

## Human Vulnerability, Knowledge Industry and Alternative Systems of Knowledge:



Reflections on Human Security in an Era of Violence, Epidemics, and Environmental Disasters

## The Age of Atrocity: Violence

### Extreme Forms and Everyday Violence:

- ▢ Wars (The West and the Rest)
- ▢ Regional Conflicts and Tension
- ▢ Nuclear Threat and Arm Racing
- ▢ Ethnic Armed Conflicts and Genocides,
- ▢ Domestic Violence: Child Abuse, Violence against Women, Elderly Negligence

The End of Cold War and the Emergence of Neo-Conservatives & Religious Fundamentalism

## The Age of Atrocity: Epidemics

### New Diseases and Reemergence of Old Diseases

- ▢ AIDS,
- ▢ SARS (Severe Acute Respiratory Syndrome)
- ▢ BSE (Mad Cow Disease),
- ▢ Ebola and Other Acute Hemorrhagic Diseases
- ▢ Avian Flu,
- ▢ Multidrug-Resistance TB, Malaria

Globalization and the Threat of Global Epidemics

## The Age of Atrocity: Environment

### Environmental Deterioration & Disasters:

- ▢ Destruction of natural environment
- ▢ Distinction of endangered species
- ▢ Pollution and destruction of bio-diversity
- ▢ Natural catastrophes and disasters
- ▢ Decline of natural resources

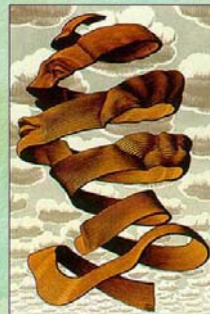
Exponential Population Growth and Economic Exploitation of Natural Resources

## Human Vulnerability: Current Discourse & Practice



- Environmental Changes and Natural Disaster
- Economic Instability, Poverty and Social Security
- Terrorism, War, and Armed Conflict
- Health Security: Access to Care & Food, Disease
- Religious and Theological Discourse
- Literature and Humanity

## Vulnerability, Risk Management and the Power of Science



- Command and Control Mentality
- Disenchantment of the World: Mechanistic Materialism
- Knowledge is Power: Knowable Law of Nature
- Anthropocentric: Man as the Center of Universe
- Deterministic Worldview: Interventionism

## Vulnerability, Uncertainty and the Art of Living Vulnerably



- Vulnerability in Varieties of Knowledge Traditions
- Uncertainty and the Inevitability of Human Susceptibility
- Vulnerability Binds Human Beings into Community
- Theodicy, Meaning and the Interpretation of Human Suffering

## Academic Establishment and Epistemic Privilege of Scientific Positivism

- Epistemologically specific definition of “research”
- Exclusive state financing of modern science (Feyerabend, 1979, *Science in a Free Society*)
- Domination of positivist knowledge activities (Doing, 2004, ‘Lab Hand’ and the ‘Scarlet O’: Epistemic Politics and (Scientific) Labor; *JSSS* 34(3): 299-323)
- Preference of “know-how” type of research
- The repetitive production of “Normal Science” (Kuhn, 1975, *The Structure of Scientific Revolutions*)

Epistemic Politics: Power struggle to knowledge claim by privileging an epistemology as the only legitimate mode of creating knowledge.

## Philosophical Assumption of Modern Scientific Knowledge



**Ontology:**  
Knowledge as Objective Fact

**Cosmology:**  
Knowable Natural Law

**Epistemology:**  
Separation of Knower and the Known

## POSITIVISTIC SCIENCE: A philosophical point of view

- Newtonian-Cartesian Paradigm
- Scientific Rationality: Privileging Cognitive Reasoning
- Materialistic: Reality as Objectively Measurable
- Mechanical: Law Abiding Universe
- Reductionistic: Explaining the Whole by Its Elementary Parts

**Positivistic Science as Universal Knowledge**

## Science and the Concept of Man

Man's Privilege Place in Nature: Christianity

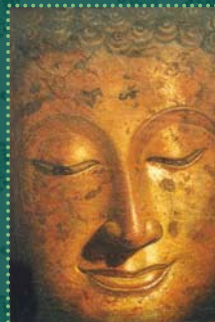
Humanism: Man at the Center of the Universe

Humanism: From Renaissance to the Enlightenment to Scientific Humanism

The Invincible Man: Man's Command and Control of Nature through Science

***Vulnerability is seen as negative, failure, weak, and dehumanizing***

## Redefining Human Vulnerability



The Limit of Conventional Science: Atrocity and Violence

The Emergence of New Scientific Paradigm: New Cosmology and the Dissolution of Objective Neutrality

The Relevant of Socio-Religious Worldview: Meaning, Ethics, and Spiritual Life

**Post-Colonial/Post-Western Philosophy**



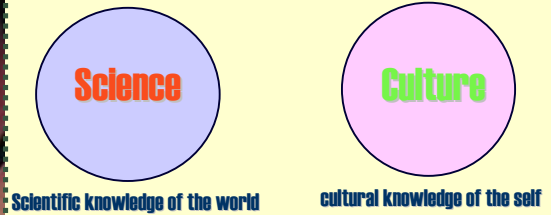
## An Alternative Approach to Human Security Integrating Knowledge of the Self & Knowledge of the World



Arthur Kleinman 1988, *The Illness Narratives*.  
William James 1974, *The varieties of religious experience*.  
Johan Galtung 1996, *Peace through Peaceful Means*.  
Arne Næss 1989, *Ecology, Community, and Lifestyle*.  
Williams & Parker 2003, On Humans and Environment, *Human Studies* 26: 449-60.

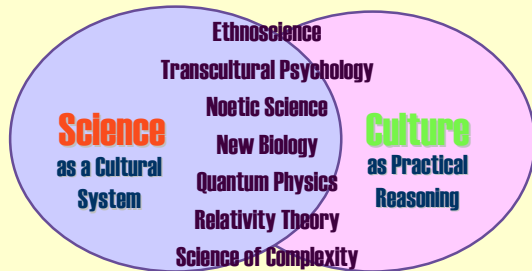
## Toward Complementary/Alternative Systems of Knowledge

### The Mutual Exclusivity of Science & Culture



## Toward Complementary/Alternative Systems of Knowledge

### A Shift toward Reciprocity of Science & Culture



## Central Assumptions of Positivist Science



- All knowledge is ultimately based in sensory perception (phenomenalism)
- All knowledge can be traced to individual facts (nominalism)
- A refusal to calling value judgments and normative statements knowledge
- A belief in the essential unity of scientific method.

(Kalakowski, 1972, *Positivist Philosophy: From Hume to Vienna Circle*)

## The globalizing methodological claim of sciences

## Problems in Current Regime of Knowledge: The Problems of Knowledge Industry

- Knowledge management based on Newtonian-Cartesian Worldview
- Fragmentation and Compartmentalization
  - Specialization and Expert Control
  - Industrial based operational model
- Biased toward quantitative research
- "How to" knowledge consuming culture

## Positivist Science and Institutional Practices

## Forms of Bias in Current Knowledge System

• **Epistemological/Methodological Bias**  
(Ulschuld 1992, *Epistemological Issues and Changing Legitimation*;  
Vandana Shiva 1988, *Reductionistic Science as Epistemological Violence*)

• **Structural/Institutional Bias**  
(Feyerabend 1979, *Science in a Free Society*; Nandy, ed. 1988, *Science, Hegemony, and Violence*)

• **Cultural/Linguistic Bias**  
(Derrida 1967, *On Grammatology*; Shotter 1993, *Cultural Politics of Everyday Life: Social Constructionism, Rhetoric and Knowing of the Third Kind*; David Bohm 1981, *Wholeness & The Implicate Order*)

Science has become the privileged form of knowledge over other knowledge traditions

## **Toward Complementary/Alternative Systems of Knowledge**

- **New Institutional form & organizational culture**

(Senge, 1990, *The Fifth Discipline*)

- **New Theory of Learning & Pedagogy**

(Singleton, ed. 1998, *Learning in Likely Place: Variety of Apprenticeship in Japan*)

- **Comparative, multidisciplinary, and inter-sectorial perspective**

- **A sense of community that nurture a learning environment is important among group members**

(Wenger et al 2002, *Cultivating Community of Practice*)

## **Some Ideas on the Practical Aspect**

**Promote Philosophical Understanding of Science**

**Encourage Mutual Understanding of Different Epistemology**

**Promote Application and Experimentation with Pluralistic Systems of Knowledge**

**Create Workable Models for Research/Action**

**Experiment with Alternative Institutional Forms and Practices**