Environmental ethics and justice in the context of social norm

- As one of the mediators of various interactions, SOCIAL ORGANIZATION is essential for human population
- To increase productivity through social organization, naturally various labors are divisioned
- Rich-poor variation also occurs unless fundamental communism is properly implemented (except Cuba, no such communism has been established in human history)
- While human population size has been small, unequal distribution of various resources caused a few problems, so that basic human rights were not violated artificially, but naturally such as disaster
- With increasing the size of human settled population, SOCIAL ORGANIZATION has become complex, unequal distribution of resources widely occurred, then (probably implicitly from the humanitarian perspective,) people awared the necessity of (originally each individual should own) basic human rights, leading to the idea of ethics and justice.

Definition of Ethics and Morals

- **Morals** / **Morality**: the set of core beliefs or commitments of a person or society that identifies what is most important, valuable, or right with regard to conduct and character
  - (eg.) Murder is usually immoral. Stealing is immoral.
  - (cf.) Tei Y, Mitsuyoshi S, Tsuboko S (2017) Diversity and morality: Crossing borders with engineering approach. https://www.amazon.co.jp/-/en/dp/B077HZSNH8
- Ethics: more formal version of morality
  - A reasoned or systematic approach to figure out what is the right or wrong
  - Professional morality as expressed in widely accepted codes and statements (opp. personal morality)
    - (eg.) Donation to save the poor children is usually right judged by **humanitarianism**.
  - The scholarly study of morality by philosophers
    - (eg.) Why war commander is praised although the one kill many enemies.
- Objectively thinking in ethics
  - Being reasonable and not doctrinaire
  - Listening actively to others
  - Letting the best reasons determine judgments
  - Staying close to the practical issues at hand on which consensus is possible
  - Remaining calm and optimistic in the face of controversy

Selected Ethics Approaches

- **Deontology** （義務論）: The position that individual autonomy is key, but that responsible choice requires obedience to a common moral law.
- **Utilitarianism** （功利主義）: The position that the right act is that which maximizes the likely balance of happiness over unhappiness.
- **Bioethics**: A set of principles for health care ethics, emphasizing beneficence, nonmaleficence (avoiding harm), respect for patient autonomy, and justice.
- **Feminist ethics**: An approach to modern ethics based on principles of equality and justice, with a critique of patriarchy, gender stereotypes, and dominance.
- **Care ethics**: The principle of care, emphasizing that process and relationships, not abstract principles, should dominate ethics.
- **Religious ethics**: Traditions of belief and community practices that base morality on the authority of spiritual entities, a supreme being, or a cosmic order.
  - (cf.) In a cult, the spiritual authority is sometimes merely a descendant of the founder.

History of Ethics in Environmental Health

- Related Debates
  - Environments are provided for human welfare by the God? (classic)
  - Environmental damage to the Earth resulted from human sins? (medieval)
  - Human dominates over nature? (early modern)
  - Multidisciplinary cooperation with many health professionals, new codes are needed (modern)
- Professional Codes of Ethics
  - Dedication to service to the client
  - Respect for other professionals
  - Assurance of high levels of competence
  - Protection of confidentiality
  - Performance with honesty and integrity
  - Avoidance of conflicts of interest
  - Informed consent and cooperation with clients
  - Service to the community
  - Promotion of the profession itself
- Professionalism and Ethics (Frumkin ‘s text Box 10.3)
  - Members of Professions … (But those sometimes inefficiently limits the professionals, eg. The specialists board of public health for COVID-19 in Japan)
    - Provides a socially valued service
    - Possess a high degree of independence on the job as a result of their special expertise, and are not easily supervised by others
    - Have a skill oro craft that if incompetently conducted would be harmful
    - Depend on the trust and cofidence of clients to function effectively
    - Cooperate with members of other disciplines and organizations toward common goals.
- Three important concepts: sustainability, resilience, global health

International consensus statements

- **Earth Charter** (2000): The resilience of the community of life and the well-being of humanity depend upon preserving a healthy biosphere with all its ecological systems, a rich variety of plants and animals, fertile soils, pure waters, and clean air. The global environment with its finite resources is a common concern of all peoples. The protection of Earth's vitality, diversity, and beauty is a sacred trust.
  http://www.earthcharterinaction.org/invent/images/uploads/echarter_english.pdf
  http://www.earthcharter.or.jp/downloadfiles/japanese.pdf (in Japanese)
  (ref) http://www.earthcharter.or.jp/resource/
- **Rio Declaration on Environment and Development** (1992): Human-beings are at the centre of concerns for sustainable development. We are entitled to a healthy and productive life in harmony with nature.
  see, http://habitat.igc.org/agenda21/rio-dec.html

General principles of ethics

- **Sustainability**: Conduct environmental health work in such a way that it meets the needs of both the present and future generations -> three immediate implications
  - Methods of cost accounting that discount the future should be avoided
  - The full life-cycle cost of environmental health measures must be included (i.e. LCA is an important method)
  - Many have observed a strong correspondence between the wealth of a nation and the average health of its citizens (World Bank 1993)
- **Healthfulness**: The health of humans and the environment needs to be restored, balanced and harmonized.
- **Interconnectedness**: Environmental health actions have far-reaching consequences (such as "*butterfly effect*")
  - eg. Greenhouse gases released in the Northern Hemisphere spread everywhere, including the Southern Hemisphere, resulting in those least responsible for climate change suffer most from its effects ... (it's also the issue of environmental justice)
- **Respect for all life**: Environmental health work should be conducted with respect for both human and nonhuman life (cf. Is "biophilia" our nature?)
- **Global equity**: Everyone is entitled to just and equal access to the basic resources needed for an adequate and healthy life.
- **Respectful participation**: Respect the considered and responsible choices of stakeholders, whether individuals or organizations
- **Realism**: Environmental health ethics should be founded on a realistic understanding of the health sciences and the risks and benefits of proposed activities and investments
  - The idea of **ecological footprint** is needed to understand the resource gap among countries
  - **Precautionary principle** is going to be widely accepted as a mode of realistic risk assessment

Controversies/Conflicts in ethics

- Examples of controversies or conflicts
  - Industry-made convenience vs air and water pollution
  - Vegetarianism (lack of Vit. B12 and animal rights)
  - Cultural conflicts
  - Fossil fuels and climate change
  - Genetically modified organisms
  - Nuclear power produces high level radioactive wastes, which to be geologic disposal, but no stable place exists in Japan
  - Pesticides brought highly efficient agriculture and gave damage on nature
  - Double burden of diseases
  - Confidentiality vs informed consent vs right to know
  - War
  - Research ethics

- Common features
  - New technologies with uncertain risks
  - Social relationships with predictable conflicts
  - Risks and benefits that need to be rationally balanced
  - Competing goods
  - Cultural differences
  - Different views of our place in and relationship to nature
  - Complexity

- **Let's consider**
  - Indoor air conditioning makes people more productive and comfortable; it also protects vulnerable people, such as the elderly and the sick.
  - Some public health officers say that people have a right to air conditioning. But it requires huge energy with high cost.
  - Is there some way to balance its health benefits with its costs? (cited from Frumkin's text 3rd Ed. Discussion Questions 8)

Background of environmental justice

- It's convergence of the two of the major movements in latter 20th century
  - Civil rights movement
  - Environmental movement
- **Three core concepts**
  - The meaning of disproportionate impacts (Act against environmental racism)
  - The legal, public policy, and research challenges
  - The community-based, collaborative problem-solving strategies and tools
- (eg.) Monumental root in Warren County, NC
  - NC decided that it was going to put PCB into a community that was 65% African Americans, but black and white residents were united and said `No.'
  - https://www.youtube.com/watch?v=1iCxh0BYjgI
  - https://www.youtube.com/watch?v=S6XnQcdIS9Q

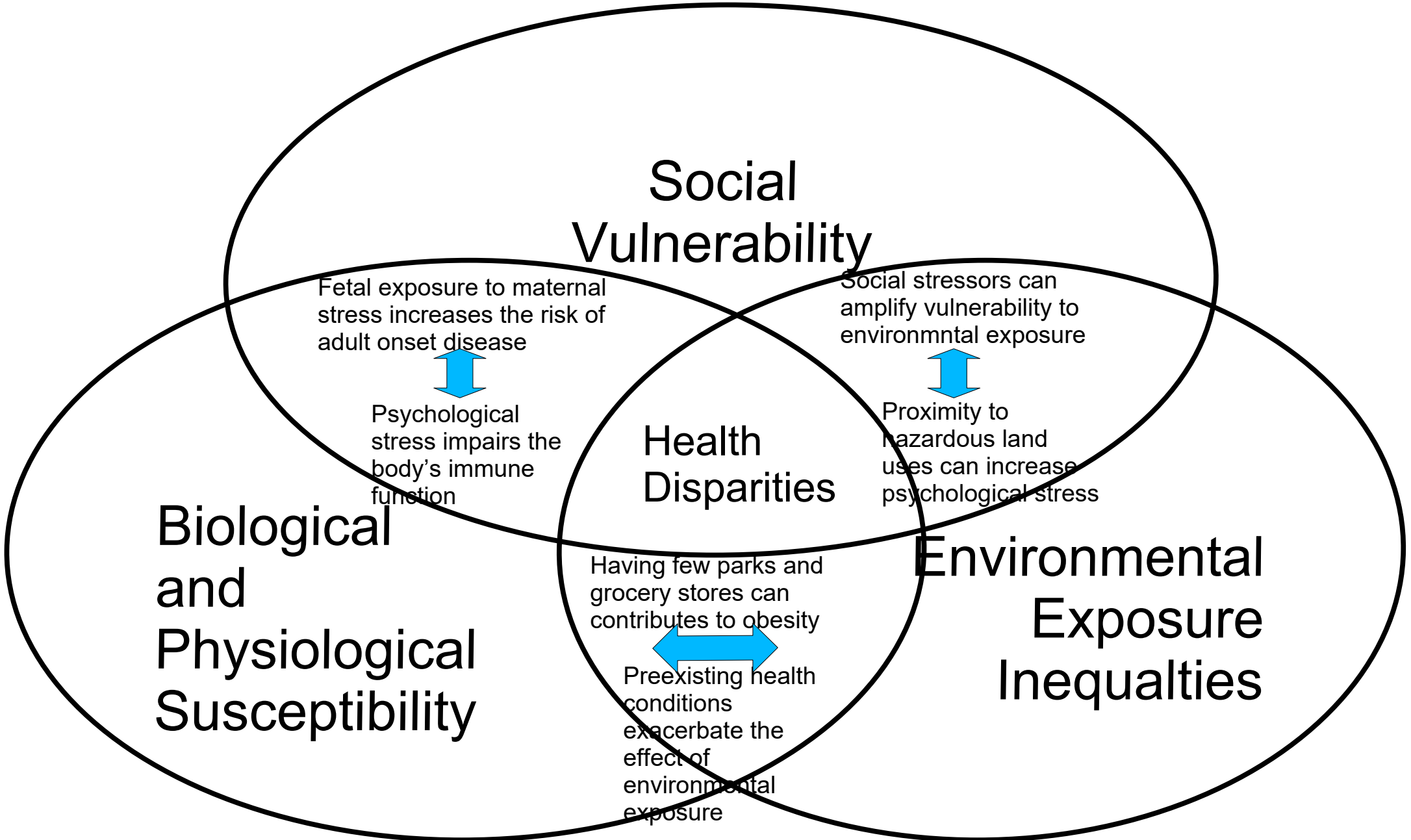
Examples of community-based environmental justice issues

- Chicago (African American, poor, urban, industrial): Public housing project, with population 10,000, built on top of landfill in 1940s and now surrounded by polluting industries, landfills, incinerators, smelters, steel mills, chemical companies, paint manufacturing facility, a.k.a. Chicago's "toxic donut."
  - (cf.) Fresh market movement from Tsukiji to Toyosu: Similar problem? https://www.youtube.com/watch?v=t8HCh56VIa0 (Financial Times) https://www.youtube.com/watch?v=hdK83GA1Xw8 (Al Jazeera)
- NY West Harlem (African American, urban) : Northern Manhattan is the site of North River Sewage Treatment Plant, hosts 5 to 6 bus depots. High rates of asthma and respiratory illness. West Harlem environmental action and Columbia University School of Public Health conducted community-based participatory research
- Barrio Boca (Puerto Rican, rural): Pesticide drift caused by aerial spraying on mango and banana plantation owned and operated by Tropical Fruit Company. Community actions resulted in court order to restrict spraying to only optimal weather conditions.

The meaning of disproportionate impacts

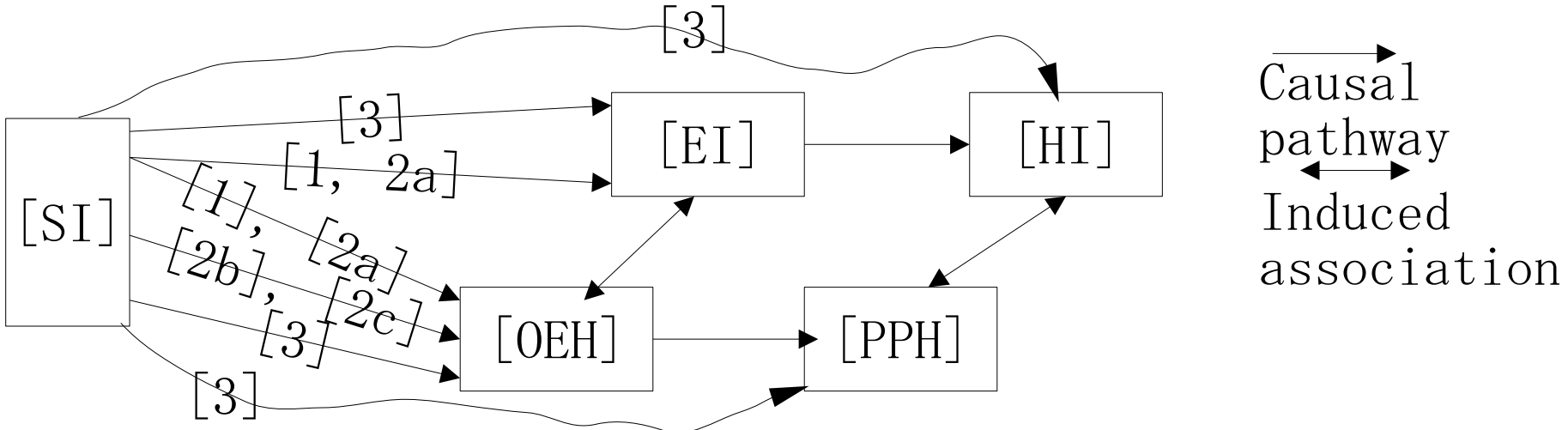
- Components of disproportionate impact and those implications
  - Proximity to pollution sources: "locally undesirable land use (LULU)" were examined using GIS. (~NIMBY issue)
    (cf.) https://doi.org/10.1016/j.envint.2018.07.045
    https://doi.org/10.1016/j.healthplace.2005.09.009
  - Unique exposure pathways
  - Susceptible and sensitive populations: Social position is closely related with susceptibility to air pollution
  - Multiple and **cumulative effects**
  - Social vulnerability: Underserved and disadvantaged communities (eg. through demographic change) shows low level of social capital (unstable leaders, networks and institutions), resulting in health disparities

The Four Elements of Cumulative Impacts
(modified from Frumkin's text 3rd Ed. Fig. 11.2)



The effect of social inequality on the environment (Source: Frumkin's text 3rd Ed. Fig. 11.4)

- [SI] Social inequality
- [1] Asymmetry in the political power-weighted social decision rule: the powerful accrue more benefits and less of the harms of polluting activities, and have greater power to protect their interests in social decision-making processes
- [2a] Physical, racial and/or class residential segregation leads to environmental inequalities and lengthens commutes and vehicle miles traveled, which worsens air quality overall
- [2b] The wealthy set the standard for what constitutes a high-status lifestyle, leading others to work and consume more than they would in a more equal society
- [2c] Income inequality limits the diffusion of green innovations from wealthy pioneer consumers
- [3] Erosion of trust, cooperation, and support for the provision of public goods that protect the environment and/or public health
- [EI] Environmental inequalities
- [OEH] Overall environmental harm
- [HI] Health inequalities
- [PPH] Poor population health



Legal, public policy, and research challenges

- After recognizing the disproportionate impacts, crafting legal and policy responses is needed.
- Challenges = divergence between civil rights and environmental law paradigms
- "Toxic Wastes and Race" was published in 1987. In 1994, US President Clinton signed "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations", as one of the first public policy statements in the arena of environmental justice

Collaborative and integrated solving

- Environmental justice advocates and practitioners must develop a conceptual framework that moves the environmental justice discourse from a primary focus on problem identification to a focus that is also solution oriented
- Environmental justice issues are enormously complex. Environmentally, economically, and socially distressed communities require human, technical, legal and financial resources to properly address these issues.
- Environmental justice strategies need to address economic and social factors such as housing, transportation, job creation, ...
- When research is needed, community-based participatory research (CBPR) is applicable.
  - Builds on and reinforces community capacity
  - Promotes active collaboration and participation at every stage of research
  - Fosters co-learning
  - Ensures projects are community driven
  - Disseminates results in useful terms
  - Ensures research and intervention strategies are culturally appropriate
  - Defines community as a unit of identity
- Pay attention to the social determinants of health

Example of CBPR (Frumkin's text 3rd Ed. Fig. 11.5)

- To avoid toxic hot spots in LA, "Clean Up Green Up" launched on 21 Jan 2011 http://clkrep.lacity.org/onlinedocs/2011/11-0112_misc_5-3-12g.pdf
- Create green zones (with several environmental standards) in 3 communities including toxic hot spots for
  - Economic revitalization of green zone communities
  - Reduction of existing impacts
  - Prevention of additional impacts
- As part of "empowering LA" https://empowerla.org/tag/clean-up-green-up/ Since 2016, LA city council adopted CUGU as ordinance #184246
- (cf.) https://calgreenzones.org/los-angeles-clean-up-green-up/
- (cf.) https://ceja.org/what-we-do/green-zones/a-clean-up-green-up-ordinance-for-los-angeles/