

## **PSYCHOTHERAPY AS AN ORGANISM AND OPEN SYSTEM: A CONCEPTUAL FRAMEWORK BASED ON HEGEL'S ORGANISM AND von BERTALANFFY'S OPEN SYSTEMS**

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[Bir Organizma ve Açık Sistem Olarak Psikoterapi: Hegel'in Organizma ve von Bertalanffy'nin  
Açık Sistemleri Temelinde Kavramsal Bir Çalışma]

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### **ABSTRACT**

In this paper, I will summarize Hegel's conceptualization of organism in relation to von Bertalanffy's discussion of open systems, and discuss the practical implications of these conceptualizations in the context of open systems, particularly in psychotherapy. I hypothesize that these two conceptualizations are not only sharing similar perspectives but they also nourish and expand our understanding of open systems, and encourage a dialogue between philosophy and social sciences. In this regard, first, I will visit the characteristics of organism in Hegel's work and of open systems in von Bertalanffy's work, and then provide practical implications of these conceptualizations in the context of psychotherapy. I discuss that psychotherapy is an organismic open system which is not only a means towards the Spirit's dialectical development of self-consciousness, but also an end which includes the basic characteristics of Hegel's organism and von Bertalanffy's open systems.

**Keywords:** Psychotherapy, organism, open systems, Hegel, von Bertalanffy

### **ÖZET**

Bu makalede von Bertalanffy'nin açık sistemler tartışması bağlamında Hegel'in organizma kavramsallaştırmasını özetleyecek ve bu kavramsallaştırmaların pratik imalarını psikoterapi

özelinde açık sistemler bağlamında tartışacağım. Bu kavramsallaştırmaların yalnızca aynı perpektifi paylaşmadığını, aynı zamanda psikoterapi özelinde açık sistemler anlayışımızı beslediği ve geliştirdiğini, ve felsefe ve sosyal bilimler arasındaki diyalogu geliştireceğini öne süreceğim. Bu bağlamda öncelikle Hegel'in çalışmasında organizma ve von Bertalanffy'nin çalışmasında açık sistemler kavramlarından bahsedecek, ardından bu kavramların psikoterapi bağlamındaki anlamlarını tartışacağım. Psikoterapinin organizmik ve açık sistem olduğundan, yalnızca Tin'in öz-bilincinin diyalektik gelişimi sürecinde bir araç değil aynı zamanda Hegel'in organizma ve von Bertalanffy'nin açık sistemler özelliklerini taşıdığından bahsedeceğim.

**Anatar Sözcükler:** Psikoterapi, organizma, açık sistemler, Hegel, von Bertalanffy.

## Introduction

General Systems Theory is proposed by von Bertalanffy in early 1950s and since then it has been affecting various fields including biology, mathematics, psychology, and psychotherapy. Throughout his career, besides proposing the goals, purposes, structure, and functions of systems theory, von Bertalanffy provided a comprehensive critique of the dominant scientific discourse as the main reason of why a systemic approach is needed for the progress of humankind (von Bertalanffy, 1969). Hegel's philosophy discussed in early 1800s and inspired 19<sup>th</sup> and 20<sup>th</sup> century *Zeitgeist* provides a perspective similar to the one von Bertalanffy has discussed in which the Spirit is conceptualized as a mean and an end of a larger system that is continuously progressing towards the absolute knowledge.

In this paper, I will summarize Hegel's conceptualization of organism in relation to von Bertalanffy's discussion of open systems and discuss the practical implications of these conceptualizations in the context of open systems, particularly psychotherapy. I hypothesize that these two conceptualizations are not only sharing similar perspectives but they also nourish and expand our understanding of open systems, particularly of psychotherapy. In this regard, first, I will visit the characteristics of organism in Hegel's work and of open systems in von Bertalanffy's work, and then provide practical implications of these conceptualizations in the context of psychotherapy. I discuss that psychotherapy is an organismic open system which not only is a means towards the Spirit's dialectical development of self-consciousness, but also an end which includes the basic characteristics of Hegel's organism such as sensibility, irritability, and reproduction, and von Bertalanffy's open systems including equifinality, multifinality, and probability.

Before the discussion of organisms and open systems from both thinkers' perspectives, it is essential to highlight that the basic similarity in von Bertalanffy's and Hegel's conceptualizations lies on their understanding of *human nature* as an intentional being having the capacity of symbol formation and meaning making. The human beings are not only open systems and organisms as their animal counterparts, but also are capable of developing a system of signs and symbols including art and language, and communicate intentionally through those signs and symbols.

von Bertalanffy (1968, p. 10-11) argues that scientific paradigm dominated by behavioristic, psychoanalytic, or electronic principles is based on a *zoomorphic fallacy* in which the humanly

characteristics of humans are dismissed, the distinction between humans and animals are cancelled, and human beings are conceptualized as the non-autonomous products of the external forces such as permissive or authoritative parenting, resolved or unresolved Oedipus Conflict, or being born in a community with a high or low delinquency rate. Broadly speaking, he criticizes the paradigm Watson (1924) speaks from when he writes the following:

Give me a dozen healthy infants, well-formed, and my own specified world to bring them up in and I'll guarantee to take any one at random and train him to become any type of specialist I might select--doctor, lawyer, artist, merchant-chief, and, yes, even beggarman and thief, regardless of his talents, penchants, tendencies, abilities, vocations, and race of his ancestors.

The deterministic approach towards the behaviors and attitudes of human beings provide an immediate, heaven-like feeling that frees them from the “responsibility” of their doing and being while putting an enormous emphasis on the external forces, and provides a conceptual-ground for the idea of all the internal-good is determined by the external-good happening to them. However, from a von Bertalanffy’s lens, in the long-run, the self-imposed lack of autonomy starts to take over as the shadow of the freedom of responsibility which we clearly experience in our current society. Based on his background in biology, von Bertalanffy (1968) provides an expansive discussion on the similarities between animal and human nature, and ends his discussion noting that rather than getting lost in the rabbit holes of a zoomorphic phantasy, we need to explore further the qualities that are specific to humankind that are *symbols* and *systems*.

We see a similar discussion and conceptualization of humanness in Hegel’s systematic philosophy. Broadly speaking, Hegel proposes that through the *Aufhebung* principle, the Spirit transcends to higher-order structures by means of preserving the lower-order qualities. In his *Philosophy of Nature*, Hegel (2004, §272) presents the animal organism after the Vegetable Nature and before the Subjective Spirit sections in which he clarifies these moments in these sections. According to Hegel, the animal organism is the state where the Spirit gains the capacity of self-movement, as opposed to the vegetables, which serves as the precursor of all other qualities including developing higher brain structures and functions to provide the self-movement capacity.

Hegel argues that the distinction between animal as such and humans is consciousness which he defines as an intentional way of relating to the world from a subject-object relationship. That is, unlike the Geological Nature elements like sands and rocks, or Vegetable Nature counterparts like trees and plants, the human beings are capable of experiencing the inside and outside world from the position of *subject*. Intentional relating to the internal and external from a self-standpoint makes human beings not only capable of self-movement like their animal counterparts, but also capable of self-reflection which is a characteristic specific to human beings. In the evolutionary process of the Spirit's in developing self-consciousness, the capacity of self-reflection is the precursor of developing signs and symbols, create meaning, and differentiation of Spirit from the nature.

Thus, in both von Bertalanffy's and Hegel's conceptualizations, the human beings are defined as entities having organismic structures (like animal state of Spirit) and creating meanings through self-reflection capacity (distinguishes human beings from other living organisms).

### **Organisms and Open Systems**

Regarding the concept of organism, Hegel uses the words organism and organic systems in a variety of places in his work, particularly in his discussion of Life in *Science of Logic* and in his discussion of Animal Organism in *Philosophy of Nature*. Even though he does not provide a solid definition regarding the concept of the organic system, in *Philosophy of Nature* he defines organism as a unity which becomes self-related and subjective through relating itself. In Hegel's conceptualization, the organism is characterized as *self-related* and *subjective* because as opposed to the immediacy of the geological and vegetable entities, the animals are not solely dependent on the external factors such as water and light and are capable of self-movement while preserving their selves.

Similar to Hegel's conceptualization, according to von Bertalanffy (1969), every living being is an open system. Unlike the closed systems where there is no elements entering or leaving the system such as a thermostat, car engine, or fridge, in open systems such as biological organisms or social communities, there is always a flow between inside and outside of the system, as well as within the system. The open systems are continuously active, rather than passive react-ors to the outside world like the vegetable nature elements in Hegel's conceptualization. In von Bertalanffy's (1960) own words:

Even under constant external conditions and in the absence of external stimuli the organism is not a passive but a basically active system. This applies in particular to the function of the nervous system and to behavior. It appears that internal activity rather than reaction to stimuli is fundamental. This can be shown with respect both to evolution in lower animals and to development, for example, in the first movements of embryos and fetuses.

The capacity of self-movement, rather than being passive reactors to the environment is a crucial point in both thinker's conceptualizations. The organism having the capacity to be active by themselves from their subjective intentionality inherently conflicts with the dominant scientific paradigm that is focusing on finding the causal relationships between the factors, such as traumatic childhood experiences and adulthood psychological problems, or bell ringing and salivation of the mouth. von Bertalanffy (1960) highlights what Hegel mentions as the (animal) organisms not being immediate responders to the inside and/or outside environment: The organisms are *active* and *intentional*.

The organisms create meanings (symbols) and their responses (such as, salivation of the mouth) to the environment are not sole reactions to the stimuli (such as, bell rings) but the complex outcomes of complex processes among the relations between inside and outside and within the system as such. Failing to miss the subjective and intentional nature of the organisms, in von Bertalanffy's (1960) understanding is not only a wrong, but also a "dangerous" one, as doing so causes "composing sonatas or lyrical poems" to lose their meaning.

Hegel (2004, §279) describes the organism in term of its subjective, intentional, and self-movement capacity and do not elaborate in detail about the particularity of the elements of the organism. However, he highlights the interdependence of the system elements forming a concrete unity, a gestalt in which "each member is reciprocally the end and the means, maintains itself through others and in opposition to them. Conceptualization of the system elements as the *end* and the *means* refers to the functions of the elements that are both constituting the system, but also constituted by them. In this regard, in Hegel's (2004, §262) conceptualization, the particular nature of the elements of the system are less essential compared to their roles within the system. They together form the process, a process of development.

The members of the organism ... are the particular individuals, and constitute a system whose forms manifest themselves as members of the unfolding of an underlying idea, whose process of development is a past one.

From a similar standpoint, von Bertalanffy (1950) provides a comprehensive description of the elemental nature of the organisms as open systems. He argues that the elements and the processes among the elements of the closed systems are identifiable and reversible. For example, the thermostat in a room, a combustion cylinder in a car, a fridge in a kitchen are all examples of closed systems with identifiable and reversible elements and processes. When the fridge is set to a degree of X, the system will work to come to the degree of X and will stop there. The process of cooling can be reversed by means of chemical settings. However, in open systems because of the constitutive characteristic of continuous flow from and to the system neither the elements nor the processes can be fully identifiable. Along with the lack of our ability to identify the elements, the processes cannot be reversed or replicated. Thus, the descriptions and explanations regarding the open systems remain *probabilistic*, as their elements. In von Bertalanffy's (1950) own words:

There is a fundamental contrast between chemical equilibria and the metabolizing organisms. The organism is not a static system closed to the outside and always containing the identical components; it is an open system in a (quasi-)steady state, maintained constant in its mass relations in a continuous change of component material and energies, in which material continually enters from, and leaves into, the outside environment.

In both conceptualizations, the thinkers highlight the role of the elements of the system and the processes among them over the particular, individual characteristics of the elements, which again seems to be contradicting with the current scientific paradigm focusing on the content over the process, and highlighting the individual characteristics over the roles. For instance, in psychotherapy literature, most recent research shows that currently there are more than 400 treatment practices that are scientifically proven to be effective (Zarbo, Tasca, and Cattafi, 2015). The treatment methodologies equally highlight that "their" content of the treatment approaches *per se* are different and particularly distinct compared to the other ones. However, despite the clarity of

the information about the distinct content based characteristics of these modalities, the research shows that they are not only resulting with similar outcomes (Duncan, Miller, Wampold, and Hubble, 2010) but also they provide us very little information about how distinct these treatment approaches are in terms of process of change and the particular roles of the treatment elements in the process of change (Sprenkle, Davis, and Lebow, 2009).

As mentioned in the stimulus-response paradigm discussion of von Bertalanffy (1969), we are informed that the different stimuli, such as emotion focused treatment technique as opposed to behavior focused technique is “resulting” in the clients feeling better which is considered as the “evidence” of treatment being effective. There is a need for the studies exploring the interrelationships among the elements of the systems and their roles in the wholes and systems. In this regard, from Hegel’s and von Bertalanffy’s perspectives, we need approaches that are highlighting the process over the content, the functions over the particularity of the elements in order to understand the organisms and open systems better.

According to Hegel (2004), apart from subjectivity and self-movement characteristics, there are also three determinations that are making an animal organism a living being: sensibility, irritability, and reproduction. The interdependent nature of the relationships among the parts of the whole provides a self-feeling ability to the organism. The moment of sensibility is the capacity of the organism to feel, to experience the information coming from inside and outside. In Hegel’s (2004) work, sensibility is defined as the moment of universality, the essence of the organism. The organism is able to receive information from inside and outside and create a concrete sense out of the information received. Along with the constitutive moment of sensibility, the capacity of the organism to respond, to react the information it receives is defined with the moment of irritability, referring to the particularity, defined as “the excitability from the outside, and on the other hand, the counter effect coming from outward movement of the subject.” Finally, the last moment, reproduction, is the capacity of the organism to unify the sensibility and irritability moments through means of transformation, and “thereby the generation and posing itself as an individual.” The moment of reproduction, thus refers to individuality, the singularity of the organism within the system.

von Bertalanffy (1969) provides an almost identical discussion about the open systems capacity of receiving information as their differential and constitutive characteristics in relation to the closed



systems. The capacity to be “open” to the information coming from inside and outside the system as such differentiates them from the closed systems and constitutes them as subjective and unique entities. Also, in von Bertalanffy’s conceptualization, the open systems’ capacity to be irritated/excited and to respond to the information received and to re-produce these information through the process of transformation are also discussed as constitutive characteristics of the open systems in relation to the closed systems.

For example, in the context of psychotherapy which is an organismic and open system, the clients and therapists, are capable of receiving information and actually it is the information from inside and outside makes the psychotherapy process rolling. There is no pre-determined process or roles or outcome is possible in the process of psychotherapy. The elements of the psychotherapy system including the therapists and the clients, like the Spirit developing self-consciousness towards the goal of achieving absolute knowledge in Hegel’s conceptualization, moves together towards the therapy goals, by means of receiving the information, creating meaning out of the information received, responding to the stimuli along with their meaning making processes, and transform (and be transformed) through the communicated information.

Here it is important to note the discussions on equifinality, multifinality, change constant, and entropy von Bertalanffy (1950) provides in relation to the characteristics of the open systems. Along with the functions of sensibility, irritability, and reproduction, von Bertalanffy adds that in open systems, contrary to the closed systems in which the outcomes are determined by the initial elements and processes, the outcomes cannot be determined from the start. Same outcomes can be attained by different initial elements and processes which is defined as equifinality. For instance, even though two clients come to therapy with differing levels of anxiety, at the end of session 5, both may feel the same level of anxiety. Similarly, two clients who started therapy process with same level of level of anxiety might end up reporting differing levels of anxiety at the end of session 5. Same start point ending up different outcomes is defined as multifinality (Cicchetti, and Rogosch, 1996) in social sciences. The meaning making capacity as well as their openness to the environmental influences of the open systems constitutes the equifinality and multifinality principles.

Another characteristic of the open systems, von Bertalanffy (1950) adds on is the constant change of the open systems to remain constant. In open systems, the system may attain a state of

equilibrium but the process is not the same as it is in closed systems that are programmed to attain and stop at the equilibrium state. Because there is no possibility of a true equilibrium, the equilibrium range is named as steady state in open systems. In closed systems, unless the equilibrium changes, the system does not function. It starts to work when a change happens in the equilibrium to get back to the equilibrium state. For instance, the thermostat works to attain the determined degree, stops when the degree is attained, and starts working again when the degree changes. In open systems, because of the continuous in and out flow of the elements, the system keeps functioning to maintain itself at the steady state, and the system constantly changes to adapt to the in/out-flow, to remain unchanged. For instance, regarding the body temperature which is an open system, the average temperature “range” is 35.3–37.7 °C (95.5–99.9 °F). The body constantly works to keep the body temperature in this steady state. The similar principle works in the context of psychotherapy that constantly changes in order to remain unchanged. The clients and the therapists keep meeting regularly at the same time and place, and exchange information while both of them constantly change while the psychotherapy process keeps being in the same shape. The essential point in this process is that along with Freud’s (2015) discussion of Eros and Thanatos or Whitaker’s (2011) discussion of struggle for struggle and initiative, or simply Hegel’s (1998) discussion of *Aufhebung*, there is always a conflict, a tension among the energies within and among the systems which can result in either way: *Reproduction* or *Destruction*, or Entropy.

von Bertalanffy (1950) highlights that in closed systems, entropy must always increase and thus be positive based on the second law of thermodynamics. However, in open systems, because of the irreversible nature of the open system processes, the possibility of entropy can not only be prevented but also be transformed into a higher order state. The system can repair, re-produce, and transform itself in open systems, unlike the closed ones. In *General Systems Theory*, von Bertalanffy (1969) provides a detailed mathematical description of the change process of the open systems arguing that the direction of the growth towards positive (reproduction) or negative (destruction) depends on the elements within the system which are not infinite. The logistic curve, the “curve of an autocatalytical reaction” he highlights that the growth is a reaction product obtained that accelerates its own production. That is, according to von Bertalanffy, growth is possible through the capacity of the organismic open systems to transform the received information within itself. Hegel (2004, §295) provides a similar conceptualization in the context of medication as he conceptualizes medication as the elements that excite, irritate, and motivate the organism to

use its own resources to contain and overcome the disease. He argues that medicine functions as a “provocation” in the organism where it is “irritated” to overcome a disease via exerting its entire strength. That is, it is not the medication that is healing to the organism. It is the provocation, irritation, motivation that the medication provides the organism to use its very own resources. In his own terms, Hegel (2004, §298) writes:

Medications are negative irritants, poisons, a stimulant ... to the extent that the organism is alienated from itself in disease must gather up its strength, turn against the medication as an external, foreign body, and thereby achieve again the self-feeling of its individuality.

As implicitly stated in this description of organism functions, Hegel puts a special emphasis on the boundaries of the organism which not only provides a shape for itself, but also constitutes the inward and outward functions of the organism that basically are self-preservation and re-generation of itself. Along with the conceptualization of the organism as a system defined by the boundaries separating the inside and outside functions, Hegel (2004, §283) moves on to conceptualize the relationship between inside and outside of the organism as a “tension” that satisfies the condition of a need in which the organism receives the needed information from the environment through the process of assimilation, which differentiates the animal organism from the vegetable nature and gives it a specific characteristic. Assimilation, in Hegel’s (2004, §285) terms is defined as an “immediate fusion of the ingested material with animality, an infection by the latter and a simple transformation. Thus, in accord with Hegel’s dialectic methodology, the tension between inside and outside provides the fuel for production, which differentiates the animal organism and specifies itself within the larger system of nature.

The issue of entropy in the context of psychotherapy has been discussed since the beginning of the birth of psychotherapy as a treatment practice (Freud, and Bonaparte, 1954). Along with the conceptualizations discussed above, the purpose of the psychotherapy process is to stimulate the organism of the client to accelerate its own reproduction of meaning, to transform the information received during the psychotherapy process, and to develop self-consciousness towards the goals. In this regard, psychotherapy as such is also a means and an end: A means functioning as a medication which accelerates the growth of the individual in the process of them developing self-consciousness

and reaching their therapy goals. And an end which includes its own elements and dynamics, and represents the characteristics of organismic open systems, including intentionality, sensibility, irritability, equifinality, multifinality, reproduction, entropy, and above all, the capacity to create meaning out of the experience and transform the meaning into different meanings through the productive transformation of conflicting energies in and out of the system.

### **Overall**

In this paper, my goal was to summarize Hegel's conceptualization of organism in relation to von Bertalanffy's discussion of open systems which I believe not only is rooted at similar perspectives but also nourishes and expands our understanding of open systems, particularly of psychotherapy, and encourages a dialogue between philosophy and social sciences. In this regard, first I visited the characteristics of organism in Hegel's work and of open systems in von Bertalanffy's work, and then provided practical implications of these conceptualizations in the context of psychotherapy. I discussed that psychotherapy is an organismic and open system which is not only sensible, irritable, and capable of reproduction (and entropy) as do the organisms in Hegelian sense, but also intentional and probabilistic in terms of content and process. Along with the discussions of von Bertalanffy and Hegel, I argued that psychotherapy is both a means, a tool, a moment in the process of Spirit's developing self-consciousness towards absolute self-knowledge, but also an end containing and transcending all the elements of open systems.

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