Differentiation (Differenzierung/Ausdifferenzierung)

Differentiation (outdifferentiation) means that a system differentiates itself from the environment and draws a boundary between them. The differentiated system can also observe differentiation in its environment: in the environment of society, there are, for instance, psychic systems and living systems (organisms). The differentiation of the environment is not dependent on the system; nevertheless, it takes particular forms depending on the distinctions made according to the observation of the system. Every system can observe that other systems are present in its environment, and that they also differentiate themselves from their own environments. However, the system can observe these other systems in its environment only in accordance with its own distinctions: for instance, the systems in the environment can be observed as homogenous or heterogeneous, friend or foe, near or distant. Each differentiated system in its environment comes across other system references that introduce it to external perspectives of observation, beyond its control. This means that the environment of a system is always differentiated according to the system/environment perspective.

Differentiation is not only observed in the differentiation (outdifferentiation) between system and environment against the indeterminate background of the $\rightarrow world$. Differentiation can also be observed within a system. System differentiation means that differentiation is applied to itself: the system repeats the difference between system and environment within the system itself.

Internal differentiation of a system is a product of the *→autopoiesis* of the system. Not only is the system differentiated from its environment, but there are also system/environment differences within the system: operationally closed subsystems can emerge within the overall system. In particular, social systems can include differences between subsystems and their environments:

in modern society, for instance, the political system and its environment, the economic system and its environment [\rightarrow Differentiation of Society]. Every subsystem is differentiated from an environment that is not the same as that of other subsystems, because it includes these subsystems. For instance, the environment of the political system includes the economic system and the environment of the economic system includes the political system. The overall system (e.g. society) belongs to the environment of each subsystem.

System differentiation means differentiating between system/environment differences based on the autopoiesis of the subsystems, and not differentiating complementary parts of a whole through distribution or decomposition, thus the overall system cannot be observed as a whole divided into interlinking parts.

Internal differentiation increases the observational capacity of a system, which is its ability to reduce and maintain *complexity*. The result of this differentiation is twofold. On the one hand, the environment of the overall system is observed differently by each subsystem: for instance, the political system deals with the problem of air pollution differently than the economic system. On the other hand, the internal environment of the overall system varies depending on the subsystem that observes it, for instance the political system or the economic system. Thus, internal differentiation leads to the increase in specific versions of the identity of the overall system. Every subsystem stabilizes a view that reproduces the view of the overall system: for instance, reality can be observed from a political, economic or scientific perspective. Internal differentiation also increases the selectivity of the overall system, since the internal environment constructs an area of reduced complexity that facilitates easier selections. The overall system defines the external boundaries and the internal environment, in which the subsystems can autopoietically construct and reproduce themselves. This reduction in the level of freedom available to the subsystems is defined as system integration. Thus, the term "integration" thus does not define a unified normativity of the system by which the subsystems must be governed.

The way in which a system is internally differentiated varies with the evolution of the system itself. The most important example is the primary differentiation of society in subsystems, the form of which changes through evolution. In the course of the evolution of society, the predominant change is not in the level (increase or decrease) of differentiation that occurs; rather, it is the form of primary differentiation that changes. Different forms of primary differentiation correlate with different levels of complexity: although differentiation correlate with differentiation correlated with differentia

entiation does not mean an increase in complexity in itself, it does trigger an increase in internal complexity.

The differentiation of society does not only occur in the form of primary differentiation of subsystems, but also in the form of an internal differentiation of multiple further social systems that may or may not be connected to the primary subsystems. This additional differentiation results from situations of $\rightarrow double\ contingency$ within a society that is already structured. Thus, many small social systems emerge and they are constantly dissolved and reformed: $\rightarrow interactions$. Moreover, in modern society, specific organized systems [$\rightarrow Organization$] form in connection with the primary subsystems. [C.B.]

Social Systems (1995: Ch. 5.IV); Theory of Society (2013: Ch. 4.1); Einführung in die Theorie der Gesellschaft (2005: Ch. IV).