



SST-10 The Evolutionary Question



A lone figure sits beside a small fire at dusk, reflecting on the day. They have spent their time searching for food, avoiding danger, and watching the changing weather. They know where water can be found and remember the places where predators were last seen. Each moment involves decisions, whether to move, to stay, or to signal to others nearby, and their survival depends on the quality of those decisions.

Now imagine this same individual not alone, but as part of a small group. Food is shared, warnings are communicated, and patterns of cooperation begin to form. Over time, roles start to emerge, with different individuals contributing in different ways to the group's survival.

Extend this further across thousands of years, and these simple patterns of interaction develop into something far more complex: cities, institutions, systems of governance, and scientific knowledge. Human beings no longer simply react to their environment. They reflect on it, plan for it, and increasingly reshape it.

And yet, at every stage, something remains the same: the need to maintain the conditions required for survival.

This raises a deeper question: Is modern society fundamentally different from these earlier systems or is it built on the same underlying process?

Formal Description

The morphogenetic cycle may be understood as the most recent expression of a general evolutionary process through which systems regulate constraints affecting their viability.

This process operates across physical, biological, psychological, and social domains, with increasingly complex forms of organisation emerging that improve the regulation of constraints on causal inputs required for system persistence and proliferation.



Plain English Explanation

The morphogenetic cycle explains how society changes by showing how existing conditions shape what people do, how people act in response to those conditions, and how the outcomes of those actions either reproduce society as it is or lead to its transformation.

However, this module introduces a deeper idea. This process did not begin with human society. All systems, from simple chemical processes to complex human societies, persist by managing the conditions that affect them. Over time, systems became progressively better at doing this. New capabilities emerged, enabling more effective responses to those conditions, and increasingly complex forms of organisation developed as a result.

From this perspective, the morphogenetic cycle is not something unique to social life, but the most advanced expression of a much more general process through which systems regulate the conditions necessary for their continued existence.

INCREASING CAPACITY TO REGULATE CONSTRAINTS



Example 1 (Biological):

A cell survives by regulating chemical inputs. If it fails, it dies.

Example 2 (Social):

A society survives by regulating: resources; institutions; and norms and values. Failure leads to instability or collapse.

Provenance and Links

This module draws on several established strands of thought:

- Evolutionary theory, particularly the work of Charles Darwin and later developments by John Maynard Smith and Eörs Szathmáry, which describe how increasingly complex forms of organisation emerge over time.
- Non-equilibrium thermodynamics, especially the work of Ilya Prigogine, which explains how organised systems persist by maintaining themselves far from equilibrium through ongoing flows of energy and matter.
- General systems and complexity theory, including Ludwig von Bertalanffy and Stuart Kauffman, which emphasise emergence, self-organisation, and the continuity of principles across different types of systems.
- Social theory, particularly the morphogenetic approach developed by Margaret Archer, which provides the basis for understanding the relationship between structure, culture, and agency in social systems.



This module integrates these perspectives within a unified framework in which the morphogenetic cycle is understood as the latest stage in a broader evolutionary process of constraint regulation.

Practical Exercise

Choose one system: e.g., a plant, an animal, a business or a country.

Answer:

1. What must this system maintain to survive?
2. What could disrupt it?
3. How does it regulate those conditions?

👉 Write a short paragraph (5–6 sentences).