AN EXPERIMENTAL ANALYSIS OF
PSYCHOOTHERAPY USING THE
CONCEPTS OF DIGITAL—ANALOGUE
INFORMATION AND SYSTEMS THEORY

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ABSTRACT

今日よく発達したコンピュータは、2種類の情報インプットを使って機能している。ディジタルとアナログである。そして我々人間も同様に2つの情報伝達手段を用いている。

1つはverbal languageであり、もう1つはnon-verbal language（voice tone含む）である。これら人間の2種類の情報伝達手段のうち、前者は典型的なディジタル、後者はアナログである。つまり我々は外界との情報交換に於てコンピュータと同種の方法を用いていることになる。

今後、各種の臨床専門家がより効果的なpsychotherapyの発展を試みるには、その理論化、特にコミュニケーション理論からのsystemicなアプローチが不可欠であるので今ある精神分裂症の患者を例にとり、そのtherapistとの関係をholisticに把えておいてみた。

P=Patient. T=therapist. S=system. SS=subsystem

PとTは、1つのSを構成し、PとTはそれぞれ1個のSSである。精神面でopen-endedなSSである分裂症のPは不安感の強いSSである。TはPの発するアナログ・ディジタル情報を可能な限り正確にキャッチしてTは高い理解力があることをPに示す。同時にPの不安感は、P T間の正確なコミュニケーション・プロセッシングによって減らされる。Tが最大のエネルギーを要するのは、Pがダブルバインド状態に陥ることを防ぐことであり、もしPが既にダブルバインドに陥っている場合には、TはP T間のインフォメーションの流れを理解しやすい方法を使ってPに知らせなければならない。この場合、TはPにとって一種のモデリングの対象となる。Tは常にディジタル及びアナログ・コミュニケーションを一至したラインで情報を発して行かねばならない。

Introduction

Man's brain is the organism that stores and processes information. Some artificial sophisticated machines, such as cybernetics devices, control mechanisms, or computers, do the similar type of information processing. The contemporary development of information sciences has had strong influence upon many other academic fields. It is obvious that systematic study of human communication in psychiatry also has borrowed heavily from that field.

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Man is the only organism known to use both the analogic and the digital modes of communication. This is the very important point because most of man's civilized achievements would be unthinkable without his having involved digital language. This is extremely important for sharing information about objects and for the transmission of knowledge. And yet there is a vast area where we rely almost exclusively on analogue communication.

Man, who has to combine these two languages, either as a sender or receiver, must constantly translate from one into the other, and in doing so encounters very curious dilemmas and develops pathological communication patterns. Some of them are called abnormal or subnormal. For human communication, the difficulty exists in this translation process. There can be no translation from the digital into the analogic mode without great loss of information.

Psychotherapy is undoubtedly concerned with the corrective digitalization of the analogic. The success or failure of any interpretation will depend both on the therapist's ability to translate from the one mode to the other and on the patient's readiness to exchange his own digitalization for more appropriate and less distressing ones. In this paper, I will keep the basic idea that humans and other organizations are not essentially different from any other type of control and communication systems.

Discussion

In this paper, this author will try to conceptualize the relationship between a psychotherapist and a 30 year-old patient diagnosed undifferentiated type of schizophrenia. This will be done from the viewpoint of systems theory and information theory in order to clarify how psychotherapy works.

The patient was hospitalized three times. But presently he is well controlled by tranquilizer and lives with his parents. He goes to the mental health clinic twice a month. Besides going to the clinic, he sees a Rogerian type of psychotherapist for about one hour every week. He complains the strong feeling of isolation and lack of self-confidence. When he gets depressed, that happens at intervals, he mentions about his suicidal impulses.

If we conceptualize the therapeutic interview between this patient and his therapist, one conceptual model would be as follows:
The patient and the therapist compose a system, where both of them are influencing each other by the exchange of information in the ways of digital and analogue. For example, the patient offered a present (nice aloha shirts) to the therapist at the end of session one day. This would be a typical analogue information from the patient. Depending upon the relationship between the patient and the therapist, the therapist can see this offer as one way of expressing appreciation for every-week session, or as a kind of bribe, or something else.

The patient and therapist are independent subsystems doing own information processing separately. The subsystem of this patient can be conceptualized as a one which has strong anxiety and does not have any stable self-image. The patient's subsystem whose self-control function is lowered and does not work efficiently. On the other hand, the therapist's subsystem can be conceptualized well-controled open subsystem. The goal of the therapy would be making the patient's subsystem well-controled. Therefore, the first thing that the therapist has to do is decoding accurately digital-analogue information from the patient, and by doing so the therapist can show his ability of understanding to the patient.

But it would be considered that the patient has been in the condition of "double bind" previously. This means that the information input into the patient subsystem is distorted at the both level of perception and processing in the brain. When the therapist notices that the information from the patient is not consistent in its meaning, the therapist should let the patient know his inconsistency. It would be very very important for the therapist to point out the patient's distorted communication caused by double bind experiences.

Figure I. Conceptual Model of Psychotherapy
Figure II.

IMPROVEMENT OF ENCODING & DECODING

(1) Initial Phase

(2) Early Working Phase

(3) Terminating Phase

Anxiety

Distortion

P

T

Empathy

Warmth (Acceptance)

Security

Genuineness

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Now this author would like to see how the communication pattern between the patient and therapist changes if the therapy is effective. The following models of Figure II show the change from the initial phase to the terminating phase. When the therapist has the first session with the patient, the therapist is a stranger for the patient who easily gets anxious whenever he faces something foreign to him. Therefore, the patient can not encode correctly what he wants to say or how he feels. His information which is sent to the therapist can be considered being distorted from the beginning on the side of patient. Beside that, it is not easy for the therapist to decode accurately what the patient is trying to express by his communication behavior. This is because the therapist himself is not used to the patient and the situation. Also, the response message to the therapist would be decoded in a distorted way by the patient. These things make a circulative misunderstanding of information.

After several sessions, the decoding and encoding process of the therapist would be improved promptly, but it is very difficult for the patient to improve his communication behavior.

There is another thing that we need to consider when we talk about Rogerian psychotherapy. This is concerning empathy, warmth, and genuineness. How can these three points be understood in the conceptual model of psychotherapy? Empathy may indicate sensitive perception and high level of understanding of the therapist. Empathy may mean correct tuning with the information wave from the patient. How about warmth? Warmth may mean accepting the patient, regardless whatever his information is. By being accepted by the therapist, the patient may be able to remove quickly his anxiety from his mind. Genuineness may mean two points. One is that the analogue and digital message from the therapist are consistent. The other point is that the actual message encoded by the therapist is consistent with what he really wants to express to the patient. If the patient understands the therapist's genuineness, the patient may be able to decode the message from the therapist easily without troubles.

These three points, warmth, empathy, and genuineness seems to be very important because the patient may be able to model the therapist and learn how to communicate with another person in a proper way. This means that the psychotherapist can be considered being acting as a teacher of effective communication in a practical setting.
Conclusion

This paper has been geared toward conceptualizing the communication between the patient and psychotherapist. Through doing that, this author has realized that we must develop a more detailed and practical model if we attempt to utilize the conceptual model to improve the present psychotherapy. But at this point, it seems to me that we must wait until information engineering, cybernetics and other relating studies develop more sophisticated theories which can be applied to human communication.

References


