress and social order is objective knowledge through scientific exploration and rational thinking
- Assumes that social and natural worlds follow laws that may be measured, calculated and therefore predicted
- Preoccupied with the future
- Science of probability and statistics key



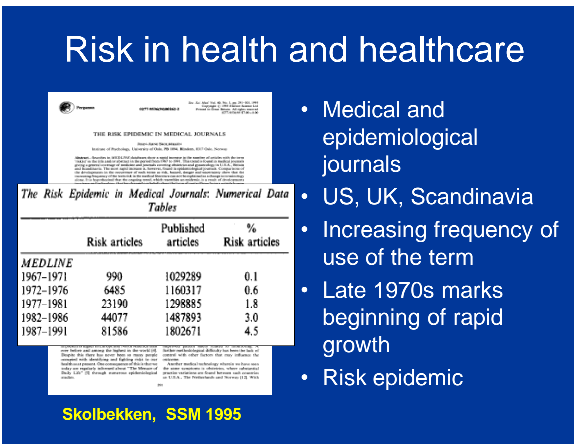
Risk Society

- Greater control over the risks posed by nature
- BUT new 'man-made' risks (e.g. nuclear power, pollution, global warming)
- Risk is the flipside of increased opportunities we have created through science and technology
- Opportunities for material, physical and social security BUT science and technology have a dark side……

Techno-scientific approach to risk

$$R = PM$$

Risk in health and healthcare



The Risk Epidemic in Medical Journals: Numerical Data Tables

	Risk articles	Published articles	% Risk articles
MEDLINE			
1967–1971	990	1029289	0.1
1972–1976	6485	1160317	0.6
1977–1981	23190	1298885	1.8
1982–1986	44077	1487893	3.0
1987–1991	81586	1802671	4.5

Skolbekken, SSM 1995

- Medical and epidemiological journals
- US, UK, Scandinavia
- Increasing frequency of use of the term
- Late 1970s marks beginning of rapid growth
- Risk epidemic

2. Risk and culture

- Cultural theory of risk
- Risk and blame
- Lay perceptions and experience of risk

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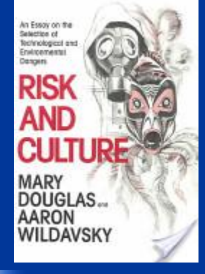
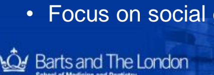
Cultural Theory of Risk

- Critiques realist, techno-scientific approach
- Examines how and why individuals form judgements about danger and threats
- Seeks to explain why some dangers are identified as 'risks' and others not
- Focus on social groups





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Culture shapes lay understanding of risk

Individuals do not try to make independent choices…when faced with estimating probability and credibility, they come primed with culturally learned assumptions and weightings

Douglas, 1992: 58

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Social response to risk

SOCIOLOGY OF HEALTH & ILLNESS

Risk, ritual and health responsibilisation: Japan's 'safety blanket' of surgical face mask-wearing

Adam Burgess[1] and Mitsutoshi Horii[2]

- Historical analysis
- Swine flu, Fukushima
- Use not driven by evidence
- Social response to risk of disease
- State, media and commercial pressures
- Individual responsibility

Risk and blame

SOCIOLOGY OF HEALTH & ILLNESS

Who's to blame? Accounts of genetic responsibility and blame among Ashkenazi Jewish women at risk of BRCA breast cancer

Jessica Mozersky

- Ashkenazi Jewish community
- 1 in 40 risk of carrying BRAC1 & 2 genes
- 14 in-depth interviews
- Past and present
- Mitigate blame through
  - Comparison with other groups
  - Focus on ultra-orthodox practices

Lay understanding of risk

- The way people talk about and understand risk is different
- People must make their own choices, but from an ever-extending array of possible risks, which must be understood and balanced.
- The healthcare profession is in a significant position in giving meaning to the public's concept of risk and risk factors

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Table 2—*Descriptions of risk in relation to the risk of an individual dying (D) in any one year or developing an adverse response (A)*

Term used	Risk range	Example	Risk estimate
High	≥1:100	(A) Transmission to susceptible household contacts of measles and chickenpox[6]	1:1-1:2
		(A) Transmission of HIV from mother to child (Europe)[7]	1:6
		(A) Gastrointestinal effects of antibiotics[8]	1:10-1:20
Moderate	1:100-1:1000	(D) Smoking 10 cigarettes a day[9]	1:200
		(D) All natural causes, age 40[9]	1:850
Low	1:1000-1:10 000	(D) All kinds of violence and poisoning[9]	1:3300
		(D) Influenza[10]	1:5000
		(D) Accident on road[9]	1:8000
Very low	1:10 000-1:100 000	(D) Leukaemia[9]	1:12 000
		(D) Playing soccer[9]	1:25 000
		(D) Accident at home[9]	1:26 000
		(D) Accident at work[9]	1:43 000
		(D) Homicide[9]	1:100 000
Minimal	1:100 000-1:1 000 000	(D) Accident on railway[9]	1:500 000
		(A) Vaccination associated polio[10]	1:1 000 000
Negligible	≤1:1 000 000	(D) Hit by lightning[9]	1:10 000 000
		(D) Release of radiation by nuclear power station[9]	1:10 000 000

Calman K (1996) Cancer: science and society and the communication of risk. *BMJ* 313:799-802)

Lay experience of risk

SOCIOLOGY OF HEALTH & ILLNESS

The experience of risk as 'measured vulnerability': health screening and lay uses of numerical risk

Chris Gillespie

'Scientifically-derived statistical measures that are intended to tame randomness and provide certainty in managing risk, instead, produce uncertainty and anxiety in those to whom the statistic is applied' (p194)

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[Being at risk] *impacts your sense of your mortality in a way that's very subtle. Even though I don't view these numbers as risky, just the fact that, okay, I've got this thing that's not in the normal range…On the other hand, it's a placeholder for mortality at some point, and there is going to be a time when I get something really bad. And I'm – it's almost like an anticipation, okay, this is the first of what may be a series of 'uh-ohs' down the road, and I think that that – that impact is very subtle, but I think its real. I think it's a real effect*

Marshall, PhD in Engineering, PSA test

Surveillance medicine

The rise of surveillance medicine
David Armstrong

- ‘the observation of seemingly healthy populations’ (p393)
- Focus on what is considered ‘normal’
- Blurring of the distinction between health and illness
- Ensuring healthy ‘norms’ are maintained

This atlas will help you to put health risks and death rates into perspective. Use it to compare cause of death and risks to health based on sex, age and region.

http://www.nhs.uk//Tools/Pages/NHSAtlasofrisk.aspx

Governmentality

- Power typically thought of as a hierarchical, top-down power of the state
- But there are other forms of *social control* … People play an active role in their own *self-government*
- Guided by social institutions, procedures, analyses and reflections

THEORY.ORG.UK TRADING CARD
Michel Foucault

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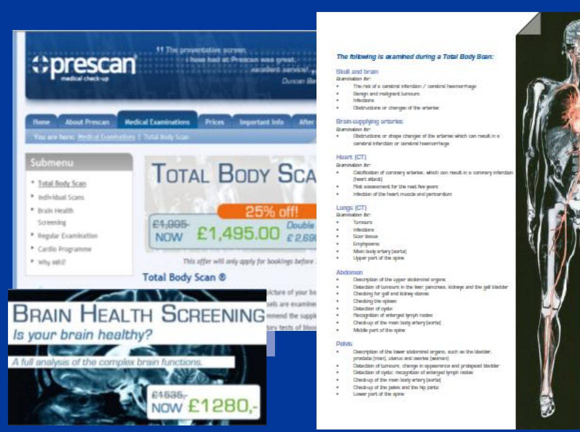
Example: Preventive medicine

- Assessing risk of illness in individuals
- Risk assessed by 'surveying' populations and identifying what is and is not 'normal'.
  - Use of risk factors as (potential) causes of disease
  - Risk factors → diseases to be cured → treatment
- Expands possibilities for medical intervention
- Risk itself becomes a condition to be treatment



Should 'prehypertension' be treated? Who benefits and why?

- 'Borderline 'or 'high normal' blood pressure
- New diagnostic category
- Potentially 1 in 3 adults (c50 million in the US)

There's no getting away from risk!

Risk is not neutral

Medicine tends to adopt techno-scientific approach

Identification and management of risk play a significant role in medicine and healthcare

Social context influences the way lay people understand and manage health risks

Risk is associated with ideas about choice, responsibility and blame

Key concepts: risk society, risk and culture, surveillance medicine

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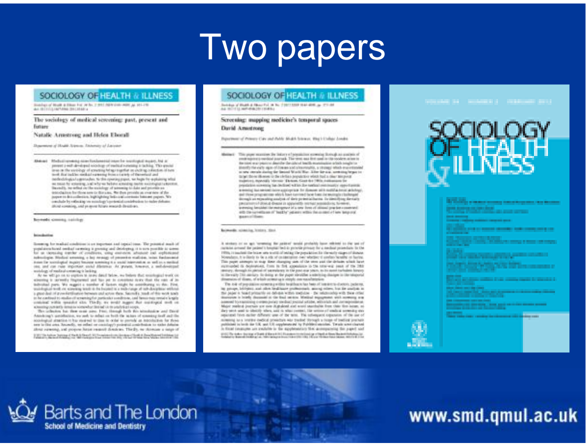

Virtual seminar discussion

- Read the set reading. Pick an illness or disease that is (or could be) screened for (e.g. breast cancer, Huntington's disease).
- Focusing on your example, write 200-300 words on what medical screening is, who it might benefit or harm and why. Post your text in the virtual seminar and review/reply to others' as they appear.

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Medical screening

POPULATION

- Breast cancer
- Colon cancer
- Prostate cancer
- Newborn screening
- Cervical cancer
- Tubercolusis

ROUTINE

- Breast cancer
- Huntington's disease
- Child development
- Gestational diabetes

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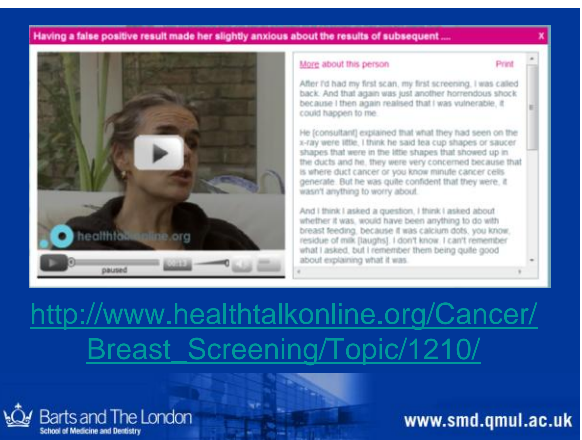

Critical reflection

- Balancing benefits / harms
- New roles and identities for patients
- Managing uncertainty
- Moral obligations
- Changing role of diagnosis
- Vested interests, commercialisation
- Medical screening elsewhere in the world

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