

PSYCHOANALYSIS, TOPOLOGICAL PSYCHOLOGY AND EXPERIMENTAL PSYCHOPATHOLOGY

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Introduction

The academic psychologist who has really studied psychoanalytical theory (and he is a very rare individual), is apt to be overwhelmed by the systematic complexity of the theory and by the importance of the problems with which psychoanalysts are concerned. Be he Titchenerian Structuralist, Behaviorist, or Gestalt-theorist he must in honesty admit that his own particular school neither answers nor even poses questions of such wide systematic implication nor of such vital interest. If he is a teacher he must be further impressed with the fact that psychoanalysis is concerned with just those problems which his students expect him to answer and for which he has no answer, at least from the standpoint of his own theoretical persuasion. Psychoanalytical theory deals with *psychological* problems, it deals with *nearly all* psychological problems, and the problems basic to it are *vital*.

The academic psychologist, however, has some advantages which many psychoanalysts lack. He has been trained in the logic of science and in the experimental method. As a logician and an experimentalist, he feels, and rightly so, that many aspects of psychoanalytical theory are in need of conceptual clarification and of a somewhat more rigorous type of proof. He has been trained to accept as scientific those statements concerning experience to which competent observers give universal assent. And although he does not consider himself competent to gather the data which psychoanalysts use in making their theories, he does consider himself competent to criticize the manner in which these theories are built. He further

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considers himself right in demanding from psychoanalysis that type of experimental criticism which is essential to the healthy growth of any science.¹ To put the present status of both psychoanalysis and academic psychology briefly, the psychoanalyst is equipped with an extensive knowledge of the most vital psychological facts, but he is not equipped to deal with these in critical experiments. Most academic psychologists continue to use the experimental method on facts which are all too often banal or simply *curiosæ*.

The outcome of this state of affairs is most unfortunate. The psychoanalysts are inclined to consider the academic psychologists curious fellows in no way concerned with those real problems which they as psychotherapists have to meet. The psychologists, on the other hand, are inclined to look on the psychoanalysts as "mystics" or "cultists". Nothing is gained by either side and the resulting disdain and suspicion are mutual.

I propose in this paper to raise the problem of the co-operation between *freudian* psychoanalysis and *topological* psychology² in establishing a science of experimental psychopathology. The paper will fall in two main parts. In the first I shall outline very briefly the historical development of both sciences, giving my reasons for believing the time is now ripe for such co-operation. In the second I shall compare and contrast the systematic positions of both. I shall end by giving a few references to papers by experimental psychologists, which I believe may have some interest for the psychoanalyst. I shall take for granted a knowledge of psychoanalysis and make reference only to topological psychology. The reader is to be warned that topological psychology as such may not be presented in any detail in a brief paper; the interested student of

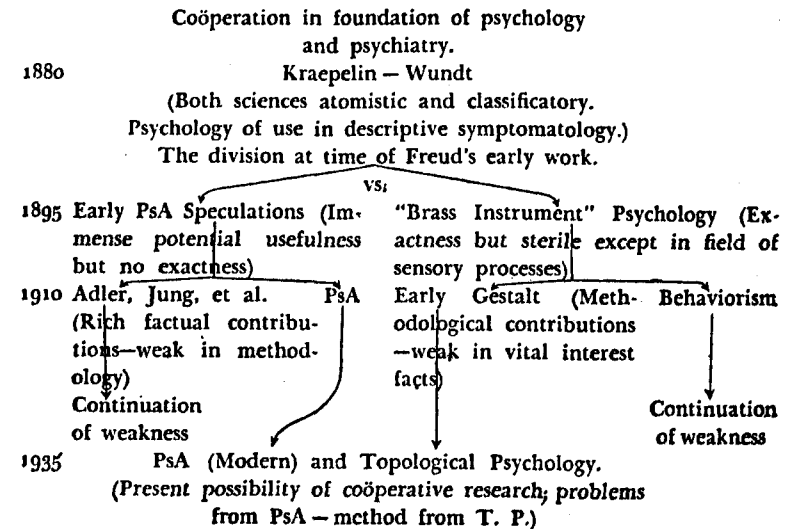
¹ In this he is backed by Freud. Cf. *New Introductory Lectures*, New York: W. W. Norton & Co., 1933. Cf. also my previous remarks, *Freud and the Scientific Method*, *Phil. of Sci.*, 1: 323-337, 1934.

² For the psychologist, all too frequently Adler, Jung, Rank, Stekel, et al., are "about the same as Freud", and for the psychoanalysts all academic psychologies are "birds of one feather". Hence I emphasize *freudian* and *topological*.

psychoanalysis must look elsewhere for a systematic account.¹

Historical Interrelationships

It is my opinion that experimental psychology should be to psychopathology as experimental physiology is to pathology. It is my further opinion that some day it will become this, and that even today much coöperative research between the two is



TABLE

possible. Today's situation is best to be understood after a very brief reminder of the immediate past history of the two sciences. We shall see that at a lower systematic level both sciences were able to coöperate, but that for a while psychoanalytical psychiatry became dynamic, while academic psychology remained static. Today, however, at least certain strivings in academic psychology must be recognized as dy-

¹ Lewin, Kurt: *Principles of Topological Psychology*, New York: McGraw-Hill Book Co., 1936. Brown, J. F.: *Psychology and the Social Order*, New York: McGraw-Hill Book Co., 1936.

namic. This leads to the possibility of coöperative research. This is shown schematically in the table on the preceding page.

At the time of the official foundation of psychiatry and psychology as sciences (around 1870) there was very close coöperation between the two. Wundt, who may be called the father of psychology, worked with Kraepelin in close professional and personal coöperation. Both of the sciences were, however, atomistic, static, purely descriptive and chiefly concerned with classification. Kraepelin concerned himself almost exclusively with problems of nosology; Wundt with describing the structural attributes of the sensations, perceptions, acting, feelings and emotions. It was hence natural that academic psychology should help in the nomenclature of descriptive diagnosis and symptomatology. The older texts give a great deal of evidence for this statement. From Wundt's time until about 1910 academic psychology as a whole stayed in this rut of atomistic-mechanism and descriptive classification. So did psychiatry as a whole, but psychoanalysis was being founded by Freud during this time.

The early papers of Freud started a dynamic approach to the problems of psychology for the first time. Although certain academic psychologists, perhaps most notably in this country G. Stanley Hall, immediately saw the great significance of Freud's speculations, the vast majority, without being equipped really to understand them, stayed by the "brass instruments" and damned Freud with faint praise or praised him with faint damns. During this whole period there was a rift between the academic psychologists and the psychoanalysts so deep that no coöperation was possible. The freudian psychology grew in clinically founded factual material upon which speculations of a very broad sort were built. But these speculations were not and could not be subjected to experimental criticism. Academic psychology continued exact but sterile. The academician knew how to test whether or not a fact was true, but he had no vital facts to test. The psychoanalyst was gathering a lot of vital material but was not equipped to put it to the test.

From around 1910, there were developments in academic

psychology which paralleled the previous growth of dynamic theory in psychoanalysis. Academic psychology gave up a little of the pseudo-exactness which characterized the "Brass Instrument Period" in order to pose problems of more vital significance. The psychoanalytical movement became dominated by Freud, whose genius is certainly, in the best sense, scientific. Thus while the academic psychologist began to interest himself in more vital problems, the psychoanalyst began to interest himself in the more precise and scientific formulations of his problems. While Freud in his more recent work has more and more tended to adopt a type of theory which might be experimentally verified, the recent work of his previous lieutenants like Adler, and particularly Jung, tend to allow a meaningless type of speculation an even larger rôle. For this reason we shall not consider them further.

The revolt around 1912 of both Behaviorism and Gestalt psychology attests the growing impatience of certain academic psychologists with the structuralism of Wundt and Titchener. Behaviorism as a revolt was chiefly methodological and tended to move away from proper psychological problems. Its insistence on physiological explanatory mechanisms and its refusal to deal with states of consciousness as such, make it almost impossible as a systematic approach to the experimental investigation of problems arising in psychoanalysis. Gestalt psychology was both a methodological and a conceptual revolt. Methodologically, Gestalt psychology insists on the scientific sterility of the introspective analysis of states of consciousness alone, as does Behaviorism. Its conceptual orientation, however, is very different from that of Behaviorism and very close to that of psychoanalysis. This will be pointed out in the next section. Topological psychology has developed out of Gestalt psychology. It attempts to give the theoretical foundation of Gestalt psychology that precision which accompanies mathematical thinking alone. In topology we have a branch of geometry which investigates the non-metrical and non-directional aspects of positional relationships. It is particularly concerned with the relationship between wholes and parts and

between the communications possible between various regions. Both psychoanalysis and Gestalt psychology stress the wholeness of the personality as a dynamic system and both are concerned with the interrelations between parts.¹

At the present time, as I see it there is created a real opportunity for the development of an experimental psychopathology. In this endeavor my feeling is that the problems should come primarily from psychoanalysis, the methods from topological psychology.

Points of Agreement and Difference Between the Two Theories

Topological psychology has developed independently or taken over from psychoanalysis certain basic methodological postulates which give the two systems much in common. A listing of these should make clear the possibility of coöperative research.

1. Critical philosophy is able to reduce all the various schools and *isms* of modern biological thought to two basic philosophies of biology.² These may be called the *organismic* and the *atomistic-mechanistic*. The organismic philosophy of biology stresses the wholeness of the organism and the priority of wholes over parts. Organismic thinking looks on the individual as a self-regulating energy system, the restructuralizations of which are economical in nature. It should be obvious that psychoanalysis adheres to this philosophy of biology, which is also basic to topological psychology. Opposed to this is atomistic-mechanism which stresses the priority of parts and

¹ Thus the connections between Ucs, Cs, and Pcs, and between ego, super-ego, and id may be expressed as topological relationships. Concerning the relationships of Behaviorism, Gestalt psychology, and topological psychology, see Koffka, K.: *Principles of Gestalt Psychology*, New York: Harcourt, Brace, 1935; Lewin K.: *Principles of Topological Psychology*, *op. cit.*, and Brown, J. F.: *Psychology and the Social Order*, *op. cit.* For a brief non-technical introduction to topological problems see Franklin, P.: *What is Topology?*, *Phil. of Sci.*, 2, 1935, 39-47. For a statement about topological psychology and psychoanalysis see Lewin, K.: *Psychoanalysis and Topological Psychology*. (To appear in the Bulletin of the Menninger Clinic, July, 1937.)

² Woodger, J. H.: *Biological Principles*, New York: Harcourt, Brace, 1929. Von Bertalanffy, L.: *Theoretische Biologie*, Berlin: Gebrüder Borntraeger, 1932.

looks on the organism as a machine. Atomistic-mechanism is, of course, basic to Behaviorism.

2. The psychoanalyst has long stressed the fact that there is the most intimate connection between psychological mechanisms and the social anthropological culture in which the individual finds himself. Indeed the implications of the freudian theory for anthropology are second only to those for medicine. The application of topological principles to social psychology also stresses this point. The social anthropological, economical, and political characteristics of the environment must all be characterized in determining the structure of the social field.³ Behaviorism, on the other hand, has been inclined to study the organism in isolation from its culture.

3. There is a close general agreement between the two theories with regard to the structure of the personality and to the nature of personality genesis. The multiple-structured self of the psychoanalyst, with its division into Cs, Ucs, Pcs, and ego, superego, and id, is closely paralleled by the regions in the person structure as described by Lewin.² Furthermore both schools agree that this differentiation comes out of more unitary primitive wholes, the id of the analyst and the undifferentiated child person of the topologist. Both schools see this differentiation as arising in the process of growth, where the organism in an environment of varying structure meets barriers to basic instincts or vectors.

4. Methodological studies have indicated that the most fruitful method of scientific advancement is the hypothetico-deductive or constructive method. This method allows the use of theoretical constructs like the libido, the ego and the unconscious of the freudians, and the vector, person, and reality dimension of life-space of the topologist. Behavior alone is observed, but this behavior is coördinated with theory in order to integrate the various facts and to point to implications for further research. The whole growth of psychoanalysis is one in which facts were integrated into theories, which in turn

¹ Cf. Brown, J. F.: *Psychology and the Social Order*, *op. cit.*

² Lewin, K.: *Principles of Topological Psychology*, *op. cit.*

were adapted to new facts. A similar process of growth has occurred in topological psychology. The purely inductive method which attempts a statistical accumulation of facts without theoretical coördination has been recently abandoned even by some of the behaviorists.¹

5. Both psychoanalysis and topological psychology believe in psychic determinism, and in the uniformity and continuity of psychological nature. Basic laws are sought which must account for both normal and abnormal behavior. All psychic phenomena, including symptoms, have a cause, a meaning or significance, and an economical function with regard to the psychobiology of the whole organism.

Despite such close agreement on such basic postulates there are *differences* between the two schools. These differences are luckily of a nature, however, that they might be decided either clinically or experimentally. They may again be listed:

1. It is in the nature of the theoretical constructions of the two types of psychology that the chief difference lies. The constructs of psychoanalysis have arisen in a rather haphazard manner in the course of the clinical practice of a few medical men of unquestioned genius. The psychoanalytic method has been so very fruitful in uncovering the most important and sometimes amazing correlations in the psychodynamics of the individual that the clinicians have had little opportunity to criticize these concepts methodologically. The topologists, on the other hand, have attempted the most stringent, where possible even mathematical definition of their concepts. Every behavioral event is to be ordered to theory, which is so constructed that experimental verification is possible. Where the concepts of psychoanalysis are seldom precisely enough defined to allow the critical experiment, those of topological psychol-

¹Hull, C. L.: *The Conflicting Psychologies of Learning—A Way Out*, Psychol. Rev., 42: 491-516, 1935. Tolman, E. C.: *Operational Behaviorism and Current Trends in Psychology*, Proceedings of the Twenty-fifth Anniversary Celebration of the Inauguration of Graduate Studies at the University of California, 89-103, 1936.

ogy always are. If I seem here unduly to favor topological psychology, let me say I do so only from the standpoint of method. There are many problems raised by psychoanalysis, perhaps most notably that of symbolism, where the topological attack falls down completely. But those problems which topological psychology may attack are to be given a definite answer.

2. Present behavior in topological psychology is always derived from the existing structure of the psychological field. In this, topological psychology may be said to be an ahistorical science. Ahistorical sciences like physics do not need to know the past history of events studied, because they are able to give a complete dynamic description of the momentary situation. It is freely to be admitted that few problems exist where at the present time we do not need to know something of the history. Psychoanalysis is an historical science, *i.e.*, it is concerned with the effect of past emotional experience on present behavior. Topological psychology does not deny that historical sequences have great present importance. It attempts, however, to derive present behavior from the precise momentary situation. How far such deduction may be carried out, time alone will tell. All systematic sciences tend to be ahistorical.¹

3. I believe that there is to be found a slight difference in emphasis on the efficacy of the various factors of what both recognize to be a socio-psycho-biological problem. The psychoanalyst is forced from his instinct theory of the basic urges to stress the psychobiological aspect of the problem. As an example of this let us consider the frequent argument of the psychoanalyst that war is inevitable and that socialism is impossible, because of the aggressive urges or the freudian death instinct. The motivating forces according to the psychoanalysts are innate instincts or urges. The motivating forces according to the topological psychologist are functions of the

¹Lewin, K.: *Psychoanalysis and Topological Psychology*, *op. cit.*, goes into this distinction in considerable detail.

organism in the environment. Although psychoanalysts consider the environment they attempt to deduce behavior almost solely from the person. To put this difference in emphasis rather bluntly, the psychoanalysts assume considerably more immutability of human nature than do the topological psychologists. Both agree that biological mechanisms are subject to environmental manipulation. The topologists, however, would consider the potentialities of manipulation greater than do the psychoanalysts.

4. Finally, the data of psychoanalysis come chiefly from clinical practice, while those of topological psychology come from the experimental situation. This accounts, I believe, for the strong and the weak points of each. Clinical practice gives the problems of the psychoanalyst their great vitality and undoubted significance. Clinical practice, however, is fraught with sources of error. In every medical speciality exactness and precision have followed the introduction of experimental procedures. If the experimental method is applicable to neuroanatomy and to physiology, why should it not be applicable to psychology? That it will be is the hope of the topological psychologist. A brief introductory paper does not allow us to present the details of experiments already performed or at present in progress. Certain earlier experiments from the standpoint of topological psychology have touched on the problems arising in psychoanalysis.¹ At the present time experiments are being undertaken by topological psychologists in cooperation with psychoanalysts, with direct reference to psy-

¹ Zeigarnik, B.: *Über das Behalten von erledigten und unerledigten Handlungen*, Psychol. Forsch., 9: 1-85. 1927.

Dembo, T.: *Der Ärger als dynamisches Problem*, Psychol. Forsch., 15: 1-144. 1931.

Brown, J. F.: *Über die dynamischen Eigenschaften der Realitäts- und Irrealitäts-schichten*, Psychol. Forsch., 18: 2-26. 1933.

Mahler, W.: *Ersatzhandlungen verschiedenen Realitätsgrades*, Psychol. Forsch., 18: 26-89. 1933.

Lissner, K.: *Die Entspannung von Bedürfnissen durch Ersatzhandlungen*, Psychol. Forsch., 18: 218-250. 1933.

choanalytical problems.¹ I am convinced from my own work in this field that we may eventually develop a respectable number of experimental procedures and may soon even speak of a science of experimental psychopathology. That I believe would be a step forward for academic psychology as well as psychoanalysis.

Summary

We have raised the question of the possibility of coöperation between the psychoanalyst and the topological psychologist in the establishment of experimental procedures in psychopathology. An historical survey of the interrelationships between psychiatry and academic psychology revealed that the time might now be ripe for such coöperation. The points of similarity and difference between the two modes of attack were listed. Reference was made to certain existing experiments with implications for psychoanalysis and to other current direct attacks on the problem.

¹ Lewin, K.: *Psychoanalysis and Topological Psychology*, *op. cit.*

Brown, J. F.: *The Modified Dembo Technique—An Application of Topological Psychology to Experimental Psychopathology*. (To appear in the Bulletin of the Menninger Clinic, July, 1937.)