



GST 76 – Purpose

Formal Description

Intrinsic purpose is the objective towards which an agent system directs its own behaviour. Systems that do not possess agency have no intrinsic purpose.

An attributed purpose is an objective assigned to a system by an external agent or observer.

Purpose should be distinguished from function. Function describes the organised causal transformations performed by a system. Intrinsic purpose describes the internally generated objective of an agent system. Attributed purpose describes the objective that an external agent wishes the system to fulfil.

Plain English Explanation

In the previous module we saw that a function describes what a system does. Purpose asks a different question.

If the system is an agent system, we may ask: Why does it perform that function? If the system is not an agent system, no intrinsic purpose need exist, although external agents may attribute purposes to it.

For some systems, the answer comes from within the system itself. Living organisms maintain themselves, reproduce and respond to changing conditions through their own internal organisation. Human beings form goals, make decisions and pursue objectives. Organisations may adopt missions, strategies and plans through the actions of their members. These are examples of intrinsic purpose, where the purpose arises from within the system.

For many other systems, however, purpose is assigned by an observer rather than possessed by the system itself. Engineered artefacts generally possess functions but no intrinsic purposes because they are not themselves agent systems. A bridge functions by conveying traffic across a river, but it has no purpose of its own. Engineers, transport planners and society attribute purposes to the bridge, such as improving transport, supporting economic development or encouraging tourism. These purposes belong to the agents who designed or use the bridge rather than to the bridge itself. Some systems perform important functions without possessing any purpose at all. A river transports water and sediment, and the Sun radiates energy, but neither is an agent system possessing internally generated objectives. Observers may describe these functions as if they had purposes, but such purposes are attributed rather than intrinsic.

It is therefore important to distinguish between intrinsic purpose and attributed purpose. Confusing these concepts can lead to teleological explanations in which natural systems are incorrectly assumed to possess intentions simply because they perform useful functions.

Recognising this distinction allows us to analyse biological, engineered and social systems using the same general concepts while avoiding unnecessary confusion. Some agent systems genuinely possess internally generated purposes, while others simply perform functions to which people attribute purposes.

Understanding purpose also helps explain why systems may change over time. Human and organisational purposes may evolve as goals change, while attributed purposes may change simply because observers adopt different perspectives, even though the underlying functions remain the same.



FUNCTION, INTRINSIC PURPOSE AND ATTRIBUTED PURPOSE

Three Examples Compared

1. NATURAL SYSTEM

River



Function: Transports water



Intrinsic Purpose: None
(non-agent system)



Attributed Purpose: Water supply,
transport, recreation

2. ENGINEERED SYSTEM

Bridge



Function: To convey traffic
over the river



Intrinsic Purpose: None
(non-agent system)



Attributed Purpose: Economic
development, transport, tourism

3. HUMAN ORGANISATION

Hospital



Function: Provides healthcare



Intrinsic Purpose: Improve
patient health



Attributed Purpose: Public service,
education, research



- **Function** describes what the system does.
- **Intrinsic purpose** is what the system itself would like to do in the case of agent systems, or none in the case of non-agent systems.
- **Attributed purpose** is what an external agent would like the system to do.



Function and intrinsic purpose are distinct concepts.
Not every system possesses intrinsic purpose.

Examples

The function of a thermostat is to regulate temperature by controlling a heating system. Its purpose is attributed by its designers, who intended it to maintain a desired temperature. The thermostat itself possesses no intentions.

The function of a river is to transport water. The river possesses no intrinsic purpose because it is not an agent system. People may nevertheless attribute purposes such as water supply, navigation or recreation.

A university performs the function of educating students and creating knowledge. Its intrinsic purpose arises through the goals adopted collectively by its members and governance.

Provenance and Links

The distinction between function and purpose has long been discussed within systems theory, biology and philosophy. General Systems Theory recognises that functions arise from organised causal transformations, whereas purposes concern the objectives associated with those functions. Distinguishing between function, intrinsic purpose and attributed purpose enables the same conceptual framework to be applied consistently to natural, engineered and social systems without assuming that all systems possess intentions.



Practical Exercise

Choose three systems:

- a natural system,
- an engineered system,
- and a social or organisational system.

For each system identify:

- Its principal function.
- Its intrinsic purpose, if any.
- One or more attributed purposes.
- Explain why each belongs in its category.

Finally, identify an example where different observers might attribute different purposes to the same system, and explain why these attributed purposes do not necessarily alter the system's underlying function.