Lewin, Kurt (1951): Field Theory in Social Science

Foreword

It is significant, too, that, althoug his own personal experiences dramatized all too emphatically the political and social influences upon scientific productivity, he felt especially constrained to plead for a recognition of the pervasive influences on productivity that stem from the scientist's own beliefs in the realm of the philosophy of science. He saw clearly that even the most empirical scientist cannot avoid making assumptions of a metaphysical and epistemological sort and that these assumptions shape inevitably the nature of the descriptive concepts he uses, the phenomena he observes, and the way he collects his data.

It may be useful to examine briefly Lewin's treatment of three of these more basic issues. The first deals with the nature of constructs in social science and the process of conceptualizing. The second concerns the definition of the fundamental concept, "field." The third opens up problems of strategy concerning the proper balance, at any stage of scientific development, between the construction of rigorous, formal systems and the use of less exact, more popular concepts.

The Place of Constructs in Social Science

To Lewin the essential nature of the work of the scientist consists of making a proper translation from phenomena to concepts. This process of conceptualizing, he believes, contains within it some of the most crucial problems faced by the scientist. In order to develop a satisfactory system of concepts, the scientist has to be particularly careful about the way in which he develops his concepts. Before a system can be fully useful the concepts in it have to be defined in a way that (1) permits the treatment of both the "qualitative" and "quantitative" aspects of phenomena in a single system, (2) adequately represents the conditional-genetic (or causal) attributes of phenomena, (3) facilitates the measurement (or operational definition) of these attributes, and (4) allows both generalization to universal laws and concrete treatment of the individual case.

This analysis of the nature of conceptualizing, though highly abstract, is important for an understanding of Lewin's work, because it was in the concrete application of these principles that he made some of his most significant contributions. The essence of much of his most brilliant work consists of a conceptual analysis of the "nature" of phenomena which previously had had only popular labels.

Time and again Lewin took some popular notion, such as conflict, frustration, or learning, and subjected it to a conceptual analysis which consisted of ascertaining its elements of construction. Once these were determined, phenomena which had long been thought inaccessible to scientific treatment became fruitful topics of experimental research.

Definition of "Field"

The most fundamental construct for Lewin is, of course, that of "field." All behavior (including action, thinking, wishing, striving, valuing, achieving, etc.) is conceived of as a change of some state of a field in a given unit of time. In treating individual psychology, the field with which the scientist must deal is the "life-space of the individual".

Existence. The life space is defined so that at any given time it includes all facts that have existence and excludes those that do not have existence for the individual or group under study. "Existence for the individual or group" is given a pragmatic definition. Lewin chose to attribute existence to anything having demonstrable effects.

In individual psychology, the environment and the person as consciously perceived by the person are ordinarily included in the life-space. But, in addition, unconscious states are also included to the extent that by direct observation or inference the scientist can determine that they have effects. It is interesting to note that many of the great discoveries of psychology have consisted essentially of a demonstration of the existence in the life space of influences previously not included. A notable example would be Freud's "discovery" of unconscious influences.

In Chapters 3, 8, and 9 Lewin examines in some detail what should be included within the life space of an individual. He indicates that it is reasonably easy to decide to include many things, such as needs, goals, cognitive structure, and the like, and to exclude many others, such as physical and social events occurring at a remote distance and having no direct effect on the individual. There is, however, a boundary zone of events and processes which are ordinarily thought of as physical, economic, political, legal, etc., which, nonetheless, do have direct effects upon individual behavior. Such events and processes must be included within the life space of the individual. Many of Lewin's contributions to the understanding of human behavior consisted of showing that a wider and wider realm of determinants must be treated as part of a single, interdependent field and that phenomena traditionally parceled out to separate "disciplines" must be treated in a single coherent system of constructs. In the last few months of his life, he was coming to recast considerably his conception of motivation to emphasize "needs" less and to stress more such determinants as group membership, personal ability, economic and political resources, social channels, and other influences usually omitted from psychological theories of motivation.

Interdependence. It is a basic assertion of field theory, and here its close relation to Gestalt psychology is apparent, that the various parts of a given life space are to some degree interdependent. It is probable that nothing satisfying the criterion of existence in a given life space can be completely independent of anything else in the same life space. This interdependence of parts poses many special problems in relation both to research methods and to conceptualizing.

Contemporaneity, Lewin's assertion that the only determinants of behavior at a given time are the properties of the field at the same time has caused more controversy than any of his other systematic principles. This principle asserts that the life space endures through time, is modified by events, and is a product of history, but only the contemporaneous system can have effects at any time.

The principle of contemporaneity of causation seemed to many to be an attack upon psychoanalytic theory, which asserts the extreme importance of early childhood for later personality, and a denial of the efficacy of learning. In fact, neither of these implications was intended. The discussion in Chapter 3 shows that the essential problem is twofold: one of keeping concepts rigorous and the other of designing appropriate research techniques.

Formalization and Progress

In Chapter i, where he discusses the place of formalization in scientific progress, there is revealed most vividly a man who views his job mainly as that of taking the next possible step in solving the puzzles that nature presents to him. His comparison of the scientific enterprise to that of building ''highways and superhighways" across an undeveloped continent is compelling because it is so evident that it was written by an expert builder who had tried out the whole variety of possible tools of building and who therefore knew the value and function of each.

Formalization and mathematization, if prematurely done, he asserts, may lead us to the building of a logical superhighway which turns out to be a "dead end leading nowhere."

Preface

I
Formalization and Progress in Psychology
(1940)

Now, however, it seems necessary to point to certain dangers of theorizing. Enthusiasm for Theory? Yes! Psychology can use much of it. However, we will produce but an empty formalism, if we forget that mathematization and formalization should be done only to the degree that the maturity of the material under investigation permits at a given time.

Philosophically, there seems to exist only an "either-or": if scientific facts and particularly all so-called dynamic facts are not merely "given data," but inseparably interwoven with theoretical assumptions, there seems to be no choice other than to base every statement in psychology on theoretical assumptions.

For the psychologist, as an empirical scientist, the situation looks rather different. He finds himself in the midst of a rich and vast land full of strange happenings: there are men killing themselves; a child playing; a child forming his lips trying to say his first word; a person who having fallen in love and being caught in an unhappy situation is not willing or not able to find a way out; there is the mystical state called hypnosis, where the will of one person seems to govern another person; there is the reaching out for higher, and more difficult goals; loyalty to a group; dreaming; planning; exploring the world; and so on without end. It is an, immense continent full of fascination and power and full of stretches of land where no one ever has set foot.
Psychology is out to conquer this continent, to find out where its treasures are hidden, to investigate its danger spots, to master its vast forces, and to utilize its energies.

It had become clear that the continent was much larger than was suspected at first. Perhaps there was more than one source of energy. The whole depth-sounding process had become rather open to suspicion, particularly since no explorer seemed able to bring his material up to the surface for inspection in broad daylight. How was one ever to prove a real connection between the entities supposedly existing underground and what was going on at the surface? There, open to all eyes, and unquestionable, interesting phenomena presented themselves. The psychologist now turned to extensive traveling over the surface of the continent, eager to find new phenomena, to describe them exactly, to count and to measure them, to register their growth.

This procedure, however, did not prove altogether satisfactory either. After all, what the psychologist observed were human beings.
Children needed help and education; delinquent people needed guidance; people in distress wanted cure. Counting, measuring, and classifying their sorrows did not help matters much. Obviously one had to go to the facts "behind," "below the surface." How to accomplish this without the fallacies of the speculative epoch. That is the dominant methodological question of psychology today, at the beginning of its "Galilean period."

The answer is something like this: to make oneself master of the forces of this vast scientific continent one has to fulfill a rather peculiar task. The ultimate goal is to establish a network of highways and superhighways, so that any important point may be linked easily with any other. This network of highways will have to be adapted to the natural topography of the country and will thus itself be a mirror of its structure and of the position of its resources.

Formalization and mathematization in psychology, if prematurely done, may lead us to the building of such logical superhighways. Formalization will have to be achieved if psychology is to become an acceptable science, and psychology can and must take definite steps in that direction now. However, the promising beginning and the growing interest for such undertaking will soon turn into disappointment if certain dangers, arising partly from recent trends in philosophy and logic, are not frankly discussed and avoided.

I feel somewhat obliged to take this matter up, because two of my books deal mainly with the conceptual tools of psychology. Some of the critics, who did not realize that these conceptual tools have been used for several years in a great number of investigations in a variety of fields, seem to have concluded that my main interest in psychology is formalization or mathematization. Nothing can be more erroneous.
As psychologists we are interested in finding new knowledge about, and deeper insight into, psychological processes. That is, and always has been, the guiding principle. Theory, mathematization, and formalization are tools for this purpose. Their value for psychology exists only in so far as they serve as a means to fruitful progress in its subject matter, and they should be applied, as complex tools always should, only when and where they help and do not hinder progress,

II

Psychology cannot try to explain everything with a single construct, such as association, instinct, or gestalt. A variety of constructs has to be used. These should be interrelated, however, in a logically precise manner. Moreover, every theoretical statement brought forth to explain certain empirical data should be carefully examined not only in the light of these data but in the light of the totality of empirical data and theoretical statements of psychology. In other words ad hoc theories should be avoided.

IV

Field Theoretical Implications of the Construct "Tension ”

Using the construct of a "system in tension” for representing psychological needs definitely presupposes a field theory. Conceptually, tension refers to the state of one system relative to the state of surrounding systems. The essence and the purpose of this construct is to include a tendency for change in the direction of equalization of the state of neighboring systems. The construct, therefore, presupposes a geometric representation of the person and a distinction of functional subparts or "systems” within the person, with a definite position in regard to each other. This is but an elaboration of the conceptual properties already implied in the construct tension.

V

Psychologists agree that the value of constructs and theories in an empirical science depends in the last analysis on their fruitfulness in “explaining” known facts and predicting unknown ones. Not infrequently it has been stated that theories which merely explain known facts are of no particular value. I cannot agree with this view. Particularly if the theory combines into one logical system known facts which previously had to be treated by separate theories; it would have a definite advantage as an organizational device. Besides, agreement with the known facts proves the adequacy of this theory at least to a certain degree. It is true, however, that it is a clearer test of the adequacy of the theory if one can make predictions from it and prove these predictions experimentally.

The reason for this difference seems to be that empirical data generally allow for quite a range of different interpretations and classifications and that therefore it is usually easy to invent a variety of theories covering them.

VI

In recent years it has been much emphasized, particularly by Hull and his students, that a psychological theory should be presented in the form of definitions, assumptions, and conclusions. This argumentation should be carried out step by step so that its logical stringency can be easily checked. We, too, have emphasized for quite a while that psychology will have to depend on strictly logical derivations and that a step in this direction is at present one of the most urgent tasks. Hull has attempted ^o fulfill this task, as far as I can see, mainly by retaining the traditional concepts of conditioned reflex and by elaborating them and presenting them in the order of definitions, assumptions, and conclusions.

One psychologist believes that association is something real, libido or gestalt but a magic word; another is equally convinced that libido or instinct is something real. Which psychological constructs are accepted and which are repudiated depends mainly upon the system-language in which the individual psychologist has been taught to think. It is clear that the formalization of such a language into an elaborate system is apt to have a freezing effect. Even after conceptually well defined concepts have been found, it may be well to postpone formalization until their empirical fruitfulness has been well established.

VII

The basic statements of a field theory are that (a) behavior has to be derived from a totality of coexisting facts, (b) these coexisting facts have the character of a "dynamic field" in so far as the state of any part of this field depends on every other part of the field. The proposition (a) includes the statement that we have to deal in psychology, too, with a manifold, the interrelations of which cannot be represented without the concept of space.' In fact all psychological schools implicitly agree with this statement by using concepts like approach or withdrawal, social position, and so forth in their descriptions. It is more and more recognized, although there are still some exceptions, that the spatial relations of psychological data cannot be adequately represented by rneans of the physical space, but have to be treated, at least for the time being, as a psychological space. It is everywhere accepted that this life ”space” includes the person and the psychological environment.

The hodological space is a finitely structured space, that is, its parts are not infinitely divisible but are composed of certain units or regions. Direction and distance are defined by "distinguished paths," which can easily be coordinated to psychological locomotion. Such a geometry permits an adequate representation of the step-by-step character of most psychological processes. It permits furthermore an adequate answer to the puzzling necessity to ascribe different psychological directions to locomotions in the same physical direction if the goal of those locomotions is different. This is particularly important for the problem of the roundabout route.

The hodological space permits the description of the structural relations within the person as well as in his psychological environment. For instance, the degree of differentiation of the person and the peripheral and central layers can thus be defined.
Hodological space is no less useful for describing the structure of groups and their changes. Its greatest value, however, becomes apparent when we deal with problems of dynamics.

3. During the latter part of the last century the development of dynamic concepts in scientific psychology was governed by the fear of slipping into the "metaphysics of teleology.” The idea that not the future but the past has to be considered as the "cause” of behavior was one of the major motives in developing associationism. At that time anything connected with the concept of direction was considered to be a teleological approach. The concept of goal was suspect and had to be replaced by something which did not imply the concept of direction.

Other aspects of teleology looked upon with no less suspicion were: "foresight," which permits the avoiding of obstacles, and "consciousness,” which takes into account the total setting. Associationism tried hard to avoid these allegedly unscientific elements. It tried to develop a concept of association devoid of the logical element of direction. Association should be blind and based entirely on the past (that meant that the theory of association had to be based on the concept of repetition).

Of course the facts of goals, needs, and will were too important simply to be neglected. With psychology under the spell of the dichotomy "teleology” or "causation by the past," nothing else seemed to be left for those psychologists who were impressed by the importance of goal-seeking and directedness than to resort to a definite teleological theory.

The associationists, too, could not entirely neglect goal-directed and meaningful behavior. They tried to take goals, intentions, and will into their system, and it is interesting to see how by doing this the character of the associationistic theory was changed.
Thorndike’s law of effect and Ach’s concept of determinierende Tendenz ascribe to those types of repetition which are connected with certain aspects of a goal (reaching the goal, or setting up an intention) the creation of particularly strong associations. Hull recognized the importance of goals and needs by including goal- and need-stimuli as important elements into those "stimulus patterns," which are assumed as the cause of a reaction. More and more, the theory of associationism (conditioned reflex) has been influenced by the attempt to derive directed activities without assuming directed dynamic factors.

According to field theory, behavior depends neither on the past nor on the future but on the present field. (This present field has a certain time-depth. It includes the "psychological past," "psychological present, and psychological future" which constitute one of the dimensions of the life space existing at a given time.) This is in contrast both to the belief of teleology that the future is the cause of behavior, and that of associationism that the past is the cause of behavior. Furthermore, it is an error to consider the assumption of directed factors as characteristic of teleology.

Psychology, too, becomes in no way metaphysical by resorting to constructs of vectorial character such as psychological forces. This permits a direct attack on the problems of directed action. In addition, by defining direction in terms of hodological space, an adequate representation is possible of what has been meaningful in some of the other claims of teleology. The puzzling relation between knowledge and dynamics which had a mystical character in teleology is made understandable at least in one fundamental point: it becomes clear why lack of knowledge has the effect of a barrier. The mysterious ability of animals to make round effect of a barrier. The mysterious ability of animals to make round-about routes can be rationally related to the fact that equilibria in the hodological space depend upon the totality of relations in the field.

II
Constructs in Field Theory
(1944)

Quality and Quantity in Psychology

According to Cassirer, the basic idea which has led to the solution of these controversies in mathematics itself and in the mathematical treatment of physical data has been: quantitative and qualitative approaches are not opposites but necessary complements of each other.

Everyday Concepts and Scientific Constructs

The concept of frustration has been brought to the fore by Freud. He links frustration with basic problems of sex, culture, sublimation, dreams, and the whole area of psychopathology. These concepts were not designed to serve as a basis for strict experimentation or for quantitative procedures. They were taken from everyday language.
Still their placement in the psychoanalytical system has somewhat sharpened and specified their meaning.

Up to 1920 academic psychology, breathing the "pure scientific air of sensory perception and memory, did not deem it appropriate for a scientist to consider these "darker and mystical aspects of life.”
Whenever these questions arose, they were handled gingerly. To speak about frustration, substitution, aggression, or love in experimental psychology appeared at that time as symptomatic of a discussion outside the realm of science, as to some psychologists today the very term "group atmosphere” seems to be symptomatic of a nonscientific approach.

The field-theoretical analysis of frustration achieves a similar qualitative and quantitative characterization, a conceptual separation and linkage through such constructs as "psychological force,"psychological region," "power field." With the help of these conceptual means certain derivations were made, such as: under what conditions frustration would lead to a roundabout route and when to a leaving of the field, under what conditions social aggression would result, and what the form of restless movements would be.
These predictions are partly made in regard to different types of setting and partly linked to quantitative conditions (such as the relative strength of forces) within one setting.
These predictions were the basis for planning and analyzing a number of experiments. In a setting of frustration, relatively strong emotions and aggression were produced; persistence, at various age levels and under conditions of repeated frustration, was studied; the substitute value of various types of play and nonplay behavior was measured in settings of goal frustration; the effect of different intensities of frustration on constructiveness in play was studied and the degree of regression measured with single children and with pairs of friends; factors which determine the effect of frustration in a prison were investigated; experiments on group atmosphere and studies of organized and unorganized groups deal with the effect of social frustration in a group setting, particularly with the effect on aggression, cooperation, and passivity.

SR (stimulus—response) theories, too, follow something like a method of conceptual construction. More recently this approach has widened its area of application from the problems of rote learning to such general problems as frustration. One might ask: What is similar and what is different between the field-theoretical approach and the SR approach in this area of problems?

What "is" Frustration

One of the standard criticisms made by SR theory has been that field theory is not sticking to a physical definition of the conditions.

The term "expectation," for instance, has been taboo, as much as terms like "degree of acceptance," or "feeling of belonging." Even today some veterans of SR theory seem to hold to the idea that scientific psychology means definition in terms of physics. The study of frustration and aggression, on the other hand, seemed to be a clear departure from this position. Most of the terms, like frustration or cooperation, are defined in psychological terms. In other words, the trend away from physicalistic definitions toward psychological definitions (which was apparent ever since the concept of "goal" was accepted as legitimate) seems to prevail and to lead to a happy union with the aspects expressed in field theory.

An important difference seems to lie in the following direction: In SR theory "frustration" is treated as a "concept," as an "element of construction." The attempt is made to define this concept operationally and to proceed from there to a quantitative theory, for instance, about the relation between frustration and aggression. When the psychologist who follows field-theoretical lines speaks about frustration, learning, hope, friendship, aggression he is conscious of the fact that he is using "popular terms." These terms are quite helpful, even necessary, in the beginning. However, they are not considered, within field theory, as psychological concepts in the sense of scientific "elements of construction." The reason for this is that a term like "frustration" (a) lacks a conceptual definition through coordination to mathematical concepts, (b) refers in a vague way to a multitude of different settings rather than to one conceptually definable type of situation.

If this is correct, it would be scientifically meaningless to attempt, for instance, to link the intensity of frustration lawfully with any specific effect (such as aggression); for one would have to know the type of frustration and the detailed setting in order to make any definite derivations. Indeed, the experiments show that it is as correct to say frustration leads to increased friendship and nonaggression" as it is to say "frustration leads to aggression." It is correct to say that frustration leads to increased as well as to decreased productivity, that it leads to new efforts as well as to passivity.

I am well aware that questions about the "nature" of objects or events have been much abused and have been asked in a scientifically meaningless, metaphysical way. When psychology departed from its early philosophical speculations it banned, very understandably and correctly, questions about what a psychological phenomenon like intelligence is. The only answer permitted was an "operational definition," as, for instance, "Intelligence is what is measured by intelligence tests." Unfortunately, in this way the child has been thrown out with the bath.

Conceptual Dimensions of Psychological Constructs

One of the symptoms of scientific constructs above the water and fire level is the possibility of defining their "conceptual type" or ultimately their conceptual dimension." To give a simple example from physics: "Speed" and "acceleration" do not have the same conceptual dimension because speed is distance over time (d/t), whereas acceleration is distance over the square of time (d/t^2). On the other hand, everything which can be expressed as speed has the same conceptual dimension.

To know what the conceptual dimension of a construct is is of great methodological importance. (1) Only those entities which have the same conceptual dimension can be compared as to their magnitude (2) Everything which has the same conceptual dimension can be compared quantitatively; its magnitude can be measured, in principle, with the same yardstick (units of measurement). It seerns to be necessary and possible to apply the idea of conceptual dimension also to the constructs in psychology. This can be done by relating each construct to a few basic psychological elements of conceptual construction.

It would be a mistake to delay using this approach until psychology has reached a stage where each construct designates phenomena which can be measured quantitatively. For to reach a point where all psychological laws can be expressed in quantitative equations, we have to recognize that such equations presuppose that both sides of them have psychologically the same conceptual dimension. Working toward such objectives will be much facilitated if we become aware of the importance of these aspects and, at least, learn carefully to distinguish different conceptual types.

Summary

Ill
Defining the 'Field at a Given Time"
(1943)

Field Theory and the Phase Space

The history of acceptance of new theories frequently shows the following steps: At first the new idea is treated as pure nonsense, not worth looking at. Then comes a time when a multitude of contradictory objections are raised, such as: the new theory is too fancy, or merely a new terminology; it is not fruitful, or simply wrong. Finally a state is reached when everyone seems to claim that he had always followed this theory. This usually marks the last state before general acceptance.

E. R. Hilgard and D. G. Marquis: Conditioning and learning (New York: D. Appleton-Century, Co., 1940).

Hilgard and Marquis quote from a letter of Clark Hull the following sentence: "As I see it, the moment one expresses in any very general manner the various potentialities of behavior as dependent upon the simultaneous status of one or more variables, he has the substance of what is currently called field theory."

It is correct that field theory emphasizes the importance of the fact that any event is a resultant of a multitude of factors. The recognition of the necessity of a fair representation of this multitude of interdependent factors is a step in the direction toward field theory. However, this does not suffice. Field theory is something more specific.

Physics frequently makes use of such representation of a multitude of factors influencing an event. To each of certain properties, such as temperature, pressure, time, spacial position, one dimension is coordinated. Such a representation in physics is called “phase space. Such a phase space may have twenty dimensions if twenty factors have to be considered. A phase space is something definitely different from that three-dimensional “physical space" within which physical objects are moving. In the same way the psychological space, the life space or psychological field, in which psychological locomotion or structural changes take place, is something different from those diagrams where dimensions mean merely gradations of properties.

Field theory, therefore, can hardly be called correct or incorrect in the same way as a theory in the usual sense of the term. Field theory is probably best characterized as a method: namely, a method of analyzing causal relations and of building scientific constructs. This method of analyzing causal relations can be expressed in the form of certain general statements about the "nature” of the conditions of change.

The Principle of Contemporaneity and the Effect of Past and Future

One of the basic statements of psychological field theory can be formulated as follows: Any behavior or any other change in a psychological field depends only upon the psychological field at that time. This principle has been stressed by the field theorists from the beginning. It has been frequently misunderstood and interpreted to mean that field theorists are not interested in historical problems or in the effect of previous experiences. Nothing can be more mistaken.

How to Determine the Properties of a Field at a Given Time

If one has to derive behavior from the situation at that time, a way has to be found to determine the character of the "situation at a given time.” This determination implies a number of questions which are, I think, interesting both psychologically and philosophically. To determine the properties of a present situation or—to use medical terminology—to make a diagnosis, one can follow two different procedures: One may base one´s statement on conditions from history (anamnesis) or one may use diagnostic tests of the present.

An anamnesis includes logically two steps: namely, the testing of certain properties in the past (of the quality, size, and structure of the woodwork) and the proof that nothing unknown has interfered in the meantime; in other words that we have to deal with a "closed system.” Even if a system is left untouched by the outside, inner changes occur. Therefore, in addition, the laws governing these inner changes have to be known if the properties of a situation are to be determined through an anamnesis.
Medicine, engineering, physics, biology are accustomed to using both methods, an inquiry into the past and a test of the present. But they prefer the latter whenever possible.*

Psychology has used diagnosis by anamnesis rather excessively, particularly in classic psychoanalysis and other clinical approaches to problems of personality. Psychology of perception and psychology of memory have been relatively free from the historical type of diagnosis. Experimental psychology, on the whole, has shown a progressive trend toward testing the present situation.

Without altering the principle of contemporaneity as one of the basic propositions of field theory, we have to realize that to determine the psychological direction and velocity of behavior (i.e., what is usually called the "meaning" of the psychological event), we have to take into account in psychology as in physics a certain time-period. The length of this period depends in psychology upon the scope of the situation. As a rule, the more macroscopic the situation is which has to be described the longer is the period which has to be observed to determine the direction and velocity of behavior at a given time (Figure 2).
In other words, we are dealing in psychology with "situational units” which have to be conceived of as having an extension in regard to their field dimensions and their time dimensions.

The Psychological Past, Present, and Future as Parts of a Psychological Field at a Given Time

The clarification of the problem of past and future has been much delayed by the fact that the psychological field which exists at a given time contains also the views of that individual about his future and past. The individual sees not only his present situation; he has certain expectations, wishes, fears, daydreams for his future. His views about his own past and that of the rest of the physical and social world are often incorrect but nevertheless constitute, in his life space, the ”reality-level” of the past.

In addition, a wish-level in regard to the past can frequently be observed. The discrepancy between the structure of this wish- or irreality-level of the psychological past and the reality-level plays an important role in the phenomenon of guilt.
The structure of the psychological future is closely related, for instance, to hope and planning.

Following a terminology of L. K. Frank, we speak of "time perspective” which includes the psychological past and psychological future on the reality-level and on the various irreality-levels. The time perspective existing at a given time has been shown to be very important for many problems such as the level of aspiration, the mood, the constructiveness, and the initiative of the individual. Farber has shown, for instance, that the amount of suffering of a prisoner depends more on his expectation in regard to his release, which may be five years ahead, than on the pleasantness or unpleasantness of his present occupation.

It is important to realize that the psychological past and the psychological future are simultaneous parts of the psychological field existing at a given time. The time perspective is continually changing. According to field theory, any type of behavior depends upon the total field, including the time perspective at that time, but not, in addition, upon any past or future field and its time perspectives.

V
Regression, Retrogression, and Development
(1941)

IN PSYCHOLOGY the term regression refers to a primitivation of behavior, a "going back” to a less mature state which the individual has already outgrown. A temporary regression frequently occurs in tense emotional situations with normal adults and children, particularly if these emotions are unpleasant. Intense joy, too, may lead to certain primitive actions. Fatigue, oversatiation, and sickness often cause temporary regression. A more or less permanent type of regression can be observed in certain cases of senility, in a great variety of neuroses, and in functional and organic psychoses. Regression, therefore, has to be considered a common phenomenon which is related to many situations and problems, and concerns the total behavior of the person rather fundamentally.

The relation between regression and development is another reason why psychology should regard regression as an important topic. Knowledge of the process of psychological development has greatly increased in recent years. We have learned particularly that the varieties of possible developments are much greater than might have been expected. However, our knowledge of the factors determining development, its dynamics and laws, is extremely meager.

Definition of Regression

The term regression in psychoanalysis refers to a great variety of symptoms. Freud himself uses the term regression mainly to describe "a return to the first objects invested with libido, which we know to be incestuous in character, and a return of the whole sexual organization to earlier stages” (p. 287). In addition to speaking of "regression of the libido” Freud speaks of "regression of the ego” and "object regression” (p. 299). In other psychoanalytical and psychological literature the term regression has been used more loosely; for instance, any kind of withdrawal from reality to a fantasy-level has been called regression.

Freud himself emphasized that he used the term regression as a purely descriptive concept (p. 288) and not as a dynamic concept like repression. Nevertheless, he has brought forth certain ideas about the factors which makes for regression. According to him two main conditions for regression exist: (1) fixation of the libido to objects of a previous developmental state, and (2) difficulties in satisfying the libidinal needs at the more mature level. Frequently in the psychoanalytical literature development has been viewed as a steadily progressing libido and regression as the turning back of this flow of the libido after meeting an obstacle.

The problems of development and of regression have their scientific place at a particular intersection of historical and dynamic problems. They point on the one hand to a unique sequence of experiences, situations, personality structures, and styles of behavior during the history of the individual. On the other hand they point to the dynamics and laws which govern the behavior in any one of these stages and the transition from one stage to another. The combination of both types of questions within the problem of development or regression is entirely legitimate and necessary. However, it is important to clarify the nature of both problems and their relations.

Freud approaches a field theory of regression when he states that regression is at least partly due to the inability of the libido to gain sufficient satisfaction at a more mature level. This assumption might be called a "substitute theory of regression."

According to this theory regression presupposes a giving up of the attempt to overcome the barrier. Some psychoanalysts have emphasized this aspect and have called almost any kind of withdrawal from a real obstacle regression, particularly so if the person leaves the level of reality and withdraws into sickness, fantasy, or irreality.

In summarizing we may state: The problem of regression, like that of development, includes an historical aspect which refers to the sequence of styles of behavior in the life history, and a systematic aspect which refers to the conditions of the change occurring at a given time. Both questions are entirely legitimate and are necessarily dealt with in a psychological approach to regression. Both questions can be represented diagrammatically.

The systematic question concerning the condition of a change which occurs at a given time has to be answered partly by referring to the structure and dynamic properties of the field (life space) existing at that time. The life history can be represented by a sequence of such fields, each of which would characterize the situation at a given historical stage. However, it would destroy the meaning of the field to treat the life spaces of the newborn, of the three-, six-, and sixty year-old person together as one dynamic unity.

REGRESSION AND RETROGRESSION

McDougall has given a detailed account of several cases of regression from shell-shock. He describes the primitive childlike behavior of the persons and the process of recovery. McDougall expresses a certain amount of agreement with the Freudian theory but stresses two rather important points (28).

1. He emphasizes that the regressed behavior does not need to be identical with the behavior which this individual has shown previously. Rather the regressed person shows a primitive but new kind of behavior.
2. He considers regression to be of a less "purposive" character than it appears to be in the Freudian theory.

The possibility of a new kind of behavior occurring in regression makes it necessary to distinguish two types of changes:

1. The return to a type of behavior characteristic of a previous stage of the life history of the individual. Such a change may be called "retrogression."
2. A change to a more primitive behavior, regardless of whether such behavior has actually occurred within the life history of the individual. Such a change may be called "regression."

It is frequently true that retrogression will also have the character of regression, and vice versa. However, this does not need to be the case. For instance, a child who has shown primitive behavior during a sickness will, upon recovery, return to the more mature behavior which characterized him before his sickness. One will have to call such a change a retrogression, although it cannot possibly be called a regression.

Clear distinction between retrogression and regression has become particularly important in view of recent experimental studies with animals (23, 30). These studies show that animals under certain conditions, for instance after a shock, may abandon a newly learned behavior and return to older habits. As far as we can see, none of these studies can be said to have proved that the older mode of behavior was actually more primitive than the newly learned one. Before this is done we would classify these studies as experiments in retrogression rather than in regression.

Of course one will have to discuss the definition of "primitivation" and the symptoms that can be used as its indication. It will hardly suffice to point to such vague criteria as the “less adaptive’’ character of behavior, particularly in view of the fact that the regression itself is frequently viewed as an attempt of the individual to adapt himself to a certain situation. The answer can be found partly in the studies in psychopathology. These suggest that there is a change from “a differentiated and pregnant pattern to a more amorphous behavior”.

A complicated hierarchical order within an action changes to a simple organization or to disorganization (6), from an abstract to a more concrete type of thinking, from reasoning to learning (29, 19, 29), from flexible to stereotyped behavior (19, 23). Primitivation is a change in the structure of behavior which in some respects seems to resemble the morphological dedifferentiation observable in certain primitive animals, such as under certain conditions of malnutrition (9).

For the purpose of exploratory research one can define regression as a change of behavior from a kind typical for older normal children to that typical for younger normal children (in an equivalent psychological situation). Such an operational definition is necessarily limited to the age range before maturity, because a change from adult to senile behavior has to be regarded as regression but not as progressive development. However, within these limits it provides a definite and testable criterion for regression. Until the theory of regression is considerably more advanced it might be well to use this criterion as an operational definition.
* One will note that this operational definition does not refer to any behavior which the individual in question has shown previously in his life history. It refers to the type of behavior which is characteristic of normal children of certain age levels.
This definition is in no sense final; it is a working definition necessitated by the current state of knowledge in the field. It has to be used with caution even within the age range up to maturity because it is at least possible that during certain periods the normal average child may actually become more primitive in one or another function. In the long run, the various developmental levels will have to be defined conceptually in terms of degree of differentiation, organization, and similar properties other than age. Eventually the age reference in the operational definition will have to be dropped entirely, and particular changes occurring under various conditions specified.

Kinds of Regression

Similarities of behavior are not necessarily indications of similarities of the underlying state of the person. That the same state of the person can manifest itself in rather different symptoms has been shown in detail in regard to anger (7) and holds for all fields of psychology.

Temporary and Permanent Regression. Regression may last only a few minutes, for instance in a case of a slight shock, disturbance, or emotion, or it may last many years, for example as a result of sickness.
Regression may be a slow sinking or a sudden drop. The individual may stay regressed, he may slowly or suddenly regain his previous level, or he may return to an intermediate level.

Situational and Established Regression. Under emotional stress both the behavior and the person may regress to a more primitive level. In such circumstances the individual is actually unable to behave on a higher level. Yet even in this case the primitivation may be confined to a particular situation, such as "being in prison" or "being severely frustrated." As soon as the person leaves this particular situation he may regain his previous level. In other cases the person may regress in such a way that he will not show his previous higher level even in a most favorable situation. The former case we will call situational regression, the latter established regression. There exist, of course, transitional cases.

Partial and General Regression. Regression may affect more or less restricted areas of a person. For example, regression may affect only the motor functions, or the emotional life of a person, without much change in his intellectual capacities. Psychopathology gives many examples of different patterns of regression of specific areas of the person as well as general deterioration. Of course any regression of specific areas does, to some degree, affect all behavior of the individual.

Main Differences in Behavior at Different Age Levels

The differences of behavior at different age levels may be classed under the following five aspects: variety of behavior, organization of behavior, extension of areas of activity, interdependence of behavior, and degree of realism.

VARIETY OF BEHAVIOR

One speaks of the increasing variety of the behavior of a child as he grows older. (This holds true despite the fact that certain types of behavior drop out during development.) The increasing variety of behavior is noticeable in many ways.

ORGANIZATION OF BEHAVIOR

If development in behavior led merely to an increased variety of behavior, one might expect the conduct of an individual to become more and more chaotic or at least more and more unconnected. This is obviously not the case. Parallel to the increasing differentiation goes a development according to which an increasingly greater variety of parts is included in one unit of action.

In connection with all types of unity in behavior that are due to the guidance or steering of a governing purpose or a leading idea we will speak of the organization of behavior.® In these cases one can distinguish at least two levels: the guiding idea and the guided manipulation.

In development one can distinguish three aspects of the organization of behavior.

Complexity of Units.

One can say that the maximum number of subparts and the variety of subparts contained in one unit of action increases with development.

Hierarchical Organization.

Aside from the increasing number of manipulations which may be kept together by a guiding idea, the type of organization itself seems to become more and more complicated: a goal which steers a series of manipulations may become the subgoal of a more inclusive goal. The subgoals seem to be governed by the higher goals in much the same fashion as the actual manipulation is governed by the subgoal.

In other words, a more inclusive unit of behavior may contain a number of hierarchical levels, each of which is ruled by the next higher level. Referring to the number of levels we will speak of different "degrees of hierarchical organization' of a behavioral unit.

Complicated Organization.

An activity guided by one idea may not be carried through as a continuous action but may be interrupted by other activities and later taken up again. To carry through successfully an activity which is to be repeatedly interrupted obviously requires a relatively complicated organization. A second kind of complicated organization exists in overlapping behavior, when simultaneously two or more activities which are guided by practically unrelated ideas are carried on. An example of such behavior is secondary play, i.e., play which occurs simultaneously with other activities, such as a conversation with a second person about matters unrelated to the play. Closely related to this is the organization of behavior which has two levels of meaning. Lying, joking, showing overfriendly behavior out of hate or similar "perverted expressions' are actions on two levels which may be said to be more or less contradictory. The more overt level frequently serves to cover up the contrary meaning of the deeper level, and indicates a somewhat complicated organization of the action. Obviously, the problem of self-control is closely related to this type of organization.

EXTENSION OF THE AREA OF ACTIVITIES AND INTERESTS

The psychological world which affects the behavior of the child seems to extend with age both in regard to the areas and the time span which are taken into consideration.

Scope of the Field. The three-month-old child living in a crib knows few geographical areas around him and the areas of possible activities are comparatively few. The child of one year is familiar with a much wider geographical area and a wider field of activities.

During development, both the space of free movement and the life space usually increase. The area of activity accessible to the growing child is extended because his own ability increases, and it is probable that social restrictions are removed more rapidly than they are erected as age increases, at least beyond the infant period.

The widening of the scope of the life space occurs sometimes gradually, sometimes in rather abrupt steps. The latter is characteristic for so-called crises in development. This process continues well into adulthood (5).

Time Perspective. A similar extension of the life space during development occurs in what may be called the "psychological time dimension." During development the scope of the psychological time dimension of the life space increases from hours to days, months, and years. In other words, the young child lives in the immediate present; with increasing age an increasingly more distant psychological past and future affect present behavior.

INTERDEPENDENCE OF BEHAVIOR

The statement that the individual becomes increasingly differentiated can have two meanings. It can mean that the variety of behavior increases, i.e., that the totality of behavior observable at a given age becomes less homogeneous. In this case, the term differentiation refers to relations of similarity and dissimilarity; it means ''specialization" or ''individualization." On the other hand, the term dfferentiation can refer to relations of dependence and independence between parts of a dynamic whole. In this case increasing differentiation means that the number of parts of the person which can function relatively independently increases; i.e., that their degree of independence increases.*

* In morphology the term "differentiation" is limited to cases where the parts become not only more independent but also different from each other. It would be advisable to use two different terms for the two concepts of differentiation. We shall speak of "specification" or "individualization" in case of increasing dissimilarity, of "differentiation" in referring to increasing independence.

Today it is generally acknowledged that the development of the child includes an increase both in differentiation and in integration. Development seems to increase the number of relatively independent subparts of the person and their degree of independence, thus decreasing the degree of unity of the individual. On the other hand, development involves integration which increases the unity of the person.
As both of these processes advance at the same time, obviously, integration cannot be a process which is actually the reversal of differentiation. It does not eliminate differentiation, and it is not dedifferentiation. But, integration presupposes differentiation. To avoid misunderstandings we prefer, therefore, to use the term ‘‘organization” instead of integration.

DEGREE OF REALISM

We have mentioned that during development the perceived environment seems to become less "subjectively colored." What is perceived is less directly dependent on the changing moods and the needs of the individual. This increasing realism of perception is particularly noticeable in the perception of social relations. In other words, reality and fantasy are more clearly distinguished. One might view this development merely as an expression of the increased differentiation of the life space, the increasing "distance” between the ego and the environment, and the increasing hierarchical organization. However, we probably have to deal here with a somewhat different dimension of change, namely, an increasing crystallization of an objective world within the life space and an increasing tendency to be realistic. The world of an insane person may be as highly differentiated and organized as that of a normal person but may lack the realism of the latter.

Behavioral Aspects of Regression

We have defined regression as a change in a direction opposite to the changes characteristic of development. It follows that changes which are the reverse of those we have enumerated as typical of development should be typical of regression. One can ask whether this conclusion from our definition of regression and description of development is in line with the actual use of the term regression. We will see that this is the case in most, although not in all, instances.

1. If the variety of a person's behavior or the richness of his actions decreases considerably, one speaks of primitivation in the meaning of simplification.
2. A decrease in the degree of organization of a behavioral unit may mean either a decrease in the number of hierarchial levels or a disorganization. In the latter case, the parts of the action may be contradictory. In both cases the breakdown of the organization is likely to be viewed as a primitivation, as regression of behavior.
3. The same holds true for a dediferentiation and for a decrease of organization of the person, i.e., those factors which are related to the unity of the person. A decrease in organization of the person, or a change from a unity based on organization toward a unity on simple interdependence (spreading of tension), is most common in those cases where one speaks about primitivation of the person. They are typical of the temporary regression observed in strong emotionality and most of the psychopathological cases of regression.
4. The decrease in the extension of the area of activities and interest seems to be characteristic of those cases of regression which come up, for instance, as a result of long unemployment. The unemployed man and even his children have been observed to narrow their field of activities far more than economic necessities require. Their time perspective seems to shrink so that the behavior of the person is more dependent upon the immediate situation. The shrinkage of the fantasy life seems to indicate a contraction in the reality-irreality dimension of the life space. Such a change of the life space, opposite to the extension during development, certainly represents a primitivation and regression.

5. The outstanding example of a decreasing realism is the shift from sanity to insanity. A temporary and comparatively slight change in this direction is the "blindness" to reality, typical of high degrees of emotion. Usually, also, the "economy of action" breaks down in an emotional situation: the individual "explodes" without much concern for the efficiency and adequacy of his behavior as a means to an end.
Such decrease in realism is frequently called primitivation. Certain authors (37) seem to regard a "withdrawal from reality" as the most outstanding characteristic of regression. However, an older child may well develop elaborate fantasies without this being a symptom of primitivation. On the contrary, the older child usually has a more developed fantasy life than the younger one. Thus, a more elaborate fantasy life has generally to be considered as a symptom of differentiation, rather than of primitivity.

The different aspects of regression, such as the decrease in variety of behavior and in organization of behavioral units, change in unity of the person, shrinking of the life space, and decreasing realism, are not linked rigidly so that a certain amount of regression in one aspect always leads to a definite amount of regression in every other aspect. The various patterns of regression observable in emotion, bodily and mental diseases, imprisonment, or senility strongly indicate that the different aspects of regression are, to a certain degree, independent of each other. On the other hand, there seems to exist some degree of interdependence so that an individual who is regressed below a certain level in one respect cannot keep his previous developmental level in regard to the other aspects.

The Representation of Developmental Levels by Means of Scientific Constructs

VI
Field Theory and Experiment in Social Psychology
(1939)

Beginning with this early age, the child's behavior is molded in every respect by his social situation. Of course, his morale, his religion, and his political values are determined by his being a part of, and reacting to, the society in which he lives. If one considers the findings of cultural anthropology and of experimental psychology, one can, I think, establish evidence that social influences enter every action of the individual, even actions which seem to have nothing to do with society.

Experimental psychology has shown that the formation of goals depends directly upon the laws which govern the level of aspiration, particularly upon the effect which success or failure has in raising and lowering the level of aspiration. These experiments make it evident that the level of aspiration is greatly influenced by such social facts as the presence or absence of other persons or by the competitive or noncompetitive character of the situation. It has been shown, too, that goal-setting depends upon certain ideal goals, upon what the sociologists call the "ideology" of the person. Cultural anthropology proves that these ideologies vary extremely among different cultures. As to emotional expression, experiments have shown that, for instance, the emotional reaction to failure can be changed to a great extent by appropriate praise or change in social atmosphere.
This substantiates the general thesis that the management of tension by the individual depends upon his particular social and cultural setting.

There is a growing number of psychologists who emphasize the "historical," social side of psychological facts; and even the hard boiled believers in a stimulus-reaction psychology show a peculiar interest in getting as much of, and as close to, social facts as they can.
I believe there is no longer any need for the traditional opposition between psychologists and sociologists in this basic issue.

I

Unfortunately, this insight into the social dependency of behavior does not end the problem for the psychologist. His problems rather begin here. For the sociologist, too, they should begin here. Psychology, including social psychology, cannot possibly be satisfied with any "generalities" (however correct they may be). It has to judge scientific concepts and theories largely by their ability or inability to handle problems of dynamic interdependence and to handle them in a manner sufficiently specific to attack the concrete tasks of the laboratory or the clinic.

Social psychology indicates, probably better than any other part of psychology and of sociology, what is needed. Its progress depends upon overcoming certain major difficulties, which include at least the following:
a. The integrating of vast areas of very divergent facts and aspects: The development of a scientific language (concepts) which is able to treat cultural, historical, sociological, psychological, and physical facts on a common ground
b. The treating of these facts on the basis of their interdependence
c. The handling of both historical and systematic problems
d. The handling of problems related to groups as well as to individuals
e. The handling of all "sizes" of objects or patterns (social psychology has to include problems of a nation and its situation, as well as of a play group of three children and their momentary struggle)
f. Problems of "atmosphere" (such as friendliness, pressure, etc.)
g. Experimental social psychology will have to find a way to bring the large-size patterns into a framework small enough for the technical possibilities of experimentation.

11

We have chosen the problem of adolescence because the changes in behavior which are supposed to be characteristic for this period seem, at first sight, to give excellent backing to a biological view in sociology. Obviously, adolescence has something to do with sexual hormones and with certain periods of bodily growth. The more recent treatments of the problem of adolescence, however, seem to emphasize its social aspect. They point particularly to the fact that the behavior typical of this age is rather different in different societies. Considerable argumentation has been advanced for and against both views.

The period of adolescence can be said to be a period of transition. It seems to imply, at least under certain circumstances, a more rapid or deeper shift than the period before. After the rather important changes around the age of three years, often a more stable situation has arisen. Maybe minor crises have come up; but particularly in cases where the adolescence is characterized by special disturbances, a relatively quiet or stable time might have preceded it. If one tries to characterize the nature of the transition, one can point to several aspects.

We might sum up our discussion of the adolescent in the following manner:
a. The basic fact concerning the general situation of the adolescent can be represented as the position of a person during locomotion from one region to another. This includes (1) the widening of the life space (geographically, socially, and in time perspective), and (2) the cognitively unstructured character of the new situation.
b. Somewhat more specifically, the adolescent has a social position “between” the adult and the child, similar to a marginal member of an underprivileged minority group.
c. There are still more specific factors involved in adolescence, such as the new experiences with one’s own body, which can be represented as the baffling change of a central region of the established life space.
From this representation one can derive conceptually:
I. The adolescent’s shyness, sensitivity, and aggressiveness, owing to unclearness and instability of ground (follows from a, b, and c).
II. A more or less permanent conflict between the various attitudes, values, ideologies, and styles of living (follows from b).
III. Emotional tension resulting from these conflicts (follows from a, b, and c).
IV. Readiness to take extreme attitudes and actions and to shift his position radically (follows from a, b, and c).
V. The "adolescent behavior” should appear only if the structure and dynamics of the field are such as represented by a, b, and c. The degree and particular type of behavior should depend upon the degree of realization of this structure and upon the strength of the conflicting forces.

Above all, the degree of difference and of separation between adults and children which is characteristic for a particular culture is important; also, the extent to which the particular adolescent finds himself in the position of a marginal man. According to field theory, actual behavior depends upon every part of the field.
It follows that the degree of instability of the adolescent should be greatly influenced also by such factors as general stability or instability of the particular individual.

III

To my mind, it is hopeless to link the different problems involved in social psychology in a proper manner by using classificatory concepts of the type of the Linnean system in botany. Instead, social psychology will have to use a framework of “constructs.” These constructs do not express “phenotypical” similarities, but so-called “dynamic” properties—properties defined as “types of reactions” or “types of influences.” In other words, these constructs represent certain types of interdependence. The transition from phenotypical concepts to dynamic (genetic, conditional-reactive) constructs based on interdependence is, to my mind, one of the most important prerequisites for any science which wishes to answer questions of causation. Psychology is in the midst of a process of transition to this type of concept. Social psychology, and sociology too, will have to turn definitely in this direction.

To the psychologist who has observed the historical development of the concept of “whole,” or Gestalt, in psychology, most of the argumentation about the group mind sounds strangely familiar. It took psychology many steps before it discovered that a dynamic whole has properties which are different from the properties of their parts or from the sum of their parts. Even relatively recently (in the early Gestalt psychology) the statement was frequently made that “the whole is more than the sum of its parts.” Today such a formulation can be considered hardly adequate. The whole is not “more” than the sum of its parts, but it has different properties. The statement should be: “The whole is different from the sum of its parts.” In other words, there does not exist a superiority of value of the whole.

Whatever has been of scientific value in the concept of group mind resolves itself into the concrete and familiar problems of dynamic wholes in sociology and social psychology.
Conceiving of a group as a dynamic whole should include a definition of group which is based on interdependence of the members (or better, of the subparts of the group). It seems to me rather important to stress this point because many definitions of a group use the similarity of group members rather than their dynamic interdependence as the constituent factor. Frequently, for instance, a group is defined as composed of a number of persons who show certain similarities, particularly a similarity of attitudes. I think one should realize that such a definition is fundamentally different from a definition of a group based on interdependence of its members.

A group, on the other hand, does not need to consist of members which show great similarity. As a matter of fact, it holds for social groups, as for wholes in any field, that a whole of a very high degree of unity may contain very dissimilar parts. Doubtless, for instance, a man, wife, and baby within one family may show much greater dissimilarity than each of the members of this group shows to other individuals (babies, men, women) outside of this group. It is typical of well-organized groups of high degree of unity to include a variety of members who are different and have different functions within the whole. Not similarity, but a certain interdependence of members constitutes a group.

One should realize that even a definition of group membership by equality of goal or equality of an enemy is still a definition by similarity. The same holds for the definition of a group by the feeling of loyalty or of belongingness of their members. However, such as equality, as well as the equality of goal or of enemy, constitutes sometimes, also, a certain interdependence of the persons who show these similarities. Therefore, if one wishes to use the feeling of belonging as the criterion of a group, one can do so if one points to the interdependence established by this feeling.

However, one should realize that loyalty or feeling of belongingness is only one of a variety of possible types of interdependence which may constitute a group (others are economic dependence, love, living together in a certain area). The kind of interdependence of the members (what holds the group together) is equally as important a characteristic of a group as the degree of their interdependence and the group structure.

Conclusions

This cursory examination of the problem of adolescence and the definition of "social group” is meant to illustrate the following general points concerning the field-theoretical approach:
a. It is possible to link in a definite manner a variety of facts of individual and social psychology which, from a classificatory point of view, seem to have very little in common (such as the process of learning and orientation, time perspective, planning, problems of individual maturation, conflicts and tension, group belongingness and the marginal man, and bodily changes).
b. This can be accomplished by the use of constructs which characterize objects and events in terms of interdependence rather than of phenotypical similarity or dissimilarity. It may seem that emphasizing interdependence will make the problem of classification even more difficult because, generally, it is more difficult to describe a fact in terms of its effect on others and its being affected by others (its conditional-genetic properties) than in terms of its appearance (phenotypical properties). However, as soon as one grasps the idea, it becomes evident that if one characterizes an object or event by the way it affects the situation, every type of fact is placed on the same level and becomes interrelated to any other fact which affects the situation. The problem of whether or not one is permitted to combine concepts of values with those of bodily weight, for example, vanishes when confronted with the simple truth that both facts influence the same situation.
The transition to constructs which express interdependence includes:
c. The systematization of facts by "classification” should gradually be replaced by an order based on "construction," "derivation,” and "axiomatization” of laws.
d. It is possible to take into account "general” trends, as well as more "specific" ones, in various degrees of specificity (for instance, to link the general factor of locomotion from one region to another to the more specific one of locomotion to an unknown region, or to a locomotion from one social group to another, and finally to the state of the marginal man "between” two groups). Instead of picking out isolated facts, and later on trying to "synthesize” them, the total situation is taken into account and is represented from the beginning.
The field-theoretical approach, therefore, means a method of "gradual approximation” by way of a stepwise increasing specificity. Picking out isolated facts within a situation may lead easily to a picture which is entirely distorted. A field-theoretical representation, on the other hand, can and should be essentially correct at any degree of perfection.
Whether or not a certain type of behavior occurs depends not on the presence or absence of one fact or of a number of facts as viewed in isolation but upon the constellation (structure and forces) of the specific field as a whole. The “meaning'" of the single fact depends upon its position in the field; or, to say the same in more dynamic terms, the different parts of a field are mutually interdependent. This is of fundamental importance in social psychology.
It goes a good way in explaining, for example, the effect of rural and urban surroundings and of nursery schools and orphanages on the development of intelligence, or, more generally, the effect of the state of the environment (its degree of differentiation, tension, etc.) on the state of the person, because person and environment are both parts of one dynamic field.
f. The properties of a field as a whole, such as its degree of differentiation, its fluidity, and its atmosphere, should be emphasized sufficiently.
g. The representation of social-psychological facts by dynamic constructs permits derivation of the conditions which influence behavior in one direction or the other and of the conditions under which “exceptions” should be expected. It covers the usual case as well as the exceptional one.
h. It is true that all constructs in psychology and sociology should be operational; i.e., it should be possible to coordinate to each of them observable facts or procedures. However, it is equally important that the conceptual properties of the constructs, that is, their logical-mathematical interrelations, be well determined. The latter necessity, I think, has been relatively more neglected in psychology.
One of the most important among these conceptual problems is finding a geometry which is able to represent the psychological or social field adequately.

VII
Problems of Research in Social Psychology
(1943-44)*

One of the fundamental difficulties is related to the distinction between "observation" and "interpretation." In all sciences, it is important to keep observation as free as possible from theories and subjective interpretation. In psychology, too, the observer has to learn to use his eyes and ears and to report what happened rather than what he thinks should have happened according to his preconceived ideas. That is not an easy task. Can it be accomplished at all in social psychology? Can a friendly or an aggressive act be observed without interpretation in the same sense as the movement of an arm can be observed?
Until recently the majority of psychologists were inclined to answer with an emphatic "no" and even today they may give that answer. Actually such an answer implies the impossibility of a scientific social psychology.

I think we would have sooner found our way if we had not been blinded by philosophical considerations. For more than fifty years psychology has grown up in an atmosphere which recognizes only physical facts as "existent" in the scientific meaning of that term.

The effect of this atmosphere can be observed in every psychological school, in the classical form of Gestalt theory as well as in behaviorism. As usual, the conservative power of philosophy—this time in the form of physicalistic positivism—did its part to keep alive an attitude which once had a function for the progress of science, but which now has outlived its usefulness.

What is needed in social psychology today is to free its methodology from speculative limitations. We do well to start again with the simple facts of everyday life for which the possibility of an adequate social observation never could be in doubt because community life is unthinkable without it. Such an empirical basis should be one basis of the methodology of social psychology. The other should be a progressively deeper understanding of the laws of "social perception."

If a biologist is to observe the growth of a leaf during a fortnight, he will never finish his job if he tries to follow the movement of the ions contained in that leaf; nor will he succeed if he watches only the tree as a whole on which this leaf grows. The first prerequisite of a successful observation in any science is a definite understanding about what size of unit one is going to observe at a given occasion.

This problem is of fundamental importance for social psychology. For a long time we have misinterpreted the scientific requirements of analysis and have tried to observe under all circumstances as small units as possible. It is true that sometimes a twinkle of the eye means the difference between acceptance or refusal of marriage.
But that meaning is the result of a defined and specific setting. An observation which approaches the movement of the arm or head in isolation is missing the social meaning of the events. In other words, social observation should look toward units of sufficient size.

In addition, the observer should perceive the units in their particular setting. This again is by no means a problem specific for psychology. A physician who would cut up the X-ray picture of the broken bone into small pieces and classify these pieces according to their shades of gray would have destroyed all that he wanted to observe. To give another example, if two persons are running one behind the other, it may mean that the first is leading and the second following, or it may mean that the first is being chased by the second.
There is frequently no way to distinguish between these possibilities if the observation lasts only a few seconds. One has to observe a sufficiently extended period before the meaning of an act becomes definitely clear. One does not need to be a Gestalt psychologist or be interested in field theory to recognize these facts which are well established in the psychology of perception. All that is necessary is to acknowledge that the same laws which rule the perception of physical entities also rule social perception.

Like the physician who has to read an X-ray picture, the social psychologist has to be educated to know what he can report as an observation and what he might add as a more or less valuable interpretation. A transition exists between observation and interpretation in the case of the X-ray picture as well as in regard to social data.

But that does not weaken the importance of this distinction. Observers have to be trained; then they are able to give reliable observations where the untrained person has to resort to guesswork or interpretation. This holds for the flyer who has to learn to recognize enemy planes even under adverse conditions, for the physician studying the X-ray picture, and also for the social psychologist.

All observation, finally, means classifying certain events under certain categories. Scientific reliability depends upon correct perception and correct classification. Here again the observers have to be trained and trained correctly.

Social Units of Different Size

Observation of social behavior is usually of little value if it doesn't include an adequate description of the character of the social atmosphere or the larger unit of activity within which the specific social act occurs. A running account of such larger units of activity should record whether the situation as a whole has the meaning of discussing plans" or of "working," of "playing around," or of a "free-for-all fight." It has been shown that a reliable description of the larger units of social events is possible and that the beginning and end of such periods can be determined with an astonishing degree of accuracy.

It is clear that observation and theory in social psychology face here a number of problems which we have barely started to attack. In physics, we are accustomed to recognize that an ion has different properties from the atom of which it is a part, that the larger molecule again has specific properties of its own, and that a macroscopic object like a bridge, too, has its specific properties as a whole. A symmetrical bridge might be composed of unsymmetrical molecules and the stability of the bridge is not identical with the stability of its molecules. These are simple facts beyond dispute.

In social psychology the same facts hold: the organization of a group is not the same as the organization of the individuals of which it is composed. The strength of a group composed of very strong personalities is not necessarily greater but frequently weaker than the strength of a group containing a variety of personalities. The goal of the group is not identical with the goal of its members. Frequently, in a well-organized group, the goals of the members are different.

That a social unit of a certain size has properties of its own should be accepted as a simple empirical fact. If we refuse to see anything magical about it, we will be better prepared to perceive these units correctly and to develop methods for their scientific description.

The greatest recent progress in methodology has been made in the study of relatively small units: of the single social acts and of face to-face groups. Some of the characteristics of group structure, such as the degree of subgrouping for work, can frequently be recorded with rather simple means. Sometimes a filming or a recording of the physical grouping of the members gives a fairly accurate picture.

VIII
Psychological Ecology
(1943)

The Child Development Approach

Cultural anthropology has emphasized recently that any constancy of culture is based on the fact that children are growing into that culture. They are indoctrinated and habituated in childhood in a way which keeps their habits strong enough for the rest of their lives.

This shift of approach from the history of the group to the history of the person might be viewed as a change from sociology to psychology. At the same time, it is a step toward linking the degree of resistance to change with the present state of the group members, rather than with the past conduct of the group. It is a step away from an historical and toward an ahistorical dynamic approach.

THE PSYCHOLOGY OF THE GATEKEEPER

To understand and influence food habits we have to know in addition to the objective food channels and objective availability, the psychological factors influencing the person who controls the channels. The psychology of the gatekeeper includes a great variety of factors which we do not intend to cover fully. The factors might be classified under two headings, one pertaining to the cognitive structure, i.e., the terms in which people think and speak about food; and the other pertaining to their motivation, e.g., the system of values behind their choice of food.

I. The Cognitive Structure. The cognitive structure deals with what is considered “food,” “food for us,” or “food for other members of the family,” with meal patterns, and with the significance of the eating situation.
a. Food Outside and Within Consideration. Physical availability is not the only factor which determines availability of food to the individual. One of the determining factors is “cultural availability.” There are many edible materials which people never even consider for use because they do not think of them as food for themselves.
If we consider as food all that which some human beings actually eat and like to eat, then live grasshoppers would have to be included in the category of food. If, however, we ask what people in the United States consider as food, live grasshoppers would be excluded.
In other words, the psychological area of food in our culture is only a small part of the objectively edible food, and could be conceived of as a small restricted region within the total region of all objectively edible food.
In some parts of our country peanuts or cheese are considered food for animals but not for human beings. A farm girl in Iowa refused to eat cottage cheese because it is something for the pigs. Even within the area of food in our culture, the boundary between food for human beings and food for animals varies.

Even the food that is recognized as that for human beings still may not be accepted as food for one’s own family. For example, kidneys or certain viscera are considered by some as food only for poor people, or champagne a drink for the rich. In other words, only a certain part of the area recognized as "food for human beings” is recognized as “food for us.” To find out what is considered “food for us" by different groups is one of the first objectives of studying food habits.

IX
Frontiers in Group Dynamics
(1947)

ONE of the by-products of the second World War of which society is hardly aware is the new stage of development which the social sciences have reached. This development indeed may prove to be as revolutionary as the atom bomb. Applying cultural anthropology to modern rather than ‘‘primitive” cultures, experimentation with groups inside and outside the laboratory, the measurement of socio-psychological aspects of large social bodies, the combination of economic, cultural, and psychological fact-finding—all of these developments started before the war. But, by providing unprecedented facilities and by demanding realistic and workable solutions to scientific problems, the war has accelerated greatly the change of social sciences to a new developmental level.

Concept, Method, and Reality in Social Science

1. DEVELOPMENTAL STAGES OF SCIENCES

For planning and executing research a clear insight into the present stage of scientific development is needed. Research means taking the next step from the known into the jungle of the unknown. To choose scientifically significant objectives and procedures it does not suffice to be acquainted with the factual knowledge available at a given stage. It is also necessary to free oneself from the scientific prejudices typical of a given developmental stage.

The types of obstacles which have to be overcome when proceeding to a next scientific step are frequently quite different from what one may expect. Looking backwards it is often hard to understand how anyone could have been influenced by those arguments which have delayed scientific progress for considerable time.