



Introduction to Homeland Security
November 23, 2005

Necessary Conversations: Nuclear Fear & A First Look at Interrogation Policy

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Avoidance

Casualties

Purchasing Drug Research (Bioshield)

Radioactivity, Germs, Chemicals

Detention & Interrogation Policy



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Nuclear Fear

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Overview

Benchmarks

A Flawed Discourse?

What We Know About Risk Perception (Mostly Nuclear Power).

Culture

Politics, Media & Law

Psychology

Extension to “Dirty Bombs”

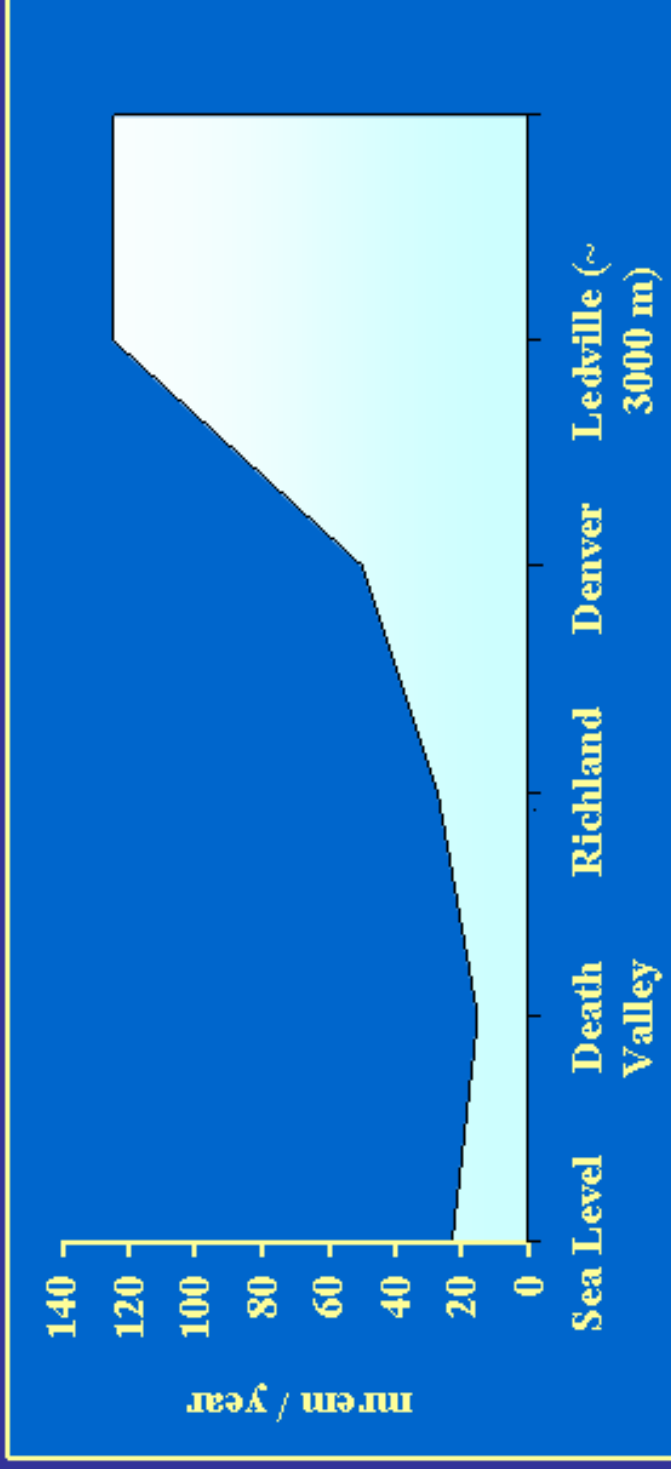
Before the Bomb

Immediate Aftermath

Long-Term Aftermath

Benchmarks

Cosmic radiation Exposure at Different Elevations



1 mrem/year = 200 feet of altitude

4 mrem/year = 800 feet

500 mrem/year = some isolated populations
(10 mrems = 0.1 mSv)

Benchmarks

Ottawa U – I. E. - International Centre for Low-Dose Radiation Research (Jan 2002)

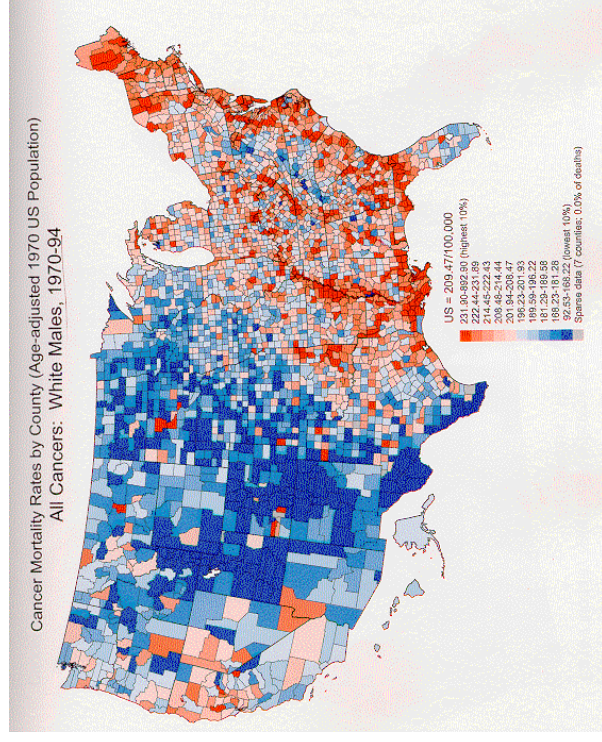
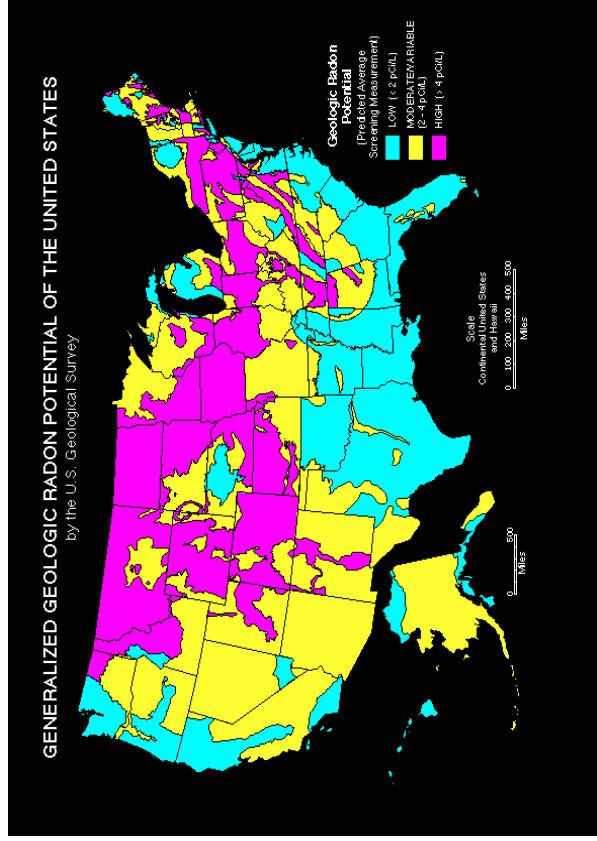
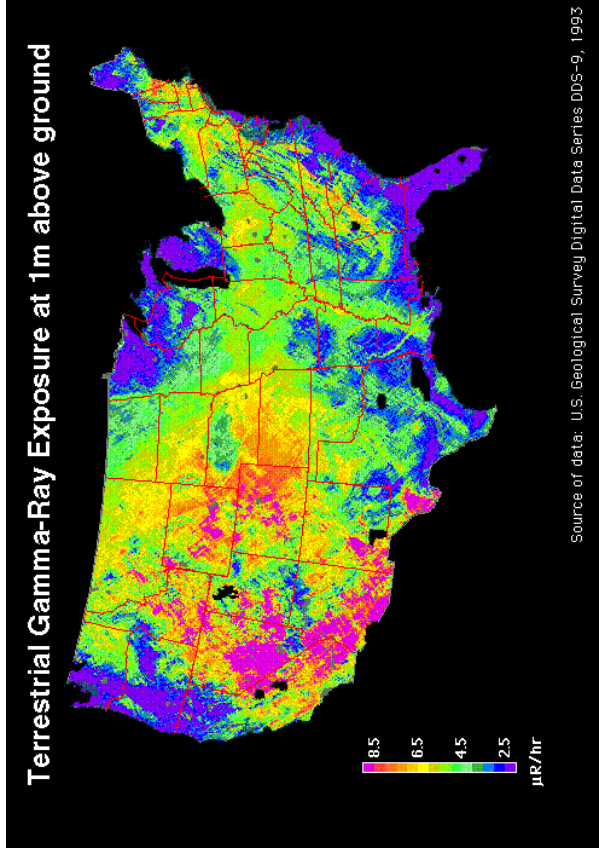
Units - Dose

- Complex system (absorbed, equivalent, effective dose)
- Historical : Rem (Roentgen equivalent man)
- Modern : Sievert

Scale of effects (acute exposure)

Less than 0.200 Sv	????
0.2 – 0.5 Sv (penetrating radiation) 0.2 – 10 Sv (alpha radiation)	No effect, increased or reduced cancer risk, depending on exposure conditions and individual susceptibility
0.50 Sv	Blood count changes
1.00 Sv	Vomiting (threshold)
1.50 Sv	Death (threshold)

Benchmarks



Ottawa U – International Center
For Low-Dose Radiation Research
(Jan. 2002)

Benchmarks

60 mS/year

Denver

200 mS

???

50 mS/year radiation workers

National Response Plan Protective

Action Guide = 1 mS/year

Flawed Discourse?

Ranking Nuclear Risk

	<u>Power</u>	<u>Dental</u>
Laypeople	3/30	21/30
Experts	20/30	7/30

Also:

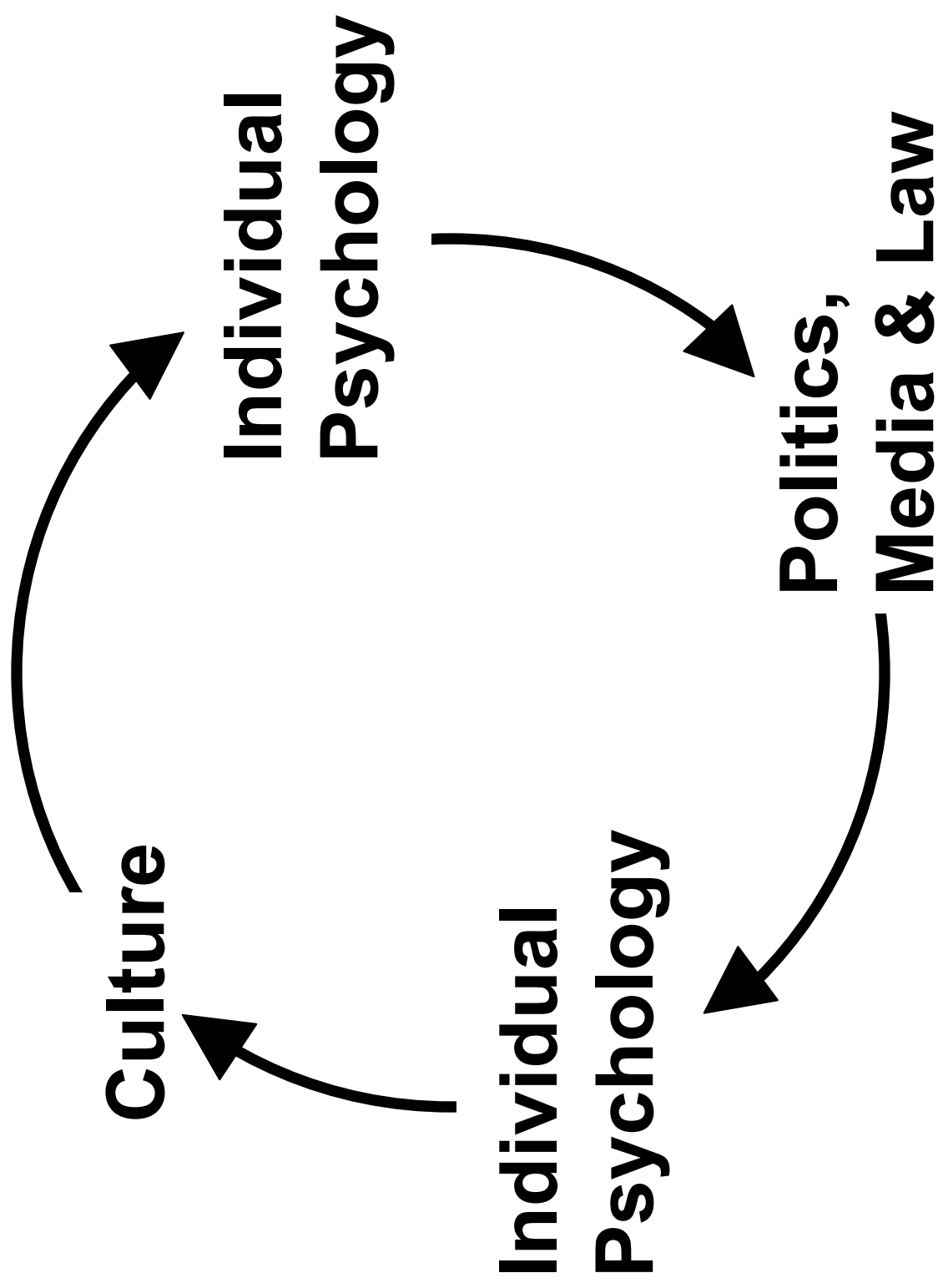
Agency vs. Agency

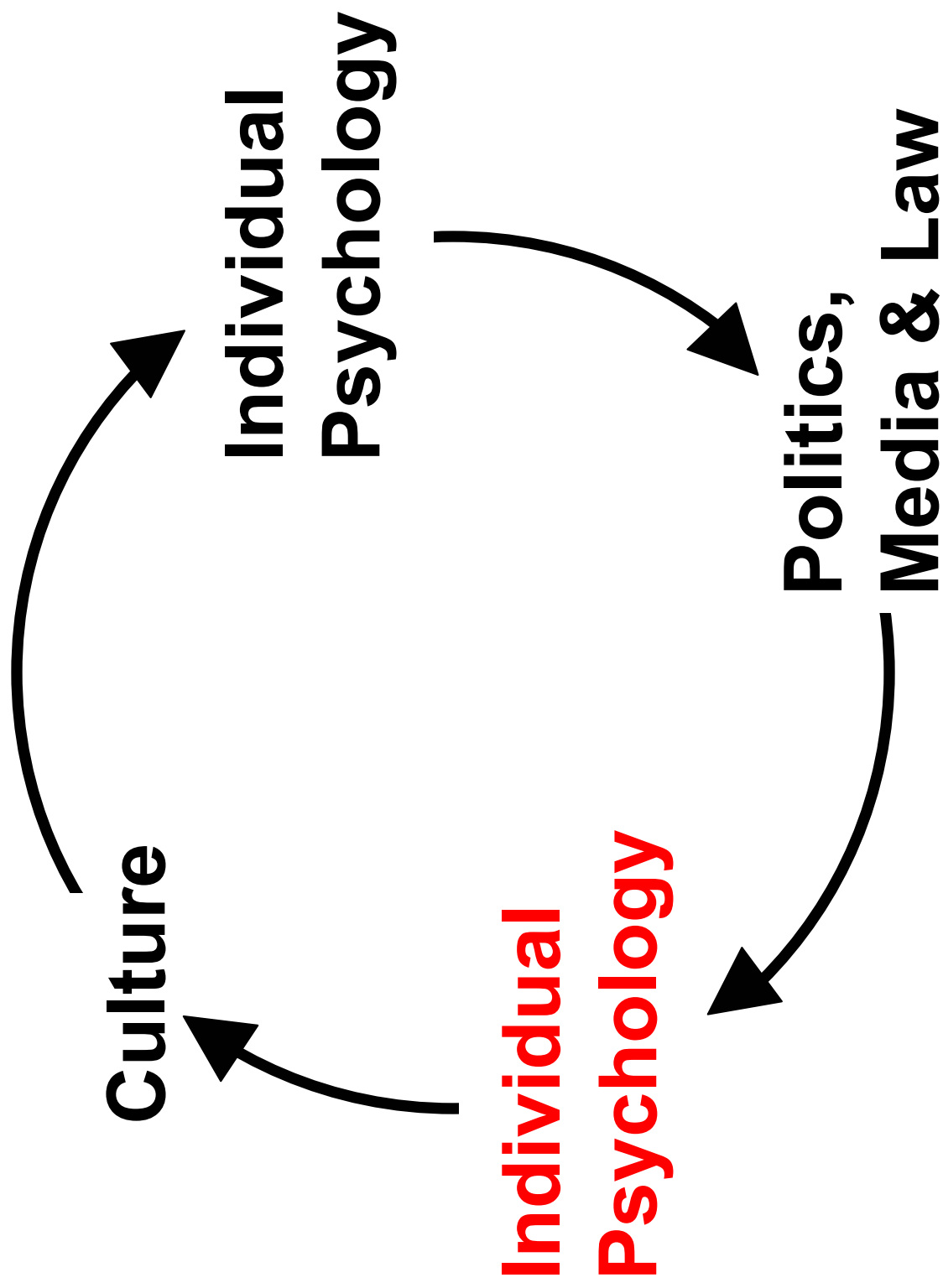
Expert vs. Expert

Male vs. Female

Ubiquitous Mistakes of Fact

Framework



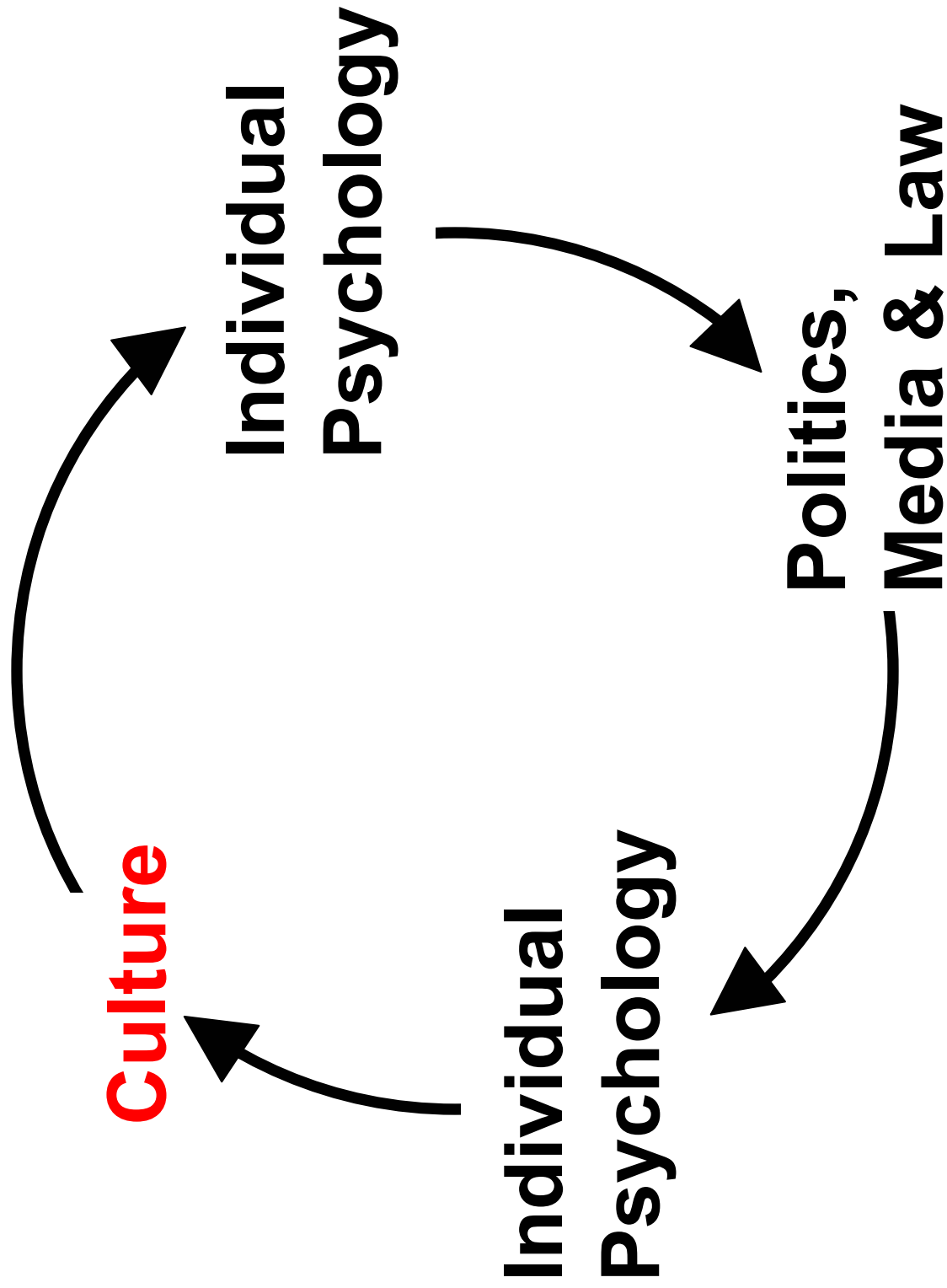


Culture

Cultural Links to Risk Estimation

Imaginability
Memorability
(A Distorted Scale...)

Why Radioactivity?



Culture

Why Radioactivity?

Pre-19th Century

Alchemy – Great Knowledge, Benefit, Danger
Contamination

19th Century

Apocalyptic Novels

Late-19th Century

Uniting the Alchemy and Apocalyptic Threads
Around Radioactivity

Culture

Modernity (Pt. 1)

Frederick Soddy (1877 – 1956)

“Don’t call it transmutation. They’ll have our heads off as alchemists.”

- Ernest Rutherford (1901)

“Inexhaustible Power” (1903)

The earth is “a storehouse stuffed with explosives...and possibly only awaiting a suitable detonator to cause the earth to revert to chaos.” (1903)



Culture

Modernity (Pt. 2)

H.G. Wells, *The World Set Free* (1913)

Between the Wars (1919-1939)

A New Balance Between Hope and Fear
Hope Survives

European Spas

Radioactive Toothpaste

E.O. Lawrence & His Donors

The A-Bomb (1945)

Modernity (Pt. 3)

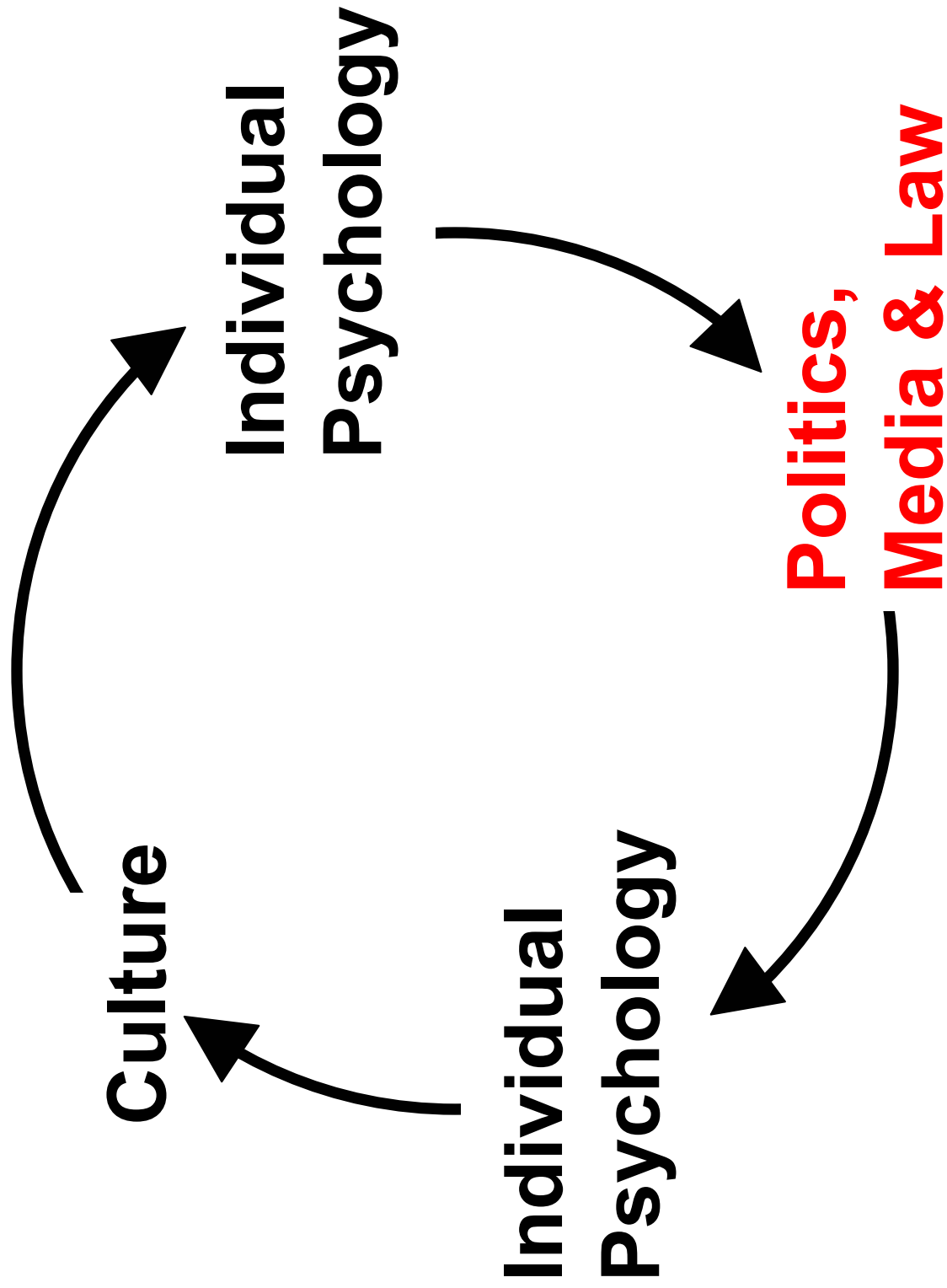
Fallout and Contamination (1950s)

The Nuclear Power Debate (1970s)

Contamination is Permanent

Natural vs. **Artificial**

“**One Molecule**” vs. “Dose Makes The Risk”



Politics

Regulation – The Good News

Acceptability declines with number of people exposed.

Voluntary risk limits are ~ Disease risk

We regulate involuntary risk 1000x more than voluntary risk.

Acceptability rises with **cube of** benefits.

Politics

Regulation – The Bad News

Your Life is Worth... \$6.5m at HHS
 \$6.1m at EPA.
 \$2.7m at FAA.
 \$1.6m at Agriculture.

Possible Explanations

Interest groups and agency advocacy.
Fossilized/Incomplete consensus.

Politics, Media & Law

Cheap Shots & Political Debate

“**Everybody Knows...**”

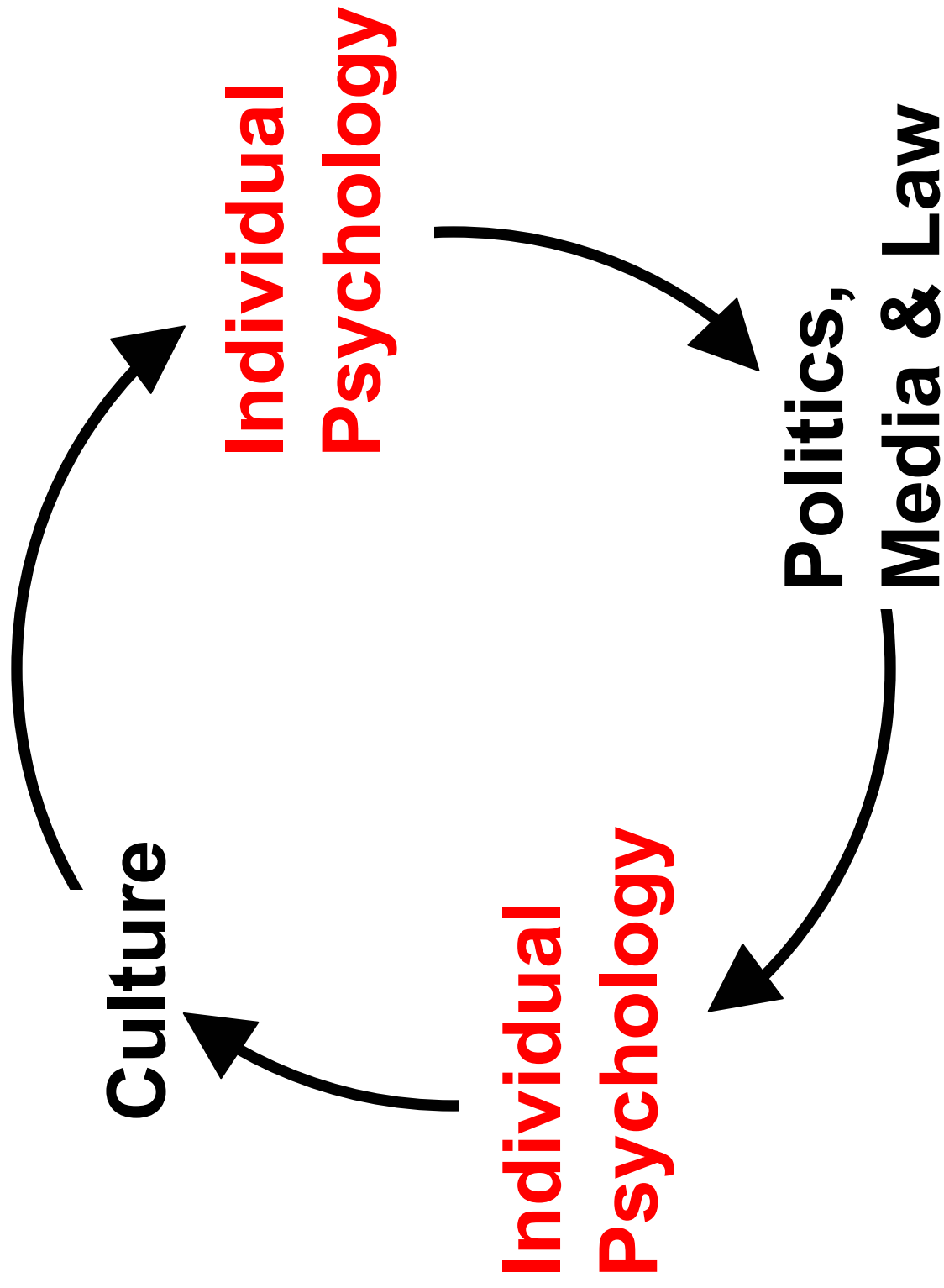
The Dan Quayle Effect

Media Bias

“**If it Bleeds, It Leads...**”

Plaintiff's Lawyers

The “One Molecule Theory”
Experts & Media



Individual Psychology

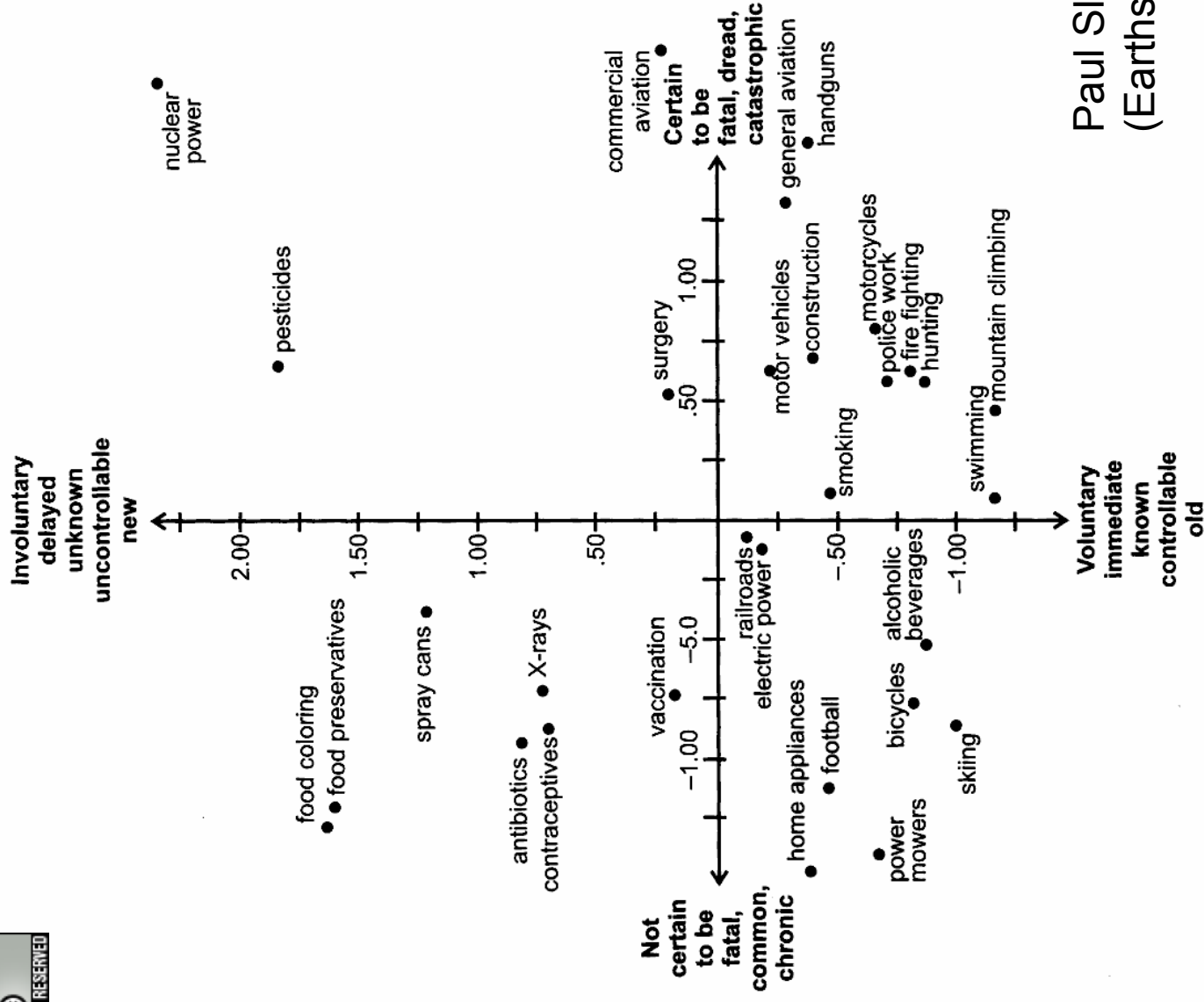
Adjusting the Risk:

Dread + Familiarity
+ Potential Casualties (?)
Contamination



Individual Psychology

Dread VS. Familiarity



Paul Slovic, *The Perception of Risk* (Earthscan: 2004) at p. 99

**Individual
Psychology**

Contamination

Unbounded
Response



Permanent

Unbounded
Response



One Molecule
Theory

Individual Psychology

**An Interesting Non-Issue:
Mode of Death**

Individual Psychology

Communication

Volume, Multiple Sources, Reputation, Clarity,
Trust, **Disputes**, Dramatization and Symbolism.

Reassurance is Undramatic
More Information → More Imaginability

Humans Dislike Uncertainty

Overconfidence

Resisting New Evidence

Denial - Implications for Nuclear Power

Lessons

Culture

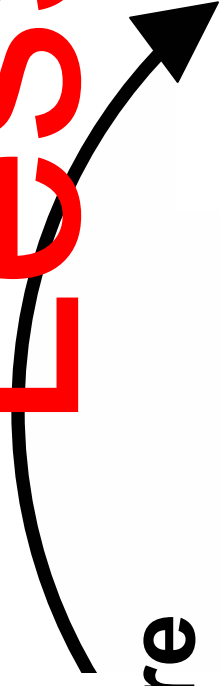
Individual
Psychology

Lessons

Individual
Psychology

Politics,
Media & Law

Lessons



Lessons: Preparedness

Preparedness is Important

Fears are Self-Fulfilling

Politics

Courage, Leadership & Cheap Shots

Teaching the Jury One True Thing

A Tipping Point?

“The Water’s Edge”

Lessons: Preparedness

Psychology

Disproving Catastrophe

Imaginability: Is Debate Counterproductive?

Resistance to Evidence

Dissonance & Benchmarking

A Difficult Problem...



Lessons: The Day After

Stigma

Signaling

Lessons: Long Term

Denial

Banning the Threat Is Not an Option

The Familiar

Bombing (1930s vs. 1940s)

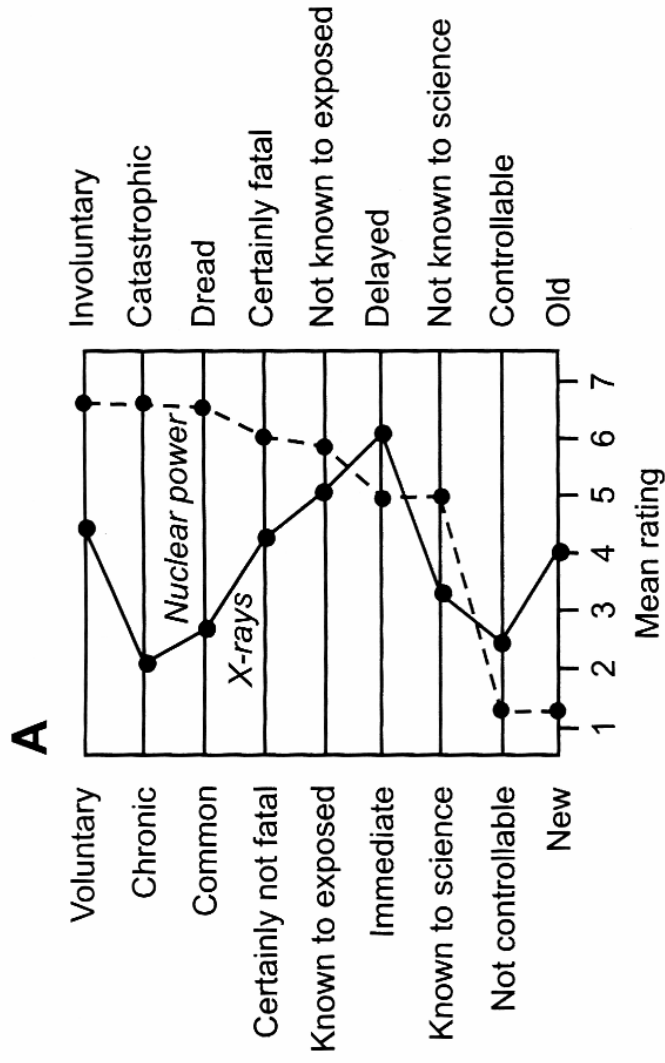
Denver (0.6 REM/year)?

Nuclear Weapons

Radon Apathy

Mode of Death Matters Little

Lessons: Long Term



Paul Slovic, *The Perception of Risk*
(Earthscan: 2004) at p. 99

Lessons: Mitigation

Traditional Advice

See Above: Volume, Multiple Sources, Reputation, Clarity, Trust, Disputes, Dramatization and Symbolism

Benchmarking

Apples to Apples

Dental X-Rays (Again)

Denver (Again)

Mental Models

Knowledge Gaps and Misconceptions

The One Molecule Theory?

Lessons: Long Term

An Ineffective Weapon?
Smart Communication...



References

Health Physics

Philippe DuPorte, *Low-Dose Radiation and Risk: A Perspective* (2002) available at http://www.lowdose.uottawa.ca/publications_files/

Culture:

Spencer R. Weart, *Nuclear Fear: A History of Images* (HUP: 1988)

Psychology:

Paul Slovic, *The Perception of Risk* (Earthscan: 2004)

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Politics:

Cass Sunstein, “Valuing Life: A Plea for Disaggregation,” 54 *Duke L. J.* 385 (2005), available at

<http://www.law.duke.edu/journals/dlj/articles/dlj54p385.htm#H2N1>.

Helen Palmer, “Marketplace” (National Public Radio, January 5 2005), available at

<http://marketplace.publicradio.org/shows/2005/01/05/PM200501053.html>



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Radioactivity Before WWII:

“Radioactive Quack Cures,” available at
<http://www.orau.org/ptp/collection/quackcures/quackcures.htm>



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A First Look at **Interrogation** Policy

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Introduction

The Habit of Responsibility

Unfamiliar Territory

Line Drawing

Overview

Current Thought

Philosophy, Law, Treaties

Coercion vs. Torture?

Doing the Right Thing

525th Military Intelligence Brigade

Balance Sheet

Current Thought



Philosophy

Usual Approach:

“[W]hat had already become totally impossible under Catherine the Great, was all being practiced during the flowering of the glorious twentieth century – in a society based on socialist principles, and at a time when airplanes were flying and the radio and talking films had already appeared.”

A.I. Solzhenitsyn, *The Gulag Archipeligo* p. 39.

Philosophy

Utility Theory/Cost Benefit:

“For the purpose of rescuing from torture these hundred innocents, should any scruple be made of applying equal or superior torture, to extract the requisite information from the mouth of one criminal?”

- Jeremy Bentham



Philosophy

Alternatives

“Shocks the Conscience”

- Felix Frankfurter

“Historical/aesthetic considerations”

- Alan Dershowitz

Bright Lines

Touching The Body

Military’s Treatment of Its Own People

Laws & Treaties

Legal Doctrine:

Fifth Amendment (Self-Incrimination)

Fifth & Fourteenth Amendments (Due Process)

Eighth Amendment (Cruel and Unusual)

Geneva Convention Relative

to the Treatment of Prisoners of War

Geneva Convention Against Torture

Geneva Convention (Prisoners of War)

Article 17

Every prisoner of war, when questioned on the subject, is bound to give only his surname, first names and rank, date of birth, and army, regimental, personal or serial number, or failing this, equivalent information...No **physical or mental torture**, nor **any other form of coercion**, may be inflicted on prisoners of war to secure from them information of any kind whatever. Prisoners of war who refuse to answer may not be **threatened, insulted, or exposed to any unpleasant or disadvantageous treatment of any kind.**

Article 88

Officers, non-commissioned officers and men who are prisoners of war undergoing a disciplinary or judicial punishment, shall not be subjected to more severe treatment than that applied in respect of the same punishment to members of the armed forces of the Detaining Power of equivalent rank.

Article 89

In no case shall disciplinary punishments be **inhuman, brutal or dangerous to the health of prisoners of war.**

Geneva Convention (Torture)

“For the purposes of this Convention, the term ‘torture’ means any act by which **severe pain or suffering, whether physical or mental**, is intentionally inflicted on a person for such purposes as obtaining from him or a third person information or a confession . . . when such pain or suffering is inflicted by or at the instigation of or with the consent or acquiescence of a public official or other person acting in an official capacity”

The Logic of Interrogation

Logic of Interrogation

An Operational Distinction?

Interrogation vs. Torture

Does torture work?

Ancient Greek History
South Vietnam
Philippines Airliner Plot
CIA Manuals

Does interrogation work?



Logic of Interrogation

“From the moment you go to prison you must put your cozy past firmly behind you. At the very threshold, you must say to yourself: “My life is over, a little early to be sure, but there’s nothing to be done about it. ... Confronted by such a prisoner, the interrogator will tremble.”



Logic of Interrogation

“But we were confounded by the utter directness of the lies. It wasn’t a kind of cocktail party fib, easily seen through, easily peeled away. It was the mindless refutation of the obvious. And forbidden from punishing anyone for noncooperation, we couldn’t do a damned thing about it.”

C. Mackey, *The Interrogator’s War* (2004) p. 288.



Logic of Interrogation

“As long ago as 1919 the chief method used by the interrogator was a *revolver on the desk* ...”

A.I. Solzhenitsyn, *The Gulag Archipeligo: 1918-1956* (1973)



Logic of Interrogation

“You can’t put a dagger on the table.”

C. Mackey, *The Interrogator’s War* (2004) p. 33.

Coercion But Not Torture?



Coercion But Not Torture?

Soviet Union (1920s-1950s):

Lies, Intimidation, enticement, promises, “playing on one’s affections.”

Persuasion, Foul Language, Confusion

Night, Sleeplessness, Assembly line interrogation

Bright lights, sound effects

“Stress positions,” kneeling, standing.

Humiliation.

Drugs

Beatings, Burns, Crushing, Extreme Heat.

A.I. Solzhenitsyn, *The Gulag Archipelago: 1918-1956* (1973)



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Fort Huachuca

“Even students overheard by an instructor expressing macho admiration for this or that torture technique was given a failing mark for the day. If there was any suspicion on the instructors’ part about the restraint of a student, the offender was dismissed from the program.”

C. Mackey, *The Interrogator’s War* (2004) p. 33.



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Fort Huachuca

“But we were also coached in how to walk the Geneva Convention tightrope without falling off, how to make a prisoner threatened without issuing an explicit threat. . . You could tell the prisoner something like ‘Do you know how many of your own people were killed at the end of World War II when the German prisons opened?’ But you couldn’t take that extra step and say, ‘If we send you back, you know they’re going to kill you.’

C. Mackey, *The Interrogator’s War* (2004) p. 288.



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Afghanistan

“But, as I realized now, the trouble was that the safe route was ineffective. Prisoners overcame the Huachuca model almost effortlessly, confounding us not with clever cover stories but with simple refusal to cooperate.”

C. Mackey, *The Interrogator's War* (2004) p. 288.



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What Happened

“I never wavered in my commitment to the conventions, but I did begin to say, ‘Well, how can we justify this?’ It was like confronting a tax question back at the office: this is what we want the answer to be.”

C. Mackey, *The Interrogator's War* (2004) p. 288.

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What Happened

Taking Advantage of Other Missions
Processing, Coca-Cola, Sleep Cycles
Masquerades & Forgeries
Stress Positions (But Only Sometimes)
Prolonged Questioning



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“The abiding theme of the Conventions is you can never treat prisoners worse than you treat your own men. And it was in that interpretation that I saw some wiggle room for us. It would be one thing if we were doing something to rig the game, like tag-teaming prisoners with multiple interrogators. What if we made it a rule that interrogations could go as long as the interrogator could hold up?”

C. Mackey, *The Interrogator's War* (2004) p. 288.

Balance Sheet



Balance Sheet

Sincerity, Standards, and Legalism

Cruelty and Fastidiousness

No Good Answers

Balance Sheet

“Prisoner 237 plowed through the article . . . his face turning a paler shade with each page. Finally, he put it down on the table in the booth, rolled his head to the side, and vomited on the floor.”

C. Mackey, *The Interrogator's War* (2004) p. 320.



Balance Sheet

“We failed to break prisoners who I have no doubt knew of terrorist plots or at least of terrorist cells that may one day do us harm.”

C. Mackey, *The Interrogator's War* (2004) p. 472.

References

Primary Documents

US Army Field Manual FM 34-52 (1987), available at <http://www.globalsecurity.org/intell/library/policy/army/fm/fm34-52/toc.htm>.

CIA Kubark Interrogation Manual (1963), available at <http://www.parascope.com/articles/0397/kubark06.htm>.

References

Books

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A.M. Dershowitz, *Why Terrorism Works: Understanding the Threat, Responding to the Challenge*



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