

# For the Dialogic Construction of Reality in Psychoanalysis

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**Abstract:** The paper is concerned with the parallelism of psychoanalytic and neuroscientific theories. The complexity of mental processes is an essential assumption in both scientific fields. The study of complex systems requires other basic logical conditions, their results are subject to interpretation. The introduction of social references as an essential element of the development of consciousness in neurobiological constructivism results in a further parallel to psychoanalysis. Neurobiological theories can explain the workings of the human brain to an increasing extent, but not its results, i.e. the mental activity. Psychoanalytic theories, however, describe design patterns of reality and thus provide an essential prerequisite for interpretation. If the psychoanalytic process is described as a dialogic construction of reality, psychoanalysis and neurobiology constructivism are to each other in a complementary relationship. The psychoanalytic dialogue –although asymmetric- is viewed as a collective work of analyst and analysed with reciprocal influence. Results of the analytical process are approximations and remain dependent on interpretation. Its value is determined by the evidence and change effectiveness of the analysed. In terms of sustainable effects, the evaluation must refer to the totality of the changes and not just the symptoms.

**Keywords:** Psychoanalytic Theory, Neuroscience, Transference, Countertransference, Psychoanalytic Treatment Rules

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## 1. Introduction

Antonio Damasio [1] responded to the statement that the similarities between Freud's Model of Consciousness and Damasio's (neurobiological) conceptualization of consciousness showed striking similarities, the following: *I think we can say that Freud's insights into the nature of consciousness are compatible with the most developed perspectives of contemporary neuroscience*. They are compatible, but this has not yet led to psychoanalysis being regarded as a state-of-the-art science. Rather, it is to be feared that *psychoanalysis will not develop into modern psychotherapy as long as the majority of psychoanalysts adhere to traditional humanities models and reject any efforts to empirically validate existing concepts, especially through neurobiological research*. This demand of the German neurobiologists Roth & Strüber [2] does not take into account that it might be difficult to describe the products of the human mind with similar precision as its organic basis.

Freud had his attempt to put his theory on a scientific basis [3] not pursued. Probably because of the state of

neuroscience at that time still did not constitute a sufficient basis. It may be assumed that, the progress in neuroscience as presented nowadays would have been of great interest to him. E.g. the cortical fields of association as the basis of free imagination [4], the importance of subcortical structures in the development of feelings [5, 6] and the role of the "mind-gut connection" [7] in the global evaluation of life situations.

## 2. Method

In his 40 years as a neurologist, psychiatrist and psychoanalyst, the author repeatedly had to deal with both the nomothetic principles of scientific basic research (especially in the neurosciences) and the principle of idiographic knowledge in psychoanalysis.

Only since the second half of the 20th century was it possible to develop the wealth of neurophysiological and neuroanatomical research approaches in brain activity into theories on the origin of mental and emotional activity [8-13]. This offered the opportunity for the dialectical synthesis of these principles of knowledge. In the following, we will try to describe this synthesis and its effects on psychoanalytic activity.

### 3. Results

#### 3.1. Complex Systems

In the second half of the last century it became a tradition to interpret mental processes under positivist criteria and only then allow hypotheses apply if they were nomothetically verifiable. Psychoanalysis was suspected of being unscientific, because its more idiographic realization ways did not to meet the standards of a science based research.

The positivist knowledge approach has limitations in complex systems. The necessary reduction of the of the research topic in nomothetic validation is unsuitable for the study of complex systems. Already in 1970 Humberto Maturana introduced into the interpretation of biological phenomena the correlation between observation results and observer, until then only known from quantum physics<sup>1</sup>. Knowledge can only reach so far as permitted by the faculty of knowledge. In this sense Freud's words at the Nuremberg Congress from 1910 may be understood<sup>2</sup>: The demand for self-analysis as a precondition for analytical work means using one's own mental processes as a cognitive tool. The idea is clear: a complex object of study, namely, the soul of the analysed, is explored by another complex system, i.e. the mental activity of the analyst.

The study of complex systems requires, in some respects, a different kind of logic than we are familiar with in the scientific view of the world. The linear logic is not suitable to describe the interactions in complex systems. In the cited work Maturana spoke of a circular process that characterizes every living being<sup>3</sup>. Essential feature of complex systems is the interaction of individual parts of the system. Minimal changes or disturbances in the initial conditions can have a major impact on the development of the system.

In complex systems arise developments that are not the sum of the properties of the individual components explained, so-called emergents. The behaviour of complex systems depends not only on the current state, but also on the history of the system dependent. In complex systems at the same time can cause several states or state sequences.

#### 3.2. Neurobiological Constructivism

Different sensory stimuli are presented to the brain in indifferent encoding (reduced code). This means that all sense organs respond to external stimuli with only

quantitatively variable sequences of nerve impulses, which are calculated in the brain to a sensation and optionally become aware. One can say that our sense organs work on the principle of an analogue - digital converter, thus allowing binary cerebral processing. This is true at least in neuronal networks and the associated sensory systems. However, neuronal information processing is not the only one. The presumably phylogenetically older ways of information transfer by means of messenger substances or cellular changes take place in the analogue mode [13].

Both, the resulting image of reality and the resulting consciousness therefrom are constructions of the brain. The development of constructivist theory towards the neurobiological constructivism, however, reflects the fact that man only by his social relations becomes what he is. The pre-formed phylogenetically and ontogenetically acquired brain structures developed probably under the selective pressure of social desirability, which is an important factor in survival.

Three basic assumptions of neurobiological constructivism are important for the discussion of the dialogic construction of reality:

1. The brain and not our conscious self is the designer of our reality.
2. The brain creates a virtual actor, namely the self, to produce the complexity of the world of experience.
3. Man is a social being, due to its biological dispositions, the Company, its natural habitat<sup>4</sup>.

Sensory afferences used in the construction of reality are selective and incomplete. They are selected by appropriate brain structures. This unconscious process is necessary to navigate the complexity of all possible physical environmental signals and to ensure a rapid and continuous adaptation. For economic reasons, we make unconsciously a selection from the infinite wealth of environmental signals and process them in a largely prescribed manner to an image of reality – limited but manageable. This savings program is clearly a survival condition. Our heads are not suitable for an overabundance of information. The fact that not all existing signals are processed hints at the fact that there can be no objective depiction of reality.

That most of individuals constitute in most cases a similar image of reality is due to the fact that the phylogenetically preformed anatomical structures are equal and that they have been developed under the evolutionary influence of social acceptance. The design of the current reality is made in reliance on already lived through and stored as engram experience. Gerald Edelman [9] speaks in this context of remembered present. This in turn is heavily influenced by the valuation habits of the surrounding society. In Neurobiological Constructivism memory is called the most important sensory organ. [10]

This – only very cursory depicted- epistemology can give

1 Thus cognition as a biological function is such that the answer to the question, "What is cognition?" must arise from understanding knowledge and the knower through the latter's capacity to know. [14]

2 We have, since a larger number of people practicing psychoanalysis and share their experiences, noted that each psychoanalyst comes only as far as his own complexes and inner resistances allow, and therefore demand that he begin his self-analysis and continuously deepen it, as he makes his experience with patients, Who does not succeed in such a self-analysis, should deny himself the ability to treat patients analytically [15].

3 Living systems as they exist on earth today are characterized by exergonic metabolism, growth and internal molecular reproduction, all organized in a closed causal circular process that allows for evolutionary change in the way the circularity is maintained, but not for the loss of the circularity itself. [14]

4 The human brain itself is a social organ and to truly understand human beings, we must understand not only how we as whole people exist with others, but how our brains themselves exist in relationship to other brains. [12]

an idea of why there is on the one hand a wide field of undisputed identical constructions of reality, such as the physical life experience, on the other hand, very different reviews, as in the area of interpersonal relations. Reality is a construction of our brain, expressed even more provocatively, it is a calculated result. This concept is often referred to as the fourth major insult to humanity, according to the previous three, Freud described in the 18th lecture [16].

The reflection on the social nature of man led to a neurobiological interpretation approach that makes a common construction of reality in the first place feasible. The relatedness to others is as important to the development of awareness as the anatomical and physiological properties of the brain. Positive social feedback is not a pleasant bonus, but biological necessity and thus an important evolutionary factor. This means that the ability to share construction of reality is advantageous in the struggle for survival. The same applies to the ability to take the perspective of others.

### 3.3. The Psychoanalytic Situation

The epistemological ingenious design of Freud, to gain insight into a complex system by the action of a second complex system made it possible to escape from the devaluing *violence of reduction* - as Nietzsche called it. In psychoanalysis, two people meet sharing their images of reality; they enter into the dialogical construction of reality. The match is determined by unconscious as through conscious expressions and perceptions. The language dominates the conscious level of understanding. But awareness is not only the mode in which human communication is possible, awareness is the mental state in which changes are planned and carried out. All unconscious content requires the verbalization to change it<sup>5</sup>. The psychoanalytic dialogue has rules. It is up to the analyst to be neutral and not to influence the dialogue with his own values and needs. Under this requirement of neutrality and abstinence the world of the analysed becomes the subject of dialogue. The analyst puts himself at the service of cognition of the analysed. He does this with his mind, feelings, associations and images. The question with which of his shares he takes part in the dialogue, has been widely discussed and has led to very different methodological approaches. Early in psychoanalytic theory it was clear that the analytical process requires not only cognitive performance of the analyst. I remember in this context to the free-floating attention or also to Theodor Reiks *listening with the third ear* [18]. In the analytic dialogue two realities come together: that of the analysed and that of the analyst. Object of analysis is the construction of reality of the analysed. They both enter a common room of association. The accompanying ideas of the analyst, his feelings, his

perception and understanding of reality are partially different from the experience of the patient. From the deviations or even contradictions thus result possibilities to reveal the unconscious ways of constructing reality by the patient. The psychoanalytic interpretation can be described in the constructivist sense as deconstruction.

The asymmetry of the psychoanalytic dialogue calls for neutrality by the analyst. The total absence of assessments will be impossible. Under neurophysiological aspects we evaluate constantly, more unconscious than conscious. A neutral attitude of the analyst can therefore only mean that he realizes when and how he evaluates, possibly even why.

The situation is similar with abstinence. Abstain, to be abstinent, means not to include one's own needs, whatever nature they may be, in the dialogue. This too is an attitude that you can use as an ideal state, but never really achieve. Really to keep out requires understanding the process in its entirety. This in turn is indeed the goal of the dialogue.

### 3.4. Free Association

There is much evidence that the associations have -similar to the selection of the utilized afferent signals- a history, to which both, analysed and analyst, are subjected. The analytic dialogue is supported by the report of dreams and the possible uncensored notified ideas. The analyst listens with "free-floating attention". He immerses in the world of the patient, and creates an image of what his patient thinks and feels. The association as a nexus of feelings, instinctual wishes, fantasies, images and memories will be regarded as "free" if it is not controlled by social desirability.

Under constructivist point of view one should add that something similar is true for the analyst, only that he mostly does not pronounce what he feels in himself, but uses it as a basis of his understanding. In this way, two images of the world of the analysed arise, which only partially coincide. For the analytical cognition it will be interesting if the image of the analyst differs from that of the patient. We assume that the analyst with his own experience and his theoretical background has a knowledge advantage. He should be able to trace at key points throughout the unconscious way of construction, i.e. to deconstruct or - to put it in psychoanalytic terminology - to interpret. It could establish in the patient another reality, that is better adapted to the prevailing conditions.

### 3.5. Transference and Countertransference

Patient and analyst enter into a relationship that is indeed preformed by rules, but allows the flexibility to design highly individual pictures of the other person and to interpret actions. The presence of the therapeutic situation itself is displayed differently in the analysed and analyst in their respective possibilities of knowledge and cognition. In psychoanalysis, this is called "transference" and "countertransference". These two terms suggest that countertransference follows transference, that the first is followed by the second or even that the second is caused by the first. Under constructivist

<sup>5</sup> Now, too, we are in a position to state precisely what is it that repression denies to the rejected idea in the transference neuroses- namely, translation of the idea into words which are to remain attached to the object. The idea which is not put into words or the mental act which has not received hyper-cathexis then remains in the unconscious in a state of repression. [17]

point of view however transference happens at all time and under all conditions with a mutual impact on each other; it is part of the "remembered present" and thus an every day phenomenon.

In the analytic situation, which is by its rules, a special form of encounter the otherwise largely unconscious transference phenomena are object of consideration. The commandment of abstinence and neutrality can be respected only insofar as the conscious portions of experiencing of the analyst are concerned. The recognition of countertransference is therefore an integral part of the analytical work. The reciprocity makes it necessary to leave the path of linear sequences and to consider correlations under circular aspects. Observation results are dependent on the state of the observer; so to speak, they are subject to an "uncertainty principle", as we know from quantum mechanics.

Focussing psychoanalytical work on the "here and now" of the therapeutic relationship as it is now well practiced, receives support through the constructivist perspective. Just as the construction of reality generally takes place at all levels of consciousness, transfer phenomena can be expected at different levels of consciousness. The everyday relationship expectation of the analysed manifests itself (also) in the relationship with the analyst. Similarly, the life experience of the analyst affects the perception of the analysed. The analyst has or should have a knowledge advantage, which enables him to recognize transference phenomena in both participants of the dialogue. The resulting interpretations (or deconstructions) can resolve transfer phenomena and thus maintain the progress of the analytic process. Sandor Ferenczi [19] spoke of mutuality of psychoanalytic explorations and changed the roles in his courageous, for many questionable therapeutic experiments with patients. It was an experiment and it quickly became clear that a setting featured by analyst and an analysed switching role is for many reasons not possible. Ferenczi did not have the time to draw practical conclusions for the psychoanalytic treatment because he died shortly after the publication of his clinical diary. The constructivist view of transference and countertransference suggests putting the reciprocity or circularity of the dialogic construction of reality into the centre of attention. A similar reflection of the analytic process is found in Stolorow<sup>6</sup>. This leads to the view that the analytical process, in other words, is a highly individual and unique. Results of the analytical process are approximations and interpretations remain dependent.

## 4. Discussion

Construction of reality means cognition. Both partners of the dialog acknowledge dialogically obtained cognition. It is at all possible through the conscious exchange of ideas. Language as an activity of awareness is essential for any differentiated exchange. Awareness is the knowledge of ones own existence, knowledge that is necessary to interact with the world and to find ones way in it. Thus a statement about the function of consciousness is made, but not about its creation. Following the ideas of Antonio Damasio [21], consciousness is initially characterized by emotions. They are formed on the basis of reactions of the body and its organs to environmental influences. He speaks in this context of somatic markers that are used to structure the complex world of experience and to limit the possibilities for action in this to thereby be at all capable of acting. They rescue the emotions from the world of irrationality and show their important role in terms of unconscious experience, decision processes and in the whole social interaction. Feelings and emotions are therefore not to be regarded as the opposite of rationality, but as one of its bases.

The organization of action plans in response to changing environmental conditions is carried out on different neural levels. The totality of these responses to the world, preformed by subcortical centres, so to speak the mapping of the corresponding brain structures, is referred to as core consciousness. Based on this core consciousness arises an expanded consciousness that creates a sense of consistency and constancy. It is the cortical structures, their ability to differentiated perception, to memory storage, logical connections and prospective fantasies that generate this extended awareness, enable us to speech and dialogue.

If two people enter into a dialogue, so they can do so not only with the voice generating awareness, but also with the entirety of their experience, with conscious, pre-conscious and unconscious portions. The non-verbal portions of the dialogue (facial expressions, posture, tone of voice, smell, etc.) are largely generated and processed by subcortical structures. Apparently the preconscious levels of awareness are involved in the dialogue. In terms of psychoanalysis, this means that psychoanalytic cognition can only be a dialogical cognition.

The psychoanalytic dialogue is asymmetric; it is focused on the reality of the analysed. The analyst takes part in it with his whole existence, but he keeps rules to ensure that his own existence remains in the background. He is striving for and capable by his self-analysis to recognize unconscious design patterns, to deconstruct them by his interpretations, and thus to pave the way to other images of reality (as far as the object representations are concerned, for example). His ability to do so depends on how far he is capable to minimize his own impact on the dialogue. He is assisted by psychoanalytic theories in which the clinical experiences of many others are reflected who have published their understanding of unconscious processes. Psychoanalytic theories are descriptions of design patterns of reality. It is certainly not

6 Our first explicit use of the term intersubjective appeared in an article (Stolorow, Atwood, & Ross 1978) that Lewis Aron (1996) credited with having introduced the concept of intersubjectivity into the American psychoanalytic discourse. There we conceptualized the interplay between transference and countertransference in psychoanalytic treatment as an intersubjective process reflecting the mutual interaction between differently organized subjective worlds of patient and analyst, and we examined the impact on the therapeutic process of unrecognized correspondences and disparities -intersubjective conjunctions and disjunctions- between the patient's and analyst's respective world of experience [20].

insignificant for the particular psychoanalytic dialogue and the knowledge gained, from which theoretical concepts the analyst is guided.

Dialogic knowledge is thus only "right", if both participants of the dialogue are authentic - the analysed by expressing himself as candidly as possible, the analyst by carefully recording his feelings, associations and interventions and understanding them as an expression of his whole personality, which affects the analytical cognitive process significantly. Although he usually does not comment about it, yet he takes part with all his experience in the circular process of common dialogue. His interest and his attention, his faculty of judgment and his focussing influence on as well on the aware as on the unconscious level, the way of common construction of reality.

Large parts of our awareness have an unconscious basis. The anatomical structure of the brain and the functional assignment to individual brain structures determine the way to awareness. But only the ontogenetic or experience-related proportion of consciousness creates the individuality of worldview.

Why do we keep evidently important experiences of our consciousness away, repress or subjugate them to other defence mechanisms? Why do we construct occasionally or even often a reality that obviously rather creates harm than benefit? The psychoanalytic treatment has all the same shown that awareness can have a salutary effect. These highly complex internal processes that play a role in organizing the defence, the diversity of human experience in general, are not sufficiently clarified alone by the neurobiological discourse. The reference to the energy balance of the brain or the always-necessary maintenance of internal homeostasis does not satisfy as an explanation model. It seems that at this point the limit of neurobiological research has been reached, since it only provides a basic idea about the neural conditions of the cognitive process, but not on its diverse applications.

## 5. Conclusion

There are strong voices [11], which say that psychoanalysis has taken its place in the family of Sciences again. Permit the question of whether she had ever lost it.

Psychoanalysts have mostly not involved in a work based on linear logic positivist research approach (and received a lot of criticism). The detecting of mental processes and human relationships requires different methods and different ways of thinking. Analysts have early occupied with the study of states of consciousness, and thereby engaged in free association, to dreams and fantasies, which cannot be dealt with the conventional logic. They have, therefore, often been accused of lack of scientific nature. With the development of neuroscience, particularly with the exploration of consciousness, it appears that many of the basic assumptions of psychoanalytic theory have a high explanatory value and support the interpretation of neurobiological research.

Neurophysiological theories to raise awareness seem to

compete with psychoanalytic theories. At first glance you can get the impression that the latter would fall victim to the epistemological principle, which is known as "Ockham's Razor" or parsimony principle. (It is to give preference to that theory, which works with the smallest number of hypotheses). The neurobiological constructivism is based on an impressive wealth of scientific-results, the validity of which is not to be doubted.

On closer study of the topic, however, this competition turns out to be invalid. Although neurobiological theories can explain the basic functioning of the brain, they do not explain the result of the work of this highly complex system and certainly not its diverse interactions. This has always been a domain of psychoanalytic and sociological knowledge formation. Psychoanalysis could just as losing reputation, where it had to measure up to the long time exclusively applicable principles of Euclidean mathematics and linearity.

However, such a view consequences for the inner attitude of the analyst:

Using the logical rules that complex systems demand psychoanalytic interpretations follow the rules of probability. Results of the analytical process are approximations and remain dependent on interpretation. They are design patterns of reality. There is no objectivity and therefore no authority-creating certainties. Evidence created by dialog is unique. It is closely linked to the personality of the analysed and the analyst. What is recognized today as a right or really, would appear slightly different tomorrow. Only certain recurring patterns of construction of reality, which are relevant to the organization of the personality and for the formation of symptoms, remain stable over time. The construction pattern of the patient, however, characterizes each of his relationships. In this respect the minimal structured dialogue situation in psychoanalysis is quite capable to describe and improve symptoms of mental illness. [22]

The subjectivity of psychoanalytic knowledge excludes an ex cathedra attitude of the analyst, especially in training and supervision. The frequently expressed question in supervisions and casuistic seminars, whether the intervention is right or wrong, can only refer to whether it is useful for the cognitive process or not. The value of psychoanalytic hypotheses is especially evident at the change relevant activity, which they can generate in the analysed.

Finally, the question has to be answered, what benefits a comparative study of psychoanalysis and neurobiology can have:

First of all, it should be noted that the scientific assumptions of psychoanalysis correspond in essential respects to those of neurobiological research.

Psychoanalysis and neurobiology do not compete, but complement each other. Neurobiology describes the instrument of awareness rising. Psychoanalysis is concerned with the design patterns of reality, hence the activity of this instrument. As shown above, the postulate of reduction of the research topic as a prerequisite for scientific cannot apply.

The construction of reality in the psychoanalytic dialogue is a reciprocal and simultaneous event, which is determined

by transference and countertransference. Even though the psychoanalytic dialogue is defined by clear rules, it is difficult under the above points of view, to see the analyst as a subject and the analysed as an object. The analyst puts itself at the service of awareness rising of the patient. He does it with all his knowledge, his own self-awareness and the presence of his whole personality.

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