

Contesting Risk in Outer Space

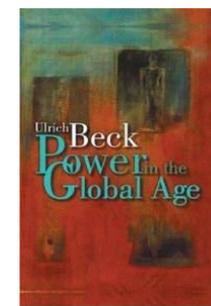
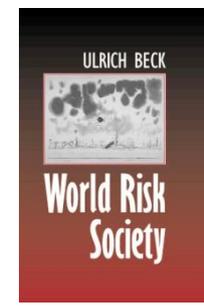
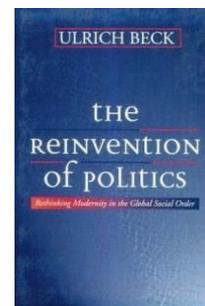
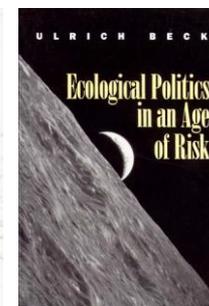
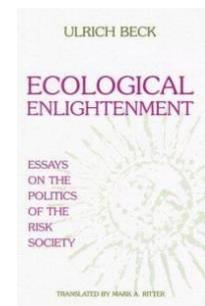
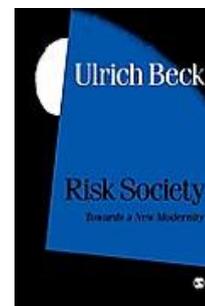
James Ormrod

School of Applied Social Science,
University of Brighton



Exploring Ulrich Beck's “Risk Society” thesis at a level beyond the global

- Many of Beck's concepts are descriptively useful
- But his understanding of the importance of both capital and social power, and of subjectivity are under-developed (following Rustin 1994; Dickens 2001; Elliott 2002)



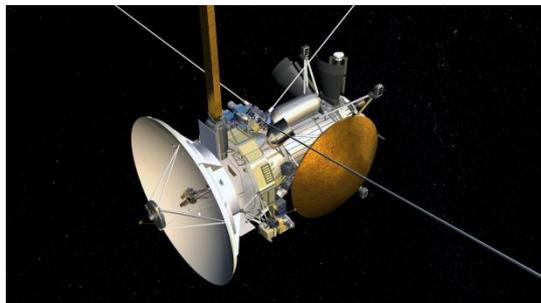
Three 'Case Studies'

1. The use of nuclear power in space missions
2. The proliferation of space debris
3. Proposals for space solutions for ecological problems

1. The use of nuclear power in space missions

SNAP-9A

- US navigation satellite carrying 2.1 lbs plutonium
- Failed to achieve orbit and burned up in 1964
- In November 1970 5% still remained in atmosphere, but debris present on all continents
- Designed deliberately to disintegrate in this situation
- Will have contributed to global lung cancer rates, but 'impossible to determine numbers'



Cassini

- Probe launched in 1997 using plutonium to power instruments
- Risk during launch but also during slingshot manoeuvre
- NASA EIS gave maximum death toll as 2,300. Prof. Sternglass – 30-40 million
- Cannot be calculated – can't calculate human error, or predict fate of plutonium. May need to ban future use of land etc.

Based on Karl Grossman's work

Beck - 'organised irresponsibility'

- Modern societies dealt with risk through compensation, restriction, safety, and classification. 'Polluter-pays'
- New risks – damage is irrevocable, aftercare impossible, consequences unlimited, measurement abandoned, testing impossible = organised irresponsibility
- A 'reinvention of politics' is taking shape. A cosmopolitan public sphere emerging to debate acceptability of risk
- Will happen naturally because (1) risks impress themselves on public consciousness, (2) risks undermine capital accumulation

BUT...

- Do risks concerning space exploration impose themselves on public consciousness?
- What forces prevent the realisation of a cosmopolitan public sphere?
 - Coercion of state
 - Infiltration of state
 - Ownership of media

2. The proliferation of space debris

- Reaches speeds of up to 17,000mph
- A 2mm particle left a 'nearly disastrous crater' in shuttle windshield
- 500,000-750,000 objects >1cm
- Single biggest threat to space activity (1-10% chance for satellites)
- Danger of 'collision cascade' (Kessler syndrome). Impossible to predict

- In theory the 'launching state' is responsible
- But impossible to establish blame and damages
- No claims ever settled

- But NASA, ESA, and then UN guidelines published to mitigate space debris creation
- Is this cosmopolitanism through international agreement?

- International agreement as smokescreen?
- In the interests of some states, but not others, and not capital?
- Even if guidelines followed, is it in interests of public?
Enzensberger – no. Either costs borne by public or further concentrates capital in hands of those who can afford to comply
- E.g. EADS Astrium, CubeSail and French law



3. Proposals for space solutions to ecological problems

- Space programme from 'modernist' venture to a 'reflexively modern' one
- UNOOSA's 'Space Solutions to World's Problems'. Satellites to monitor loss of habitat, pollution, track animal populations etc.
- Roger Angel – cloud of spacecraft to block hole in ozone layer
- Planetary engineering – making other planets more earth-like



THE SPACE SHUTTLE TAKES OFF ON A MISSION TO FIND OUT IF CARBON EMISSIONS ARE CAUSING GLOBAL WARMING

Beck accepts there are currently 'chains of problem solution and problem production'

- For Beck the problem is 'over-specialised science'
- Market forces will help, as some businesses will 'slip into the role of rescuer and helper'
- But is this likely?
- Space solutions preferred by capital to Earthly ones requiring social reorganization
- Enzensberger's eco-industrial complex – Capitalist firms selling 'developing' world Earth monitoring services to track deforestation!
- Space technology now espoused as enabling development through building 'utilization capacities'. End of UN agreements aimed at distributing benefits of space exploration

Contesting Risk

- For Beck risks undermine themselves. The reinvention of politics is inevitable
- In reality, risks concerning human activity in outer space do not 'inevitably' arouse public outrage or undermine capital's interests
- These risks are concealed from public view quite deliberately
- Public also prefer to repress , or split off ,or fantasise about, risk if they can

Why and how is risk contested?

- Mobilization not on the basis of set of interests or even values, or the intrusion of risk into everyday life
- Outer space has a symbolic significance – we know it's already contaminated, and the Earth isn't all bad, but it helps keep us hopeful
- But outer space risks are not an 'enemyless' politics. They must be contested with those who are currently benefitting by keeping risk decisions away from the hands of the public