

## **Influence of Humberto Maturana's epistemology on Brief Psychotherapy and Mental Health**

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### **ABSTRACT**

The contributions of the famous biologist Humberto Maturana to different disciplines, from philosophy, linguistics, cognitive sciences, sociology, psychology, among others, have allowed the development of science in general. Mental health and psychotherapy have not been immune to this influence. This article seeks to analyze Humberto Maturana's epistemology referring to objectivity in parentheses, autopoiesis, cognition and cognitive biology in the development of psychotherapy and mental health. A qualitative theoretical analysis is carried out. Humberto Maturana's epistemology has been found to have influenced mental health and psychotherapy. The ontology of the observer, objectivity in parentheses and cognitive biology leave their mark on a new form of therapeutic relationship and conceptualization of the symptom. It is finally concluded that Humberto Maturana's epistemology has had a notable influence on the development of a new conceptualization of the therapeutic relationship, mental health and psychotherapy.

**Keywords:** Humberto Maturana; epistemology; cognitive biology; psychotherapy; mental health, autopoiesis.

### **1. Introduction**

Humberto Maturana's epistemology has been leaving a mark on various scientific disciplines, like constructivism, philosophy, sociology, the cognitive sciences, psychology, among many others.

From the end of the Second World War to our day, the great development in cybernetics has allowed a paradigm shift that facilitated the way from a science based on Newtonian mechanics principles to a systems science, the interaction and inclusion of the observer in the studied phenomenon. These primeval proposals reached behavioral and health sciences affecting its epistemological bases. Afterwards, in the Mental Research Institute, in Palo Alto California, there was a pragmatic development of said theoretical proposals, the very same ones that were at first applied to the communication and understanding of the family as a system (Bartoli & De la Cruz, 2023). In that way, Humberto Maturana's work and epistemology have added to the development of second-order cybernetics or cybernetics of self-observing systems. Such concepts like autopoiesis, operational closure, cognition and the so-called biology of love have enriched the cybernetics field and, in turn, have affected various scientific fields where brief strategic psychotherapy and mental health have been no exception. Let's analyze below the main proposals in Humberto Maturana's epistemology and cybernetics, just as their influence on psychotherapy and mental health.

## **2. Humberto Maturana's proposals**

Humberto Maturana, in his epistemology, proposes that all living systems find themselves in an interaction with their context; that way, the organism and the context live congruently. This means that the organism exchanges information, looks for food and reproduces in that context in which it is congruent, for which it is prepared. A polar bear finds itself in congruence with a context characterized by an intense coldness and scarce periods of sunlight; that being different from the instance of an African mountain gorilla. Both have a diet, estrous cycles and reproductive behavior aligned to their context with which they are congruent. In this case, the organism and the context live in what Maturana (1996) calls structural coupling. Even though the organism is open to the world, the control of its operations and internal dynamic is exclusive to the system itself. The adequate interaction between the organism and its context is essential to guarantee survival; nevertheless, at the end, it's the organism itself which will determine the control on its own internal processes and the answers it provides to the context stimuli (Maturana, 1993; Arnold et al., 2011).

In this sense, the organism remains closed off to the exterior, showing what Maturana (1994) calls operational; that is, the organism has the control exclusivity over its internal reproductive dynamic, remaining closed off to the exterior. That way, the organism depends on its own organization and is responsible for the internal processes that allow it to survive; additionally, it has to build up its own structures. That way, it upholds the relation to its context but, in turn, it takes responsibility for the necessary generation of processes and internal dynamics for it to stay alive (Maturana, 2008, 2013).

Every exchange the organism carries out with its context is done in the cognitive domain. The actions it executes, like looking for food, moving around, reproducing, sneaking up on a prey

or escaping from a predator are exchanges that imply cognition. Carrying them out, the organism is, additionally, assigning a meaning to them (Maturana, 2013; Garavito and Villamil, 2017).

Every transformation done in its internal dynamic depends exclusively on the organism itself and is determined by its own structure, not depending on any external influence. This way, the operational closure turns into a feature of the system that denies any external directive cognition by the context (Maturana, 2013). This proposal is essential and has great relevance for psychotherapy and mental health, mostly in features related to patient-therapist relationship and therapeutic change. It's not a cognitive directive that determines the system's transformation, but rather it's the change that depends on the system itself exclusively.

Operational closure is constituted on the basis for another very important concept in Humberto Maturana's epistemology, the autopoiesis. This is defined as the capability for a system to self-reproduce (Maturana, 1993; Sarmiento, 2009). For Maturana, life is autopoietic, given that it generates the conditions for its own existence. Every living thing is an autopoietic system, that is, it self-reproduces, keeping itself congruently in its own context and emerging synergetically. The organism, being autopoietic, operates its own components and generates its own processes in its internal dynamic, keeping the system's identity and its cohesion. Likewise, it's able to interact with its external context ascribing meaning and guaranteeing the supplies that allow it to self-reproduce (Maturana and Varela, 2020). The organism keeps up a dynamic that allows it to produce itself in a determined space distinguishing itself from the context; this way, it has a self-reproducing dynamic, keeps itself aligned and close-knit with its context and preserves its identity by retaining its autonomous unity (Maturana and Verden-Zöler, 2019).

The transcendent thing in an autopoietic system is not so much its ability to adapt and congruence with its context, but rather the self-generation of its own processes and internal components. This way, the aforementioned dynamic corresponds to a cybernetic circular dynamic, that is, it cannot be understood by linear mechanisms. The interaction that takes place, internally as well as externally, involves complex mechanisms that facilitate the emergence of learning and innovation. On the other hand, the autopoietic organisms are cognitive systems that find themselves in a constant exchange with their contexts, to which they ascribe meaning while relating to it. The cognition is present when the organism perceives, is self-aware, reproduces, nourishes itself and behaves. In all these processes it's attributing a meaning to the elements of its context. The place that it uses to hunt and look for food, the behaviors it engages in to capture its prey, its mating strategies, every moment it's ascribing meaning to and co-creating its context. The cognition is present, being constituted, in an essential part, for the organism's life. In that sense, every organism is a cognitive being, if we understand cognition as the ability of every organism to solve problems and become close-knit with its context (Maturana, 2013; Maturana and Varela, 1996). From this perspective, every living organism is a cognitive system: knowing is living and living is knowing.

Thus, cognition has to do with all the activity of the organism in relation with its external and internal context, generating behaviors that allow it to survive (Von Foerster, 1991; Kenney, 1994; Segal, 1994). Perception is conditioned by our models of the world, conceptual frames and cultural contexts. The nervous system is a closed system with no entrances or exits. This means that it builds up its own perceptive reality from its own internal operations. There is no possibility for it to perceive that which it's not prepared for, nor that which its internal operations won't allow it to. Finding itself in congruence with the context, organism and context mix together and the only thing that will be perceived is that which the former is prepared to in this specific context. Congruence with the context determines the stimuli that will be meaningful for said congruence to remain. It builds up its own world out of said disturbances.

This implies that the organism is not merely a passive entity that just grasps the stimuli in the context through its senses; on the contrary, it's an active autopoietic organism that builds its own world of meanings through its perception and cognition. Its nervous system, being closed off, doesn't process information from the external context; rather, it builds from its own internal dynamic a world of meanings in the cognition process (Von Foerster, 1991; Maturana, 1998; Caba, 2013; De la Cruz, 2023b). That which the organism perceives is not an objective and exact representation of the external world; on the contrary, it's a construction by the organism itself in congruence with the external context, in a circular causality relation. This way, cognition and perception are circular processes that correspond to recursive processes, in which what we perceive doesn't represent an external reality, rather one that appears as an emergence of the relation between an organism and its context, built by the organism itself (Varela, 1900). Living beings are autonomous organisms. The cognitive domain characterizes what we are.

The organism, in its relational dynamic between the external world and its internal world, allows the appearance of a totality, an emergence in coupling; what the organism perceives from the external and internal world emerges from a totality that follows a circular causality (Von Foerster, 1991; Maturana, 1993). The external and the internal are a totality; this way, the cognitive dimension appears as an emergence of the relation between the biological and social dimension.

The organism just perceives that which is meaningful for its congruent operation with its context. It limits its perceptive range to the congruence that holds with its context. All that which allows it to survive will be meaningful; the rest will be excluded, for which it will keep up an abstraction blindness towards said stimuli that will not have any relevance for its operation.

Along all this process, language takes a lot of relevance given that it allows the description of the perceived things. Therefore, the cognitive process is not only about the reception of external objects, but it also actively involves language. This way, the observer's biological structure itself allows the emergence of language, allowing the expansion of the cognitive domain (Maturana, 1998).

For Maturana, an organism interacts with its context. In said interaction, it changes position either because of the context's stimuli or because of its own internal dynamic. Behavior represents the positional and shape changes that an organism carries out in its context. Hence it's a distinction related to the description of the organism's positional changes in the context in which it operates. The observer cannot identify the organism's internal dynamic nor its state changes, but only the organism's changes when interacting in its context (Maturana, 1998; De la Cruz, 2023b). Therefore, what we call behavior is just that which is differentiated and described by the observer.

When the organism interacts with the context it uses language to coordinate actions and to couple with its context. Language allows for the coordination of actions among communicators (Ceberio & Watzlawick, 2006; Ceberio & De la Cruz, 2023b). This way, language allows one to transmit a particular way of thinking, viewing and perceiving the world. It transmits culture and not only information (Maturana, 2008).

The reiterative therapeutic encounter between therapist and patient allows for a causality superior to them to emerge and consolidate, a totality that cements on the basis of acceptance and legitimacy of the other (De la Cruz, 2023a). This influences its elements from an instance above them, which facilitates change.

With the incorporation of the concept of autopoiesis it's proposed that the patient's operating is not determined by any external agent, given that this is found closed off to stimuli and the context's directives (Ceberio & De la Cruz, 2023b). This way, the patient, finding themselves closed off to any external cognitive directive (given that they have denied it), they need for the therapist to propose strategies through persuasion in the therapeutic conversation. This way, the therapist seduces the patient speaking their same language, being in tune and putting themselves in their shoes so that from there they can join their vision and model of the world. Once that is achieved, and only then, the therapist will be able to go forward with the patient's leadership and accompanying towards the therapeutic change and transformation.

Autopoiesis involves the step forward from a therapeutic relationship based on relational asymmetry, in order to go from a win-lose metaphor to a cooperation relationship between the patient and the therapist with a win-win metaphor. This second position implies a so-called objectivity, an acknowledgement of the other and their model of their world: the acceptance of the multiverse. In the first position, on the contrary, there is one truth alone and one universe, where the model of the therapist's world is the most important and truthful one. This implies the denial and non-acknowledgement of the other.

The acceptance of the other's model of the world allows for a positive synergic encounter, centered around the negentropy that opens the way for learning, creativity, innovation and, therefore, change and transformation (De la Cruz, 2023a). This way, in the second legitimation position, the patient feels recognized, opens up and accepts the therapist's premises and prescriptions as valid. In this sense, and from Maturana's perspective (1999),

the therapeutic encounter based on the legitimacy and respect for the other turns into a loving encounter supported by relationships of acceptance and legitimacy of the other. From this perspective, an emotion such as love allows new realities and behaviors, allowing the transformation of emotional pain into health and psychological well-being.

### **3. Brief psychotherapy and mental health**

Regarding the influence on mental health, nowadays there are many difficulties to define adequately what is a good and positive mental health. There is no agreement with regards to specifying the term. That is why it is difficult to operationalize it, which limits its adequate research a lot (Fusar et al., 2020).

The noticeable focus centered around illness has prevented so far any adequate development and strengthening of health promotion and empirical research in the identification of conditions for good health (Arango et al., 2018). This is why definitions vary according to different perspectives, theoretical models, culture or clinical practices (Manwell et al., 2015). One of the most used definitions is the one proposed by the World Health Organization: mental health is a whole state of complete physical, mental and social well-being that should not be limited to the absence of illness (World Health Organization, 2001). General well-being, presence of positive emotions, good interpersonal relationships and satisfaction with oneself, along with satisfaction with family and others, are indicators of positive good mental health (Trompeter et al., 2017). Due to all of the above, positive mental health would be related to a well-being state that makes it easier for a person to be in the potential conditions to face normal efforts for living and perform in a productive way (Fusar et al., 2020). This focus represents a paradigm change: from being centered around illness and the intrapsychic, it goes into a more holistic, ecological and systemic health vision. Maturana's epistemology, in its relation organism-context, closure and autopoiesis, conceptualizes an interactional dimension in a system-focused thinking more than in the problem, under an efficient causality, a circular causality of the solution. From there, a good mental health is a state of well-being that allows people to rely on capabilities, competences and resilience to face stressing situations in life, which, in turn, makes productive performance easier (Trompeter et al., 2017).

For its part, brief psychotherapy was born from a systemic, cybernetic and constructivist tradition; it uses circular causality and denies the existence of one single reality external to the observer (De la Cruz, 2021a, 2022). In this sense, this form of therapy has demonstrated to have efficacy and efficiency in the treatment of a broad amount of emotional disorders (De la Cruz, 2021b; Bartoli & De la Cruz, 2023; Ceberio & De la Cruz, 2023a).

Brief psychotherapy is focused not only on transforming the cybernetic structure of the symptom's ecology, but also on the development of solutions (Nardone, 2000, 2010; De la Cruz, 2023a). Furthermore, it deals with fostering a meaningful improvement in the capacity of people and their family dynamics, just in case it is necessary. Reason for that is that it tries

to improve the relationship of the person with themselves, with their family, with other people and the world. This way, it wants to improve the facing strategies of the person, strengthening and fostering their emotional and positively cognitive experiences. The focus of brief psychotherapy, in this regard, seeks to strengthen the capabilities, resilience, empowerment and independence of the patient from the therapist, promoting their psychological well-being. This taking into account that good mental health is constituted in the midst of a protecting factor that prevents the emergence of the psychopathology (Trompeter et al., 2017).

Brief psychotherapy, this way, prevents the patient from showing clinically relevant symptoms, so they don't suffer from the same mental disorder that brought them to therapy in the first place (Nardone, 2002, 2010). Likewise, it seeks to help the patient achieve adequate perceptions about life and the world that allow them to develop and interact fulfillingly and with self-efficacy in various areas of their life. This way, by improving their capabilities, it allows for the development of new behaviors, life skills, a better cognitive performance, troubleshooting capabilities, change management and stresses of life itself. It focuses on getting the patient to be able to rely on the necessary tools to face the situations that took them to the emergence of the symptom, so they can be able to self-manage. This way, brief psychotherapy supports the development of positive mental health.

#### **4. Conclusions**

The incorporation of the concept of so-called objectivity and the existence of a multiverse has influenced science in general and psychotherapy and mental health in particular. The observer is an active constructor of reality and is an important participant in the construction of what is observed.

Beings are autopoietic and cognitive systems. This way, cognition stops being a human feature exclusively in order to become included in every perceiving and interacting organism that behaves in a way that affects their context.

Autopoietic systems stay enclosed to the context's influence. Even though the context only stimulates, it does not determine the organism's processes and internal dynamic. This way, these systems stay enclosed to any other cognitive direction coming from outside.

In this context, psychotherapy does not determine the change without the active participation of the patient and their therapist. It is all about a relationship based upon acceptance and legitimacy of the other in the coexistence of the therapeutic encounter.

Positive mental health with a more ecological perspective is focused not on illness as it was traditionally done, but rather on the development of capabilities, competences and resilience that allows the person to self-manage and face the daily life stressors, performing productively and achieving a state of well-being.

Therapeutic change is an emergency that appears from the interactive encounter between the therapist and the patient based upon the emotion of love.

Brief psychotherapy is focused on solutions, on the development of capabilities that foster a better performance in the different areas of life. This way, the consultant's resilience and autonomy in regard to the therapist gets strengthened. In this sense, it aligns with the development of positive mental health. Both disciplines have nurtured Humberto Maturana's second-order cybernetic ideas.

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