In the early 1960s, when I was working at the Psychiatric Research Institute in Prague, Czechoslovakia, I became interested in the work of Gregory Bateson and other researchers at the Mental Research Institute in Palo Alto, California. I wrote a paper that introduced the work of this group to Eastern Europe. It was entitled "New Approach to Some Psychiatric Problems (Schizophrenia, Hypnosis, Play, Ritual, Humor, Psychotherapy, et alia): Synopsis of the Views of the Palo Alto Group." In Czech, published in **Csl. Psychol.** 8:121, 1964.

In the years following my arrival in the United States on March 7, 1967, as Clinical and Research Fellow at the Department of Psychiatry and Behavioral Science of The Johns Hopkins University in Baltimore, MD, I made several attempts to meet Gregory, but to no avail. When my journeys took me to places where he was expected to be, I kept missing him, since he himself traveled at that time to other places. Last time I missed him (by two days) was when I traveled to Honolulu where he was conducting research with dolphins. It was a series of very frustrating experiences, considering how much I wanted to meet him.

This pattern changed unexpectedly and radically when I was invited to the Esalen Institute in Big Sur, California, by its co-founder Michael Murphy. In the spring of 1977, Gregory was diagnosed with cancer of the size of a grapefruit sitting on his vena cava and was given four weeks to live. Michael Murphy invited him to spend the last weeks of his life at Esalen. Everybody who had any healing ambitions, descended on Gregory and he survived two-and-a-half years. My dream to meet Gregory came true, albeit under very sad and unexpected circumstances. I had the extraordinary pleasure and honor to spend countless hours with him as his close friend and colleague. Our friendship included our families – Gregory's wife Lois and his daughter Nora, Christina and our children Nathaniel and Sarah.

Gregory came many times as guest faculty to the monthlong seminars that Christina and I conducted at Esalen and we spend many hours in fascinating discussions. The following paper is a summary of a seminar that I gave at Esalen after Gregory's death, trying to convey his most important ideas to interested audiences. The article,

entitled Nature, Mind, and Consciousness: Gregory Bateson and the New Paradigm**,** was published in Phoenix: Journal of Transpersonal Psychology. 5/2/31:72, 1981.

<u>Mind, Nature, and Consciousness:</u>
Gregory Bateson and the New Paradigm.

Stanislav Grof, M.D.

Gregory Bateson was an extraordinary person with a very unique way of thinking and communicating that some people found crystal clear and others utterly confusing and incomprehensible. The statements made about him covered a very wide range from genius, seminal thinker, and most original scientist of our time to ambulant schizophrenic. It is extremely difficult to find the proper label for his scientific activity and assign him to a specific discipline or category. He explored many different fields and made significant contributions to all of them. He himself liked to refer to his work as "*generali*st."

His anthropological work includes studies of the Iatmul culture in New Guinea and of the Balinese culture conducted jointly with his wife Margaret Mead. He clarified the interactional nature of certain cultural characteristics usually presented only in a descriptive form and offered an original interpretation of rituals. In psychiatry, psychology and psychotherapy, his contributions included studies of the pathogenic climate in the family and the interaction between its members, interactional analysis of hypnosis, clarification of important aspects of alcoholism and its treatment, original understanding of humor, exploration of effective mechanisms in psychotherapy, and the "*double bind*" theory of schizophrenia.

But the above list does not exhaust Gregory Bateson's activities. His father William Bateson, a famous British geneticist who actually coined the term "genetics", awakened in him early in his life deep interest in nature, which became one of the great joys of his life. Gregory's inquisitive and critical mind reached deep into the philosophy of natural sciences and brought light into many important problems in animal

communication, genetics, embryology, evolutionary theory, and ecology. Toward the end of his life, he applied his vast experience to analysis of urgent political issues, such as the insanity of the arms race and the difficulties of communication among nations.

There is no doubt that his contributions represent a comprehensive, highly original and extremely useful conceptual framework. The difficulties that some people had in understanding his lectures or his writing can be explained by the originality and scope of his contributions. His picture of the universe, understanding of reality, and philosophy of science was drastically different from mainstream thinking. Many of his contributions thus made sense only in the context of his entire life's work and could not be easily added to the existing theories and scientific knowledge.

One of Gregory's passionate interests was actually criticism of faulty epistemology in contemporary science. As his mind crossed from one highly specialized area to another in a generalist fashion, he tended to forget that his audiences did not share with him either the wealth of specific information from various fields, or his overall world-view and pattern of thinking. The extreme clarity of his thinking thus was not immediately obvious to those who did not meet the above requirements.

Gregory was aware of the fact that many people found him incomprehensible and he often joked about it. In his book **Steps to An Ecology of Mind,** he mentions two most frequent statements that the students made about him. The first was: "Bateson knows something that he does not tell", and the second: "There is something behind what he says, but he never tells what." In spite of the fact that he got deeply involved in many different fields, he remained a maverick in all of them. He saw his task as a generalist to move between disciplines and on their interface and look for languages to connect them. His work is a very unique mixture combining anthropology, psychology, psychiatry, cybernetics, information and systems theory, logic, animal psychology, and evolutionary theory.

Psychiatry, Psychology, and Psychotherapy.

If there is a core, a central point, to Gregory Bateson's contributions in these areas, it is a combination of a particular aspect of the theory of communications, which is called the *theory of logical types*, and the problems of human language and interaction. He returns to these issues again and again from different angles and on different levels. According to him, human speech is a very complex phenomenon with a long history that has left significant traces. It has many archaic elements and mythic features that make it a much better tool for an artist and poet than for a logician, scientist and philosopher. A particularly characteristic problem in human communication is the fact that in its course certain basic rules of logic are constantly being violated.

Ancient and Modern Paradoxes.

Ancient Greek philosophers were well aware of this property of language and they created statements and stories that involve brain-twisting dilemmas, so called *antinomies* or *paradoxes*. Gregory's favorite example of these logical curiosities was the Epimenides paradox: "*A Cretan said that all Cretans are liars; did he lie or did he tell the truth?*" A person trying to assess whether this statement is false or true, will come to an astonishing conclusion involving a paradox: If it is true, it is false, and if it is false, it is true.

Another famous Greek antinomy describes an impasse between a lawyer and his disciple. The disciple was poor and could not pay for his training. He made an agreement with his teacher that he would pay retroactively when, after finishing his training, he would win his first suit. He completed his apprenticeship, but postponed indefinitely actually practicing the law. At last, his teacher lost patience and decided to sue him. The judges were at a loss as to how to resolve the paradox they were facing. If the teacher won the legal suit by the verdict of the law, he should get paid the tuition. But then the disciple did not win a legal suit and, according to the original agreement, was not bound to pay. Conversely, if the student won the suit, he should pay according to the contract, but would be freed from paying by the verdict of the law.

Similar paradoxes also occurred in modern thinking. The most famous example is the *Grelling-Nelson paradox*. It is possible to divide words into two major categories

depending on whether or not they describe the category into which they belong. Those that meet this condition are be called "*autologic,*" and those where this is not the case, "*heterologic*". The words "English" and "multisyllable" can be used here as examples of autologic words. The paradox related to this issue is the problem how to classify the word "heterologic." If it were autologic, it would be heterologic, and *vice versa*, if it were heterologic, it would be autologic.

These paradoxes would have remained innocent curiosities that would not have attracted much attention had it not been for the fact that a problem of this sort emerged in modern mathematics, the discipline which is considered the epitome and stronghold of logic. The variation of the ancient paradoxes that occurred in Cantor's theory of sets can be formulated as follows: "If you imagine a set that contains all existing sets, does it or does it not contain itself?" The obvious answer would be: if it does not contain itself, it is not the set of all sets; if it does, it does not contain the resulting set and as such is also incomplete.

This was obviously a situation that violated the basic rules of logic and as such absolutely unacceptable in mathematics. The problem attracted the attention of the British philosopher Bertrand Russell who was capable of solving the paradox involved by formulating the *theory of logical types*. It states that the class cannot be its own member, because it is of a different level of abstraction, of a different logical order or logical type. It is a metastatement that classifies its members and as such cannot include itself.

From this point of view, the Cretan calling all Cretans liars cannot be included into the class of Cretans in this particular context. By making statements about a group of people, he elevates himself above them and separates himself from them; for this reason, what he says does not apply to him. In addition, this statement involves the element of *non sequitur*. If the statement that all Cretans are liars is false, it does not necessarily mean that all Cretans tell the truth under all circumstances. An alternative understanding of the negation is: "*All Cretans are not liars*." This leaves open the possibility that some are liars and some are not.

Although in the domains of logic and mathematics, the problem of paradoxes was solved by the formulation of the theory of logical types, according to Gregory Bateson human communication constantly generates similar paradoxes by violating the rules of logical typing.

Communication and Metacommunication in Human Relationships.

Another cornerstone of Gregory Bateson's thinking in psychiatry was a special focus on certain aspects of human relationships, interaction, and communication. The beginnings of his interests in this area can be traced back to his anthropological fieldwork in New Guinea and Bali. As a result of his observations, Gregory Bateson criticized the tendency of anthropologists to describe ethnic groups and subgroups in terms of certain static characteristics, such as dominance, submission, activity, passivity, etc. He suggested that these concepts had to be replaced by dynamic understanding reflecting the complex interactional patterns involved. It does not, for example, make sense to talk about dominance or exhibitionism as isolated attributes; one has to think in terms of polar units: dominance/submission or exhibitionism/spectatorship.

From the point of view of interpersonal interaction, we can distinguish three types of human relationships. Symmetrical relationships involve partners who are equal or on the same level in terms of initiating and responding. This situation is found among siblings who are not too far apart, schoolmates, peers, and partners of equal strength. Complementary relationships are intrinsically asymmetrical; one partner initiates interaction and controls the relationship, and the other partner responds and submits. This is a relationship found characteristically between parents and children, teachers and disciples, and employers and employees.

The third type of interaction, the metacomplementary relationship, combines the characteristics of the first two. It has an asymmetrical, complementary external form, but the type of relationship is initiated and determined by the dependent partner. A child can ask an adult for help, a disciple might request that the teacher tutors him, a follower seeks

spiritual guidance from a guru, and a psychiatric patient can manipulate the hospital personnel from a seemingly dependent position by metacomplementary maneuvers.

Maneuvers are actions that are aimed at defining the relationship; we can distinguish not only symmetrical, complementary, and metacomplementary relationships, but also corresponding maneuvers. If a person who has never seen us addresses us by our first name, it is a message that has the potential to define the relationship. A message of this kind can be interpreted in two ways; our response based on the reading of this maneuver will then represent an unambiguous maneuver defining the type of relationship we intend to enter into with this person. If we respond by using the person's first name, we define the relationship as symmetrical. If we address the individual as Mr. X, the relationship is characterized as complementary with us in a dependent position.

Human communication is a very complex process which involves verbal exchange, but also a variety of kinesic and paralinguistic elements. These can be seen as *metacommunicative signals*, or messages about messages, indicating how the verbal communication should be understood and interpreted. The full meaning of the communication thus does not depend only on literal verbal meaning, but is codetermined in a critical way by the intensity and inflection of the voice, facial expression, accompanying gestures, secondary signals that we are sending to bystanders ,etc.

Gregory Bateson emphasized the role of logical typing in human communication. Communication and metacommunication do not belong to the same class of messages and lack of discrimination between them leads to confusion and generates paradoxes. Meta-communication provides clues as to how the verbal message should be decoded; it is a signal about a signal. The same verbal message framed by different metacommunication can mean something entirely different, including its opposite.

Kinesic and paralinguistic aspects of communication (meta-communication) will determine whether the statement is serious or meant as a joke; it also gives the sometimes subtle clues that might qualify a statement as ironical and thus opposite to its verbal meaning. Nuances of metacommunication frequently qualify a statement as

conveying hidden sexual meaning, rather than being simply informative and matter of fact, or make it possible to detect whether the message is friendly, neutral, or hostile.

The Double Bind Theory of Schizophrenia.

In human beings, the satisfaction of basic and derived needs and security is critically dependent on their relation to the group and thus on the quality of their interpersonal relationships. This fact is further accentuated by the excessive duration of biological, emotional, and social dependence in humans, which is unparalleled in nature. With a few exceptions, plants are typically independent of other plants and can survive on their own, using minerals from the soil, water from the environment, and the energy of the sun. Many animals can survive independently from the time of their birth, other species show varying length of dependency on the parents; however, the dependency is much shorter and less exclusive than in humans. Since under these circumstances the quality of the relationships with others is of such critical importance, it is essential for the individual to master metacommunication. To assess correctly the type of relationship that one has with another person and to behave appropriately, it is mandatory to decipher accurately the messages coming from the other person and to label accurately the messages one is sending.

In view of the critical importance of the quality of interpersonal relationships for satisfaction and security that one experiences as a human being, disturbances and breakdowns of meta-communication can have very serious consequences. In his study of animal communication, Gregory Bateson discovered that animals do not exchange signals about things, but about relationships; as a matter of fact, they communicate about things by defining relation-ships. His favorite example was that of a cat trying to get food from its owner. He or she is emitting sounds that the owner interprets as requests for food or milk. However, careful observation and analysis of cat behavior shows that these are sounds that characterize the relationship of a kitten to a cat. They are defining the owner as a maternal organism who is expected to provide food.

Humans have developed the ability to communicate quite specifically about things. However, human language still contains the kinesic and paralinguistic elements from the earlier stages of evolution. While we are sending concrete and specific verbal messages, we are also defining through metacommunication what relationship we have or would like to have with the person involved. Gregory Bateson illustrated this quite explicitly in a lecture, which he gave on communication among dolphins. During this talk, he said to the audience: "*I stand here and talk, while you listen and watch. I try to convince you, try to get you to see things my way, try to earn your respect, try to indicate my respect for you, challenge you, and so on. What is really taking place is a discussion of the patterns of our relationship, all according to the rules of a scientific conference about whales. So it is to be human.*" While animals communicate about things by defining relationships, humans send messages about relationships while seemingly discussing things.

The basic idea of Gregory Bateson's theory of schizophrenia is that this disorder basically represents a breakdown of metacommunication. Psychogenetically, this problem can than be traced to a specific disturbance in the communication between the mother and the future schizophrenic which involves what he called a "*double bind*." The basic characteristics of this situation are the following:

1. The child is in a relationship of vital dependency, where it is critical to identify correctly the communication from the mother.

2. He or she is receiving from the mother messages which are contradictory, since the qualifying metacommunication denies the verbal content or is otherwise incompatible with it.

3. The child does not have the opportunity to ask questions to clarify the communication.

4. The child cannot leave the field. Under these circumstances, he or she is forced to distort his or her perception of the outer world and of the inner feelings, and is incapable to develop meta-communicational skills.

The concept of the double bind as developed by Gregory Bateson was an important step beyond the descriptions of the personality of the "*schizophrenogenic mother*." It not only defined the specific type of interaction between the mother and the child, but by showing its deleterious effect on metacommunication, it connected it to certain essential aspects of schizophrenia. In this context, it also became clearer how the mother's own problems generate specific difficulties for the child.

The mother has a very powerful emotional relationship with the child, but it is a relationship of a particular kind. Because of her own complicated history, she has great problems with intimacy. Intimate contact with the child generates anxiety in the mother and is intolerable. She thus has to withdraw from any situation that comes too close to an intimate emotional encounter. However, at the same time, she has a strong concept as to how a mother should behave and how she should behave as a mother. As a result, her own behavior becomes unacceptable to her; she has to deny this aspect of her behavior to herself and she will also deny it in her communication with the child.

Under these circumstances, the child will be receiving two levels of messages: verbal messages which are various forms of assurance of love and non-verbal metacommunication expressing the specific negative aspects of the relationship. Since one set of messages denies the other, it is in principle impossible to decode the communication properly until and unless the individual is mature enough to master metacommunication. It is important to emphasize that the child is in a vital relationship; it is impossible to be caught in a double bind situation with a milkman delivering milk in the morning or some other easily replaceable relationship. The only solution to this situation would be a metastatement clarifying the communication, such as: "Wait a minute ..... you are saying one thing and acting another way... what do you really mean?" This is, of course, not available to the child. In addition, correct decoding of the messages would be too frightening and unbearable for the child. It would reveal that his

mother on whom his survival depends does not love him, is inconsistent, and that he cannot rely on her.

Gregory's favorite example was a situation in which a mother, annoyed by a child who is active and noisy, tries to get rid of him by saying: "Darling, it is very late and you must be terribly tired; mommy will put you to bed. You know I mean well for you." The message misrepresents the truth about the matter. It says "you are tired and need to sleep" instead of "I really need some space for myself." Messages and situations of this type force the child to deny or disregard his or her inner clues and accept what the mother is saying.

Metacommunication is extremely important in human communication and individuals who do not master it tend to have great interpersonal difficulties. Metacommunicationally inept persons who are incapable to read subtle signals, understand jokes, and decode hidden meanings become easily victims and scapegoats of their peers. There has been much discussion, whether this mechanism is sufficient to explain serious psychopathology encountered in schizophrenic patients. Gregory Bateson himself believed that much of schizophrenic symptomatology can be understood as a total breakdown of metacommunication.

To illustrate this, he used to refer to the following formula characterizing a typical situation in which a message is sent to another person:

I communicate

something

to you

in this situation

When we study schizophrenic symptomatology, we will find that much of it can be explained by assuming that the schizophrenic is systematically trying to avoid defining the type of relationship that he or she has with the person with whom he is communicating. This can be done by denying any of the four elements in the above

formula describing communication. The fact that it is he or she who is communicating can be negated in many different ways. It is possible to assume a different identity and refer to oneself as Christ, Napoleon, Joan of Arc, or a misplaced extraterrestrial.

Another variation would be to indicate that what is being done, is done under the influence of hypnosis, a diabolical gadget, noxious radiation, or some brain-influencing chemical. This is a mechanism frequently used by people who have drunk alcohol or have taken LSD ("*this is not me, it is the drug doing it*"). It is possible to refer to the fact that what one is doing reflects role, position, or duty rather than being a personal act. One can also present oneself as a channel of God or some other entity, simply mediating somebody else's will. A behavior that reflects the orders of persecutory voices is another example from this category.

The second item in the formula, the fact that something was communicated, can also be denied in different ways. It is possible to make another statement suggesting that nothing was communicated, denying explicitly what was said before, or indicating that it was meant to be a joke. One can also pretend that nothing was communicated at all, as for example by showing amnesia. Another way of denying that communication occurred is to qualify it as soliloquy. A characteristic schizophrenic manifestation serving this purpose is the use of neologisms.

The third element in Gregory Bateson's communication formula refers to the person to whom the message is addressed. A schizophrenic patient can achieve such negation by pretending that he is talking about doctors or people in general rather than to his psychiatrist. He can assign a delusional identity not only to himself, but also to people in his environment. The fact that he is talking to falsely identified, hallucinated, or fictitious persons then relieves him from full responsibility for his communications.

The last line of the formula describes the situation in which communication occurs, or its context. A patient can deny the consensus context of the situation - the geographical place and historical time - and talks about the fact that he or she is in a concentration camp, in Nazi Germany, on a death row, on a different planet, or

transposed to the past or the future. In this way much of schizophrenic symptomatology can be seen as a result of a total breakdown of metacommunication. As a result, the patient is incapable to distinguish between fantasy or metaphor and their literal meaning in the context of consensus reality. Weakland, one of the researchers in Gregory Bateson's Palo Alto group, described a patient who kept talking about a world full of spaceships, cosmic journeys, rockets, alien planets, goldmines, and submarines. Had he been a science fiction writer working on his novels, his preoccupation and his language would have been perfectly normal.

However, his communication was not properly defined and framed; he was not indicating that he was telling interesting stories to amuse people, but pretended that he was describing everyday reality. One of his statements, "I was born and brought up on Mars", was psychotic when taken literally. However, as a metaphor, the planet of the god of war was a very appropriate description of the family environment in which this patient grew up. Similarly, there is a fine line between Lewis Carol's Alice in Wonderland, which is full of witty neologisms, and the writings of a schizophrenic patient.

The Family As A Homeostatic Pathogenic System.

From the study of the interaction between the future schizophrenic and his mother, Gregory Bateson's interest extended to the entire family. It became obvious that to really understand the dynamics of schizophrenia, the research focus has to transcend individuals and specific relationships. He and his coworkers Jay Haley, Donald Jackson, John Weakland, and William Fry in cooperation with Virginia Satir became pioneers in the study of family interaction and in family psychotherapy. They found out that the entire family functions as a large homeostatic system.

Substantial and maintained improvement of the schizophrenic member can suddenly result in nervous breakdowns and appearance of various forms of psychopathology in other members. As a result of these observations, Don Jackson coined the term "*family homeostasis*". In this context, it lost its meaning to talk about one particular person in the family as a patient, since the entire family had a pathological and

pathogenic climate. At certain times, all the skewed communication in the family focuses on a specific person who then shows manifest psychopathology and receives psychiatric labels. These observations found their expression in the fact that the Palo Alto group changed the term "patient" to "identified patient" (IP).

Psychotherapy of Schizophrenic Patients and the Therapeutic Double-Bind.

The double-bind theory of schizophrenia had very specific con-sequences for therapeutic practice. Gregory Bateson studied in detail the work of highly gifted and intuitive therapists conducting psychotherapy with psychotic patients, particularly Frieda Fromm-Reichmann from Chestnut Lodge in Washington. He discovered that the most successful therapeutic maneuvers involved something that can be called therapeutic double-bind. When the patient has been thoroughly trained by years of family interaction to see and experience the world in terms of double-binds, he or she emerges from the family system with an uncanny capacity to impose double-bind situations on others, including he psychiatrists and the psychiatric personnel.

He or she continues doing this in the hospital setting and soon recreates in some sense the situation which existed in the family. Thus a therapist working with a schizophrenic patient has to be prepared to face a number of situations that have a double-bind quality. The only effective way to counter a double-bind situation created by the patient is for the therapist to create a therapeutic double-bind -- a situation which does not allow the patient to move in any other direction than toward more adequate communication or behavior. Great therapists have been able to respond intuitively to situations in therapy in this way without having the intellectual concept of the double-bind.

I would like to illustrate the use of the therapeutic double-bind by describing a situation from psychotherapy of a psychotic girl that I conducted at the time when I was practicing in Prague, Czechoslovakia. She was nineteen years old when she was brought in a schizophrenic stupor to the psychiatric hospital where I worked. According to her parents, she had been completely withdrawn for several days, had refused to eat, and had

not talked to them; she just kept staring absent-mindedly into distance. Since her parents' appearance, behavior, and attitudes struck me as very unusual, I was open to the possibility that the problem might have been related to family dynamics in the past and present. For this reason, I spent much more time than usual trying to explore this patient's history and current life situation.

It became clear that the girl's life history had been very difficult and traumatic. Her parents were religious fanatics who belonged to an extremist sect. They had put her through rigid toilet training and had suppressed severely all her sexual expressions when she was a child. In recent years, she had not been allowed to go to dancing classes, because "dancing was from the devil", and had to wear her hair braided which the parents saw as the only decent hairdo for a Christian girl. She had to dress like a Cinderella not to be sexually provocative. Because of all these peculiarities imposed on her by her parents, she had been ostracized and ridiculed by her peers.

A few months before hospitalization, she had gone to a church summer camp, where she met a young boy with whom she had fallen in love. The relationship was entirely platonic; they went for walks and talked about literature, philosophy, and religion. When the camp ended, her boyfriend promised to write to her regularly. Her parents found out about the relationship and managed to intercept and confiscate all his letters. When she was not receiving his letters any more, she felt betrayed and lost all interest in life. She did not eat, stopped talking and refused to go to school; her only interest was to wait for the mailman expecting her boyfriend's letter.

I concluded that the role of psychological factors in the development of this condition was so significant that it warranted systematic psychotherapy. Within a few weeks, she improved to such an extent that she could be discharged and was able to continue intensive psychotherapy on an outpatient basis. In the course of my work with her, she moved gradually from schizophrenic stupor through a transient obsessive-compulsive stage to a condition characterized primarily by symptoms of conversion hysteria. I continued seeing her on a regular basis.

One day I was working in the outpatient department, where I had an extraordinary load of patients - I had to see around forty patients in a single day for psychopharmacological treatment and superficial supportive psychotherapy. Suddenly I received a phone call from the above patient. She confronted me with the following situation: The week before, I had to cancel her appointment because I had a flu. She told me that when she could not see me, she had realized how much she still needed me and found this situation intolerable. She, therefore, decided to end her life and was now calling from a telephone booth on the embankment of the Moldau river. Since I have done so much for her, she felt that she should say goodbye to me before leaving this world. It was quite clear that on some level she was testing me, trying to find out if she was equally important to me as I was to her. I found this to be a rather difficult situation. I was extremely busy and under pressure from the patients coming for appointments. On the other hand, I was concerned and it was difficult to assess on the telephone how serious the situation was.

At the time, I was reading Gregory's work and was working on a paper introducing the work of the Palo Alto school to Eastern Europe. I was thus familiar with the concept of double-bind and it did not take me much time to realize that I was in one. After a short deliberation, I was able to come up with the appropriate strategy. I told her that I was very busy but I would like to see her and talk to her before she makes such a serious decision. When she arrived, I acknowledged how important it was for her to find out, if I cared about her or not. I then proceeded to show her that the situation she had created would not give her the answer to this question. At the time when I did the initial psychotherapy with her, I was on the staff of a state mental hospital and had my own ward. At the time of this incident, I was temporarily working in an outpatient clinic and did not have any inpatient facility. Under these circumstances hospitalizing her would have meant passing her onto one of my colleagues.

I pointed out that her phone call put me in a strange paradoxical situation and admitted that I that I did not see any good solution. She looked perplexed and wanted more details. I explained to her that the only effective way I could prevent her from attempting suicide would be to hospitalize her. However, since at the time I did not have

my own ward, this would have meant referring her to another psychiatrist, which she would interpret as rejection. Conversely, not hospitalizing her would keep her in my care, but might appear as lack of serious concern. She understood immediately and her suicidal mood gave way to a sense of amusement. The double-bind nature of the situation became obvious to her. We made arrangements for another session under more relaxed circumstances to talk about this situation and the source of this double-bind behavior. The entire interview did not last more than 20 minutes and when she was leaving, I was absolutely sure that there was no immediate danger of a suicidal attempt.

A Theory of Alcoholism: The Cybernetics of "Self."

Another major psychiatric problem that Gregory Bateson explored in his original way, was the logic of alcoholic addiction and the mystery of the good results achieved by the organization Alcoholics Anonymous. He came to several surprising conclusions:

l. To understand the dynamics of alcoholic addiction, psychiatry needs an entirely new epistemology based on cybernetics and systems theory, which would involve a radically different understanding of the mind, of the self, of human relationships, and of power.

2. The addicted alcoholic is operating while sober in terms of an epistemology, which is conventional and widely accepted in Western civilization, but is not acceptable from the point of view of systems theory.

3. Surrender to alcoholic intoxication provides a partial and subjective shortcut to a more correct state of mind.

4. The ideology and theology of Alcoholics Anonymous reflects quite closely the epistemology of cybernetics.

Gregory Bateson's basic premise was that the sober life of the alcoholic drives him to drink, or contains the reasons for his drinking. His state of sobriety must, therefore, contain some error or pathology, and the intoxication must provide some, at least subjective, correction of this error. As a result of it, it is not to be expected that any procedure that reinforces his particular style of sobriety will be successful in controlling his alcoholism.

It is conceivable that the alcoholic is somehow more sane than the people around him and that the ordinary way of being in the world, accepted by many others, is intolerable for him. Alcohol could thus serve as an escape from personal enslavement to the false ideals of materialistic society. Some people obviously drink to find relief from grief, resentment, or physical pain. However, the relationship between sobriety and intoxication seems to be more specific than mere anesthesia. The intoxication may be seen as an appropriate subjective correction for some intolerable aspects of the state of sobriety.

Gregory Bateson's analysis of alcoholism is based on ontological and epistemological insights derived from cybernetics and information theory. Ontology is a discipline that explores the nature of the world and of human beings. Epistemology is interested in problems related to acquiring knowledge about the world: how we know what sort of the world this is, or what kind of creatures we are that we can know something. Ontology and epistemology are closely related. Cybernetics and information theory make the ontology and epistemology of Cartesian-Newtonian science untenable.

The world of cybernetics is not the world of separate and independently existing solid material objects. We never deal with material objects, but with their sensory transforms, or information about them ("*There are no coconuts and pigs in the brain*"). Information is based on differences and differences are intangible entities; they cannot be localized in time or space. Information travels and undergoes successive transformation in a circuit.

We can use here as examples the complex circuits of information involved in a situation where a lumberjack is cutting down a tree, the problem of the boundaries of a blind man with a white cane crossing the street, or the question as to where is located the information about a piece of paper that we see on a rug. Similarly, Shakespeare's Hamlet can be read as a literary piece, told in a sign language, staged in a theater, made into a film, or broadcast as a radio or television show. It is entirely independent of the media through which it is communicated.

Reality thus can be seen as an infinitely intricate system of information circuits of many different orders of complexity. In such a world any boundaries are ultimately arbitrary or illusory. This leads to an entirely new definition of mentation and mind. From this point of view any ensemble of events, which has the appropriate complexity of causal circuits and the appropriate energy relations shows mental characteristics. It will be responsive to difference, process information, and be self-corrective. All this is happening in the systems in addition to the operation of the ordinary physical "causes," such as energy, impact, and force.

Psychology and psychiatry in their effort to emulate physics, have put their thrust in the wrong direction. They have "*bet on the wrong horse*" by emphasizing energy instead of information which is characteristic for mental functioning. The use of the term "*energy*" in psychology is a sort of "*fuss on the palate*;" it is certainly quite different from what this term means in physics. It gives psychology a pseudoscientific flavor, but is entirely misleading. The clash between these two different approaches to reality - emphasis on substance and measurable quantities versus emphasis on form, pattern, and order (information) can be traced back to ancient Greek philosophy, where it found its expression in the conflict between the Ionic school of Miletos (Thales, Anaximenes, Anaximandros), on the one hand, and the Platonic and Pythagorean schools on the other.

Since in this new type of thinking and analyzing reality, mentation is a function of interconnection, interaction, and information exchange rather than an isolated property of specific highly developed components, it is conceivable in this context not only to attribute mind to individual cells, tissues, human societies and large eco-systems, but also

to the entire universe. Cybernetics and information theory thus come close to a concept of immanent universal mind or God.

The major difference between this worldview and the great Oriental philosophies is the fact that the latter see God as both immannent in and transcending the phenomenal world and that they emphasize the primary role of consciousness in the universal scheme of things. The concept of a transcendental God and the role of consciousness are issues that cannot be accessed and explored by the methods of analysis characteristic for cybernetics and information theory and has to be reserved to approaches directly studying non-ordinary states of consciousness.

From the above point of view, it is absurd to talk about the individual (or "body ego), the family, or the species as independently functioning entities or Darwinian units of survival. At the same time, it is in principle impossible for any part of an interactive system to have unilateral control over the remainder or over any other part. The mental characteristics are inherent in the ensemble as a whole. The examples that we can use to illustrate this point range from a steam engine through an individual attempting "self-control" to a demagogue such as Hitler or Goebbels trying to impose his will on a nation. In all these situations the "controlling" agent is himself controlled by feedback from the system.

An essential characteristic of the alcoholic is pride which is not based on past achievements, but on obsessive acceptance of a future challenge: "I Can." The challenge component of alcoholic pride is linked with risk-taking. Once sobriety is achieved, it ceases to be a challenge and has to be violated in order to become once again a goal which is worthy of one's efforts. This creates a vicious circle where drinking leads to efforts to be sober, but sobriety invites resuming of drinking.

The second important dynamic aspect of alcoholism is related to interpersonal interaction and maneuvers. There is a very strong tendency toward symmetry in the Western drinking patterns - matching each other drink for drink. With the development of addiction, it becomes increasingly difficult to maintain this social pattern. The alcoholic

becomes a solitary drinker; at this point, he is usually labeled as weak. His struggle to resist the bottle changes into a more deadly symmetrical conflict; he must now prove that the bottle will not kill him. At the same time, his relations with the boss, wife, children, and others are now changing into complementary ones that his pride cannot tolerate and he responds to them in a rebellious fashion. In sum, the relationship between the alcoholic and his real or fictitious "other" is clearly symmetrical and schismogenic - creating progressive changes toward escalation of the conflict.

The "treadmill of symmetrical pride" is just half of the picture in alcoholism. It is the alcoholic's battling with the bottle and with the unrealistic and absurd epistemology of self-control imposed on him by his relatives and friends. The other half of the picture is the alternative provided by the alcoholic intoxication. It involves a complementary surrender when the entire epistemology of the alcoholic changes. His anxieties and resentments vanish as if by magic and his self-control is lessened; he feels psychological warmth and becomes once again part of humanity. Much of the success of Alcoholics Anonymous can be understood in terms of the above observations.

The need to test self-control by drinking is eliminated by AA's basic credo: "An alcoholic is incapable to control his drinking; once an alcoholic, always an alcoholic." In this context, maintaining sobriety is a great achievement under any circumstances. Great emphasis is placed on "hitting bottom," which is considered almost a *conditio sine qua non* for success in rehabilitating an alcoholic. This can be brought about by many sorts of disasters in the alcoholic's life, such as delirium tremens, injury or accident, amnesia for certain important events and periods of time, rejection by wife and children, or hopeless diagnosis. This is an important move toward a complementary epistemology.

The alcoholic is encouraged to go and test his inability to control his drinking by starting and ending abruptly; this certainly represents a therapeutic double-bind. The bankruptcy of the epistemology of self-control leads the alcoholic to surrender to a bigger system than himself. This prepares him for accepting an even greater surrender, surrender to the supreme power of God. This can be greatly accelerated by hitting bottom. The God

of AA is personal and is intimately linked with each person - "God as you understand God."

A favorable relationship with this divine power is achieved through surrender; by resisting this power, alcoholics and people in general bring disasters upon themselves. This is all understandable in terms of the epistemology of cybernetics, according to which the ego is only a small part of a much larger trial-and-error system that does the thinking, deciding, and acting. The ego is a false reification of an improperly delimited part of a much larger field of interlocking processes. The idea of personal power and unilateral control is foreign to AA; the organization is democratic and is seen as being greater than any of its members.

Anonymity is an essential characteristic and grabbing the spotlight and self-seeking is considered great spiritual danger. The single purpose of the AA is a non-competitive relationship to the larger world. The symmetrical life-strategy of the alcoholic and his effort for unilateral control is just an exaggeration and caricature of the situation which is characteristic for Western culture. If we believe that our relation to the world and to the largest system which concerns us - the "Power greater than self"- is symmetrical and can be emulated, we are in error and deep trouble. Thinking and operating in terms of Cartesian dualism of mind versus matter leads to a world of irreconcilable polarities and conflicts - God versus man; elite versus commons; chosen race or religion versus others; nation versus nation; and humanity versus environment. It was Gregory's believe that it is questionable whether a species with advanced technology and this strange epistemology can survive. In his own words, such a species has "the chance of a snowball in hell."

X   X   X

During the two-and-a-half years when we both were Scholars-in-Residence at Esalen, Gregory was a frequent guest in the monthlong seminars that Christina and I held twice a year. During one of these workshops, held in February 1980 shortly before Christina and I left for a trip that took us to Australia, Bali, and India, Gregory and I got

involved in a long late night discussion about the ontological nature of transpersonal experiences. Gregory went as far as acknowledging the authenticity of the Immanent Divine (Deus sive Natura or Mind in Nature, as he preferred to call it), but refused to believe in the ontological reality of the transpersonal experiences portraying the transcendent Divine.

Our debate greatly disturbed him to the point that he was unable to fall asleep that night. At three o'clock AM, he decided to write me the following letter explaining his position. In the letter, he is referring to a remarkable performance of the Brazilian psychologist and spiritist Luiz Gasparetto, whom we brought to Esalen as guest faculty in our monthlong. In a little more than an hour, Luiz produced 26 paintings in the style of different dead painters without the use of his eyes in a room lit only by a red electric bulb (see my book When the Impossible Happens). I have decided to include here the transcript of his fascinating letter that is in our possession and has never been published.

Dear Stan,   February 28, 1980   5.15 A.M.

I am up at Kai-Rom's place and you are, I think, on your way to Australia and to the Alcheringa-Zeit. But I want to get this piece written down while it is clear in my head. It's a contribution to the mapping of the difference between how I think and how (it seems to me that) you think.

I was reading yesterday a very interesting essay, which I will xerox to go with this letter. On the origin of <u>deduction</u> in occidental mathematics. It seems that the Egyptians did not have it. All their mathematics is particular, arithmetical, and contains, as late as Middle Kingdom, nothing like a <u>proof</u> (i.e. a tautological sequence of steps from axioms and postulates to a Q.E.D.). But by approximately 300 B.C., Euclid had proofs and the idea was already around for a couple hundred years before that.

Crucial to the story is the study of the contrast between <u>even </u>and <u>odd</u> numbers. The isosceles right angle triangle <u>necessarily</u> cannot be solved because the length of the

sides containing the right angle must always be related to the hypotenuse as 1 is related to $\sqrt{x}$. It seems that the idea of <u>deduction</u> was generated not merely by the idea of proof - since they (Greeks and Arabs) already had the theorems, leading to Pythagoras' Theorem. What seems to have done the trick was the <u>impossibility proof</u> when it was clear that number could never name $\sqrt{x}$, because the name of $\sqrt{x}$ in that language could never end in either an even or an odd number. From this and from consideration of such things as 'Golden Section' came the consciousness of deduction and its inevitabilities. And the <u>inevitability of inevitabilities</u>.

Do you begin to see why the Pythagoreans had as their most mysterious secret the knowledge that (contrary to the whole Pythagorean love of integers) the $\sqrt{x}$ could never be a number? They knew somehow that this mystery was fulcrum to all later religion and theology. Did they?

With the invention of deduction, "heresy" became recognizable and (as far as I know), there is no recognition of heresy outside the religions that have received the idea from the Judeo-Greek fusion, i.e. only Christians, Moslems, and Marxists really understand heresy) the total mental chaos which must ensue when some high level abstract proposition is both true and false.

The Pythagoreans (perhaps wisely) tried to keep in a bag of secrecy that cat which could make men able to believe in the rigor of their own thought. The Christians - led by St. Thomas Aquinas - have devoted 1,500 years to <u>chasing that cat</u> after it was let out of the bag. And ironically, the "occult" became the word for all that was contrary to the principle of rigorous deductive thought - whereas the Pythagoreans had kept secret in their cat-bag the knowledge of the necessity of monism. That which drove the occult underground...

It's strange stuff and full of unexpected reversals and paradoxes. To chase the Pythagorean cat was, in fact, to <u>hunt with</u> the cat. And what they hunted was <u>dualism.</u> So I today am a <u>monist</u>. I deny all explanatory principles which will conflict with the

possibility for deductive thought. In the meanwhile, the educational systems of the west - and especially USA - have reverted to a pre-deductive level. No proofs are taught in elementary classrooms any more.

People around Esalen do not understand my little bitter joke about the ghost of Monet. The Brazilian psychic (Luiz Gasparetto) paints a picture and signs it "Monet", claiming that the ghost of Monet caused him to paint it. Little Jessica, age 3 (?) gets a marker and fouls it up. I claim that the ghost was furious at the impersonation and came and possessed Jessica, causing her to foul up the picture. This proves the reality of ghosts!

Because, you see, once you admit that there is dualism at the top level of the deductive tree, then ever after all propositions are both true and false. There is then no criterion of incredibility. If you grant that the ghost could have painted the picture, then you must also grant that if the ghost did not paint it, then the ghost could have been angry at the impersonation and could have possessed Jessica.... And so on for all supernatural explanations.

Hume's argument against the supernatural is strong: that it is always easier (and therefore to be preferred in terms of parsimony) to believe that all phenomena which are claimed to be supernatural (i.e. to require dualistic explanation) are in fact due to error, hallucination, false rumor, trickery, dream, et cetera, et cetera, or coincidence. But Hume was, I think, a poor judge of human gullibility. He did not recognize that it is really easier and preferable for people to believe in the supernatural. It is comfortable and somehow more exciting - it turns on their right hemispheres - to believe in ghosts and cosmic forces, et cetera, et cetera. The real objection to supernatural explanation is that for persons trained in deduction it destroys all criteria of credibility and incredibility.

Well, Stan, I hope this makes my position a little more comprehensible to you.
Yours,   Gregory