

A few perspectives on risk perception (from M. Finucane)

S. Strauss – BI FS 435/535 – May 12, 2009

- Basic concepts of dread and unknown risks
- Socio-cultural differences in risk perception

Unknown risks

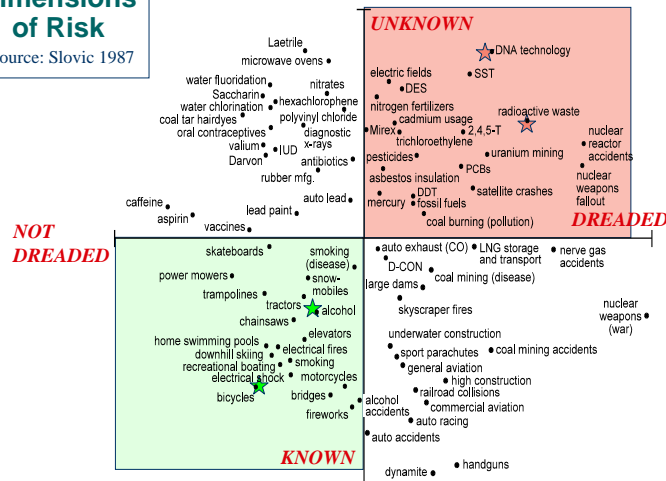
- Unfamiliar sources
- Complex technology

Dread risks

- Large impact
- Affects many
- Undetectable
- Uncontrollable
- Latent (cancer, future generations)

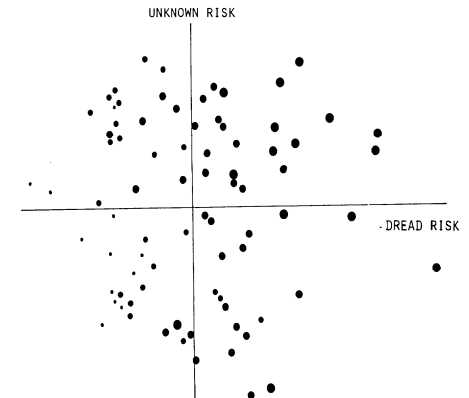
Dimensions of Risk

Source: Slovic 1987



Attitudes Toward Regulation of Hazards

The larger the point the greater the desire for strict regulation to reduce risk



British Beef: Dread Risk

- Association with human form of mad-cow disease (vCJD)
- Horrific and fatal consequences
- Involuntary
- Uncontrollable



British Beef: Unknown Risk

- BSE & vCJD relationship unclear
- No vaccine or cure
- Latent effects of contamination



GMOs: Dread Risk

- GM food
 - Many exposed (global catastrophic potential)
 - Involuntary exposure (manufacturers/food growers dictate whether GM seeds used; inconsistent labeling laws mean available choices unclear)
 - Inequity (currently benefits greatest for manufacturers not consumers)
- GM medicines
 - Specific and Voluntary exposure
 - Potential benefit to consumer

GMOs: Unknown Risk

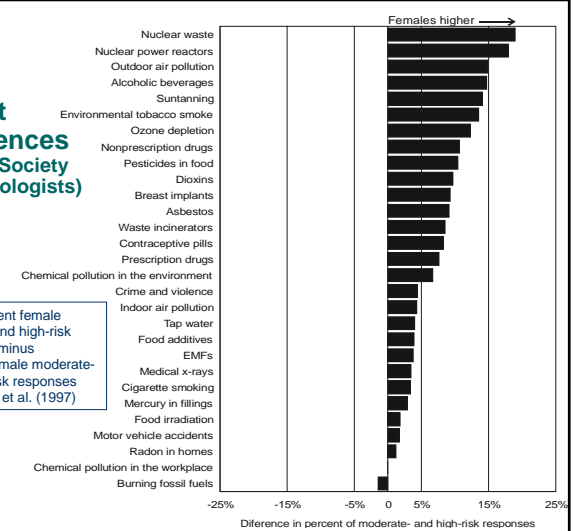
- GM food
 - Relatively new science (scientists do not have enough knowledge to estimate the risks accurately)
 - Delayed effects (harmful changes in DNA structure not immediately obvious)
 - Mysterious (consumers uninformed and genetic engineering not obvious to the casual observer)
- GM medicine
 - Audience is likely to be well informed
 - Expecting observable effect

Gender, Race, & Perceived Risk: The “White Male” Effect

- Risks tend to be judged as lower by men than women
 - e.g., nuclear power, war, living near soil pollution/ chemical plant
- Still poorly understood
 - difficult to isolate effects of gender and race from covarying sociopolitical factors

Expert Differences (British Society of Toxicologists)

Fig 3: Percent female moderate and high-risk responses minus perception male moderate- and high-risk responses from Slovic et al. (1997)



Traditional explanations for RP differences

1. People vary in their rationality and education

- Women portrayed as capricious, irrational and ineducable:

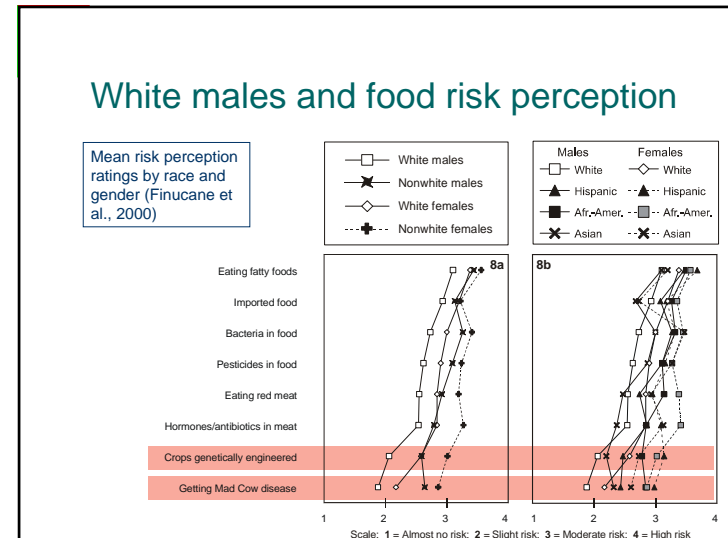
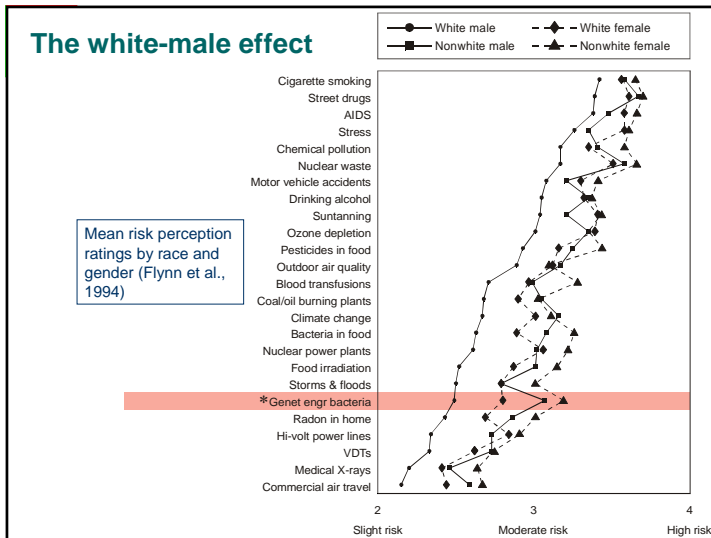
I think of a man and take away reason and accountability

- New York novelist Melvin Udall (aka Jack Nicholson)

Traditional explanations for RP differences

2. Biological differences

- Women portrayed as
 - inherently programmed to nurture & maintain life
 - physically more vulnerable to violence
- Made less salient by recent research (e.g., Flynn et al., 1994)



Worldviews: White males vs. others

Compared with others, white males are more likely:

- to agree with statements reflecting hierarchical views

"When a risk is very small, it is OK for society to impose that risk on individuals without their consent"

- to disagree with egalitarian statements

"The world needs more equal distribution of wealth"

- disagree that community-based decision making

"People living near a nuclear power plant should be able to vote and to close the plant if they think it is not being run safely"

Conclusions

- Form of risk, not just magnitude, important to risk perception
 - > Familiarity, scope
- Sociological perspectives as important as science to risk perception
 - > Place in society, social/gender roles