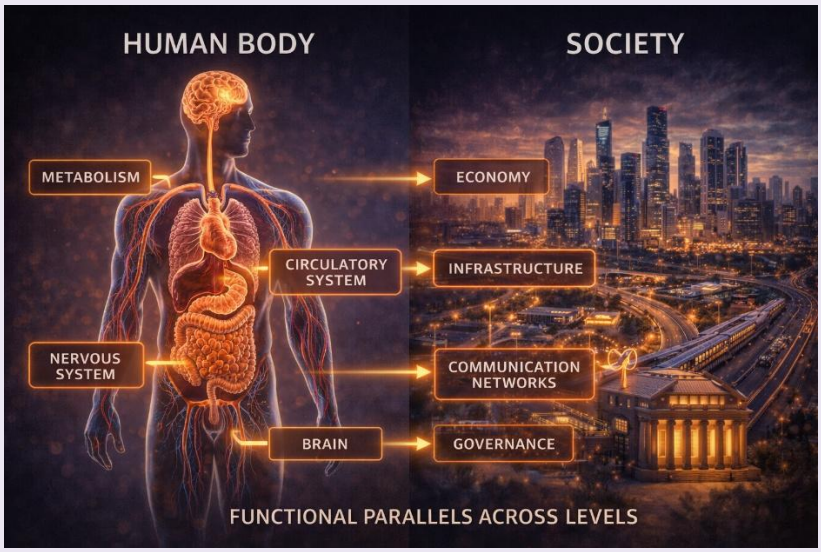
SST-18 The Evo-Socio Correspondence



Imagine looking closely at a human body. It contains systems that produce energy, distribute resources, coordinate activity, store information, and make decisions. These processes work together to maintain the body's functioning and ensure its continued survival.
Now shift your attention to a society. Here too, we find systems that produce goods, distribute resources, coordinate activity, store knowledge, and make decisions. Although these systems operate at a very different scale and are composed of many individuals rather than cells, they perform strikingly similar functions.
At first glance, the comparison may seem superficial. One system is biological, the other social. Yet on closer inspection, the similarities run deeper. Both must maintain access to what they need, coordinate their internal processes, respond to changing conditions, and ensure continuity over time. This raises an important question: are these parallels merely coincidental, or do they reflect a deeper, shared process underlying both biological and social organisation?

Formal Description
Human organisms and human societies exhibit corresponding organisational properties because both emerged through the progressive regulation of material, structural, and cultural constraints affecting viability.
In organisms, viability is maintained through processes such as metabolism, internal distribution, neural coordination, learning, and reflexive cognition.
In societies, viability is maintained through economic production, infrastructure, communication systems, cultural learning, and reflexive institutional processes such as science and governance.
These correspondences arise from shared functional requirements associated with constraint regulation, rather than from similarity of physical structure .

Plain English Explanation

In earlier modules, we saw how systems evolve by improving their ability to regulate constraints.
This process occurs in both biological and social systems.
A human body must:

- obtain energy
- distribute it
- coordinate its parts
- store and use information

A society must do exactly the same kinds of things:

- produce resources
- distribute them
- coordinate activity
- store and apply knowledge

The key idea is that both systems face similar problems: how to maintain viability under changing conditions.
Because they face similar problems, they develop similar kinds of solutions, even though they are made of very different things.
This is called the **evo-socio correspondence**.
It is not a metaphor. It is a consequence of systems solving the same kinds of constraint-regulation problems at different levels of organisation.

Function	Organism	Society
Material production	Metabolism	Economic production
Distribution	Circulatory system	Infrastructure
Coordination	Nervous system	Communication systems
Adaptation	Learning	Cultural learning
Memory	Neural memory	Writing / knowledge storage
Reflexive regulation	Reflexive cognition	Science & governance

Example 1 (Energy)
The human body uses metabolism to produce energy.
A society uses economic systems to produce goods and energy resources.
Example 2 (Distribution)
Blood distributes nutrients throughout the body.
Infrastructure distributes goods and resources throughout society.
Example 3 (Decision-making)
The brain coordinates action based on internal and external information.
Governance systems coordinate decisions affecting society.

Provenance and Links

This module draws on:

- Evolutionary theory and major transitions, including John Maynard Smith and Eörs Szathmáry, which describe how new levels of organisation emerge.

- General systems theory, including Ludwig von Bertalanffy, which emphasises functional similarities across different types of systems.
- Cultural evolution theory, including Robert Boyd and Peter Richerson, which explains how social systems develop and adapt.
- Sociological theory, particularly Margaret Archer, which provides a framework for understanding how social systems reproduce and transform.

This module integrates these perspectives by explaining the correspondence between biological and social systems as a consequence of shared constraint-regulation requirements.

Practical Exercise

Choose one function:

- production
- distribution
- coordination
- learning

Compare:

1. How this function operates in a human organism
2. How it operates in a society
3. Why both systems need this function

