

one sense and on one level, reduce to *only two* pairs. This statement should certainly not be interpreted to mean that the cognitive-expressive distinction has lost its significance, but only that, taking account of it in a systematic way, we can then see certain relationships between underlying concepts which were not previously visible.

When we do this, it emerges, that the major "axis" of the pattern variable system as a system boils down to the question of primacy—within the motivation—object frame of reference—as between *two pairs* of alternatives of organization of action-components on the *most* fundamental level. The fact that these are still pairs must be kept clearly in mind. The pairs are, first that between the element of generalization in the more usual sense, that is "common features regardless of specific relations to a particular actor-object", and conversely the focus on particular objects, as objects on the one hand, or as foci of the organization of motivational interests on the other hand. The second is the pair revolving about the significance of what we have variously called motivation, affect, "acting out" etc. on the one hand, and those aspects of or factors in the system which on the other hand are interpreted to be independent of this reference.

In other words, the cognitive-expressive distinction gives us one fundamental coordinate of the frame of reference. But cross-cutting this is the interplay of the two pairs of alternatives, each of which clearly involves *both* cognitive and expressive references. Many problems clearly are not solved by this analysis so far. But there can be little doubt that we are dealing with a genuine *system*. Certain outlines of it seem to be fairly clear, but many things are also obscure.

## CHAPTER 3

### THE DIMENSIONS OF ACTION-SPACE

BY TALCOTT PARSONS  
AND ROBERT F. BALES

WE HAVE LONG BELIEVED THAT THE THEORY OF HUMAN SOCIAL BEHAVIOR, what technically we call the theory of action, has been in a process of converging toward a general theoretical scheme which was applicable in at least certain essentials all the way from the smallest samples of experimentally controlled animal behavior to the analysis of large-scale social processes. To cite only works in which we have been personally involved, *The Structure of Social Action*, *Interaction Process Analysis*, and the recently published volumes *Toward a General Theory of Action* and *The Social System*, have all been dominated by this perspective. In the recent history of this trend of thought, there has been an impressive amount of convergence of elements of theory derived from a variety of sources. The purpose of this paper is to document a still further and very recent step<sup>1</sup> in this larger process which we believe brings us perceptibly nearer to being able to treat social interaction in a generalized manner.

There are five main pieces of work which, though previously known to be connected in a broad way, have recently been brought into much clearer and sharper relations to each other than before. These include (1) a set of categories for the direct observation and classification of social interaction, (2) a set of pattern

<sup>1</sup> As noted in the introduction this paper was written in November, 1951. It has only undergone editorial corrections and no substantial revisions since that time.



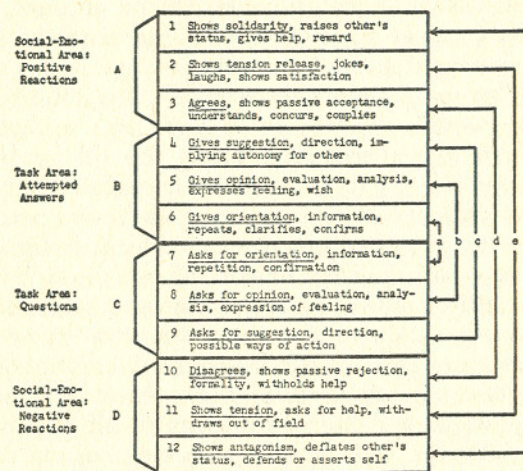
variables for the classification of dilemmas of choice in action, (3) a paradigm for the classification of aspects of deviant behavior in institutionalized social systems, (4) a corresponding paradigm for the classification of aspects of social control, and (5) some recent work on the nature of symbolism and its relation to interaction. We may begin with a brief sketch of each of these five in order to orient the reader to the main discussion.

(1) First, basing himself on broad foundations of sociological theory, one of us has been at work for some years on an intensive analysis of the processes of interaction in small groups. This study has included the development both of methods of empirical observation and of theoretical analysis. This approach has been published in preliminary form in the book *Interaction Process Analysis*.<sup>2</sup> Our present interest is not in the empirical methods, but in the theoretical scheme involved. The essential approach was to think of the small group as a functioning social system. It was held that such a system would have four main "functional problems" which were described, respectively, as those of *adaptation* to conditions of the external situation, of *instrumental* control over parts of the situation in the performance of goal oriented tasks, of the management and *expression* of sentiments and tensions of the members, and of preserving the social *integration* of members with each other as a solidary collectivity. In relation to this complex of system-problems, a classification of types of action was worked out, falling in twelve categories as given in Fig. 1. It will be seen that they fall into four groups of three each, and further that the total set is symmetrically arranged according to several principles, two of which may be mentioned here. In the first place each of the twelve types is classified according to whether its significance is "positive" or "negative" from the point of view of what the occurrence of the act indicates about the state of solution of the particular system problem it deals with. This is the distinction between those above (1-6) and those below (7-12) the central line. In the second place each half is divided into those which are most directly relevant to the problems of adaptation and instrumental control (4-9) and those primarily relevant to the problems of expression of emotional reactions and tensions and maintenance of group integration (1-3, 10-12).

This set of categories has been extensively used in the empirical observation and analysis of small group interaction situations. That

<sup>2</sup> By Robert F. Bales. Cambridge, Mass. Addison-Wesley Press. 1950.

Figure 1.



it was grounded in general sociological theory was evident from the first, but its precise relation to certain other conceptual schemes had not been fully worked out.

(2) The other author has for a considerable period been greatly concerned with a set of concepts he has come to call "pattern variables". In the monograph *Values, Motives and Systems of Action* (with Edward Shils)<sup>3</sup> this scheme was shown to constitute, at its particular level of abstraction, a complete system, which was grounded in the fundamental frame of reference of the theory of action, and which at the same time could be used as a basis of classification, not only of the structural elements of social systems but of the value-orientation patterns of culture and of the need-dispositions of personality.

This scheme was further developed and applied in *The Social System*, indeed it was there used as the main framework for the analysis of the structure of social systems. The basic definitions and classifications of these concepts are given in these works. We will not stop to discuss them here, but will refer the reader to these

<sup>3</sup> This monograph appears as Part II of the volume *Toward a General Theory of Action*, Parsons and Shils, Editors. Harvard University Press, 1951. The pattern variable scheme is most fully developed in Chapter I pp. 76 ff, but is used throughout the monograph. It is also more briefly outlined in Parsons, *The Social System*, Chapter II, pp. 58 ff (The Free Press, 1951) and used throughout that work.



two publications. Certain general properties of these concepts and their interrelations must, however, be briefly outlined.

In the first instance they have been conceived as formulating the main dilemmas of choice in situations where it was not possible for action to "go in all directions at once". A determinate orientation of action would, we felt, have to involve a choice in each respect between two alternatives. These five dilemmas of choice are furthermore related to each other in definite ways. Two of them, those of affective expression versus affective neutrality, and of specificity versus diffuseness, concern dilemmas the actor faces in deciding how his *attitudes toward objects shall be organized*, especially his attitudes toward social objects, that is other actors.

Thus a given need-disposition toward a given cathected object, on a given occasion must either be released into action or be inhibited, it cannot be both. Similarly the object itself may be cathected either as a total object in terms of all possibly relevant cathectic significances, or it may be cathected only in relation to a given specific *type* of gratification interest.

A second pair of dilemmas, those of universalism versus particularism and of ascribed quality versus performance,<sup>4</sup> concern on the other hand, dilemmas the actor faces in deciding how *objects themselves shall be organized* in relation to each other and in relation to the motivational interests of the actor. Thus an object may be significant in a given action process either because of its generalized properties independent of the specific relation to ego, the actor, or on the other hand, it may be significant precisely because of particular properties specifically deriving from its relation as an object to *him*. In the first case its significance is universalistic, in the second, particularistic. Similarly, an object may be significant for qualities ascribed to it independent of its performance as an actor, or it may be significant rather in terms of the way it performs or achieves in relation to some goal or interest.

The fifth pattern variable, that of self-vs. collectivity-orientation, is not paired with any other, and does not as such belong either to the attitudinal side of the classification or to the situational or object-categorization side. This is because it is concerned with problems internal to the *system* of interaction rather than with problems internal to each act considered in isolation. It concerns

<sup>4</sup> The terms for this pair used in the works cited are ascription versus achievement. It seems preferable here to adopt the more general terms of quality versus performance. This usage will be followed throughout the rest of this publication.

whether the individual actor's orientation in some particular area of activity should be directly constitutive of his solidarity with others in a collectivity, or whether it may remain or become independent of this within certain limits. For the most general purposes of the analysis of systems of action, then, this fifth pattern variable may be neglected.<sup>5</sup>

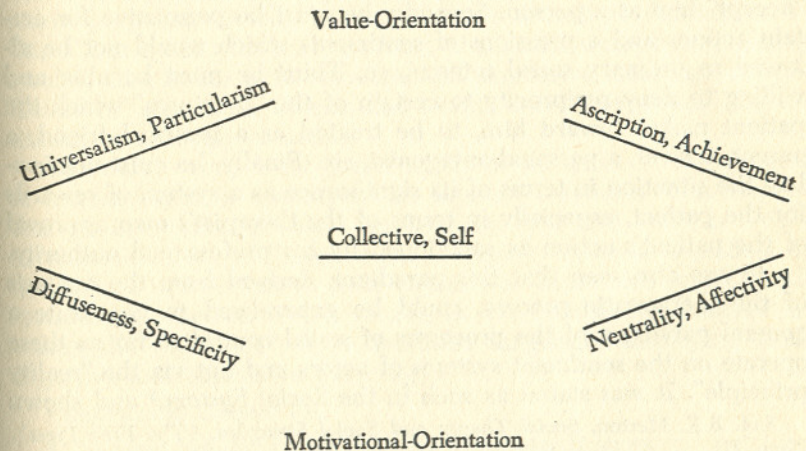
This scheme of pattern variables, as noted, has proved to be capable of providing a framework for the generalized analysis of the structural aspects of systems of action, both social systems and personalities, and has been extensively used in this respect. It has also been shown to be directly derived from the most general frame of reference of action, as shown in Figure 2, taken from *Values, Motives, and Systems of Action*.

(3) and (4) In the work of the same author a second major conceptual scheme has developed in the last two years, partly documented in *The Social System*.<sup>6</sup> This is what has been called

<sup>5</sup> We shall return to the problem of the status of this pattern variable in Chapter 5 below.

<sup>6</sup> Chapters VI and VII. For convenience of reference the following schematic representation of the pattern-variable scheme may be presented. It was published in each of the two previous works, *Toward a General Theory of Action* and *The Social System*.

Figure 2

Grouping of Pattern Variables



the "paradigm of motivational process". It has started with the assumption that a process of interaction which has been stabilized about conformity with a normative pattern structure, will tend to continue in a stable state unless it is disturbed. Concretely, however, there will always be tendencies to deviance, and conversely these tendencies will tend to be counteracted by re-equilibrating processes, on the part of the same actor or of others.

(3) It was furthermore maintained that neither the tendencies toward deviance nor those toward re-equilibration, that is toward "social control", could occur in random directions or forms. Deviance was shown to involve four basic directions, according to whether the need was to express alienation from the normative pattern—including the repudiation of attachment to alter as an object—or to maintain compulsive conformity with the normative pattern and attachment to alter, and according to whether the mode of action was actively or passively inclined. This yielded four directional types, those of aggressiveness and withdrawal on the alienative side, and of compulsive performance and compulsive acceptance, on the side of compulsive conformity. It was furthermore shown that this paradigm, independently derived, is essentially the same as that previously put forward by Merton for the analysis of social structure and anomie.<sup>7</sup>

(4) In the analysis of social control special attention was paid to the processes of psychotherapy. Here it was felt that four fundamental conditions of successful psychotherapy could be stated. The psychotherapist must first be "supportive" of his patient, he must "accept" him as a person. Secondly he must be permissive for certain actions and expressions of sentiments which would not be allowed in ordinary social intercourse. Third he must be able and willing to deny reciprocity to certain of the "overtures" which the patient makes toward him, to be treated as a personal friend, a parent, a lover, a personal antagonist, etc. Finally, he must manipulate the situation in terms of its significance as a system of rewards for the patient, especially in terms of the therapist's own approval of the patient's action as sanctioned by his professional authority.

It was also seen that this paradigm, derived from the analysis of the therapeutic process, could be generalized to constitute a general paradigm of the processes of social control so far as these operate on the sentiment systems of actors and not via the "reality principle". It was stated as such in the *Social System*,<sup>8</sup> and shown

<sup>7</sup> cf. R.K. Merton, *Social Theory and Social Structure*. (The Free Press). Chap. III.

that *structurally* this paradigm of social control corresponded directly with that for deviance. In sum it was felt that on the paradigmatic level a complete scheme for the analysis of the motivational balance of a social system had been worked out and, furthermore, that this paradigm was independent of the structures of the particular complementary roles in which it operated. The dynamic interconnections between the variables involved in the paradigm could not, however, as yet be formulated, nor could its relations to role structure, formulated in pattern variable terms, be adequately worked out.

(5) Finally, both of us have long been greatly concerned with the place of the theory of symbolism in the theory of action in general and of social systems in particular. The work of Mead, of Cooley, of Morris in particular, but of course of various others, had given us important leads. Work eventuating in the monograph *Values, Motives and Systems of Action* led to substantial clarification in this field, especially in showing the extent to which culture must be considered to constitute systems of common symbols and their meaning-references.

Still, we have not felt that the analysis of the symbolic process was adequately integrated with the general theory of action. Finally, further clarification in this area has been achieved in very recent work<sup>9</sup> which has contributed greatly to the general synthesis we wish to describe in this paper. Perhaps the most important points are as follows. First it has become clear that the distinction between cognitive and expressive symbols, which is essential for many purposes, cannot be regarded as a radical distinction of "kind" but is one of relative *primacy* of common components. *Every* symbol, that is, has *both* cognitive and expressive meanings, it both "refers to" situational objects and events and it "expresses" the attitudes of an actor or actors.

Secondly, *every* overt performance of an actor in the process of interaction is in one aspect an expressive symbol. This implies that an interaction process can be organized and stabilized only in terms of a set of "conventions" defining common meanings of the mutual interactions in their capacity as expressive symbols. All interaction, whether verbal or not, in one fundamental aspect involves the "speaking" of a symbolic language, conveying both cognitive and expressive meanings.

<sup>8</sup> Appendix to Chapter VII.

<sup>9</sup> The paper included in this collection as Chapter II above.



Third the interaction process can not be stabilized unless on both the attitudinal and the object sides of the organization of action, there is a building up by the participants of *complexes* of attitudes, symbolic acts, and objects with symbolic reference to each other, by virtue of which elementary objects of cathexis, secondary objects of interest and motivational interest-components themselves come to be organized in systems. It is the *patterning* of these symbolic references which constitutes the "structure" of a system of action in the strictest sense. Furthermore it becomes clear that what we mean by the "internalization" of a culture pattern<sup>10</sup> is simply the fact of the *organization* of these elementary motivational and object components in terms of mutual symbolic reference. Speaking of the "cathexis of a pattern" then is an elliptical way of speaking of the actor's emotional "investment" in the maintenance of a certain kind of patterning of this system of orientation, of the ways in which his own motivational components and the relation of the object system to him are organized.

This further clarification of the involvement of symbolism in action has paved the way for our seeing much more clearly than before that the pattern variables are deeply involved in what has here been called the mutual symbolic organization of action components. The requirements for stability of such organization are such that there must be particular *relations* between the attitudinal and the situational components of a system of action. These types of relations, it appeared, could be formulated in terms of the combinations of *one* pattern-variable component from the *attitudinal* side of the system with *one* corresponding component from the situational or *object-categorization* side. This way of looking at the pattern variables, by a classification completely cross-cutting the ones which had figured in the many previous analyses of structural problems, opened the way to the present new synthesis of the theoretical components of systems of action.

## II

The essential relations which we wish to discuss are, with the exception of the involvement of symbolism, schematically represented in Figure 3. This shows that it is possible to regard the categories of interaction process developed by Bales and the motivational paradigm developed by Parsons, as, in all essentials,

<sup>10</sup> Equally, of course, its "institutionalization."

different ways of conceptualizing the same thing. The mode of organization of the scheme revolves about the "functional problems of social systems" put forward by Bales, and the pattern variables of Parsons and Shils, put together in a specific combination; the two in this context turning out to mean essentially the same thing. These statements require considerable elucidation.

The fundamental conception underlying both original schemes is that a process of ongoing social interaction can be usefully described by comparison with a hypothetical system in a state of moving equilibrium. If no new elements at all were introduced into the system, the interaction process would, according to the "law of inertia" stated in *The Social System*,<sup>11</sup> continue unchanged. But such a static equilibrium is, theoretically considered, a limiting case. Actually new elements are continually being introduced, elements which may be classified under three headings. First new information by perception and cognition of the situation is being introduced, from the members of the group or from outside, and this new information influences the orientations of the members. Second, the personalities of the members are only in part directly constitutive of the group process, and new elements particularly in the form of value judgments, and emotional reactions, are being introduced into the interactive system through the processes of interdependence between the social system constituted by the group interaction and the personality systems of the members. Third, the situation in which the group and each of its members operate may be changing in various respects and there have to be processes of adaptation to and attempts to control these changes.

A new element introduced into the system in some way disturbs the expectations of one or more of the members—unless as may happen it has been completely "discounted" in advance. If the system is to regain equilibrium there must be a process of adjustment to this disturbance, to the new situation. This process of disturbance and adjustment is conceived as "oscillating" about an equilibrium state of the system, a moving equilibrium. The action of one of the members, or a situational event perceived by one or more of the members, introduces a new element, which is a disturbance; this evokes a "reaction" which may be opposite in direction in the sense that it tends to restore the equilibrium or may be similar in direction in that it tends further to disturb equilibrium. The complexity of interdependence of the elements of the system

<sup>11</sup> Chapter VI, pp. 204-5.



is such that very seldom will one reaction completely restore equilibrium. Even in relatively stable systems there may be a long series of such action-reaction processes which, however, will tend to narrow in range, leading toward a stable state. This tendency toward an asymptotic approach to a stable state will, however, be continually interrupted by the introduction of a whole series of new elements into the system, not only the initial one.

The two sets of categories or paradigms which, though independently arrived at have here been brought together in a single schema, do *not* attempt to formulate the patterns of succession of different modes of action and reaction in the system,<sup>12</sup> but essentially formulate the *dimensions* along which "movement" or process in the system in the interplay of action and reaction, takes place. In order to show this it is necessary to explain more fully from just what point of view each of the sets of categories has been originally formulated and hence what modifications are necessary in order to make them directly comparable. In the schematic table of Fig. 3 the original terminology has been preserved. In certain respects, it is important to note, these terms designate special cases rather than the most general one.

Bales' categories were formulated for purposes of direct microscopic observation of the interaction process in small groups. They constitute a scheme for classification of what an actor does in terms of the smallest feasible unit of observation. The terms in the table are abbreviations of these action types, the actor "*shows* solidarity", "*makes* a suggestion", "*asks for* orientation" etc. In each case the act is classified according to what the observer judges to be the *primary* feature of the concrete act. It has been fully recognized that this need not be the exclusively significant one, but it has not seemed operationally feasible to attempt to identify and record more than one such feature for each observational unit.

The most significant features of Bales' categories from the present point of view are their *classification* relative to the positive-negative polarity, and relative to the four system-problems mentioned above of integration, expression, instrumentality and adaptation. The symmetrical arrangement of the categories, into the "task-oriented" sections (the middle ones in Bales' arrangement) and the "social-emotional" sections (the outside ones) is, along with the polarity and the internal differentiation within each section, as we shall see, fundamentally important.

<sup>12</sup> This problem is taken up in Chapters IV and V below.

The other sets of categories coming from Parsons' and Shils' recent work were arrived at from a different point of view. They were formulated for a more macroscopic analysis and also consisted of two sections which were independently worked out and then put together.

The difference of level from Bales' categories consists essentially in the fact that Bales was concerned with the microscopic level of study of the interaction *process* as such. While of course the broad role structure of the social system stood in the background, framing the orientations of the small group members,<sup>13</sup> there was an explicit attempt to abstract from institutionalized role structure. Parsons, on the other hand, was directly concerned with the analysis of deviance and social control *relative to institutionalized patterns* of social structure as such. Furthermore while Parsons' typology of deviance is phrased in such a way as to apply to any deviant role in the system, the typology of elements of social control is phrased from the point of view of the institutionalized role of the doctor or therapist and then generalized to other role systems; it formulates the "successful" rather than the "unsuccessful" (or deviant) pattern. It is thus the least "generalized" of the various classifications included in the table. These differences in degree of abstraction and direction of concrete application help to account for the fact that Bales' twelve categories make certain distinctions not made by Parsons' eight, and also for the one asymmetry in the comparison of the "active" and "passive" character of the action types.<sup>14</sup>

The first section of Parsons' scheme is the "deviance" paradigm. Once it had become clear how important in social systems was the internalization of normative patterns of the common culture, there has gradually developed the conception of an interaction system stabilized about conformity with a given set of normative patterns. According to the law of inertia such a system should continue unchanged unless disturbances were introduced. But *whatever the source of the disturbance*, the upsetting of the equilibrium of the system would have to take place in one of a small number of definable directions. The problem then was to define what were, in terms of the nature of the stabilized system itself, the most important of these directions.

<sup>13</sup> This problem is of course relevant to the cross-cultural generalization of Bales' findings.

<sup>14</sup> These problems will be taken up again in Chapter V below.



Figure 3. Corresponding Elements in Parsons' and Bales' Typologies of Interaction  
 "Supportive" Aspect (above double line)

| Bales' Categories Negative Movements | Parsons' Categories Components of successful social control | Bales' Categories Positive Movements | Dimensions as related to Pattern Variables  |
|--------------------------------------|---|--------------------------------------|---|
| 12) Shows Antagonism (Active)        | Aggressiveness (Active)                                     | Support (Active)                     | Major change in the <i>Integrative</i> Dimension.<br>Attitude: Cathexis in forms of Diffuse need dispositions<br>Relation to object: Particularistic                                      |
| 11) Shows Tension (Passive)          | Withdrawal (Passive)  | Permissiveness (Passive)             | Major change in the <i>Expressive</i> Dimension.<br>Attitude: Certain affective tendencies held Neutral (Inhibition)<br>Relation to object: In terms of given Quality-features of system. |
| 10) Disagrees (Passive)              |   | 3) Agrees (Passive)                  |   |
| 9) Asks for suggestion (Passive)     | Compulsive Performance (Active)                             | Denial of Reciprocity (Passive)      | Major change in the <i>Instrumental</i> Dimension.<br>Attitude: Certain affective tendency allowed to issue into action<br>Relation to object: In terms of expected performance           |
| 8) Asks for Opinion (Passive)        | Compulsive Acceptance (Passive)                             | Manipulation of Situation (Active)   | Major change in the <i>Adaptive</i> Dimension.<br>Attitude: Cathexis in terms of specific interests.<br>Relation to object: Universalistic  |
| 7) Asks for Orientation (Passive)    |   | 6) Gives Orientation (Active)        |   |

Pattern-Responsibility Aspect (below double line)

The first important insight in this connection was that "over-conformity" should be defined as deviance. Alienation, the disposition to break away from the pattern of conforming behavior—i.e. of stabilized interaction, could then be paired with "compulsive conformity", the disposition to maintain it in the face of strain, which however would make *full* conformity impossible. This paradigm was thus formulated in terms of a theory of motivation, the foci of which were the conceptions of internalization of pattern, and of the ambivalent nature of psychological reactions to strain.

There was then introduced the conception that, whether the deviance was on the side of alienation or of over- or compulsive conformity, the direction of deviance could be either active or passive. What this meant was that *relative to stabilized expectations* i.e. to the institutionalized pattern, ego could deviate either by actively "taking the situation in hand", doing more in attempting to control it than the expectations called for, or he could deviate in the passive direction, falling short of asserting the degree of active control which the role-expectation called for.

These two axes of differentiation yielded the fourfold-classification which is presented under the heading of deviance in Fig. 3. At this point as pointed out it became evident that there had been a convergence with Merton's well-known paradigm of the relations between social structure and anomie.<sup>15</sup> It was also shown that a further significant sub-division of types of deviance could be worked out by using the additional distinction as to whether the focus of strain was on relations to the social object (to alter as a person) or on the pattern with which conformity was expected. This brought the whole classification very close indeed to that of the mechanisms of adjustment of the personality.<sup>16</sup>

The second section of Parsons' motivational paradigm was that concerned with the process of social control. As noted this was worked out in the first instance in connection with an attempt to state certain of the conditions of successful psychotherapy.<sup>17</sup> It borrowed directly from the psychiatric literature and particularly from insight gained in the course of training in psychoanalysis. Four essential conditions were distinguished (which must of course

<sup>15</sup> Merton, op cit.

<sup>16</sup> cf. *Values, Motives and Systems of Action*. Chapter II pp. 125ff and table p. 255. and *Social System*, Chapter VII, p. 259.

<sup>17</sup> cf. *The Social System*, Chapters VII and X, also "Illness and the Role of the Physician", *Am. Jour. of Orthopsychiatry*, July 1951.



be combined in the proper ways). These were, as noted, first the "support" of the patient in the sense of acceptance of him as a person, the existence of a "helpful", "understanding", non-punishing attitude on the part of the therapist. The second, permissiveness, meant that the therapist must be ready to permit, within limits, expression of sentiments and at least verbal behavior which would ordinarily be inhibited in the patient's other socially interactive relationships. Negative sanctions are to this extent suspended, and thus the patient is permitted openly to express his deviant wishes, attitudes and beliefs. Third, the therapist must not merely be negatively permissive but he must also refrain from reciprocating certain of the patient's overtures, that is those based on expectations that the therapist will undertake certain overt performances, which may be gratifying or frustrating from the patient's point of view. He must, as psychiatrists often say, not allow himself to be "seduced" into such reciprocation. When he does allow this, it is "countertransference". Finally, the therapist must carefully manipulate the rewards available to him, particularly those involved in his own attitudes of approval-disapproval toward the patient's behavior, since generalization along this axis is known to be so fundamental to interaction. In general an "interpretation" should be regarded as a deliberate intervention in the situation which is meant in part not only to aid in clarifying insight but to reward the patient for the insight gained through his successful "work" or to deny such reward when it has been expected by the patient.

It has further been shown<sup>18</sup> that this paradigm could be generalized and regarded as formulating essential features of the processes of social control, and of socialization in so far as the latter concretely involves reactions to strains. For example in funeral ceremonies there is support in the form of symbolic declaration of the solidarity of the bereaved with the collectivities to which they belong; there is permissiveness in the form of allowing or even prescribing "grief reactions" beyond the normal level of emotional demonstrativeness; there is denial of reciprocity for unduly extreme sentiments of grief, despair and sometimes hostility, and finally the reward system is definitely structured so as to put a premium on "getting back" onto the track of resumption of "normal" social functioning. Or, to take another example, the youth culture in our society may be analyzed from the same point of view. The solidarity of the peer group gives the individual a support which is not too closely bound up with the adult society rela-

<sup>18</sup> *Social System*, Chap. VII, final section.

tive to which he feels strain. Yet the adult society is distinctly permissive within certain limits relative to the "vagaries" of the young. At the same time there are very important denials of reciprocity both within the youth culture group itself, and vis-a-vis adults, and finally the reward system is by and large structured in favor of successfully "growing up".

Now it appears that the paradigms of deviance and social control can be put directly together in the manner indicated by Fig. 3. Each directional type of deviant act may in these terms be regarded as a way in which disturbances can be introduced in an equilibrated system of interaction. Then the corresponding category in the paradigm of social control may be regarded as a way in which a counteracting tendency to re-equilibration may take place. Thus an aggressive act from the present point of view is a disturbance of equilibrium in the sense that it weakens the solidarity of the parties to the interactive relationship. If solidarity is weak or deteriorating a supportive act may be a way of strengthening it. Secondly, withdrawal from fulfillment of normal expectations in any way is another form of disturbance; some adjustment must be made in the system to "take the place" of the expected performances. Permissiveness, on the other hand is a form of "equilibrating withdrawal" in that by the suspension of negative sanctions it permits release of tension without driving the actors concerned into antagonism or otherwise deviant performance. Third, compulsive performance is still another way of disturbing equilibrium in that, though ostensibly in line with the expectations of the role, it "overdoes" the part, and creates difficulties of adjustment for the other parties. Thus in a competitive situation, too great extra effort on the part of one competitor may force the others to extra exertions. The equilibration of a system that is, depends on the "gearing in" of the performance levels of the various participants so that too much performance by one is, if not adjusted to by the others, disturbing. Correspondingly, denial of reciprocity for a deviant performance, or conversely the introduction of a needed performance where there has been withdrawal, constitutes a step toward re-equilibration. Finally, compulsive acquiescence may be regarded as allowing behavior to be illegitimately rewarded; it is approving what in fact falls short of the requisite standards. The obverse of this is in turn the setting of rewards into an appropriate relation with performance again, refraining from rewarding below standard performance, and positively rewarding that which meets the standard.



The point of view from which this paradigm was originally formulated has introduced a "bias" in the sense that the processes of deviance and social control constitute a very important *special class* of the more general processes of disturbance and re-equilibration in social interaction. In the more general sense "disturbance" need not be deviance—thus every process of group task solution necessarily involves disturbances, which do not constitute contravention of any recognized norm, as for instance through the introduction of new information into the system. Bales' categories, as can be seen, formulate this more general case of the minor disturbing "movements" in the relatively stable process.

It should be very carefully kept in mind that in the actual process of interaction the succession of disturbing and re-equilibrating acts does not follow this specific pattern of sequence. The problem of the laws governing sequence is a distinct problem which we cannot follow out in this paper. For present purposes all we mean to say is that for every disturbance there is a corresponding mode of re-equilibrating process and vice versa. The interaction process is a process of action and reaction and the directions of disturbance and of re-equilibration correspond directly with each other.

One fruit of the placing of the paradigms of deviance and social control in this more general context of equilibrium of the interaction process is to throw new light on the significance of the distinction between activity and passivity and hence the inclusion of these categories in the paradigm. Social equilibrium, or more generally that of action as such, is an ongoing process which presupposes certain expected and continuing levels of performance at appropriate times. From the point of view of the equilibrium of the system as we are now analyzing it, the "active" phase of the process then may be regarded as *acceleration of the rate* of action process, while the "passive" phase is a *deceleration*, a slowing down, of that rate. In either case a disturbance of equilibrium results which in turn necessitates a process of readjustment throughout the system. Further this disturbance may or may not "fit" with a stable pattern of development. We shall see that it is of great importance that a conception of change in rate has entered into the general conceptual scheme with one of its original components, though it had not been clear just what the significance of this was when the deviance-social control paradigms were first formulated.

We must now take up the problems presented by the dimen-

sions of the action frame of reference as these concepts have been reached from the two different sources of Bales' functional problems of a social system<sup>19</sup> and Parsons' and Shils' pattern variables. Perhaps the convergence of these two lines of thought presents the most important single aspect of the synthesis we are describing; it underlies the categorization of the interactive process which we have just reviewed.

The part of Bales' scheme which is most directly relevant here is the classification of the four functional problems of the social system which were made in turn the basis of the classification of types of acts for observational purposes. These, it will be remembered, were the "adaptive", the "instrumental", the "expressive" and the "integrative". Bales pointed out that the first three of these could be considered phases of the adaptation of the social system respectively to its situation, to the expectations of group performance, and to the motivational needs of its members as personalities. The fourth, on the other hand, must be considered to be a problem arising out of the complexity of the interactive system itself as an internally differentiated system. It was explicitly pointed out that "progress" with respect to any one or combination of the other three system problems might entail increasing strain on the integration of the system, and therefore call for action specifically oriented to restoring that integration.

In the light of the present developments it is a curiously ironic fact that Bales reserved the term *dimension* for a related but different set of concepts which refer essentially to modes of foci of differentiation of social systems in a structural sense, with reference to access to resources, to control of action, to prestige and to identification of an individual with the group. These were, that is to say, the main axes of role-differentiation in the system, but not, as we can now see, the dimensions of the process of action as such.

As noted above, Parsons' and Shils' pattern variable concepts were developed, not in connection with the analysis of the interaction process as such, but in the first instance in the analysis of social structure. After considerable use of the concepts on that level, it finally became apparent that they were more widely applicable and that as a system they were directly grounded in the frame of reference of action itself.<sup>20</sup> On that level and in that reference they have

<sup>19</sup> cf. *Interaction Process Analysis*, Chapter II, pp. 49ff. and Chapter V.

<sup>20</sup> cf. *Values, Motives and Systems of Action*, Chapter I.



been, as we have noted, extensively used for structural analysis both of social systems and of personalities, and of the structural articulations between them.

For a considerable period it has become increasingly clear that there was some fundamental connecting link<sup>21</sup> between the polarities of the pattern-variable system as these had been worked out, namely the motivational or attitudinal pole which was analyzed in terms of the categories of affectivity-neutrality and of specificity-diffuseness, and the situational or object-categorization pole which involved the categories of universalism-particularism and ascription-achievement, or as seems a more appropriate terminology for present purposes, quality-performance. Only the careful analysis of the relations of the pattern variables to symbolic generalization and patterning, however, has revealed just what this cross-system link is, and that it in fact formulates in another way exactly the same thing as did Bales' system-problem classification, including exact correspondence in the *number* of categories. It is necessary, therefore, to review briefly the main relevant considerations in the theory of symbolism, though these are more fully set forth in another paper.<sup>22</sup>

The importance of these concern the field of expressive symbolism, which has unfortunately been a seriously neglected field in the theory of action. The most important starting points are those noted above, that every symbol has *both* expressive and cognitive meaning-references, and that every overt act or performance of an actor is in one aspect an expressive symbol, whatever its other or "intrinsic" significances may be.

Symbols, however, seldom occur singly; they come to be organized in *systems*, by virtue of which the actor can be *oriented* in and to his situation. Such symbol systems must be organized both in the cognitive reference context as ways of ordering the object world in its significance for the actor's orientations or "interests", and in the expressive reference context as ways of ordering his attitudes, that is his cathexes, toward objects. Furthermore, and most important, both aspects must be articulated, they must be organized to form a *single system* of the actor's orientation. This

<sup>21</sup> That there is more than one such link will be shown in Chapter V below.

<sup>22</sup> A first attempt to push analysis in this field farther was made in *The Social System*, Chapter IX. The present remarks take their departure from that treatment. Further development will be found in the paper of Parsons, *The Theory of Symbolism in Relation to Action* which forms Chapter II of this publication.

system must be organized about axes which include *both* the cognitive and the cathetic references.

Organization of symbolic significances in systems is essentially what psychologists have come to call generalization. The organization in question takes place relative to *patterns* of generalization according to which, in the cognitive reference, objects are on the one hand discriminated and on the other *classed* together, and in the expressive reference, motivational components are discriminated or segregated and are *organized* together.

In the cognitive reference there are two cross-cutting ways of discriminating and organizing symbol-references. The one is defined by the universalism-particularism variable, the other by that of quality-performance. Universalistic organization is the most familiar pattern type of cognitive organization; it is the classing of objects together, and conversely discriminating them, by virtue of properties they have in common which are significant independently of any specific relation of the object to ego, for example, in terms of common shapes, colors or types of behavior. The particularistic mode of organization, on the other hand, is that in terms of the common belongingness of objects in a specific relational context relative to ego; for example by virtue of all being "ego's possessions". Any concrete object or event may be treated in terms either of universalistic or of particularistic significance to ego.

The other way of discriminating types of cognitive organization of symbols is according to whether or not the object, i.e. an event or some other object associated with an event, is or is not considered to be a *performance* of a social object, or significant as the consequence of a performance and hence as an expression of the *intentions* of the actor concerned.

Performances as objects or object-properties of the situation of action constitute the fundamental link between the situational and the motivational aspects of the action system. If the intentions which are "manifested" in a performance are *generalized* into a pattern of performance-intentions, we impute to the actor, not a series of discrete intentions, but an *attitude*, which, in the present terms, is understandable only as a case of the *symbolic generalization of cathexis*, which is the expressive counterpart of cognitive generalization.

The generalization of cathexis in turn is organized about two cross-cutting pairs of alternative modes. On the one hand there is the organization of particular cathexes and the symbols associated with them about the *total concrete object* as an entity, in the most



important case a social object. It is this which is involved when we speak of an attitude of love or esteem, hatred or contempt for a *person* as such. On the other hand the same fundamental cathetic components, object-cathexes and their associated symbols, can be organized about particular *types of motivational interest*, cross-cutting the particularity of the concrete object, so that *any* object which meets the specifications of the interest type can be catheted, independently of its attributes in other respects.

The second pair of alternative modes of organization of cathetic generalization concern whether or not *any* cathetic interest, whether in a diffusely catheted concrete object or in a type of gratification significance, should be permitted to be released into overt action (performance) in the given specific situation, or is to be inhibited in the interest of the integration of the action system. The affective case constitutes the permission to "go ahead" the "green light" for positive overt action, while the "neutral" case is the "red light", the signal to hold up and wait. The assumption is that the object in question is definitely catheted. Therefore "neutrality" in the present case does not mean "indifference" but precisely the existence of "tension" because there exists an impulse to discharge into action, but at the same time an inhibiting force of some sort. This is a set of facts the significance of which was not directly appreciated until the most recent phase of the development of the present conceptual scheme.

Thus, making all due allowances for peculiarities of terminology which reflect the special paths by which the conceptions have developed, we may say that affectivity is directly linked with performance in that, *as distinguished from neutrality*, on the motivational side of the conceptual scheme it signifies the *release* of an impulse into actual overt behavior. Performance on the other hand is the corresponding behavior seen from an observer's point of view; that is to say, it is *the same thing as affectivity* with the "actor" seen as an *object* rather than as an agent of action.<sup>23</sup> This relation between affectivity and performance provides the prototype for treating all of the pattern variable components in terms of their relationships *across* the motivational-situational axis of the system rather than as confined to one or the other side of it.

If, in this manner, affectivity is paired with a counterpart from the cognitive-situational side of the system, namely performance, it is logical that its "partner" affective neutrality should also be paired

<sup>23</sup> The actor in question may be either ego or alter. As performer ego is an object to himself, as well as to alter.

with the corresponding component on the other side, namely "quality" or in the older terminology "ascription". The significance of this second pairing appears to lie in the relation between dynamic process, on the one hand, and its potentiality and consequences on the other hand. Looking at the motivational or "phenomenological" side, affectivity represents motivation *in action*, neutrality, motivation *ready to go into action*. Performance on the other hand, in terms of the actor as object, represents the actor *in the process of acting*, while qualities represent his attributes so far as either the action has been completed and the relevant qualities therefore constitute *consequences* of the process of action, or on the other hand they represent those features or attributes of the actor as object which are not at the moment engaged in performance, which include those which can potentially be changed through performance. Again, therefore, we are able to say that pairing a pattern variable element from the motivational side of the system with the corresponding one from the situational side enables us to gain the perspective that we are looking at essentially the same phenomena from two different vantage points.

We may sum up this aspect of the system by saying that a system of action is involved in what may be called developmental phases. The system or any given unit of it is, from the perspective of what may happen or be about to happen, in a "state of tension". This means that if certain conditions of motivation are given and not changed the system may, in the relevant ways, undergo a process of change which is directionally defined, that is, other things being equal, it can change *only* in the direction of "reduction of tension". Secondly, there is the phase of actual process of change which, according to the point of view, is formulated as affectivity or as performance. Finally, there is the stage of completion of the change which, from the point of view of what has happened in the system, of the new state, is a set of qualities of the objects which compose it; from the point of view of what *may* happen in the next phase of process, on the other hand, it is a neutrality aspect of the motivation system, it is tension not yet released into action.<sup>24</sup>

These two linkages across the system represent what is in the most immediate sense the "dynamic" aspect of the process. This process starts with tension, which is released into overt action, producing consequences, which in turn are the points of reference

<sup>24</sup> This conception of the phase process will be further elaborated in Chapter V below.



for the states of tension which in turn motivate the next series of performances. But this paradigm fails to formulate two other essential features of system-process, namely the relation of that process to the "intrinsic" features of the situation in which it takes place, and its relation to the state of integration or lack of it of the relevant system of action itself.

The former of these two additional points of reference may be formulated in terms of the relation between specific motivational interests and those features of situational objects which are intrinsically appropriate for or threatening to their gratification, namely in terms of the pattern-variable components of specificity and universalism. This connection may be interpreted to mean that the generalization of cathectic interests, that is their building up into attitudinal *systems* must be "oriented" to the *intrinsic* characteristics of the available object world. This, we may surmise, is the fundamental conception involved in the "reinforcement" theories of learning, namely that a *patterning* of orientation to objects which is not "rewarded", that is one which does not establish a gratifying relation to objects, must introduce a strain into the system of action. But this, in a different perspective, is *the same thing* as the symbolic organization of the cognition of objects in terms of those of their intrinsic features or properties which are independent of any particular relation to ego, above all of his "wishes". This aspect of the organization of action as a system concerns above all the relevance of the *givens* of the situation to its shaping. In a sense it is the obverse of the qualities which are the consequences of past performances. It is the qualities of a situation, *however produced*, which must affect or "condition" the *motivational consequences* of an act, and hence also affect the state of tension which is the motivational starting point of subsequent action. This is another way of saying that the success or lack of it of adaptation to situational exigencies of a system of action, is interdependent with the states of tension which motivate future performance.

Finally, the system of action itself may have greater or lesser degrees of integration which change as a function of all three of these other aspects of action process, tension build-up and reduction, adaptation, and actual instrumental performance. In a system of social interaction the focus of the integration problem is the solidarity of the members of the group with each other, which may be increased or decreased. The opposite of solidarity is antagonism or aggression displayed toward alter, where the relation to the task process calls for mutual support rather than mutual interference.

The concept of diffuseness formulates the organization of an actor's motivational or cathectic system relative to a particular object as a concrete entity, whether it be alter as a person or the collectivity of which both are members. In either case on the side of the structure of the object system it is the inclusion of alter or the collectivity in ego's particularistic relational system, and the adjustment of his motivation to the solidarity of that system, which constitutes the integration of the action system *both* in terms of his own motivations as such, and in terms of the relations of the relevant objects to him and to each other.<sup>25</sup>

It should now be evident that the four combinations of cross-system pattern-variable components which we have just reviewed are identical with the four system-problems of Bales' analysis which lay at the basis of his classification of categories of action. This convergence is not only found to hold on the basis of the foregoing abstract analysis, but it also serves to unify both the category system of Bales and the categories of the motivational paradigm of Parsons, both internally in each case, and in their relation to each other. This suggests that they formulate something of fundamental significance to the theory of action. Our next question is, what are these four system-categories?

### III

The suggestion was first made by Bush<sup>26</sup> that what we have here are *the dimensions of a four-dimensional space* in the mathematical sense of that term. We would like to assume from here on that this interpretation is correct and attempt to develop the implications of this assumption for the nature of the variables involved and of the theoretical system in which they belong.

We will further assume that the space thus defined is "Euclidean" in the sense that, though it has four rather than three dimensions, it is "rectilinear," that there is continuous linear variation along each of the dimensions, and that time enters into the analysis of process in essentially the same way that it does in classical mechanics. Rather than attempting to justify these assumptions on general grounds, let us try them out to see whether they "work" in the sense that, when applied to the content of the theory of social in-

<sup>25</sup> It will be evident to the reader that the considerations just reviewed essentially recapitulate the Appendix to Chapter II above.

<sup>26</sup> Dr. Robert R. Bush in personal discussion with the authors.



teraction, they serve to organize and generalize our knowledge in this field.

On these assumptions one fundamental aspect of process in a system of action must be "movement" of units or "particles" in the space, that is change of location as defined and described in terms of the four coordinates of the space. In order to describe such a process determinately we must be in a position to locate the unit in the space relative to a point of origin, and thus to other units in a system, and to describe the change of location which has occurred in the course of such a process. We must, that is, be able to describe the location at an initial time  $t_1$  and a difference of location at a subsequent time,  $t_2$ . Each location must be described in terms of *four logically independent statements of fact*, one for each of the four coordinates of the space, hence change of location must be definable as change relative to each of the four coordinates. Concretely, of course, it is entirely admissible that in a particular case of change there should be no change relative to one, two or even three of the coordinates. This would be described geometrically by saying that the movement was parallel to one or more of the coordinates. In mathematical terms this possibility is one test of the "orthogonal" character of a space.

For each dimension we will describe change of location in each of two sets of terms. On the one hand, looking at the process in the perspective of a "phenomenological" description of the motivational system of the actor, we will describe it as in some way involving a change in the gratification-deprivation balance of the actor. It involves, that is, an increment or decrement of gratification or satisfaction in the relevant sense. On the other hand the *same* process will also be described from the "behavioral" point of view, as a change in the organization of the *relations* between actor and situational object-system. Bales' "system-problem" terms do not discriminate between these two perspectives. The pattern variable terms of Parsons, on the other hand, are paired precisely with respect to this axis, one item from each pair describes the phenomenological aspect of the process, the other the behavioral aspect.

In order to clarify the meaning of this procedure we must both define the term "unit" and characterize what we mean by it in its relations to action systems. We may first distinguish three meanings of the term as follows: (1) A unit of measurement such as an inch or a degree of temperature by the Centigrade Scale. (2) A unit of *concretely observable* process or change relative to a system, which may or may not be measurable in terms of a single unit of measure-

ment as stated under (1). Thus a change of position of a body of one inch in a given direction or a rise of temperature of a liquid of one degree centigrade may be an observable unit of process; (3) The particle or *unit part* of a system. In this case the processes observed under (2) are interpreted to be "manifestations" of processes in the system involving one or more units in the third sense. Thus the length of a streak on a photographic plate may be interpreted to measure the path of a planet relative to the rotation of the earth—the streak of light *is not* the planet but is interpreted as an observable manifestation of the change of location of the planet.

In the present discussion we are not concerned with the first meaning of the term unit, but with the third, and with the relation between it and the second. We may assume that what we actually observe in connection with action systems is "overt acts" or "performances". We divide the objects of these observations into units—these may be the behavioral unit acts of Bales' observation procedure or a system of such unit acts of any degree of complexity. In this connection it is essential to note that what is observed is not only the "performance event" itself but the actor whose performance it is and the "target" actor, individual or collective, to whom the act is directed. In addition the observation procedure places this event in a context—it is placed in a sequence of such acts so that it is related to antecedent events in the system and, through the concept of "expectations" to an estimate of probabilities of future events.

This unit may be referred to as the *minimum behavioral role*. This is the unit of observation in the interaction process but it is *not* the unit or particle of the *system* of action in the theoretical sense, and *pari passu* these observed events are not the locations or movements of the system unit in action-space but are *manifestations* of these locations or movements. We must *infer* from these manifestations what changes have occurred in the *intervening variables* of the action system. The unit which is the particle of the system then is a "hypothetical" entity,<sup>27</sup> not to be confused with the units of observation. It is *this* to which location and change of location in action space must be attributed, as well as the other properties to which we will refer later, namely rate of change of location, change in rate of change, and "motivational force", or *relative importance in the system*. This we will call the *system unit* as distinguished from the behavioral unit.

<sup>27</sup> It is at least close to the concept of unit act developed in Parsons' Structure of Social Action, esp. Chap. II.



Where the system under consideration is a system of social interaction the system unit is *always a role*,<sup>28</sup> whereas if it is a personality system, it is a *need-disposition*. A single action-movement which is conceived as part of a system of social interaction, is a minimum role in this system-sense rather than the behavioral sense. Correspondingly a single overt act, considered in its context in a personality as a system may be considered to be the behavioral unit which is a manifestation of a movement of one or more need-disposition units of the personality system. Finally, it should be entirely clear that *both* of these system-units involve the integration of "drive" organic energy with *cultural patterning*. The significance of this will be further discussed below.

Some of the methodological problems involved in this way of looking at action process will be further discussed later. Under these assumptions, however, we may now attempt to formulate as precisely as possible what change of location of a system unit with respect to each of the four dimensions means, as follows: The terms designating the first two dimensions have been changed slightly, and we hope improved, in Chapter V below.

1. *The Instrumental goal-achievement dimension, G*, characterizing the degree of involvement of motivation as affectively in process of overt performance.

Location B of the system unit, a subsequent location, differs from location A, an antecedent one, in that, phenomenologically stated, there has occurred or "been produced" for the actor in question an increment or decrement of gratification relative to the consummation of a given particular goal-orientation, that is, the system unit is, according to the relevant indices, taken to be closer to, or farther away from a location defined as the state of consummatory gratification relative to the goal of a particular need-disposition. This is the case for an individual actor; for a collective actor the corresponding goal-state is an optimal *organization* of the gratification levels of the need-dispositions of the component individual actors. Stated in behavioral terms, B differs from A in that it is closer to or farther away from a location defined as "goal-attainment". The relation of ego to his situation or if a collectivity is the actor, of that collectivity in its relevant collective-role, has changed in the direction of the goal-state relation or away from it.

<sup>28</sup> For elucidation of both these concepts see *Toward a General Theory of Action*, Part I, Chapter I, the *General Statement*, and Part II.

2. *The Expressive dimension, E*, characterizing the component of neutrality-quality orientation, i.e. the degree of tension of motivation as neutralized by inhibition.

Location B of the system unit differs from location A phenomenologically in that "tension" has either been reduced or "built up". By this is meant that a system of motivational impulses, which by the neutrality of the orientation to objects of potential consummatory gratification other than the specific goal-state referred to under 1. above, is inhibited from discharge in performance, is increased or decreased in "strength", that is in "pressure to discharge in action". Stated in behavioral terms this has been an increment or decrement of "accomplishment". This means that "qualities" have become established in the relation of the actor to the object world which are *consequences* of the performance process, but which, having become established, are no longer aspects of performance itself, but have become independent of performance. This implies a close connection between the consequences of prior process and subsequent tension states.

3. *The Adaptive dimension, A*, characterizing the degree of cognitive learning of interest-specific relevance of properties of situational objects.

Location B differs from location A in that there has been produced an increment of reward-gratification or deprivation with reference to a specific motivational interest or type of them. The implication is that this increment is independent of goal-consummation gratification and should not be confused with it.<sup>29</sup> Behaviorally stated the change is one in the *organization* of the actor's (individual or collective) *relation* to the situation. He has "learned" by experience and become better adapted to the situation. This is saying that learned adaptation and secondary reward *are the same thing* seen from different points of view.

4. *The Integrative dimension, I*, characterizing the level of diffuse-particularistic integration of the system unit act in the system.

Location B differs from A in that there has been produced an increment or decrement of the "optimization of gratification"<sup>30</sup> for the system (if a personality) or of "adjustment" of the units

<sup>29</sup> It seems probable that it is legitimate to consider this increment as equivalent to secondary reinforcement, while that of goal-attainment is equivalent to primary reinforcement.

<sup>30</sup> *Values, Motives and Systems of Action*, Chap. II, p. 121.



in the system, if a social system. In either case it is a matter of the total consequent balance of the action-system in which the particular unit is integrated. Behaviorally stated the meaning is that there has been an increment or decrement of *value achievement of the system as a system*, that is in that position the unit has made a *contribution* to this achievement. System-integration is thus here regarded as a *dimension* in the theory of action, not merely as a "phenomenon".

These four directions of the movement or change of location of action are, we believe, the dimensions of a space. To complete the description and analysis of events in such a framework, we must specify certain additional facts about the units conceived as located and moving in such a space, and about the systems which are composed of a plurality of such units which together constitute a system.

The first, and a particularly strategic question is what is meant by the rate of change of location of such a unit in the space; closely related is that of what is meant by a change in the rate of change of such location. With respect to both of these we assume that the foregoing has adequately defined what is meant by the "direction" of a process. The direction of a change is understood to be the "resultant" of the motions with reference to the four coordinates of the space.

There are two levels on which we can attack the first problem, an "absolute" and a "relative" level. We may suggest that the problem as to what the rate of change may be in any absolute sense is a "pseudo-problem". This assertion implies that any system, as we have several times suggested, tends to have an established level or trend of process, that this process tends to go on unchanged unless interfered with. In action terms we have said that such a process tends to have its established levels of "performance."

If this tendency to constancy or "inertia" be assumed, then the problem may be stated in a relativistic way. The important problem is thus that of locating the points of reference relative to which variations in this rate of process are to be measured. This in turn seems to be inseparable from the question of the definition of the points of origin relative to which location in action space can be determined.

In three-dimensional Euclidean space, the choice of a point of origin is in principle completely arbitrary, and correspondingly the point of reference for the measurement of velocity and of change

in velocity is also arbitrary. It seems at least doubtful whether this is true of the space of action as we have defined it, and of the conception of rate of process in such a system.

The problem seems to be connected with the fact that in some sense there are "boundaries" to the space of the theory of action, to which there are no close analogies in the space of classical mechanics. Three of these boundary-features should be called to attention. The first of these is involved in the conception of the goal-attainment of a system unit-act. The dimension of closeness or its reverse to attainment of such a goal seems to imply that that there is a state, with reference to the posited particular goal, of having attained it, which is contradictory to the conception of indefinite extension of the process in this direction. If the goal in question is to be relativized, there must be some sort of change in the point of reference. This of course in no sense excludes the possibility of a "nesting" relationship between goals, a problem which certainly needs special investigation.

The second "boundary-condition" concerns the dimension of tension. Whatever may be true of the upper limits of tension there is surely a conception of tension declining to a zero point. Conversely it also seems that the conception of negative tension does not make sense. In the light of the above discussion we can perhaps say that these two boundaries complement each other. They seem to mean that in some sense a system of action is not a "self-subsistent" system. There is an "input" of energy or "force" into the system which we may presume comes from the organism in a biological sense. This appears in the system as the state of "tension" relative to both the system and the unit act. Tension in this sense, however, runs on a declining gradient in the direction of goal-attainment. If there were only one goal in the system of action, goal attainment and the zero point of tension would be identical. But a system of action is a system composed of many such units, i.e. roles or need-dispositions, each with its goal. The tension state of any particular unit therefore expresses some kind of an "economic" or allocative balance as between the energy which is allowed to be involved in performance relative to the particular goal of the particular unit act, and other goals or "interests" of the system. It would seem that it is fundamentally for this reason that tension reduction and build-up must be treated as independently variable relative to goal-attainment.

The third boundary-feature of the system is concerned with the integrative dimension. This dimension evidently derives its impor-



tance from the fact that in the theory of action we are dealing with what has been called boundary-maintaining systems whereas the systems of classical mechanics are not boundary-maintaining systems. A system in mechanics cannot—given the laws of the conservation of matter and of energy—“cease to exist”, it can only “change”. But a boundary-maintaining system may cease to exist in that it becomes assimilated to its environment, that is the distinction between the phenomena within the boundary and those outside, disappears. Disintegration of a boundary-maintaining system is precisely this *disappearance of the difference* between “internal” states and the environment. This is what is meant by death in the biological sense.

The differential of internal and external states can be maintained only by a continual process of interchange across the boundary. This interchange includes the “consumption” by the action system of energy-input from extra-system sources, that is from the organism. It also includes the adaptive processes whereby the “functional needs” of the action system are met by the “utilization” of the resources of the situation, by the “facilities” available in the situation. The adaptive process, or “learning” as referred to above, may be conceived essentially as the process by which facilities come to be utilizable, and utilized in action. When matters are seen in this light, there is obviously a fundamental relationship between the integrative aspects of such a boundary-maintaining system and the adaptive aspects. Movement along these two dimensions must in the nature of the case be related but equally cannot be identical. Increase in integration of the system without reference to adaptive considerations is presumably impossible except within very narrow limits; it would be like an organism continuing to utilize energy without any food-intake. Adaptation, on the other hand, without the integrative processes would constitute simply the dissolution of the system, its assimilation to the environment.

The question of boundary-process may be clarified somewhat further. We must evidently assume *two* fundamental sources of influence on a system of action from outside. The first of these is the energy-flow into the system from the organism or organisms involved. This factor is not conceptualized in any of the four dimensions of process within the system itself, which amounts to saying it can affect only the *rate*, not the direction of these processes; it is not, we may say, a factor of “orientation”.

The second fundamental source of influence from outside the system is through the *adaptive* processes which are conceptualized

in connection with the movement of units, and of the system, along the third dimension discussed above. Here occurs the *cognitive* “input” across the boundary into the system, i.e. the input of “information”. This input again must be classified in terms of two fundamentally different sources, though not channels. The first of these concerns the actor’s own “perception” of non-social and non-symbolic objects.

An action system interacting only with a non-action environment is limited to perception-cognition in this sense as its source of “information”. Correspondingly the instrumental dimension formulates the boundary-process of such a system in the opposite direction, namely that of what the system “produces”, its “output” which, in terms of the system itself, is its own value-accomplishment, as distinguished from the adaptive relation to the environment; this is *control* as distinguished from adaptation.

If, however, a system of action be conceived as interacting with other systems of action, there are further and to us fundamental complications of the boundary interchange processes. We may formulate one by saying that in this case input through adaptive processes involves information received through “communication”, that is information from other systems of action through *symbolic* media; certain of the objects of the situation, then are interpreted as symbols which have intended meanings given them by some actor. Conversely, of course, a fundamental part of the output of the system will consist in communications to other action systems, to personalities, collectivities or subsystems of them.

Both the input and the output of communication may have essentially the same significance to the system as does the perception of situational objects in a purely adaptive way, and as also does the control of them in the interest of instrumental goals. But in any given instance this need not be the case and for the interrelations of total systems of action it *cannot* be the case. This is essentially because, as we have pointed out, a performance in the processes of interaction *necessarily* acquires meaning as an expressive symbol. There is, therefore, not merely communication of “information” in the purely cognitive sense, but of the intentions of the actor, that is of his attitudes. The stabilization of the mutuality of attitudes is, however, subject to the condition which, in social systems, we call “solidarity”. This is essentially what we mean by the *integration* of a system of action, the organization of the cathexes of the sub-systems to constitute themselves into a system, so that there is no longer merely expressive communication *between* sys-



tems, but what were formerly discrete systems of action have now to a degree become one system, which has established boundaries vis-a-vis what is outside, what is to it the external situation. Within any such system then there are adaptive processes and instrumental performance processes of the role or need-disposition units vis-a-vis each other and vis-a-vis the system of which they are parts. But there is also expressive communication, and variation of integration as a function of the expressive factor.

It is in the light of all these considerations that the problem of what is meant by the rate of an action process must be approached. A constant rate will concern the utilization in the action system of the energy-input from the organism or organisms involved. This will be "converted" from "neutral" potentiality into affectivity-performance, to goal-attainment, finally to consequences. A constant rate will constitute a stabilized flow of such energy through the system producing a stabilized performance rate for the units in question and for the system as a system. We do not yet have technical measures of this flow, but the above considerations give us a definition of what is meant which is of sufficient precision so that the problem of devising measures should not present any insuperable difficulty.

The second question, that of what is *change* in the rate of action process has in essentials already been answered. What we have termed "activity" is, namely, to be understood as the acceleration of this rate relative to a given stabilized flow of the process, while "passivity" is the deceleration, the slowing down of the process, relative to stabilized expectations.

There is a final problem concerning the units of action systems and their relations to each other which must receive at least a tentative answer at this point. This is the question of what is meant by the "motivational force" or the potential of a system unit. We may take our departure from the consideration noted above that it is necessary to distinguish the dimension of goal-attainment from that of tension reduction, because the motivational energy of the system must be allocated between a plurality of units. It is a condition of order, that is of equilibrium, in a system of action that this allocation should be determinate, but it need not be equal. Essentially what this is, is the relative *importance* of the various units of the system in terms of their influence on processes in the system. In social system terms this seems to come close to what we mean by the *power* of an actor in a role, whether it be an individual or a collective actor. In personality terms there is need for a

corresponding conception of the relative action-potential of the different need-dispositions in the system. Prestige, in the social system, on the other hand, is not this potential, but is one aspect of the set of consequences of past processes in the system by which the units have each become differentially adapted to their situations and thus fitted into the integration of the system. This is the ordering of the reward system in differential terms which must, in the nature of the case be relatively well integrated with the power system, but is not the same thing.

From essentially the same considerations we derive a tentative solution to the problem of the point of origin for analysis of processes in action-space. We may say tentatively that because of the boundary features of the space, which we have just reviewed, the point of origin cannot be arbitrary. The essential feature of these boundaries is that there must be distribution of energy within a system, and this system must be organized relative to that distribution and the components which are involved in it. Both the tension or expressive dimension and the integrative dimension formulate this reference, for each particular process, to features of the system as a whole. Hence the point of origin must be relative to the *particular system* which is being analyzed. We suggest tentatively that there can be *only one* point of origin for a given system. Changing the point of origin then would mean shifting to another system point of reference. We further suggest that this fact is of fundamental significance to the theory of action and its history. Keeping system points of reference, that is points of origin, straight has proved one of the most prolific sources of difficulty in the field. Because they have very often *not* been kept straight different treatments of the same problem, and of different problems have tended to be incommensurable. This has certainly played a major part in the conspicuous failure of social science to progress cumulatively.

If the point of origin must be relative to the particular system being analyzed, this has an important implication. For in the definitions both of the units of the system and of the system itself we have specifically included a set of patterns of culture which are internalized and institutionalized. It follows that the most elementary analysis of equilibrating processes in systems of action must assume constancy of these culture patterns. The problems of change in culture itself which of course are of overwhelming empirical significance, must involve additional considerations which we have not attempted to enter into here.

There is a further important problem about the point of origin.



This concerns its relation to the position of the observer. It is essential to the theory of action on its symbolic levels<sup>31</sup> that the observer must *communicate* through symbolic channels, directly or indirectly with his subjects of observation. The point of origin for an observer's analysis of a system of action process, then must be such as to *include himself in the system being analyzed*. This means, in social system terms, that the *role* of the observer must be explicitly analyzed and treated as part of the system.

This view confirms a previously common opinion that the interdependence of the material being observed with the observer was an essential feature of the sciences of action in a way which is not true for the physical sciences, at least in the case of classical mechanics. We cannot, however, agree with some, such as Wiener,<sup>32</sup> that this is a fundamental barrier to progress in our field. We feel that the theory of the social system possesses the resources, through its analysis of roles, to deal adequately with the problems. This consideration does, however, clearly explain some of the difficulties which have developed in the field of personality psychology through failure to take account of the role of the observer. This is indeed one of the most dramatic demonstrations of the fact that the theory of action is a *single* conceptual scheme, and that the study of personality is, beyond certain limits, severely handicapped without explicit use of the theory of social systems, even where the interaction of the personality in question with others is not being studied in any other respect than that implied by the fact that he is being observed.

The considerations which have just been reviewed may be summarized from one point of view by saying that the theoretical system with which we are here concerned is characterized by a fundamental asymmetry. It is a dramatic confirmation on a theoretical level of the soundness of our deductions, that the asymmetry in question turns out to be precisely an aspect of the "symmetrical asymmetry" of the pattern variable scheme which was first worked out in *Values, Motives and Systems of Action* and further developed and utilized in the *Social System*.

The essential starting point is the fact that at each "end" of the action system, (the attitude-organization end and the object-organization end) as formulated in pattern variable terms, there is a fourfold table of the fundamental possibilities of combination of

<sup>31</sup> *Social System*, Chap. XII, *Interaction Process Analysis*, Chap. II.

<sup>32</sup> In public lectures at Harvard University and elsewhere.

the components. These have been stated as the major classifications of personal and of social values respectively, or as those of attitudes and of status-categorizations. (See *Values, Motives and Systems of Action*, figures 3 and 4.)

If, as the original classificatory tables of pattern-variable combinations assumed, "random" combinations were possible across the system, there would be sixteen possible "dimensions" rather than four. The limitation of such combinations to the four we have considered, involving as it does the exclusion of three fourths of the logical possibilities, clearly implies certain fundamental assumptions or postulates.

The first assumption underlying the exclusion of certain of these logical possibilities derives from the fact that the pattern variable components themselves have from the first been treated as paired, so that each pair states a single dilemma of choice. Then, secondly, with respect to the "sides" of the system, each pair comes to be associated with a pair from the other side; there is no crossing *as between* these complementary pairs. This means that affectivity-neutrality is paired only with performance-quality and specificity-diffuseness only with universalism-particularism. Each of these pairings and the exclusion of the other possibility implies one postulate. These turn out to be precisely the postulates which we have derived above from considerations of the boundedness of the action space.

The first of these postulates is that a system of action is considered to involve a *one-way process*. As we have put it, "energy" is continually "fed into" the system and "expended". There is no spontaneous reversal of this process from sources within the system itself. Energy is converted into goal-attainment and consequences, but the latter cannot be directly converted into energy. Another way of putting this point is to say that of the sixteen "regions" of the space which lie between coordinates above and below a point of origin, a certain negative region is excluded by this postulate. Decrements on the instrumental dimension and the expressive dimension must, that is, stop at the zero point. Where tension is zero there is no action and there can be no motivation to performance. There can only be *distribution* of tension in the system, not an absolute deficit in it. Furthermore when all goals are attained action must stop.

The second postulate concerns the relation between movement on the adaptive and the integrative dimensions. It also says that a negative region of the space is excluded as the location of a



unit act. This again is essentially to say that integration *cannot be negative*. The reason for this is, on the above assumptions, nearly obvious. It is that at the zero point on the integrative dimension the system as a system ceases to exist, the boundaries of the system, that is, disappear and it is assimilated to the environment. In action terms the distinction between actor and situation disappears; the system is *only situation to some other actor or actors*.

The limitations on pattern variable combinations across the system thus constitute essentially ways of formulating the two crucial facts about the system which we have stressed above. The first is that it is a system which "consumes" energy or motivational force, a law of conservation of energy thus does not apply to an action system as such. The second is that it is a system which requires *organization* relative to a situation or environment, organization which inhibits completely "free" interchange between internal and external systems. If either the energy input ceases or the organization is completely disintegrated the system as a distinctive, boundary-maintaining system ceases to exist.

It should be clear that action systems must be considered to be boundary-maintaining systems not *only* vis-a-vis non-action systems, i.e. physico-chemical systems or biological systems, but also vis-a-vis *other* action systems. The death of an individual constitutes in this sense the termination of his personality as an empirical action system concomitantly with the dissolution of the organism as a boundary-maintaining biological system. This seems to be the only way in which a personality as a system of action can radically "die".

But a social system may cease to exist by the disappearance of its boundaries both vis-a-vis the member personalities and vis-a-vis other social systems. Every collectivity is a social system in this sense. The significance of the fifth pattern variable, that of self-vs collectivity-orientation, for the present context emerges here. It states the fundamental fact that a social system can be dissolved and still leave the boundary-maintaining properties of the constituent personalities and of other collectivities in which they are involved, intact. This pattern variable constitutes the conceptualization of the fundamental fact that there is a special level of integration *within* and not merely *of* systems of action, namely that the interacting individual actors not only constitute *a* social system, but a system of social systems, of collectivities each of which can arise and be dissolved as a consequence of processes

within the interaction system. Personalities as we know them could not be developed without involvement in collectivities in the sense in which we are now speaking of them. But this does not mean that the survival of the personality as a boundary-maintaining system is bound to the survival of any single *particular* collectivity. This may, along with the one-way process and the need for organization on the more general level, be regarded as a third *fundamental* property of systems of interaction.

We have self-consciously focussed our discussion on the interaction of a plurality of individual actors. We have, however, from time to time noted that there was a more general case of action in abstraction from interaction in this sense. This is the level in general treated in "behavior psychology". However, we feel that the property of collectivity-integration which emerges with social interaction, fundamentally underlies the properties of human personalities as systems of action as well as of social systems. More specifically the role of symbolic processes as distinguished from the more elementary sign processes seems to be inherently bound up with interaction and the integration of the individual in collectivities. From this point of view personality psychology as distinguished from behavior psychology must in the nature of the case be *social* psychology. It cannot abstract from the involvement of the individual not only in social interaction, but in collectivities which have the property of solidarity. This is perhaps another way of saying that the human personality must have a "superego".

#### IV

If we have succeeded so far in defining a space, the units which must be located in that space, the nature of change of location in the space and finally of the systems of units which are conceived as moving interdependently with respect to location, direction and rate of change of location as systems, the question next arises as to whether we are in a position to state any general conditions governing the equilibrium of such systems. This is essentially what is meant by the statement of the "laws" of a system, namely certain fundamental generalizations about the nature of the equilibrating processes such that it is possible, by applying them, to deduce the nature and directions of the changes which will take place in a system following what we have called above a disturbance of its equilibrium assuming that the system does, indeed, regain its equilibrium.



We would like to suggest that certain such generalizations have already been implicit throughout our discussion and that it is necessary only to make them explicit.

The first of these is the statement that a process of action including interaction between a plurality of actors, will tend to proceed unchanged unless impeded or deflected, that is unless what we have defined as a disturbance is introduced into the system. This generalization was explicitly stated by Parsons<sup>33</sup> and made by him the fundamental point of reference for the treatment of motivational process in the social system. It is obviously closely similar to the law of inertia in classical mechanics. It is another way of stating one aspect of the fundamental postulate that we are dealing with equilibrating systems.

The second generalization or law has been clearly implicit in our treatment of the interaction process as such. It is that, once a disturbance has been introduced into an equilibrated system there will tend to be a reaction to this disturbance which tends to restore the system to equilibrium. Qualitatively we have assumed throughout that the reaction will tend to be opposite in direction to the original disturbance; this is the essential meaning of the whole polarity of the scheme for the analysis of interaction which we have presented here. One way of putting it is to say that deviance must be counteracted by mechanisms of social control. We may suggest hypothetically that not only is the reaction opposite in direction to the disturbance, but that it is in some sense quantitatively equal in motivational force. This would make the generalization directly parallel to the law of action and reaction in mechanics. It is difficult to see how equilibrium could be maintained without this quantitative equality. So far as we know this generalization has not been explicitly stated before for all systems of action, but Bales has recently explicitly made it a fundamental assumption in the attempt to construct a mathematical model for certain empirical characteristics of the interaction process.<sup>34</sup>

The third generalization concerns changes in rates of action process. That such changes are dependent on something which is often called "effort" is very close to common sense. The factor of effort was given a prominent place in Parsons' *Structure of Social Action*, and may now be identified with that of activity-

<sup>33</sup> *Social System*, Chapter VI.

<sup>34</sup> One version of this model is briefly outlined in Chapter IV below.

passivity as discussed in the present paper. This latter statement should be held to supersede the earlier one because it is couched explicitly in terms of the relation of the effort factor to the equilibrium of the action system. It is held that either an increase or a decrease of effort will, relative to the established rate of action process, constitute a disturbance of equilibrium, a possibility which has been directly built into the paradigm of interaction set forth in Fig. 3 above. What is so far lacking is a quantitative statement and here again we would like to state in hypothetical form that the change in the rate of action process is directly proportional to the *magnitude* of the motivational force added to or withdrawn from the unit in question. In its qualitative form it may be maintained that we know pretty well what the generalization means empirically. Implementation and testing of the quantitative statement must await the development of satisfactory measures of the rate of action process, and hence of changes in that rate. There is no reason, however, if we know just what we want to measure, to believe that this will prove an insuperable task. Again, the resemblance of this generalization to the law of acceleration of classical mechanics is obvious.

Finally, there has also been implicit in our discussion a generalization about the integrative aspects of systems of action, namely to the effect that there must be a minimum of structural compatibility of the patterns of organization of the different parts of the system. We may put this in dynamic terms by saying that the survival of a pattern element within a system of action will be a function in part of its *contribution* to the integration of the system. This in turn will mean that once such a pattern of organization has appeared it will tend to be maintained in the system, or eliminated from it, as a function of this contribution, of its compatibility with others to form an integrated system. This may be called the law of system-integration. Unfortunately we do not now see our way clear to give it a quantitative formulation at this time, but this should be possible in due course.

In its phenomenological aspect as applied to personality systems this generalization would appear to be the "law of effect" in the version formulated by Olds in Chapter II of *Values, Motives and Systems of Action*.<sup>35</sup> This says that the confirmation of a learned pattern in a personality system or its elimination (ex-

<sup>35</sup> pp. 123-4. In this collaborative monograph authorship of specific points was not distinguished, but it should be acknowledged here that this insight was contributed by Olds.



inction) is a function of the fact that the system is a system i.e. a boundary-maintaining system or as we say here that it has to maintain a level of integration as a system. In the behavioral version this is what, especially for social systems, has continually been said about the "functional prerequisites" of systems having to be met if the system is to survive. Hence it is by no means new.

We would like to raise the question without being able to answer it here, as to whether there is not some important general significance in the fact that with a system using a four-dimensional space, we have found four fundamental generalizations which are essential to defining the conditions of equilibrium of a system described in terms of that space. The reason this seems probable is that classical mechanics had three fundamental laws of motion, and operated in terms of a three-dimensional space. Moreover, the first three of our generalizations are clearly analogous to the three Newtonian laws, while the fourth equally clearly has to do with the fourth dimension of action space, the one which has no analogy in the space of classical mechanics. Furthermore it also seems evident that the necessity for both the fourth dimension and the fourth law derives from the fact that we are here dealing with boundary-maintaining systems.

If all this, which frankly involves a speculative element at present, is correct, then it would seem likely that there is a very important analogy between the scheme we have developed in this paper and the classical mechanics. If this supposition stands up to critical testing of a variety of sorts, it is evident that it should turn out to have far reaching implications in that it should open up possibilities of quantitative as well as qualitative systematization which are far beyond those which the sciences of action have yet attained.

For convenience we present succinct statements of the four generalized conditions of equilibrium or laws just reviewed as follows:

1. *The Principle of Inertia*: A given process of action will continue unchanged in rate and direction unless impeded or deflected by opposing motivational forces.
2. *The Principle of Action and Reaction*: If, in a system of action, there is a change in the *direction* of a process, it will tend to be balanced by a *complementary change which is equal in motivational force and opposite in direction*.
3. *The Principle of Effort*: Any change in the rate of an action

process is directly proportional to the *magnitude* of the motivational force applied or withdrawn.

4. *The Principle of System-Integration*: Any *pattern* element (*mode of organization* of components) within a *system* of action will tend to be confirmed in its place within the system or to be eliminated from the system (extinguished) as a function of its contribution to the integrative balance of the system.

## V

If the theoretical scheme we have here been expounding possesses the degree of generality and of logical integration which we feel it does, it will certainly in time be possible through its use to derive a whole series of hypotheses for the treatment of empirical problems. To attempt to do this in the present paper would lead too far afield. Symbolic process is, however, as we have seen, of such fundamental importance for the whole enterprise in which we have been engaged, that we feel we must attempt briefly to relate the general scheme to this field.

In the first place the treatment of action as change of location in a four-dimensional space gives us a new way of defining what we mean by various kinds of "symbolic acts", while in the second place we can derive hypotheses as to the conditions which will favor the acquisition of the different kinds of symbolic significance by a situational object. Let us take the definition of symbolic acts first.

Symbolization is the attribution in both cognitive and cathectic contexts of a "secondary" significance to a situational object, secondary that is, relative to what may be called a "principal" object of cathexis or to a goal.<sup>36</sup> Put in terms of overt action, that is of behavior, such a principal act is what we have called a "performance" it is change of location on the instrumental goal-attainment dimension. A symbolic act must also involve some movement on that dimension, it must be an observable performance. But the act will be symbolic in so far as the movement on this dimension is *small* relative to that on one or more of the others.

Moreover, our dimensional scheme gives us a basis for discriminating three different kinds of symbolic acts according to which of the other three dimensions besides the instrumental is

<sup>36</sup> Whether the principal object itself should not also be considered as symbolized is a question which will be taken up in Chapter V below.



the one of greatest movement. Thus we may say that such an act is primarily an "expressive symbol" if the principal movement is on the expressive or tension-reduction dimension, if, that is to say, while the increment of instrumental goal-attainment is small, that of expression or tension reduction is large.

Similarly, the act is primarily a "cognitive symbol" if the principal dimension of movement is not the expressive but that of adaptation. Then the act will be primarily significant for the increment of adaptation or cognitive "learning" which it has produced while again the increment of instrumental goal-attainment is small. Action oriented primarily along the adaptive dimension then may be called "investigative" action.

Finally, what has been called "evaluative symbolism"<sup>37</sup> may, so far as it consists of overt acts, that is of performances, be interpreted as the case where the principal dimension of movement is the integrative dimension, and as compared with a small increment of instrumental achievement, there is a large increment (or decrement) of system-integration. Readers familiar with Durkheim's work will see immediately that, on the social system level just such a relatively large increment of integration is what he held happened to a social system through certain types of religious ritual. On the personality level correspondingly we may think of this as the case for certain "rituals" which serve the function of reducing anxiety. Anxiety may probably be interpreted to be an index of the danger of system-disintegration.

It should furthermore be clear that if this is a proper approach to the subject, only in certain cases should symbolic action be regarded as a process of "substitute gratification". This would be true only in the cases where the system itself was imperfectly integrated in such a way that the "normal" movement along one or more of the dimensions was "blocked". Interpretation of these statements of course involves complex problems which will have to be reserved for later consideration.

The obverse of the above classification of types of symbolic acts is the analysis of the bases on which situational objects acquire symbolic significance. Such significance, we may say, is acquired through the process we have called the "generalization of cathexis". When a principal object, i.e. a goal object or one cathected but not directly treated as a goal object, has become emotionally important, other objects in the situation, means objects, or merely those otherwise associated with it, also become cathected

<sup>37</sup> *Social System*, Chapter IX.

in such a way that there is a "symbolic complex" built up around the "principal" object.

Put a little differently, an object cannot acquire this secondary cathexis without being associated with a significant experience of the actor, that is the cathexis of a principal object and increments or decrements of gratification in relation to it. Then the kind of symbolic significance it acquires, and the standards of its selection as a significant symbol, or rejection as such, will depend on the kind of "significant experience" with which the object has become associated.

If the significant experience is instrumental goal-attainment, that is if the greatest action-movement is on this dimension, then associated objects will be primarily cathected in terms of their instrumental means-significance, that is if they are not themselves intrinsically significant as means-objects, as cognitive-adaptive symbols. They are *signs* pointing to the instrumentally significant features of the situational world.

If, secondly, the primarily significant experience is on the dimension of change in the expressive tension-level, objects will tend to be cathected primarily as expressive symbols—remembering always that the concrete symbol is both expressive and cognitive at the same time. It is important to note that the movement may be either in the positive or the negative direction. Hence either cognitive or expressive symbols may serve as "warnings" of feared deprivations as well as in the role of "promises" of expected gratification. By the same generalization of cathexis, then, the symbolic object itself evokes the same feeling that the principal object does, though not necessarily with the same intensity. Hence an expressive symbol may be directly enjoyed, or it may be directly feared itself. This is most important; it is not *only* a question of the "referent" to which the symbol points.

Finally, if the primary context of significant experience is that of system-integration, that is in social system terms the experience of enhanced or diminished solidarity with others in the collectivity, or in personality terms, that of reduction or increase of conflict, then the secondarily cathected object will tend to be an "evaluative" symbol. Thus we may speak of an experience of "religious conversion" as one of a feeling of resolution of conflicts, and of the religious symbolism associated with the experience as evaluative symbolism for the convert.

The general formula for the establishment of symbolic significance for an object, then, is that the object should be experienced



as part of the situation in which there has occurred a significant action-movement, with a large increment of gratification or deprivation in at least one direction. The primary *type* of symbolic significance acquired by the object then will depend on which of the dimensions has been that of greatest movement. Finally, the movement may be positive or negative in direction; hence the significance of symbols will be differentiated relative to this polarity. A symbol may be positively cathected and signify possibilities or hopes of gratification; it may on the other hand be negatively cathected and signify possibilities and fear of deprivation. What is sometimes called "basic anxiety" is from this point of view, we may surmise, a pattern of generalization of negative symbolism which is, above all, deeply involved with the integration of the personality as a system.

## VI

This paper has already become so long that only a few things can be said in conclusion. Clearly the ultimate test of the importance of the synthesis of previously distinct theoretical elements which we have presented here, will be found in the extension of the codification of existing empirical knowledge, and the further development of generalized knowledge through research. Both authors expect to devote much attention to these questions but even present tentative suggestions in this direction cannot be presented here. We must confine ourselves rather to the statement of a few general considerations which we would like to the reader to keep in mind in evaluating this paper.

The first, and in certain respects the most important of these concerns the range of applicability of the fundamental conceptual scheme which emerges. We feel that the new level of theoretical generalization presented in this paper strongly confirms the view we have previously held that the theory of action is a conceptual scheme which is not tied to any particular "level" of the study of action process from the microscopic to the macroscopic.

We suggest that the scheme advanced here is in its fundamentals applicable all the way from the phenomena of "behavior psychology" on pre-symbolic animal and infantile levels, to the analysis of the largest scale social systems. The main key to this scope of applicability lies in the fact that it is possible to treat what, on one level is a system, on the next "higher" level as a point of reference, that is as a "particle" or system-unit in a larger

system. Thus what we have called the need-disposition is, from the point of view of elementary behavior psychology, a complex system of motivational and cultural components; but from the point of view of the analysis of a more complex sub-system of a personality, or of the whole personality as a system, it may be treated as a particle, as a system-unit in the above sense. That a need-disposition is *itself* a boundary-maintaining system is an essential condition of this treatment. Similarly, the minimal role unit of a system of social interaction may from one point of view be regarded as a complex system, composed of the requisite need-disposition components of the personalities of either ego or alter, and of certain situational components. But from the point of view of the analysis of a system of interaction it also becomes a system unit which can be treated as a unit in its involvement in the rest of the system. Again, the same can be true of more and more complex role-constellations. Finally a collectivity may itself be treated as an actor. This is essentially to say that, though obviously from another point of view it is a complex system, as a unit in an interaction process, a collectivity may also be treated as a system unit which may be located in action space and analyzed in interdependence with other units in the same system.

This is perhaps the most fundamental feature of the generality of the conceptual scheme we have presented. This generality has been evident in certain respects for a long time, and has been documented in our previous publications, but we are now able to state it, and its methodological basis, with much greater precision than before.

Such generality of application from the microscopic to the macroscopic levels must not be interpreted empirically without due allowance for phenomena which are emergent at different levels of organization of systems of action. We have repeatedly noted that perhaps the most fundamental of these is the development of true symbolization and thus of the possibility of culture. Closely related to this is the fundamental difference of system reference when the system is a personality or sub-system of it, from that involved when it is a society or sub-system of it. All such considerations must be kept clearly in mind in the use of the scheme. It is particularly important to realize that, as we have pointed out, this is not a scheme directly for the analysis of culture change, though it will surely be found that it is an essential part of the scheme necessary for such analysis. The phenomena of culture, its development and change, certainly involve factors



not directly formulated in the present scheme. We have concentrated our attention on the processes of equilibration in carefully defined, indeed in a strict sense in hypothetical, systems of action.

In concentrating our attention in this way we have been very careful not to imply that there is any inherent presumption that empirical systems must remain in equilibrium, or return to any given state when the equilibrium has been disturbed. We merely use the concept of the equilibrating system as a theoretical model. Quite clearly the process of cultural change is, on certain levels at least, an example where a given initial equilibrium has broken down and been replaced by a new state of the system. The analysis of such processes requires further steps beyond those presented here. But we feel that they will be most successfully analyzed by extension of the scheme we have developed, rather than by replacing it with a totally different kind of scheme. However, we wish to make clear that we have carried our analysis only up to a certain point, and that before certain kinds of use of the scheme can become possible, it must be carried farther.

Pending this, however, we may note two extremely important fields of urgent work in other directions. We have long felt that the principal barriers to the cumulative development of the sciences of action did not lie *primarily* either in the difficulty of finding out the necessary facts, or in any inherent methodological limitations on the scientific study of human behavior, but rather in defining variables of sufficiently generalized significance which it was most important to measure, and then devising techniques of measuring precisely *these* variables. We feel that the most important direct contribution of the present paper lies in the progress it documents toward this goal. We have presented a scheme in which it seems to be implied that for a given system process in the action field a relatively *small* number of measures should be needed in order to achieve a highly generalized analysis from which definite deductions could be drawn. We must, that is, define a system, and define the number and character of the units in that system. We must be able to locate each unit in the space of action relative to a point of origin and thus to other units, and measure changes in that location for each unit over time. We should, finally, be able to measure rates of action process and changes in those rates.

We have pointed out that the behavioral units, which have to be the units of empirical observation, in all probability cannot be the system units. This is essentially to say that it is unlikely that

the theory of action will be able to do without the use of intervening variables. But much progress has already been made in developing measures of certain behavioral units and in relating them to the concept of the theoretical system relative to which they are interpreted to have significance.

We feel that the scheme put forward here is sufficiently integrated to justify intensive effort on various levels to develop these measures of behavioral units which in the present terms can be shown to have specific theoretical significance.

The second main direction of effort which we suggest can produce very fruitful results, is work on the logical interconnections of the variables of such a system. We feel again, that our theoretical work has now progressed to a point where much more fruitful results can be expected from this type of work than in the past, in particular the path of the construction of mathematical models for various parts of the theoretical scheme seems promising.

Neither of these tasks should be conceived as important to the exclusion of codification of existing knowledge, or of extension of the theoretical scheme into the realms of analysis of change in the fundamental character of systems, that is especially change involving alteration in the cultural components. But we do feel that effort addressed to the measurement and mathematical tasks is likely to yield important scientific advances in the relatively short run.