Tentative Theoretical Framework for Understanding Dynamics of LSD Psychotherapy

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In spite of the fact that LSD has been used within the last 18 years in many thousands of experiments, the literature describing its effects and therapeutic potentials is still highly controversial. Different authors use the drug in very different frames of reference, and there exists no generally accepted hypothesis which could bring all the observed data under a common denominator. Such a hypothesis should provide the clue for understanding the content and course of separate intoxications as well as the successive ones within a psycholytical series, the importance of extrapharmacological factors (as the personality of the subject, the therapeutic relationship, and personality of the therapist, the set and setting of the experiments, etc.), and the nature of complications. It should bridge the gap existing at present between the psycholytic and psychedelic approach to LSD psychotherapy and other therapeutic modifications (hypnodelic therapy, anaclitic therapy with LSD and others), and give a conceptual framework for understanding of their indications and contraindications and their successes and failures. Finally, such a hypothesis should supply practical directives concerning the optimal conditions for different kinds of LSD psychotherapy (doses, set and setting, and therapeutic technique) and prevention or mastering of eventual complications. With regard to the complex and multilevel nature of the aforementioned problems, it is an extremely difficult task to make hypotheses in this area, and it will probably be many years before we have one that will fulfill the aforementioned exigencies. For the present, a rough and approximate conceptual framework, from which practical conclusions could be drawn concerning the most important aspects of LSD psychotherapy, would be sufficient.

This paper is the author's attempt to propose, on the basis of his clinical experience with LSD, a conceptual framework that he found of great help in psycholytic therapy with LSD. Some of its aspects, however, exceed this frame of reference and relate to the psychedelic and anaclitical therapy and even to other more general problems (structure and functioning of personality, endogenous psychoses, etc.). The author's ambition is, of course, to present an incentive for an approach to the problems connected with LSD and a possible topic for future research rather than a ready-made explanatory system.

The material used for this conceptual generalization is drawn from more than 1,100 LSD and psilocybin sessions, in each of which the author was present personally for several hours. For the first 3 years of experimenting, LSD was used in the frame of a "model psychosis" approach, the last 5 years were dedicated to the study of the drug with regard to diagnostic and therapeutic purposes in the frame of dynamic psychotherapy. A considerable number of experiments were carried out on hospitalized patients at separate sessions which included both

individual and group psychotherapy (1-8 sessions). The most important part of the material for the problems discussed stems from 20 patients undergoing psycholytic therapy with LSD (the number of sessions range from 15 to 76). A small part of the experiments are autoexperiments of physicians, students of medicine, nurses, artists, and philosophers. The set and setting of these experiments was described in detail elsewhere (Grof, 1965). In addition, the author had the opportunity to follow the course of LSD psychotherapy practised by his two coworkers, to discuss the observed phenomena with them, and to consider whether they are compatible with the presented conception.

"COEX SYSTEM"–BASIC CONCEPT FOR UNDERSTANDING THE DYNAMICS OF LSD INTOXICATION

Many phenomena observed during psycholytic therapy with hallucinogenic drugs can be understood and even predicted, if we think in terms of specific memory constellations, which for the sake of brevity, I called COEX systems (systems of condensed experience). The existence of governing systems as revealed in psycholytic therapy was first discovered and described by Leuner. He uses the term "transphenomenal dynamic systems" (transphenomenale dynamische Steuerungssysteme–tdyst). Although there is no principal difference between the "tdysts" and what I call the "COEX systems," the terminological differentiation should be retained because of a broader conception of the latter and because of all of the further implications dealt with in this paper. They are attached to the concept COEX system, but not necessarily to Leuner's "tdyst."

DEFINITION AND DESCRIPTION

A "COEX system" is a specific memory constellation, comprising experiences (and/or fantasies) from different life periods with a similar basic theme or similar basic elements and charged with a strong emotional load of a certain quality.

The deepest layers of this system are represented by very vivid and colorful experiences from the infancy and childhood periods. The more superficial layers contain similar experiences from the past up to the present life situation. The excessive emotional charge which is often attached to these systems (as indicated by mighty abreactions in LSD sessions) seems to be a summation of the emotions belonging to all the life experiences of a particular kind. Separate COEX systems are defended by special defense mechanisms and connected with specific clinical symptoms. The personality structure contains a greater number of these systems. Although there are interdependencies, these systems can function relatively autonomously and can, under certain conditions, selectively influence the thinking, feeling, and behavior of the subjects and even of his somatic processes.

LSD sessions seem to represent a deep intervention into the COEX interrelations. Separate LSD sessions can cause activation of a particular COEX system (or several such systems) and a "COEX transmodulation;" after the session, the subject's ego is under a much stronger influence of the COEX system, which dominated the experiential field before the experiment, or a shift occurs and another COEX system dominates the experiential field. Repeated LSD sessions can be viewed as successive revealing, abreacting, and integrating of the COEX systems of the subject. When in an LSD session, a particular COEX system approaches the experiential field, this results in a specific change of symptomatology. The system has a governing influence on all the LSD experiences–it determines the way in which the physical and interpersonal environment is illusively transformed, the sensory changes in other areas, the emotional qualities,

the mode of reasoning, etc. This influence of the COEX system lasts until its oldest experience—the core experience is relived and integrated. Then it definitely loses its power and never appears in successive LSD sessions. When a strong COEX system becomes activated in the termination period of an LSD session and is not settled by complete reliving of the core experience, it keeps on influencing the patient in the free interval in its specific way—we get a prolonged reaction or a "complication." Sometimes a particular COEX system can be settled in a single LSD session, but usually this process takes several successive sessions. In exceptional cases, a very strong and extensive COEX system governs the experiential field for as many as 20-30 sessions. When no stronger COEX system is near the experiential field (this is the rule towards the end of the psycholytical series after many sessions), the LSD reaction has the form of a contentless, ecstatic, transcendental experience, and the free interval after the session is marked by a striking clinical improvement. When on the contrary a very extensive COEX system emerges, the core experience of which reaches into the earliest developmental periods of the individual, the clinical picture (in the LSD session and in the following free interval) is hardly distinguishable from an endogenous psychosis (schizophrenia, maniomelancholia). The functioning of the COEX systems, which can be demonstrated so clearly in the psycholytical series, seems to govern even normal mental life in a much less obvious way.

Now, after the nature and functioning of the COEX systems have been sketched in a very brief way, some particular aspects of this problem will be dealt with in greater detail. They are the problems of core experiences, the origin and dynamics of the COEX systems, their manifestation in the psycholytical series, and the governing influence of the COEX systems on the symptomatology, the interplay between COEX systems and environment, the importance of COEX systems for free intervals, and the understanding of complications and of some possible implications of a broader character.

PROBLEM OF CORE EXPERIENCES

It is a common experience of all those practicing psycholytic therapy that the subjects often report the reliving of childhood or even infancy experiences. They undergo a complete age regression (infantile body image, naive perception, and primitive emotional experiencing) and relive the aforementioned situations in a complex way, with all of the sensory, emotional, and ideational qualities of the original event. The reported experiences often reach back to early infancy, sometimes even to one's own birth or primitive embryonic feelings. They are accompanied with a strong emotional charge and their reliving brings about a mighty abreaction. The objective character of these phenomena is still controversial—some of them seem to be real recollections depicting very early events with incredible detail, others are probably fantasies or mixtures of both (emotionally distorted perception of a real event).

According to the conception presented here, these experiences represent the basis and the core or the oldest layer of the described COEX systems. They are a regular occurrence in all persons undergoing psycholytic therapy. A real reliving, which could settle the COEX system always includes a complex repetition of the situation (or a vivid, realistic reliving of a fantasy) with all the sensory, emotional, and ideational qualities; a mere "recall" of a particular event is not sufficient for this purpose.

Some of the subjects are able to undergo a deep regression of this kind in the first session, in others, several sessions take place before this occurs. In some exceptional cases, many sessions are neces-

sary before a mighty COEX system is reduced to such an extent that the core experience can be approached and relived (e.g., in severe obsessive-compulsive neuroses).

As far as the content of these experiences is concerned, the earliest ones are of a biological nature. When the occasional reports on embryonic feelings are omitted, a very frequent occurrence in psycholytic therapy is the experience of one's birth. Sometimes the theme is first depicted on a symbolic level (as being devoured and then excorporated by a fantastic giant animal or mythological figure—octopus, python, etc.), but finally it is relived on a very primitive and rough biological level. A whole complex of specific sensations lasting usually for several hours (extremely painful pressure on the whole body with a maximum on the head, the feeling of emergency and vital threat, massive anxiety, peculiar clammy feelings, suffocation, the experience of being propelled and pressed through a narrow channel, sometimes even vascular changes in the face, etc.) is followed by the experience of the apnoic pause and first breath with feelings of rebirth. The subjects usually doubt that their memory could reach that far back, but finally they cannot find any other plausible explanation for all the experienced phenomena. It is interesting that in females who already have given birth (but occasionally also in nulliparas) the birth experience is usually relived simultaneously with the delivery of their own child and sometimes with the conflicts around the first menstruation.

Another group of experiences often found as the core of COEX systems stems form the sucking period and infancy. It is often the reliving of oral frustrations—either lack of milk and painful thirst or anxiety, or jittery and nervousness of the mother during the sucking process and her inability to create a peaceful and emotionally warm atmosphere. Equally frequent are relivings of other unpleasant experiences from infancy—cold, hunger, careless treatment, influence of threatening stimuli or a bombardment by a whole influx of impulses, which the child is not able to integrate, emotional deprivation, suffered during children's diseases, painful medical interventions, forced ingestion of unpleasant tasting liquids (medicines, fish liver oil, etc.), the weaning trauma and unpleasant feelings during artificial feeding (hot nourishment burning the mucous membrane and the pharynx, impatience of the nursing person, bad taste of the food, and so forth), problems connected with teething when biting produces pain and others.

Experiences from later infancy and childhood, which often are found as core experiences, are conflicts around micturition and defecation, as well as the conflicts with parental authorities demanding cleanliness. Another source of unpleasant experiences is the discovery of anatomical differences between sexes accompanied with the castration complex or penis envy, observation of sexual activities in adults, (especially frequent are the primal scenes), sexual seduction by adults with premature sexual awakening, sexual activities with peers or own masturbatory manipulations—both discouraged or discovered and punished by adults. To the often relived traumatic experiences, from later periods, are scenes concerned with emotional rejection, cruel treatment, marked sibling rivalry, humiliation experienced from the parents, siblings, peers (later, schoolmates and teachers), excessive use of negative educational means (criticisms, degrading, discouraging, evoking of guilt feelings, etc.), unreliable behavior of relevant adults (neglecting, betraying), conflictful attitudes in the family (e.g., double-bind situations in Bateson's sense), observation of scenes shattering parental authority and producing insecurity. Similarly, as in early infancy, painful diseases or medical intervention and emotional problems con-

nected with separation resulting from a long hospitalization can be found even in later periods as core experiences.

The reality and objective character of these experiences is an open question. The questioning of living witnesses of these events (parents, servants, acquaintances, older siblings, and others), be it done by the patients themselves, or very carefully by the doctor, who is purposefully trying to avoid any possible suggestive influence, often reveals an incredible precision concerning even the most minute details.

During my psycholytic experiments a very rare and interesting observation was made on two siblings (brother and sister), who underwent successively psycholytical treatment. Without any exchange of information they relived independently a very improbable experience with their psychopathic and alcoholic father, who committed suicide–that is, a practical demonstration of sexual activities as an answer to their childish inquiries. Both reports were strikingly similar.

Most of the experiences, which the patient himself denotes as reliving and not as symbolic and fantastic products of the LSD intoxication, are at least possible and probable, and once they are known, they aid in understanding much of the patient's irrational behavior and complaints. For the total emerged unconscious material, the jigsaw puzzle principle mentioned by Freud seems to be valid.

In some cases, however, the relived experiences sound so fantastic and have so many improbable features that it is difficult to accept the fact that these experiences actually happened.

One of the most striking examples of this kind was a patient with severe character neurosis, drug addiction, and borderline symptomatology, who during his 64 LSD sessions reported to have relived scenes where he witnessed six sexual murders carried out by his father on little girls in a bestial way. Besides he could observe all possible kinds of incestuous and pervert sexual activities between the members of the family, nearest relatives, and acquaintances. In spite of the high improbability of these experiences, the succession in which relived earlier experiences were indiscernible from others or sessions where the experiences were plausible and provable. Even the therapeutic changes and influence on the free intervals between sessions was the same as it is the case for probable COEX systems.

It seems that the mentioned facts represent a repetition of the old problem of reality of experiences recalled during psychoanalysis. This dilemma which, almost discouraged Freud from further psychoanalytical investigations, can be solved following his example by equating, in this respect, objective and subjective or psychic reality.

ORIGIN AND DYNAMICS OF COEX SYSTEMS

As previously mentioned, reliving of childhood experiences accompanied with a strong emotional abreaction is a frequent and regular occurrence in the psycholytical series. This phenomenon as a clinical fact has been reported independently by many authors from various parts of the world. Even if the final reliving has taken the form of a single traumatic event situated into infancy or childhood, it seems that the situation is much more complicated. There are several clinical facts that seem to indicate that the childhood experiences represent the center or the deepest layer of a whole memory constellation, as previously described, which functions as a governing system. First of all it is the extremely strong emotional charge, which must be abreacted before the childhood memory can be relived. Its intensity seems to be inappropriate to the character of the original event, even if we take into consideration the differences and specifics of experiencing in childhood and the insufficience of the conceptual apparatus. Also the changes in symptomatology, attitudes, and behavior of the subjects after reliving, and the integration of these memories suggest that a more general

mechanism is involved. The most important reason for including later life experiences as integral parts of the governing system stems from observations during the psycholytical series. Before the patient is able to approach and relive the core experience, he must work through many situations from later life which have similar basic elements and a similar theme. The emotional accompaniment for all these situations from different life periods is the same; the same defense mechanisms are used, typical somatic manifestations occur, and all the implications for the course of the sessions and free intervals are identical. On the other side the actual governing function of the system depends on the particular developmental level—the content of the symptoms consists successively of elements of different life periods and the environment is transformed with regard to this fact.

A brief clinical example can be presented as an illustration of the point:

In a female patient with severe cancerophobia, tendencies to automutilation and borderline symptomatology, a very strong COEX system was successively reduced and relived in many subsequent sessions. Its basic theme was her conflict-filled relation to men and an intimate unconscious connection between sex and death. The core experience of this system was represented by a sexual seduction from her psychopathic stepfather, which she situated into her eighth year of life (some elements could be traced back to less manifest sexual plays in her fourth year of age during which she discovered the stepfather's penis). The stepfather according to her final reconstruction of the situation was alone with her at home. He became sadistically excited after having killed in the bathroom a goose, which was to be eaten next day. His outlook and demeanor changed suddenly from the conventional one to an "animal-like" one; he turned to her, undressed her, touched her body, irritated manually her genitals and finally put his penis into her mouth, advising her to suck it and observe how it grows. After this act he used beating, threats (killing, cutting of the tongue, death of the mother, etc.), and bribery to prevent her from revealing to mother what happened.

In her future life she was always frigid. Sexual excitation brought about panic and fear of death. Later the accentuation of cancerophobia (the growth of the anticipated tumor was unconsciously related to the wish and at the same time threatening penis of the stepfather and its erection, and a primitive conception of pregnancy; all the consequences resulting from cancerophobia-medical examinations with undressing and other normal procedures bore resemblance to the core experience). She had several erotic relationships, all of which followed a rigid pattern—she was emotionally attached to the partners, liked to go with them for walks, have long discussions, and exchange innocent expressions of sympathy. Whenever the partner tried the most superficial sexual approach, she became terrified, perceived that he was changing and getting animal features, escaped from the situation in panic and never wanted to meet him again. Finally she married a man, who was very inhibited and unexperienced and had a lower intellectual standard, so that she had the feeling of full control over the situation. Their sexual life was very dysfunctional and after several years the patient refused intercourse at all. This coincided with a cervical ulceration, which a gynecologist found in her and examined bioptically with negative result. The husband, who was inhibited to seek sexual intercourse elsewhere and was very much attracted to her physically, grew finally impatient and tried to molest her against her will. He finally used physical maltreatment and tried violation (reproduction of the basic features of the core experience). At the same time she felt that his behavior more and more resembled the features typically associated with her stepfather. Simultaneously she behaved in a very strange way in her professional milieu. She unconsciously provoked many of her male coworkers by manifestations that they clearly ciphered out as signs of sexual interest. When they approached her, she was flabbergasted and displayed great resistance. This was again recognized as phony and as a very refined attempt to heighten the erotic tension. Several of these men when alone with her, tried an open sexual attack.

This multiple reproduction of the elements of the original core experience coincided with the development of manifest cancerophobic symptoms.

When the mentioned COEX system was being reduced and relived in successive LSD sessions, the patient had to work through not only the core experience but also the traumatic experiences with her husband, with her coworkers, and with several of her erotic partners. The excessive emotional charge

seemed to be a summation of reactions to all these unhappy life situations.

The governing influence of this system was revealed by the fact that she successively repeated in the transference situation the attitudes and problems with all these male persons, and the therapist was promiscue transformed illusively into several of these partners. When the core experience was being relived with full vividness and in a complex way, the therapist was changed into the stepfather and the patient even tried alternatively to fight with him and to possess him in an erotic sense. The topics of the various life periods were also represented symbolically and by hints to books, literature, films, mythology etc., dealing with sexual murder, violence, abuse of children, sex and death, venereal diseases, and others.

Systems similar to the aforementioned one could be found in all the mentioned patients in the psycholytical series, although varied with regard to their basic theme, intensity, and extensity. Once the existence of systems of this kind is accepted as clinical reality, the question arises about their origin, development, and functioning.

The most important part of these systems are without doubt the core experiences. They were the first experiences of a particular kind that were registered in memory, their imprinting occurred under very special conditions in a developing organism, and they represent a prototype, a matrix pattern for the subsequent experiences. It is not easy to hypothesize why particular events had a decisive and traumatic effect upon a particular individual. Perhaps constitutional influences of a still unknown character may be of some importance. Another factor which might be taken into consideration could be the existence of certain critical periods in the development of the child as revealed by the ethological experiments in animals. In a specific critical period the child might be especially vulnerable to experiences of a particular kind, which would have little influence in a later or earlier developmental stage. A factor that seems to be of emminent importance is the atmosphere in the family and the separate interpersonal relations. A single traumatic event can reach a great significance when it occurs in the background of a specific dysfunctional family structure. On the other side, everyday pathogenic interactions within the family lasting for months and years can be registered, summed up, and finally a pathological focus can originate, which is comparable to that resulting from a macrotrauma. The core experience relived in the LSD session represents in the latter case a sort of a pars pro toto experience (it is also identified as such by the patients themselves).

Once the core experience is fixed, further layers represented by similar experiences are added during future development until a whole constellation, a COEX system is formed. This can occur in a rather mechanical way: life brings about by chance similar experiences, which are included into the system on the basis of identical components, during the analytical and synthetical work of the memory. Detailed analysis of the patient's life histories and of the protocols of the psycholytical series suggest that a much more important mechanism might be in play. In the earliest stages of development the child is a more or less passive victim of the environment and has no active role in the core experiences, which would be worth consideration. Later on a completely different situation originates—once the foundations of a COEX system are built—the developing individual is influenced in his perception of the environment and his attitudes. He has strong anticipations, which follow the pattern of his COEX systems, and his a priori attitudes evoke in his social environment complementary counterreactions, which represent a repetition of the original situation, of the core experience (this can be demonstrated on the mentioned example, where the patient unconsciously shaped her future erotic re-

lations according to the old pattern and was thus instrumental in many traumatic repetitions).

The original core experience could thus be reinforced in further life by many occurrences of similar kind and the resulting constellation would be charged by an emotional load representing a summation of all the emotions attached to the separate situations. This continuous reinforcing of the original pathogenic constellation by hundreds of interactions in later life can perhaps explain the strength of the emotional charge and the therapeutic effect following the reduction and rational integration of the system.

The successive increasing of the system by this mechanism of positive feedback could also account for the latent period between the original traumatic events and future neurotic breakdown at a period when the repetitions contaminate new important areas of the patient's life and prevent him from mastering the exigences of reality. In this connection it is interesting to mention that in some of the patients important similarities could be found between the core experiences and their life situations at the time of onset of the symptoms (viz the mentioned example).

MANIFESTATION IN PSYCHOLYTIC SESSIONS AND GOVERNING INFLUENCE ON THE SYMPTOMATOLOGY OF LSD INTOXICATION

The activation of a strong COEX system in an LSD session and its approaching to the experiential field has typical consequences for the clinical picture and course of the intoxication. The scenic experiencing with continuous change of perceptual, emotional, and ideational qualities, which are congruent with each other, is disturbed, the continuity and inner congruence disrupted and certain typical phenomena occur:

1. *The visions are confused, fragmented, appearing as in a flood, in a wild whirl, chaos, "crazy merry-go-round."* As far as the content is concerned, the subjects are able to differentiate in this chaos from time to time fragments of animals, parts of the human body, objects belonging to household equipment, parts of a landscape, geometrical figures, etc. This condition is often compared with a delirium or a febrile dream. A certain part of the fragments can be later discerned as elements of the original scene of the core experience of the particular system, others as variations on the basic theme depicted on a fantastic, symbolical and metaphorical level.

2. Another typical indicator of an emerging COEX system is *the dissociation between affect and content.* In this phase many reactions occur, which are at the moment completely inadequate and incomprehensible and can be understood only after the whole system is revealed. Here, for example, the vision of a trivial object as a chair, jug, nice embroidery, etc., evokes panic anxiety, sexual excitement, aggression, or severe nausea, respectively. Later reconstruction shows that this paradoxical connection is a logical consequence of the fact that the affect is an adequate part of the core experience and the trivial object is a part of its scenery.

3. Also *unmotivated and unexplainable mood qualities* of great intensity are the premonitions of a COEX system. Panic anxiety, severe depression often with suicidal ideas, feelings of metaphysical isolation or monstrous disgust of an existentialist nature, sexual excitation or aggression, and others again can be shown later to be adequate and integral parts of the pertinent COEX system.

4. Also typical *somatic, especially motor manifestations* are indicative of the proximity of a particular system. Dramatic vegetative symptoms (nausea and vomiting, severe dyspnoe or cardiovascular complaints, sudden diarrhea,

etc.), and motor phenomena (clonic spasms, periodical motor discharges, stereotypies, complicated repeated twisting movements, catatoniform excitement or rarely catatoniform stupor) are infallible indicators that very strongly loaded unconscious material within a COEX system is approaching and being reduced. A high indicative value has also stereotypies in speech and verbigerations.

The mentioned indicator phenomena represent a relatively complete list of phenomena having premonitive value for COEX systems–it is a summary of all the observed LSD sessions.

They, of course, never appear in their total in relation with a particular COEX system. In extreme cases one of them can be the only indicator, usually they appear in typical clusters.

The picture of a particular session can be determined by a single system or several such systems participate in this function in various proportions. The cluster of symptoms and a specific theme typical for a particular system can be retrospectively found, often only as a short insular formation in the many preceding sessions. Successively the individual systems gain more and more ground and finally for a certain time dominate the experiential field. After their core experience is fully relived, they are settled and all their elements that up to that time repetitively appeared in the sessions, never come back in the future intoxications. Once the whole system is known, we can retrospectively understand many experiences and phenomena, which were obscure up to that time. Reviewing the protocols from the beginning, we can find even in the first sessions of the series insular clusters of phenomena belonging to COEX systems, which were revealed much later. In this manner we can also follow, how various dissipated phenomena in the sessions, that originally seemed disconnected, successively converge and become integrate parts of a common core experience (e.g., body sensations, emotions, visions of trivial objects, different idiosyncrasies, etc.)

The reliving and integration of a COEX system is accompanied by a feeling of relief, relaxation, liberation, and different degrees and qualities of pleasant emotions, culminating eventually in a contentless, ecstatic experience of a transcendental character. This situation can last several seconds, minutes, or hours. It is a general trend during a psycholytical series that with the increasing number of settled COEX systems these positive episodes appear more and more frequently and last considerably longer. Finally, the whole sessions can have the character of an uncomparable transcendental experience with very favorable consequences for the period following the session.

For the time period during which a COEX system is being reduced and relived, occupying the experiential field, the particular system has a governing function and shapes the whole LSD experience. The illusive transformations of the physical and interpersonal environment can be later disguised as being expressions of the general theme of the system. The concrete character and content of these transformations is determined by the material of that layer of the COEX system which is at that moment worked through in the LSD session. The transformations reflect either real persons and milieus from the recalled and relived experience or represent fantastic and symbolic paraphrases of the general theme, the scenery and actors, or hints to similar topics from literature, films, mythology, bible, etc. Also all the perceptual changes, emotional qualities, ideational contents, idiosyncrasies, and reactions to the environment result from the governing function of the system.

The determining influence of the activated COEX system on the content of the LSD sessions can be demonstrated on the mentioned example of the cancerophobic patient and the system condensing her erotic experiences.

When the most recent layer of the system was dealt with, the therapist was illusively perceived as having the features of her husband and even his face. The patient anticipated that the therapist had aggressive feelings against her and intended to use physical violence. In the transference relationship she displayed attitudes typical for her matrimony.

When the layer from the postpuberal period was relived, the therapist got the outlook and demeanor of her erotic partners. Similarly, as in the mentioned situations she perceived an animal-like change in his face indicating sexual excitation and expected a sexual approach or attack.

During the reliving of the deepest layer, the core experience in the bathroom, the therapist acquired many times the features of the stepfather-giant hairy hands with many pigment spots, his infuriated face with all the details (pertaining to that time's outlook), his suit, shirt and tie, etc. She experienced alternatively panic anxiety and was awaiting an aggressive attack and sexual violence from the therapist and on the contrary herself felt extreme sexual drive and wanted to attack him and possess him. As this bore very strong oral features, she at the same time desired to carry out a fellatio. Most of the other phenomena in these sessions could be explained as symbolical representations of the basic themes or their analogies–the stepfather appearing as a huge python fighting with her or as a threatening giant reptile, scenes of torturing by the Spanish inquisition, and of executions from the French revolution with the illusive transformation of the therapist into an executor, innumerable visions of scenes depicting sexual violence and murder (with the therapist getting the features of a famous Czech sexual murderer), misuse of children, allusions to books (e.g., Knittels "Via mala") and films (a Swiss film according to Dürenmatt with this topic), etc. This was from time to time interspersed with "indicator visions" of a tower, which besides having a multiple determined symbolic meaning also depicted the momentary strength of her defenses and resistance to grasp the core experience. Many phenomena (e.g., trivial objects) could be explained as parts of the original scenery of the core experience depicted with incredible plasticity and precision for details.

It is interesting to mention in this connection that whenever the core experience involves an interpersonal situation (which is, of course, the case for most of them), it seems that the subject during reliving in an LSD session must alternatively experience and work through the roles of all the involved persons. If the theme represents an aggressive assault, he must relive the role of the victim with all the pertinent feelings as well as that of the aggressor (identification with the aggressor). In the case of an observation of a primal scene, he experiences identification with the male as well as the female role. Similarly the birth experiences are often associated with experiences of delivering or with identification with the mother during delivery, etc.

The existence of the mentioned memory constellations, their successive revealing and rational integration during a psycholytical series, and their governing function for the symptomatology and course of the intoxications seem to represent a clinical reality, which could be verified in each new individual case. It is, however, still poorly understood, what particular laws determine the pattern of reliving of these systems. The succession does not seem to be directly related to depth of the core experience (so that COEX systems with oldest core experiences would be the last and most difficult ones to settle); the reliving follows only exceptionally a rigid historical schedule. Also the strength of the emotional charge does not necessarily indicate that a particular system will be reduced later than those with a smaller charge. The resulting pattern seems rather to be a product of a complicated interplay of both preceding factors and the quality and strength of defensive mechanisms binding the particular systems. A certain role can be attributed also to external factors, as described in the next chapter (e.g., the fact whether the therapist is male or female, set and setting of the sessions, dose, life situation, etc.).

DYNAMIC INTERRELATIONS BETWEEN COEX SYSTEMS AND ENVIRONMENT

Long-termed analysis of the protocols of the sessions within a psycholytical series and of the clinical symptomatology and life situation of the patient in the free intervals reveals very complicated interrelationships between the COEX systems and the environment.

It was already mentioned that the activated COEX system in an LSD session determines the patient's experiences and also the way and the how he perceives the environment. A clear tendency can be observed to exteriorize the COEX system and shape the environment according to its pattern. It seems to be more acceptable to experience different feelings as a result of circumstances existing at present and in objective reality than as irrational qualities, the origin of which is poorly understood. For example, it is somehow more unbearable to have irrational guilt feelings than to make a tresspass with regard to the therapist and find for these feelings a rationalization. Similarly a feeling of a deep incomprehensible threat evoking anxiety results in maneuvers aiming at provoking real hostility in the therapist. The mentioned tendency can often function as a mighty resistance before the therapist succeeds in demasking this circumstance and interpreting it.

Sc the mentioned patient with cancerophobia kept on leaving the room in several successive sessions, whenever she felt a strong tendency to vomit. She was extremely anxious not to experience the shame of the therapist being present at so unpleasant an act as her vomiting.

After this was interpreted as resistance and the patient was able to vomit before the therapist into a vessel, she suddenly relived a humiliating scene from the childhood when she vomited in the bus and contaminated the passengers on the neighbouring seats. The mother denoted this as a tremendous shame and often reminded the patient of this event as a shocking trespass.

This exteriorizing tendency can put great exigencies on the therapist as the patient exerts an enormous effort to drive him into roles corresponding with the pertinent COEX system. He must maintain under all circumstances the therapeutic attitudes, interpret these phenomena, and always be ready to provide a corrective experience.

On the contrary, external stimuli can activate a particular COEX system and foster its emerging when the elements of the environment and experimental situation bear resemblance to those of the original traumatic scene. This seems to be the cue to understanding of the enormous significance of extrapharmacological factors (physical and interpersonal milieu, the therapist's behavior, casual occurrences during the sessions, etc.). Exaggerated reactions to environmental stimuli are highly selective and can be later understood in terms of the pertinent COEX systems. Thus the patients are especially sensitive to cool professional treatment when they are under the influence of systems involving emotional deprivation from their parents or other relevant figures; they can not endure when the therapist pays attention to other patients, when they work through their sibling rivalry, or when they protest against the exit of the therapist when they relive feelings of loneliness and anxiety on their parent's leaving home in the evenings, etc.

The influence of the external stimuli on the activation of the COEX systems can be illustrated by an example.

A patient manifesting multiple pervert tendencies (fetishism, passive homosexuality, and masochism) with obsessive-compulsive features (repetitive tendency to find a man of certain qualities, relate him his life story and be shut into a cellar, bound and tortured) relieved in an LSD session the experience of being frequently punished from his mother by closing into a dark cellar and withdrawal of food. The reliving of this memory started suddenly after the patient heard through the window the barking of a dog. The small window of the cellar lead to the neighbor's courtyard and during each stay there the patient heard the neighbor's dog barking. Thus the sounds forming a part of the original situation acti-

vated the pertinent COEX system (which was at that time probably rather close to the experiential field).

When a strong system is activated in an LSD session, but not settled by reliving of the core experience, the patient stays under the influence of this system and a similar two-sided interrelation as that previously mentioned can be observed also in the free interval following the session. The patient besides experiencing intensification of the symptoms attached to the system, perceives the environment in a deformed way, displays maneuvers aimed at exteriorization of the general theme, provokes specific attitudes in his interpersonal partners, and is selectively sensitive to certain circumstances. All the mentioned phenomena follow the pattern determined by the pertinent COEX system.

Another clinical example can illustrate all the mentioned interrelations. The patient suffered from severe impulsive neurosis with periodical running away, panic anxiety, and poriomania, and consumed great quantities of alcohol and drugs, making debts in the inns and sleeping in forests, railway stations, and public parks. The first 26 LSD sessions had a stereotypical course–anxiety, motor excitement, massive periodical motor discharges of a myoclonic character, and visions of a grimacing pale face of a female. After this interval he started to react with aggression whenever he heard water running from the tap. He could not endure the shortest presence of a female therapist or a nurse and could not conceal his aggression in that case. When he began approaching the core experience, there appeared water motives–scenes from the life of brave sailors and animals living in water and successfully overcoming the dangers connected with this element. In the free intervals of this period he manifested overt psychotic traits–felt alternatively aggressive against mankind, especially women, and anxiety with feelings of an unknown threat and psychomotor excitement. Also frequent myoclonic discharges could be observed beyond the sessions. He almost attacked everyone who used water and also the sound of the tap-water drove him crazy and infuriated him. He provoked hostility in his immediate environment by his behavior.

Two sessions later some trivial objects appeared in the visions–all of them were related to a bathroom. Finally he relived in the form of a pars pro toto traumatic experiences with his psychotic nurse when he was between his second and third year of age (objectively verified by the stepmother). The majority of them related to malicious maltreating and threatening of the child during bathing; the motor discharges were identified as escape reactions with regard to the hated touches. After full complex reliving of this core experience all the mentioned phenomena disappeared from the clinical picture of the sessions and free intervals.

When he later approached reliving of the experiences from a nursery home (his mother died shortly after delivery), where he was kept for the first 7 months of age, the LSD sessions were characterized by feelings of cold, lack of warmth, emotional starvation, unpleasant oral sensations, hunger and thirst. He desired and welcomed the presence of the female therapist and the nurses, the same persons, whom he previously could not endure. They seemed to compensate him in this period for the frustration and emotional deprivation which he experienced in the nursery home, when the maternal figure was replaced by many flat, unstable, and professional attitudes of the nurses.

In the free intervals he was depressed and had an irresistible tendency to consume great quantities of alcohol and hypnotics to "damp" oneself. After reliving of this core experience he was able (in his sixty-fifth session) to experience his first transcendental feelings and reach a far-reaching, although not lasting, improvement.

The observations of the dynamic interrelations mentioned above lead to the assumption of the hypothetical self-reinforcing character of the COEX systems and their apposition during the development of the individual by a positive feedback from the environment (viz chapter in: "Origin and Dynamics of COEX Systems."

IMPORTANCE FOR FREE INTERVALS BETWEEN SESSIONS AND FOR UNDERSTANDING OF COMPLICATIONS

Clinical symptoms and the pattern of interpersonal behavior of the patient in the period following an LSD session can be well understood in terms of dynamics of the COEX systems. When a strong

system of this kind was activated in the last session, but was not settled by reliving of the deepest layers of the core experience, the subject stays under its influence for days, weeks, or months. The consequences for the subject in this case seem to be directly related to the extent and strength of the particular COEX system, to the depth of its historical roots (the core experience), and to the proximity of the latter to the experiential field in the termination period of the session.

It was already described in the preceding chapter that in the case of an activated, but unsettled COEX system, the patient's behavior, his maneuvers aiming at exteriorization of the COEX system, his idiosyncrasies, etc., can be understood once we know the whole content of the system. The clinical symptoms genetically bound to this system persist after the session, eventually for an unlimited time period. Some of them are constituting parts of the patient's complaints because of which he undertook treatment but are excessively intensified. Others represent a rehearsal of symptoms which were parts of a childhood neurosis in this particular patient or which dominated in some of the later life periods (e.g., puberty). Sometimes the situation typical for the beginning of the manifest disease can be reproduced in a rather complex way (nature of symptoms, interpersonal patterns, emotional and ideational qualities, etc.). The patient's emotional feelings and behavior in such a case are inadequate with regard to the actual life situation but quite adequate to the original one. In this way the patient can stay after a session under the influence of a childhood situation (primitive perception and attitude to the environment, parts of body image–e.g., penis–corresponding to that time, doubts about control of sphincters, etc.).

Thus *prolonged reactions* after an LSD session, which are the most frequently described complication, are a regular, lawful, and comprehensible occurrence within a psycholytical series. The explanation of this phenomena by activation and overlasting influence of strong COEX systems can be used even for separate intoxications.

It has no particular sense to make lists and tables of symptoms which can appear as a consequence of LSD intoxication. Any symptom, belonging to a particular COEX system, can outlast under the mentioned conditions. It can be *emotional qualities* (depression with inferiority feelings, guilt feelings or even suicidal ideas, loneliness, affective lability or incontinence, anxiety or feelings of unknown threat leading to paranoidity, aggressive, or manic mood, etc.), *somatic symptoms of psychogenic origin* (myoclonic motor discharges, motor inhibitions with lagging behavior, various pains, even with limping and protective postures of the extremities, nausea with vomiting, cardiovascular symptoms, constipation or diarrhea, dyspnoe, psychogenic coughing, erythemas, skin rushes, eczemas and other efflorescences), or *perceptual phenomena* (illusive transformations of environment, color changes, all kinds of strange feelings, altered body image, etc.). Sometimes new symptoms may appear in this way, which the patient never suffered from before (e.g., mysophobia with compulsive washing in several of the patients; hysterical paresis of the right hand in a depressed homosexual lasting several weeks; the latter was in later sessions connected with conflicts around masturbation and aggression against the father and completely disappeared with the solution of these problems).

All the mentioned phenomena either disappear after a certain time period spontaneously after the defenses are reestablished, or can be settled in next LSD sessions provided that LSD therapy is continued.

Another of the complications of LSD administration, described in the literature is the *psychotic decompensation*. In our

sample this occurred in many patients in a particular period of the psycholytical series. We got use to considering this phenomenon as lawful and comprehensible. It could be demonstrated that even here the same mechanism is in play as in the case of the mentioned prolonged reactions. In this case the mentioned COEX system, activated and unsettled in the last session, is, however, a very strong one and its core reaches to the first year of life. Even here continuation of LSD treatment under strictest supervision always brought about the solution of the system and a dramatic improvement.

An improvement and generally good clinical condition could, on the contrary, be observed after those sessions, where a COEX system was settled by reliving of the core experience and the termination period was a positive one, or where the whole session was a very pleasant experience of an esthetic, philosophical, or transcendental nature. In severe neuroses, this was usually the case after a greater number of psycholytical sessions, after most COEX systems were settled.

Within a psycholytical series, no clear-cut line can generally be drawn between the sessions and the free intervals. The revealing of COEX systems represents here a continuous process which goes on for a long time after the pharmacological effect of LSD has ceased. For example, the dreams of the free intervals can be understood in terms of the pertinent COEX system and their content forms a continuum with the LSD experiences. Even if a COEX system was settled in the previous session and the clinical condition during the first days thereafter is very good, the dynamic shifts caused by this change can enable another system to approach the experiential field and influence the dreams or even manifest symptoms in a specific way. As a rule the system anticipated in this way in the free interval becomes the theme of the next session.

IMPLICATIONS FOR LSD THERAPY

As already mentioned above, psycholytic therapy with LSD can be understood as a process of continuous successive revealing, abreacting, and rational integration of COEX systems. This process is realized to a greater extent during the sessions, but continues in a less apparent way also in the free intervals. Its dynamics and clinical manifestations were sketched in the preceding section. From this general conception certain implications can be drawn concerning therapeutic technique.

As far as indications are concerned, perhaps all patients whose symptoms and problems are related to COEX systems, can profit from psycholytic therapy. The presence of these systems can be estimated in first few sessions according to typical indicator phenomena previously described. Here LSD can have differentially diagnostic value for discriminating the role of psychogenic factors in a particular disorder. Even borderline cases need not be excluded when we take the risk of transitional psychotic decompensation.

A well-established therapeutic relationship is a conditio sine qua non in psycholysis. The patient should get all possible support to be able to face often extremely unpleasant aspects of his unconscious. Techniques following the basic rules of dynamic psychotherapy should be used in all situations connected with psycholysis and in addition the patient should be consistently encouraged to succumb to the effect of the drug and to "let go." One of the most important tasks of the therapist is to maintain under all the circumstances the basic therapeutic role and not to allow the patient to succeed with his provocative maneuvers of all kinds aimed at exteriorization of the COEX systems. When these maneuvers appear outside the therapeutic relationship, they should be immediately discussed and interpreted individually or in the group sessions.

It is not recommendable to block the intoxication by ataractic drugs, especially not in an unpleasant phase, which indicates the proximity of a negative COEX system. This can have very unfavorable consequences for the period after the session and, anyhow, the patient will have to work through this unpleasant material in the next sessions. The future session will usually start where the previous one stopped. It is much better to use psychotherapeutic means or an additive administration of psychostimulants (Ritaline, Preludine, methedrine, etc.), psilocybine or parenteral LSD. This solves often the underlying problem and the experience is better tolerated. When a core experience is emerging, psilocybine seems to be much more advantageous than another LSD dose. Its effect is not long lasting, it seems to be more circumscribed, and it can foster selectively the settling of a particular system. In some cases carbon dioxide inhalation could be useful for fostering the reliving of a very near core experience or deepening of transcendental feelings. If possible, an LSD session should not terminate just before the reliving of the core of a mighty COEX system.

It should be explicitly stated in the instructions for the patient that intensification of the symptoms after a particular session does not mean failure of psycholysis, but just an indicator that something very important is going on. A prolonged reaction or even psychotic decompensation should not be indication for discontinuation of psycholysis. The patient should be strictly supervised and the free interval shortened.

As far as the termination of the psycholytical series is concerned, it should optimally happen after the patient was able to pass several successive sessions as predominantly pleasant experiences (orgies of vision with gorgeous abstract ornaments and wonderful colors, deep philosophical, or contentless transcendental experiences). When this is not possible, the discontinuation should never occur with a strongly activated and unsolved COEX system with negative influence on the subsequent period. Psycholysis should be terminated when a positive COEX transmodulation" occurred in the last session—when no COEX system or a positive COEX system influences the experiential field.

Whenever the patient approaches the boundary of transcendental experience, he should be encouraged to overcome his fear of the unknown and immense and his resistances to accept it. Clinical data show that this kind of experience has very favorable influences on the patient, his symptoms, maladaptive patterns, insights, system of values, etc. It still, however, remains to be proved to what extent proper set and setting of the psychedelic approach can avoid mighty COEX systems, which in psycholysis often form a long-term obstacle for a transcendental experience, and enables the subject to relate to areas of positive COEX systems or those which are free from such systems. This seems to be possible within certain limits, but according to the presented views it should not constitute cure and deep reconstruction of personality but a "positive COEX transmodulation." As long as strong unresolved systems are present, there should be a risk that they get activated from inner forces or in interaction with the environment and regain the influence on the ego.

It is interesting to mention in the frame of this section some of the experiences with atropine toxicity therapy (according to Forrer, in the modification of the Polish authors Bilikiewicz et al.). This approach is used in severe obsessive-compulsive neuroses refractory to any other treatment, in borderline cases and psychotics. The doses of atropine range from 30 to 180 milligrams for one session. With this approach very favorable results were described, the mechanism, however, remained unknown. We used

this method in severe cases, where we did not succeed in overcoming extreme resistances in psycholytic therapy (e.g., in one severe obsessive-compulsive patient with a paranoid attack in anamnesis, who for 35 sessions was able to tolerate doses ranging from 300-1,000 gama feeling only nauseated and insecure). It could be observed that very close connections existed between the occurrences during psycholytic series and atropine therapy.

In the hallucinatory periods at the beginning and end of the atropine intoxication the phenomena known from psycholysis are experienced and motor abreactions occur during the period when the patient is unconscious. Occasionally the patients relate reliving of childhood experiences. In the free intervals some manifestations can be observed, which are known from psycholysis as signs of persisting influence of activated COEX systems—for example, unmotivated aggression, accentuation of depression, emotional qualities attached to past situations (from the onset of the disease, from puberty, childhood), etc. The experience is, however, rather disconnected, fragmented, and the patients have troubles to verbalize it. Another interesting fact is that during atropine treatment it is possible to observe a decrease in high resistance to LSD (e.g., in obsessive patients). This suggests that probably similar basic mechanisms are involved in atropine therapy as in LSD therapy. The effect of the former is, however, incomparably more intensive and the patient is unconscious during most of the time. It seems, however, that abreaction of COEX systems and subsequent changes of personality can occur even without the patient's conscious registration and rational integration of the process. It is interesting in this connection to point to the clinical fact that the picture of LSD intoxication can resemble a delirium when a larger dose is used and a strong COEX system approaches the experiential field.

If this were true, we would get the following list of pharmacological means that can activate and settle COEX systems, ordered with regard to increasing potency: Meduna's mixture (carbondioxide and oxygen), psychostimulants (Ritaline, methedrine, Preludine), hallucinogenic drugs (psilocybin, LSD, mescaline and others), atropine and anticholinergic delirogens. It would be interesting to study to what extent phenomena observed in normal dynamic psychotherapy are compatible with the conception of COEX systems and their dynamics.

SOME BROADER THEORETICAL IMPLICATIONS

Some of the mentioned phenomena connected with the conception of COEX systems and their functioning exceed the frame of LSD therapy and relate to more general problems. All of the separate items mentioned below would require further laborious study. At present they are given in the form of free associations and hints.

It seems that the COEX systems could have their governing function even in normal mental life and in complicated interplay with the environment, influence in relative independence the perceptions, feelings and behavior of the subject in a less apparent but essentially the same way as during the psycholytical series.

Also some psychopathological phenomena, for example, double personality or the fact of religious and political conversions or other sudden changes of personality could be explained in terms of COEX transmodulation.

Any hypothesis concerning endogenous psychoses should take into consideration the clinical observation that some of the phenomena indicating a strong COEX system mimick schizophrenic symptomatology (catatoniform stupor or excitement, dissociation of affect and content, perseverations and motor stereotypies), whereas the symptomatology of

LSD sessions otherwise clearly differs from that of schizophrenia. Similarly the fact that the clinical condition in the free interval is hardly distinguishable from schizophrenia or a depressive psychosis, when a core experience from early periods of infancy was approached in the last session, deserves attention from this point of view.

The material gained from the psycholytic sessions gives us an unrivalled insight into the structure and functioning of personality and into the dynamic structure of psychogenic disorders. Clinical symptoms and problems can be successively traced back to their origin and during this procedure all kinds of interrelations can be observed. Thus the views of different schools of dynamic psychiatry and psychotherapy can be compared with clinical reality. The conception of the COEX systems and their dynamics (e.g., interrelations with the environment, etc.) should help to bridge the gap between the intrapersonal and interpersonal approach in dynamic psychiatry.

The last notice concerns the explanation of the effective mechanisms of psychotherapy. Freud himself changed, during his life work, several times his views with regard to this problem. Originally he stressed in his early work with Breuer the fact that the affect bound to the traumatic situation gets the possibility of proper discharge. Later he put greater emphasis on the circumstance that unconscious becomes conscious. Finally the necessity to solve the transference neurosis in the therapeutic relationship was discovered and considered indispensable for therapeutic effect.

It seems that in psycholysis all the mentioned phenomena are necessary for a final success, in different proportions in various stages of the treatment. A tremendous affect bound to the COEX system must be often abreacted before the patient can face the core experience. Then the latter is relived and integrated, whereby unconscious becomes conscious; this is accompanied by changes in symptoms, sudden insights and changes of attitudes and behavior. Before the reliving of the core experience takes place, the patient tries to exteriorize the activated COEX system and reproduce its theme in the transference relationship and even in his environment. Here the transference analysis is indispensable and the nonreinforcing and nonresponding attitude of the therapist is a necessary prerequisite enabling the patient to reach the core experience.

Although the separate assumptions of the conception previously presented require further clinical study, this theoretical framework in its present form seems to be useful for understanding the course of the psycholytic series, enables approximate clinical predictions and provides directives for therapeutic technique and for necessary measures in the case of complications.

REFERENCE

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