

PSYCHO-LOGICS:
Human Behavior in the (Organism × Environment) Field
4. The Structure of 'Impaired' Behavior

C. Andrew Hilgartner
John F. Randolph

AUTHOR'S NOTE

In 1968-9, with Dr. Randolph, I prepared the original draft of this paper to complete the argument begun in the three papers which appeared in the *Journal of Theoretical Biology* (Hilgartner & Randolph, 1969a,b,c).

The editor of that Journal may or may not have known that we received more than 1200 requests for reprints of one or more of these papers. At any rate, for reasons of his own, he chose not to publish this fourth paper.

In 1968, I started writing in E-Prime (a dialect made up of Standard English, excluding all inflectional forms of *to be*.) (Bourland, 1965/66; Bourland & Johnston, 1991). So I translated the typed 'completed' draft of the Part 4 ms into this dialect.

On 28 February 2004, I requested of the then-current publisher of that Journal that they make available archival copies of the three published papers of this series, so I could place them on my website. On 21 April 2004, they granted that permission, and provided PDF copies. Subsequently, to make this fourth and final paper of this series also available, I scanned the typed original—a process that corrupted the set theory sentences—and over several years, employed students part-time to proofread and correct the text and to correct the set-sentences. Recently, with my colleague Weld S. Carter, Jr., I undertook to complete the corrections.

As my long-term research project has grown and developed over the decades, my lexicon of preferred terms has altered and grown. In preparing this paper for the website, we have made small textual changes, for clarity. We have also made one large change—we eliminated a long quotation which we now judge as misleading, replacing it with a more relevant “short story” about a little girl and her mother (pp. 12-13).

To leave the ms more nearly consistent with the three preceding installments, and to preserve the historical accuracy of the document, we have sought to use the original (1968 E-Prime) vocabulary. (CAH, 12 October 2009)

XV. INTRODUCTION

The two documents (Hilgartner, 1963/7/8, 1965) which served as “parent” to this series of papers presented a korzybskian doctrine of the structure of human psycho-dynamics. We made two claims for this doctrine:

- a) that it stems from assumptions more parsimonious than those in general use by students of behavior, and

b) that the doctrine itself stands free of self-contradiction.

In order to test these two claims, we devised a logical calculus of behavior (Hilgartner & Randolph, 1969a) which we deployed so as to show **the structure of any mainly 'perceptual' encounter with an environmental object**. As an initial test of the adequacy of this model, we then used our notation to describe situations of **physiological 'need' and satisfaction**, of **frustration**, and of **danger**. As judged by its handling of these situations, our model appeared adequate.

In the second paper of this series (Hilgartner & Randolph, 1969b), we used this rigorous language to examine the situation of finding a contradiction between what we **expect** and what we **observe**, and the consequent process of **changing** our **premises**. In order to explore the consequences of these altered premises, we then showed the structure of **'unimpaired' relations** between a human organism and non-living environmental objects.

These studies revealed no self-contradiction in the doctrine under examination, as judged by the standards of modern set-theory.

In the third paper of this series (Hilgartner & Randolph, 1968c), we extended this logical calculus so as to show the structure of human inter-personal transactions; then, using this notation, we examined the structure of a fabricated "encounter" in which two strangers meet in an otherwise deserted hallway, and exchange a glance and a warm smile, but no words. We clearly labeled this "encounter" as the product of a process of "creative writing," which we intended to make convincing as a "short story"; however, this account has a semi-empirical status, since I based it on certain recent experiences of my own.

These formulations still revealed no contradiction in the doctrine under examination; and furthermore, they offered such explicit pictures of the structure of inter-personal transactions that it appeared feasible to put this theory to test by taking sound movies (or video-tapes) of actual inter-personal transactions, and then subjecting these movies to intensive analysis. We have already made some actual tapes and movies of human transactions in a two-person group, and we plan others for the immediate future. And we have already presented some of the results of our initial studies (e.g. Hilgartner & Johnson, 1968).

Now we take on the task of analyzing the structure of 'impaired' human behavior, viz., 'impaired' subsets of Cs; then subsequently we shall examine the processes by means of which a human organism can learn how to 'complete' his hitherto 'impaired' subsets of Cs.

In set theory—even with the non-aristotelian premises explicitly stated—it seems easy to forget the general setting of *one particular organism-taken-as-a-whole-transacting-with-his-environment-at-a-date* (which I sometimes abbreviate by writing $O \times E$ (Organism \times Environment)).

XVI. REVIEW OF THE REQUIRED BEHAVIORAL OPERATORS

In order to specify the structure of 'impaired' subsets of Cs, we must extend our previous

treatment of the topics of **emergency, frustration, and danger**. In the first paper of this series (Hilgartner & Randolph, 1969a, pp. 308-11), we briefly discuss a number of fundamental topics:

- (a) *The origin of 'life'*, which includes a novel proposal of my own on this topic (footnote p. 309 *ibid*);
- (b) *Primordial organisms*;
- (c) *Biological evolution*;
- (d) *Ecological relations*; and
- (e) *Death and degeneration*.

In similar brief, intimate detail, we consider how the tools we have developed to that point allow us to specify *the structure of any encounter* between an organism and her/his/its environment. Then we specify the notion of *Physiologic need: Thirst*. On p. 322 (*ibid*), sentences 45-47, we represent in our notation the key relationships concerning the water balance of an organism-as-a-whole-transacting-with-its-environment-at-a-date. (That makes it possible for us to depict a situation of deficit of water (Df) followed by intake of water (It) (*Myth₁ and the Drinking Fountain*, p. 322, sentences 48-52). Then we define an **emergency (Em)** as any situation with a high probability that the **sensitive 'organism cross environment' (O × E)** boundary **B** will get damaged or destroyed. (We here-now remind readers that destruction of that boundary means that the organism **dies**. Sommerhoff (1950, p.195-6; quoted in Hilgartner & Randolph, 1969a, p. 301) expresses the construct of *death* as “the breakdown of these [integrated] directive correlations.”)

An emergency in which the coenetic variables involve mainly the stimulation of interoceptors (or proprioceptors) we defined as a situation of **frustration (Fr)**, which would include situations of starvation or illness. An emergency in which the coenetic variables involve mainly the stimulation of exteroceptors comprises **danger (D)**. After quoting a passage from Perls, et al. (1951, pp. 261-2, quoted on our p. 323), which describes some of the behavioral responses for healthily meeting emergencies, with the focal conditions of protecting the sensitive boundary, we then considered two classes of acute, severe (potentially fatal) emergencies, i.e.d. *Frustration: Myth₁ in the Desert* (sentences 53-56), and *Danger: Myth₁ and the Hungry Tiger at the Water-Hole* (sentences 57-58, p. 323).

When we wrote these passages, we had, in our notational language, dealt only with encounters between a human organism and non-living or sub-human environmental objects. Now having extended our notational language so as to deal with inter-personal transactions, let us redefine these relations as operators, which we can then use to specify some of the subtleties of human behavior. As our notation becomes more succinct, it will become increasingly apparent that our formulations make up a branching chain of logical possibilities. At this point, first we shall state the revised definitions and the extensions of our previous formulations; second, we shall indicate how these operators serve as components of directive correlations; and finally, we shall present worked examples.

A. Definitions

- a) Any interaction with an environmental object which in some way exceeds the physical-biological-social limits of the relevant parts of the field, so as to produce an alteration in the structure of the boundary, constitutes **damage (Dm)**.
- b) Any situation the outcomes of which include at least one outcome in which there exists a high probability of damage to the boundary constitutes an **emergency (Em)**.

$$Em^i = [(O \times E)^i : [Oc^k \supset [(O,X)^j \Rightarrow Dm(B)^{j+1}]]] \quad (145)$$

- c) As before, an emergency in which the coenetic variables involve mainly the stimulation of proprioceptors (of which the interoceptors comprise a subset) we define as a situation of **frustration (Fr)**, which would include situations of starvation or illness.

$$\begin{aligned} Fr^j &= [(O \times E)^j : CV^i = [Df(A)^i : "Ic_a^{*i}"], \\ FC^i &= [[It(A) : \overline{Df} (A)] \subset Pr^1], \\ Oc^j &= ["S^*((\overline{Df} A)^{j}) \not\subset FC^i], [Oc^k \not\subset FC^i \Rightarrow Dm(B)^{k+1} \subset \overline{Pr}^{k+2}] \end{aligned} \quad (146)$$

- d) The notion of frustration remains inseparable from the notion of **obstacle (Ob)**, which we can define as any ‘difficulty’ which serves to prevent an organism from achieving its dominant focal conditions. We gave an example of an obstacle in sentences 53-56 as “**S_v***($\overline{H_2O}$)”.
- e) As before, an emergency in which the coenetic variables involve mainly the stimulation of exteroceptors (e.g. vision) comprises **danger (D)**.

$$\begin{aligned} D^i &= [(O \times E)^i : Oc^j \supset [(O,X)^j \Rightarrow Dm(B)^{j+1}], \\ CV^i &= "S_v^*(X)^{i}, FC^i = [Av(X)^j : Pr^k] \end{aligned} \quad (147)$$

- f) The notion of danger remains inseparable from the notion of **threat (Th)**, which we can define as any ‘difficulty’ which serves to increase the probability of damage to the boundary.

In general, we will use the notions of emergency, frustration, and danger in two ways:

- i) as a judgment produced by means of acts of classifying performed by our organism (or which we infer that a ‘person’ has performed), and , subsequently,
- ii) as coenetic variables which serve to elicit as the dominant focal condition of our organism (or of the ‘person’) **S_v^j**, **his bare survival-in-his-environment-at-a-date through some finite period.**

- g) In the processes by which **Sv** becomes his dominant focal condition, our organism may find it necessary to interrupt whatever ongoing activities within his environment that he may have engaged in up to the moment he judged that the situation had become an emergency. An example of **interrupting (Ir)** appears in sentences 79-82 (Hilgartner & Randolph, 1969b, page 352-3), in which the organism recognizes that his observations concerning the trapezoidal window contradict his expectations; and by means of concurrent or synchronous retroflexion (**Rf**), anxiety (**Ax**), sensory orienting (**At** \cap **In**), and autonomic discharge (**Au**), he interrupts his ongoing exploration of the trapezoidal window in order to establish whether or not this situation involves any danger.
- h) We refer to the affect which accompanies any emergency by the generic term **distress (Dt)**, which we understand as ‘awareness’ of some degree of ‘overstimulation’ of exteroceptors, proprioceptors, and/or interoceptors.
- i) The notion of the **degree of severity** of an emergency we have already defined as a function of the probability that damage will occur (Hilgartner & Randolph, 1969a, p. 322). The emergency functions described in the passage quoted in Hilgartner & Randolph, 1969a, p. 323 from Perls, et al. (1951, p. 261-2), viz. the subactive devices (panic “mindless” flight, shock, anesthesia, fainting, playing dead, blotting out a part, amnesia, etc), which relate to danger, and the superactive devices (hallucination and dream, lively imagination, obsessive thought, brooding, motor restlessness, etc.), which relate to frustration, deal with situations of **intolerable** distress, or in other words, with emergencies so severe that the more usual activities of the Self appear insufficient to bring about an outcome which satisfies the dominant focal conditions. The term ‘intolerable’ refers to the judgment by an organism in the situation of a severe emergency that the outcome of the encounter so far does not comprise a subset of the dominant focal conditions and that he further development of the situation will not foreseeably make further outcomes into a subset of the dominant focal conditions. That suggests that the organism’s ‘life-functions’, the set of integrated directly-correlated sequences which have the ultimate focal condition of ${}^{\circ}\mathbf{Pr}$, his preservation-and-growth, might begin to break down—with fatal consequences. We can indicate this judgment, as before, as [$\mathbf{Cs}^j = \emptyset$]. This judgment will then serve as a coenetic variable, which elicits as our organism’s dominant focal condition **bare survival**, ${}^{\circ}\mathbf{Sv}$; and he will then manifest this judgment by enacting one or another of these emergency functions. Thus these emergency functions, like the more ordinary affects, constitute binary relations (“double operators”), which here
- α) serve as evidence that the organism has judged the situation as

an intolerable emergency, and in the same act, β) serve to disrupt the more ordinary, oriented activities of the Self, which would have brought about further developments of the situation. Examples of these emergency-functions would include **scotoma (Sc)** (blind spot, the blotting out of a part), or **motor paralysis (M_L)** (playing dead).

The operator **S_v**, bare survival, comprises a **non-terminal stage** of an encounter, a **partial** focal condition. In order to ‘complete’ a situation, an organism must (after the emergency has ended) perform further operations, which we discuss on pp.11ff, in order to convert an outcome which comprises a subset of **S_v**, bare survival, into an outcome which qualifies as a subset of **Pr**, his own preservation-and-growth. If our organism does not do this or cannot do this, then the encounter remains what Perls, et al. (1951) refer to as an ‘unfinished situation’ (in our terminology, an ‘impaired’ subset of **Cs**).

- j)** There exists a class of sensory receptors, $S_{pn} \subset B \subset (O \times E)$, which remains specifically sensitive to some types of potential or actual alterations in structure of the boundary. Mapping of the activated states of these receptors into the central nervous system **C** gets registered as pain (**Pn**), “ S_{pn}^{*i} ”¹ = **Pnⁱ**. An organism ordinarily handles pain as a danger-signal (a coenetic variable which elicits attempts to annihilate (remove) the threat, the source of pain).

The topics of emergency, danger, and frustration stand intimately connected with the topic of so-called “aggressive” behavior. Perls, et al. (1951) clearly make several distinctions which prove crucial for our purposes:

“5. Annihilating and Destroying

“The attitude and acts called “aggressive” comprise a cluster of essentially different contact-functions that are usually dynamically interconnected in action and thereby get a common name. We shall try to show that at least annihilating, destroying, initiative, and anger are essential to growth in the organism/environment field; given rational objects, they are always “healthy”, and in any case they are irreducible without loss of valuable parts of the personality, especially self-confidence, feeling, and creativity. Other aggressions, like sado-masochism, conquest and domination, and suicide, we shall interpret as neurotic derivatives. Most often, however, the total mixture is not accurately analyzed and is “reduced” too much *en bloc*. (The ineradicable factors are in turn repressed.)¹

“Let us begin with distinguishing annihilating from destroying. Annihilating is making into nothing, rejecting the object and blotting it from existence. The gestalt completes itself without that object. Destroying (de-structuring) is the demolition of a whole into fragments in order to assimilate them as parts in a new whole. Primarily, annihilation is a defensive response to pain, bodily

¹ Perls, et al. (1951) render the most important terms from psychoanalysis in the terminology of Gestalt therapy. For example, they express the construct of **repression** as a Gestalt composed of a (back)ground with no figure; and **fixation** as a figure with no ground.

invasion, or danger. In avoidance and flight, the animal takes himself out of the painful field, in killing, he “coldly” removes the offending object from the field, behaviorally, shutting the mouth tight and averting the head, and smashing and kicking. The defensive response is “cold” because no appetite is involved (the threat is external). The existence of the object is painful, but its non-existence is not enjoyed, it is not felt in completing the field; the enjoyment sometimes apparent is the flooding back at relaxing one’s shrinking: sigh of relief, beads of sweat, etc.

“When neither flight nor removal is possible, the organism has recourse to blotting out its own awareness, shrinking from contact, averting the eyes, clamping the teeth. These mechanisms become very important when circumstances require opposite responses to the “same” object (really different properties bound together in one thing): especially when need or desire makes necessary the presence of an object which is also painful and dangerous. One then is obligated to possess without spontaneously enjoying, to hold without contact. This is the usual inevitable plight of children and often the inevitable plight of adults. The analysis must make clear just what property in the object is needed and what is rejected, so the conflict may come into the open and be decided or suffered.

“Destroying, on the contrary, is a function of appetite. Every organism in a field grows by incorporating, digesting, and assimilating new matter, and this requires destroying the existing form to its assimilable elements, whether it be food, a lecture, a father’s influence, the difference between a mate’s domestic habits and one’s own. The new matter must be accepted only according to its place in a new spontaneous functioning. If the previous form is not totally destroyed and digested, there occurs, instead of assimilation, either introjection or areas of no contact. The introject may have two fates: either it is painful foreign matter in the body and it is vomited forth (a kind of annihilation); or the self partially identifies with the introject, represses the pain, seeks to annihilate part of the self—but since the rejection is ineradicable, there is a permanent clinch, a neurotic splitting.

“The destructive appetite is warm and pleasurable. It approaches, reaching out to seize, with teeth bared, and it slavers in chewing. Such an appetite, especially if literally or figuratively there is killing, is of course deemed ruthless. Declining to commit the destruction, the self can either introject, or else inhibit the appetite altogether (renounce certain areas of experience). The first is the response especially to the inheritance of the family and social past; forcibly fed, not at one’s own time and need, the self introjects parents and culture and can neither destroy nor assimilate them. There are multiple partial-identifications; these destroy self-confidence, and in the end the past destroys the present. If the appetite is inhibited, through nausea or fear of biting and chewing, there is loss of affect.

“On the other hand, the warm pleasurable (and angry) destroying of existing forms in personal relations often leads to mutual advantage and love, as in the seduction and defloration of a shy virgin, or in the breaking down of prejudices between friends. For consider that if the association of two persons will in fact be deeply profitable to them, then the destruction of the incompatible existing forms they have come with is a motion toward their more intrinsic selves—that will be actualized in the coming new figure; in this release of the more intrinsic, bound energy is liberated and this will transfer to the liberating agent as love. The process of mutual destruction is probably the chief proving ground of profound compatibility. Our unwillingness to risk it is obviously a fear that if we lose this we shall have nothing; we prefer poor food to none; we have become habituated to scarcity and starvation.” (Perls, et al. (1951, pp. 340-344)

Or, in my chosen terminology, we have settled for ^oSv, bare survival.

- k)** In the course of any encounter, any action performed by the organism in order to alter the current *status quo* of the (organism × environment) field we can refer to by the generic term **aggressing (Ag)**. We have already examined quite a few actions which qualify as aggressing, e.g. Hilgartner & Randolph, 1969b, p. 348, sentence (61), in which $Myth_1$ approaches, touches and explores the rectangular window W_r and thus forms a tactile 'awareness' of an object which previously remained out of reach. Our choice of this example should serve to notify our readers that we, like Perls, et al. (1951), do not covertly or overtly disapprove of the term 'aggressing' nor of the non-verbal activities it refers to, but rather we regard what we call *aggressing* as a necessary and unavoidable stage of every encounter of any organism with any environmental object.
- l)** The aggressing of our organism has the effect of altering the state of the (**O × E**) field. If these alterations of the field bring closer the fulfillment of the focal condition of our organism, then we refer to his further operations in overcoming obstacles (his further aggressings) as **destroying (Ds)**, or in other words, de-structuring, "the demolition of a whole into fragments in order to assimilate them as parts in a new whole." An affect of **pleasure (Pl)**, a subset of heightened excitement (**Ec**), accompanies the process of destroying. We give an example of destroying in Hilgartner & Randolph, 1969c p. 22, sentences (136-7), in which our organism detects and (evidently) correctly interprets the look of mistrust of the approaching 'person', and then changes his course so as to pass a foot or so further away from her than he otherwise would have; and this act succeeds in destroying her mistrust, which had constituted an obstacle. But let us clearly understand that the destroying here consists of the same elements as do the tiny imitative movements which make up the process of our organism detecting-and-interpreting the states or activities of the 'person', forming his hypothesis concerning the 'meanings' of her states or activities, as well as the testing of his hypothesis by the gross motor act of changing course.
- m)** In the course of any encounter during which a situation of danger develops, we can classify any actions taken by our organism in order to avoid the threatened danger, or to blot from existence the threatened danger, as examples of **annihilation (Al)**. Except for the rather abstractly-presented example given in Hilgartner & Randolph, 1969a, p. 323, sentences (57-8), and in Hilgartner & Randolph, 1969b, p. 352-3, sentences (80-83), we have not yet dealt with examples of this operator; but we will give adequate examples subsequently (sentences [x]).

If the aggressing of our organism does not suffice to bring closer the

fulfillment of the dominant focal conditions of our organism, e.g, if he runs into situations of frustration or danger, then alterations of the affect of our organism make manifest the changes of the state of the (**O × E**) field. Because of the wealth of behavioral detail they give, which will serve to make the meanings of our operators more intelligible, we shall quote the rest of the passage from Perls, et al. (1951):

Initiative and Anger

Aggression is the “step toward” the object of appetite or hostility. The passing of the impulse into the step is initiative: accepting the impulse as one’s own and accepting the motor execution as one’s own. Obviously initiative can be stifled by the repression of the appetite altogether, as described above. But more common in modern times, it is likely, is the dissociation of the appetite from the motor behavior, so that it becomes manifest only as garrulous planning or dreamy prospects. One has the impression that with the giving up of hunting and fighting, people cease to move altogether; the motions of athletic games are not related to organic needs, the motions of industry are not one’s own motions.

A child’s statement, “when I grow up, I’ll do so and so,” indicates his initiative, the imitative assumption of behavior that will realize the desire still obscure in him till it is acted. When it is repeated by the adult, the unfinished desire persists but the initiative is gone. What has occurred in between? It is that, in our economy, politics, and education, the so-called goals are too alien and the ways of reaching them therefore too complicated, not enough to hand. Everything is preparation, nothing realization and satisfaction. The result is that the problem cannot be worked through and assimilated. The system of education results in a number of unassimilated introjects. After a while the self loses confidence in its own appetites. There is a lack of faith, for faith is knowing, beyond awareness, that if one takes a step there will be ground underfoot: one gives oneself unhesitatingly to the act, one has faith that the background will produce the means. Finally, the attempt to assimilate is given up and there is bafflement and nausea.

At the same time as the initiative is being lost in bewilderment, in pursuing too difficult ends, it is being directly discouraged in the pursuit of simple ends, as a child is slapped for being “forward.” Fear results in giving up the appetite. On the whole, there is the reduction to a simpler order of appetite and non-initiative or dependency: to be fed and cared for, not understanding how, and this leads to a persistent insecurity and inferiority.

Let us suppose, however, that an appetite is strong and is under way toward its goal, and it then meets an obstacle and the appetite is frustrated: the tension flares and this is hot anger.

Anger contains the three aggressive components, destroying and annihilating and initiative. The warmth of anger is that of the appetite and initiative themselves. At first the obstacle is regarded simply as part of the existing form to be destroyed, and it is itself attacked with pleasurable heat. But as the frustrating nature of the obstacle becomes manifest, the on-going tension of the engaged self becomes painful, and there is added to the warm destructive appetite the cold need of annihilating. In extreme cases the appetite (the motion toward the goal) is quite transcended and there is fierce white fury. The difference of white fury (murderousness) from simple annihilating (need for the thing not to exist in the field) is the outgoing engagement of the self; one is already committed to the situation, is not just brushing it off; murderousness is not simply a defense, for oneself is engaged and therefore cannot merely avoid. Thus a man who is slapped becomes furious.

In general, anger is sympathetic passion; it unites persons because it is admixed with desire. (So hatred is notoriously ambivalent with love. When the transcendence of desire toward “pure” anger is based on a repression of desire, then the self is wholly engaged in the hostile attack, and if the repression suddenly dissolves—for instance by finding that one is stronger and is safe—the desire has suddenly crystallized into love.)

It will be seen that the usual formula, “frustration leads to hostility,” is true but too simple, for it omits mentioning the warm appetite in the angry aggression. Then it becomes difficult to understand why anger, an angry disposition, persists when annihilation of the obstacle has been effectively achieved by death or distance (e.g., the parents are dead, yet the child is still angry with them), or again, why in revenge and hatred the annihilation of the enemy gives satisfaction, his non-existence is not indifferent but is fed on: he is not only annihilated but destroyed and assimilated. But this is because the frustrating obstacle is first taken as part of the desired goal; the child is angry with dead parents because they are still part of the unfinished need—it is not enough for him to understand that, as obstacles, they are out of the way. And the victim of revenge and hatred is part of oneself, is loved, unaware.

On the other hand, it is the admixture of annihilating within anger that rouses such intense guilt with regard to difficult loved objects; for we cannot afford to annihilate, make nothing of, what we need, even when it frustrates us. Thus it is that persistent anger, uniting appetite and annihilating, leads to the inhibition of appetite altogether and is a common cause of impotence, inversion, etc.

In red anger, awareness is somewhat confused. In white fury it is often very sharp, when, stifling all bodily appetite, it yet draws on the vividness of imagery that belongs to delayed appetite, as the self confronts its object to annihilate it. In purple or congested rage the self is bursting with its frustrated impulses and is confused indeed. In black wrath or hatred, the self has begun to destroy itself in the interests of its hostile aim; it no longer sees the reality but only its own idea. (Perls, et al., 1951, pp. 342-4)

- n) In any on-going situation, the performing of a motor act gets preceded and initiated by the preliminary act of **impulsing to perform the action** (or ‘having an impulse’). We shall designate the act of **impulsing** by the operator **Ip**. Impulsing then occurs as a component of a directly correlated sequence, and consists of the act of gathering the appropriate muscles, assuming the appropriate posture, etc., to perform the action in question. Thus impulsing constitutes one subset of the motor operators, **Ip** \subset **M**. As such, our organism detects it mainly by proprioception (and this becomes therefore one of the most important components of the affects, ‘feelings’, ‘emotions, etc.’). Let us take note that an organism impulses many more acts than it can possibly complete.
- o) Initially, we represented the notion of **initiative (Iv)** as the requirement that “In general, in any situation, an organism must make a fundamental and unavoidable choice: It must either approach (**Ap**) or avoid (**Av**) the further development of this situation. (**Ap** + **Av**)”² (Hilgartner & Randolph, 1969a, p. 307, sentence 15). Up to now, in subsequent encounters, we have represented

² In set theory terms, the + symbol signifies *symmetric difference*. See Hilgartner & Randolph, 1969a, Appendix 1, p. 327.

the initiative of our organism implicitly, by showing him as passing from ‘awareness’ to action without let or hindrance, as he operates in the mode of \downarrow (affirmation). Furthermore, as Perls, et al. point out, (supra, from ibid p. 342) in order for our organism to show initiative, he must display unmistakable faith. We discuss this topic further below (our pp. 20-1, sentences 155-6).

- p) We have already defined **anger** as an attack on an obstacle to the satisfaction of some appetite (or ‘need’) (Hilgartner & Randolph, 1969c, pp.13). But as the above citation points out, the generic term ‘anger’ refers to several quite different states of the $(\mathbf{O} \times \mathbf{E})$ field, which we would do well to distinguish.

We shall use the operator **anger**, (**An**), to refer to “red anger”, a situation in which our organism has become committed to a course of action, e.g., has achieved preliminary focal conditions and thus exists in a state of excitement (heightened energy mobilization), at the moment when he meets an obstacle and the satisfaction of the dominant focal conditions gets frustrated; and as we previously pointed out, the anger constitutes a binary relation which in the same act both indicates the frustration, and serves as an attack on the obstacle:

$$\begin{aligned} \text{An}^j &= [\text{O}^h : \text{CV}^h = [\text{Df}(\text{A}) : \text{Ic}_a^*]^h, \text{FC}^h = [\text{It}(\text{A}) : \overline{\text{Df}}(\text{A})]; \\ \text{Oc}^i &= [\text{O}^i : \text{Ec}^i], \\ (\text{O} \times \text{E})^j &: [\text{Ob}^j : [[{}^0\text{Oc}^j \not\subset {}^0\text{FC}^h] = {}^0\text{CV}^j], \text{FC}^j = \text{FC}^h], \\ \therefore \text{O}^k &: [{}^0\text{Iv}^k = {}^0\text{Ip}(\text{Ap}(\text{Ob}))^k \cap {}^0\text{Ap}(\text{Ob})^{k+1}] \cap [{}^0\text{Ds}(\text{Ob})^{k+2} \cup {}^0\text{Al}(\text{Ob})^{k+2}] \end{aligned} \quad (148)$$

We shall use the operator **fierce white fury**, **Rw**, to refer to “murderous rage”, a situation in which our organism, committed to a course of action, meets an obstacle to the satisfaction of the dominant focal conditions which proves so ‘difficult’ that the operations of red anger lead to an outcome which does not qualify as a subset of the dominant focal conditions, and it appears that the further development of the situation will not foreseeably make further outcomes into a subset of the dominant focal conditions; furthermore, if this situation of severe frustration persists much longer, the organism will undergo damage; therefore the focal condition of our organism becomes the annihilating of the obstacle, which constitutes a subset of ${}^0\text{Sv}$, our organism's bare survival:

$$\begin{aligned} \text{Rw}^j &= [\text{O}^g : \text{CV}^g = [\text{Df}(\text{A}) : \text{Ic}_a^*]^g, \text{FC}^g = (\text{It}(\text{A}) : \overline{\text{Df}}(\text{A})); \\ {}^0\text{Oc}^h &= [\text{O}^h : {}^0\text{Ec}^h], \\ (\text{O} \times \text{E})^i &: [\text{Ob}^i : [[{}^0\text{Oc}^i \not\subset {}^0\text{FC}^g] = {}^0\text{CV}^i], {}^0\text{FC}^i = {}^0\text{FC}^g], \\ (\text{O} \times \text{E})^j &: [\text{Ob}^j : [[{}^0\text{Oc}^j \not\subset {}^0\text{FC}^i, {}^0\text{Oc}^{j+x} \not\subset {}^0\text{FC}^i, \\ &{}^0\text{Af}^j = {}^0\text{Ur}^j = “{}^0\text{Oc}^m \not\subset {}^0\text{FC}^i \Rightarrow \text{Dm}(\text{B})^{m+1}”] = {}^0\text{CV}^j], \\ &[{}^0\text{FC}^j = [\text{Al}(\text{Ob}) \subset {}^0\text{Sv}]]], \\ \therefore \text{O}^k &: [{}^0\text{Iv}^k = {}^0\text{Ip}(\text{Ap}(\text{Ob}))^k \cap {}^0\text{Ap}(\text{Ob})^{k+1}] \cap {}^0\text{Al}(\text{Ob})^{k+2}] \end{aligned} \quad (149)$$

At this point in our argument, we cannot give notational definitions of **purple rage**, **Rp**, nor of **black hatred**, **Rb**, nor of others of the notions presented in the above two long citations,

for these would require operators elaborated in the course of attempts to stay alive a few moments longer in the midst of a ‘demented’ society, which remain for us to present (see sentences 157 – 167, below).

B. Directively Correlated Sequences

Let us summarize some of our previous formulations from still another viewpoint. In the situations presented as *The Form of Any Encounter* (Hilgartner & Randolph 1969a, pp.314-5, sentences 25-42) and as *Myth₁ and the Drinking Fountain* (sentences 48-52), our organism, Myth₁, creates-and-encounters situations of the *lowest* degree of ‘difficulty’ consistent with the intake of new material and the consequent satisfaction of a ‘need’. In the encounters presented as *Frustration: Myth₁ in the Desert*, and as *Danger: Myth₁ and the Hungry Tiger at the Water-Hole* (sentences 53-56 and 57-58 respectively), Myth₁ creates-and-encounters situations which constitute acute, severe emergencies with fatal outcomes, situations which proved so ‘difficult’ that our organism did not succeed in directly correlating his interactions with his environment so as to achieve his focal condition of preservation-and-growth. Instead, he died. Most of the situations created-and-encountered by organisms lie somewhere between these two extremes of ‘difficulty’.

Now, before we can succeed in specifying the structure of ‘impaired’ subsets of Cs, we must examine at least one worked example showing the sequence of (O × E) events which follow the (O × E) occurrence of an acute, intolerable emergency which resulted in non-fatal, repairable damage to the boundary—or in other words, showing how an organism might manage to ‘heal’ or ‘repair’ or **complete** his situation (Gestalt, **G**), converting an outcome which we characterize as *bare survival* ⁰Sv into one we might characterize as *preservation-and-growth*, ⁰Pr.

Let us consider a sequence that illustrates this kind of non-lethal stress, and then exhibit it in notation. We employ here for this purpose a quarter-hour interaction between a little girl and her mother.

“To little Nan’s delight, today Mama took Nan, newly steady on her feet, with her on her downtown errands. In the big department store, just as Mama got involved in some kind of grown-up busyness and let go of Nan’s hand, Nan spotted a feral kitten staying almost out of sight as it crept along. Because the kitten looked so SECRET, Nan too stayed very quiet as she followed it. When the kitten noticed Nan getting closer, it turned and darted down the stairs and into the Bargain Basement. Nan could manage stairs, if she didn’t hurry too much, so she kept following. At the bottom of the stairs, Nan caught a glimpse of the kitten going down an aisle THAT way. She followed, but couldn’t see the kitten now. She had LOST the pretty kitty! Then she looked around, and suddenly realized the terrible lack: No Mama! She had LOST Mama! And Mama had LOST Nan!

“It took the basement clerk who found the terrified, immobile, screaming child at least ten dreadful minutes to locate and connect with the first-floor clerk helping the terrified mother look for her missing child. When Nan saw Mama hurrying towards her, she broke loose from the grownups surrounding her. She ran as fast as she could towards Mama. Flinging herself into Mama’s arms, she threw her own arms around Mama. She clung to Mama and clung to Mama and clung to Mama,

weeping passionately. Mama held her tight, patted her back, and said, over and over again, “We got together again, Nan. We got together again.”

“Eventually Nan stopped crying. She let go of Mama, and let Mama wipe her eyes and nose with a tissue. Then, grinning, she took Mama's hand, ready to set out on the next adventure.”

In order to translate the sequence described here into our (O × E) notation, we need several new operators. In the “story”, one detail most clearly indicates ‘damage to the boundary’ (from Nan’s viewpoint, getting separated from her parenting figure(s) threatens Nan’s life—she enacts the emergency functions of **motor paralysis** (self-immobilizing), ${}^0 \overline{M}_L$, and **screaming, Scr.** In contrast, in the “story”, another detail most clearly indicates the successful ending of the emergency, and subsequently, the ‘healing’ or ‘repairing’, or the act of completing her Gestalt—in the circle of Mama’s arms, she clings to Mama, and weeps. We indicate this ‘healing’ or completing-her-Gestalt G by means of the generic term **discharging (Dc)**, and we interpret this process as a special case (subset) of destroying, viz. $\mathbf{Dc} \subset \mathbf{Ds}$. In the situation of sudden separation from the **mothering ‘person’ (Mo)**, the component acts which make up discharge include **clinging** to the mother, ${}^0\mathbf{Cl}(\mathbf{Mo})$ and **crying**, ${}^0\mathbf{Cr}$. The performance of these acts in relation to the mothering ‘person’ will constitute a non-verbal behavioral dialog, of the same form as the encounter labeled, in Hilgartner & Randolph, 1969c, pp. 22-4, *Myth, and the Stranger*.

C. Notational Deployment

Initially, the organism shows a state of unhurried tranquility in relation with the mothering ‘person’.

$$\begin{aligned} O^0 : {}^0\mathbf{CV}^0 &= {}^0 \overline{Ur} \cap {}^0\mathbf{Aw}_v(\mathbf{Mo})^0 \cap {}^0\mathbf{Ex}^0 = “{}^0\mathbf{Pr} \Leftrightarrow {}^0\mathbf{So}(\mathbf{Mo})”, \\ \mathbf{FC}^0 &= {}^0\mathbf{So}(\mathbf{Mo}); {}^0(\mathbf{At} \cap \mathbf{In}) \end{aligned} \quad (150)$$

“Then she loses her mother in a crowded downtown store for about ten minutes....”

$$\begin{aligned} O^2 : \mathbf{Em}^2 &= “\mathbf{Aw}_v(\overline{Mo})^2 \cap \mathbf{Aw}_v(\mathbf{Pe}_n : \overline{So} \underline{O})^2” = {}^0\mathbf{D}^2 = \mathbf{Th} ({}^0 \overline{Pr})^2; \\ {}^0\mathbf{CV}^3 &= \mathbf{Em}^2, \quad {}^0\mathbf{FC}^3 = {}^0\mathbf{Sv}, \\ \therefore {}^0 \overline{M}_L &\cap {}^0\mathbf{P}^*(\mathbf{Dt})^4 \cap {}^0\mathbf{Scr}^4 \end{aligned} \quad (151)$$

“At last, Nan and Mama get together again.”

$$\begin{aligned} O^5 : \mathbf{Aw}_v(\mathbf{Mo})^5 &\subset {}^0 \overline{D}^5; \\ {}^0\mathbf{CV}^6 &= “[{}^0\mathbf{Oc}^5 \subset {}^0\mathbf{Sv}]” \cap {}^0 \overline{D}^5, \\ {}^0\mathbf{FC}^6 &= {}^0 : [\mathbf{Ds} (\mathbf{Oc}^5 \subset {}^0\mathbf{Sv}) = \mathbf{G}] \subset {}^0\mathbf{Pr}; \\ \therefore {}^0\mathbf{Cl}(\mathbf{Mo})^7 &\cap {}^0\mathbf{Cr}^7 \end{aligned} \quad (152)$$

$$\begin{aligned} O^8 : “\mathbf{Oc}^7 \subset {}^0\mathbf{FC}^6”, \\ {}^0\mathbf{CV}^9 &= \overline{Ur}^9 \cap \mathbf{Ex}^0 \cap \mathbf{Aw}_v(\mathbf{Mo})^9, \\ {}^0\mathbf{FC}^9 &= {}^0\mathbf{So}(\mathbf{Mo}); {}^0(\mathbf{At} \cap \mathbf{In})^{10} \end{aligned} \quad (153)$$

XVII. THE PSYCHO-LOGICS OF DEVELOPMENT

In our previous works, by the dodge of positing “an adult time-binding organism with **no** experience”, whom we dubbed “Myth₁, the man from Mars, who has just arrived here on Earth (never mind how)” (Hilgartner & Randolph, 1969a, p. 313), we managed to avoid the complexities involved in explicit consideration of the phenomena of development; and as it turned out, this dodge proved acceptable, for the language we devised proved to be flexible and rigorous enough to do what we required: to depict the overall structure of adult experience. Now, however, in order to show the structure of ‘impaired’ subsets of **Cs**, we must keep the promise we made earlier (Hilgartner & Randolph, 1969b, p. 374); for we can most easily show the implications of our theory in the context of a systematic and explicit discussion of the phenomena of development.

A. Burrow’s contribution

From the point of view of our theory, among twentieth-century students of behavior, Trigant Burrow (1913, 1964) first offered an interpretation of the nature and of the lifelong psychological importance of prenatal and early infantile experience which we regard as similar in structure to the doings or happenings to which these terms refer (cf. Hilgartner & Randolph, 1969a, p. 302).

Because of the historical importance and the relevance of Burrow’s contributions, we shall quote Ackerman’s succinct summary of Burrow’s views, which appeared in the Foreword to one of Burrow’s posthumous books :

“Burrow’s main theoretical contributions may be sketched as follows:

1. The neurosis of society is primary; the neurosis of the individual, secondary.
2. Normality must be distinguished from health. Normal behavior is a brand of shared sickness. The characters of the so-called normal person and of the neurotic are not essentially different.
3. Fundamental to human nature is the principle of the biosocial union of mother and infant, of individual and group. The phenomenon of primary preverbal identification is the core of Burrow’s theory of the preconscious foundation of human experience. “The preconscious mode” is a basic oneness and unity, it is the “I and thou”, the “thee and me.” Basic to all else in the development of mind is a current of physiological continuity of child and mother, person and world.

The failure to maintain a healthy preconscious union in the early phase of development results in a process of deformed weaning, a kind of sick individuation which fortifies the divisive, separative, oppositional trends. It produces the split personality. It foredooms the individual to aloneness. It cripples vitality and the creative unfolding of the person in society.

4. Cooperation and joining in human relations rest on a more fundamental principle than do competitiveness, separateness, and destructive exploitation.
5. The progressive misuse of image and language in human development is linked with the distortion of biosocial union. Intellect and word are split from emotion and body. The “I”-

persona emerges as a false expression of individuality.

6. The trend toward mental illness is paralleled by a shift to the physiological pattern of dition, a deviant internal attitude which can be discriminated from the primary pattern of cotention. The quality of subjectivity - the mood and perceptual experience - is distinct in the two physiological modes and can be utilized to reactivate the healthy pattern of cotention.” (Burrow, 1964, pp. vii-ix)

B. Intra-uterine and early infantile experience

For our purposes, the following formulations concerning intra-uterine and early infantile experience seem sufficient:

1. For mammalian species, we consider the lifespan of an organism to start with fertilization. “Please do not take this as an opinion on when “personhood” begins, or when (if) 'soul' enters the 'body' of the fetus, etc. Nor shall I address such topics in this document.”
2. After the moment of fertilization, the zygote, presumably acting on chemically-mediated directive correlations, migrates down one of the Fallopian tubes, settles into the tissue-culture milieu of the uterus, and becomes implanted.
3. The fetal organism does not exist ‘isolated’ nor ‘self-sufficient’, but rather it develops ‘deficits’ and ‘needs’; and under the conditions of intra-uterine life, it finds what it ‘needs’ and makes use of these nutrients for its own growth. (The periodicities the fetus shows include the process of pinocytosis (cell-drinking), and its responses to the periodicity of the maternal blood supply, on which gets superimposed its response to the periodicities of the mother’s eating habits and schedule.) In accordance with our definition of the term **organism**, a fetus *in utero* shows contact-functions, experiences excitement (heightened energy-mobilization), develops some kind of ‘present experience’ or ‘awareness’, builds some kind of a ‘picture of itself’, and forms Gestalten; in other words, it undergoes **growth**. Although the details of the *in utero* setting, the nature of the ‘deficit’ or other coenetic variables, etc., obviously differ from those of the adult experiences we have already depicted, the situations of a fetus in utero show precisely the same form as the situations we have presented as *The Form of Any Encounter* (sentences 25-42) or *Myth₁ and the Drinking Fountain* (sentences 45-52). (Otherwise, that would mean that a fetus showed ‘impaired’ behavior; but we have postulated special psychological structures as prerequisites for ‘impaired’ behavior (Hilgartner & Randolph, 1969b, pp. 364 and 365 (pages 18 & 19 of 28)).)
4. Burrow’s formulation of the strifeless “preconscious mode” we can render in our notation by stating explicitly the relationships of mother to fetus and fetus to mother.
 - a) Relationship of mother to fetus: The relationship of mother to fetus manifests itself on physical-biological levels by the hospitable tissue-culture milieu of her pre-gravid uterine endometrium; and (continuing to restrict our discussion to favorable situations) the psycho-logical and socio-cultural levels of this

mother-to-fetus relationship we indicate by citing the future mother, once a zygote and fetus and newborn infant herself, now one partner in a growing marriage supported in the matrix of a particular culture, mating with her man and becoming impregnated. (As Hayes (1966) has pointed out, the reproductive act in humans consists not of a single act of copulation, but rather of randomly-spaced matings over a period of at least one ovarian cycle; or, in other words, a prolonged association (**So**.) Considered from the future mother's point of view, these mating encounters would show precisely the same form as the encounter presented as *Myth₁ and the Stranger* (Hilgartner & Randolph, 1969c, pp. (sentences 131-144)), where instead of the presence of a stranger encountered under conditions of unhurried tranquility (\overline{Ur}), her coenetic variables would include the presence of her mate under suitable conditions of unhurried tranquility, privacy, etc., her own (and his own) deficit of sexual contact, and an established inter-personal relationship characterized by mutual fostering; and where satisfaction of the focal conditions in turn serves as a coenetic variable to initiate gestation. This new life gets started, then, as a result of the future mother's (and her mate's) efforts to 'complete' her situation in relationship to him (and his situation in relationship with her), viz., as a result of the fundamental affirmations of both of them. And the new life constitutes one part of the Gestalt which they form. As such, it will to them seem precious indeed.

On every level, then, this mother-to-fetus relationship meets the criteria for classification as a relation of *fostering*, $\mathbf{Fo} \subset \mathbf{As} \cap \mathbf{So}$. From our viewpoint, gestation comprises an inter-personal relationship, which for the future mother provides an opportunity to satisfy the focal conditions of a set of fundamental inter-personal directive correlations: specifically, one of her focal conditions gets satisfied iff her fetus remains able to satisfy his focal conditions.³

Of course, at this stage we restrict our discussion to the fundamental psycho-biology; so far we make no pretense of dealing with the ways a woman may wish *not* to house a fetus *in utero*, or may find pregnancy or parturition a threat.

b) Relationship of fetus to mother: We just pointed out that a fetus in utero forms

³ The relation of fostering remains in operation even under very unfavorable socio-cultural circumstances. For example, in our culture nowadays, an unwed pregnant teen-ager may make arrangements to give her baby up for adoption. Such arrangements usually include care to see that she delivers under anesthesia; and further care taken to protect her from sight or sound contact with her infant, which would otherwise serve as a coenetic variable to elicit fondling, nursing, etc. Unavoidably, she will experience grief at the termination of her relationship with her infant (as well as the unpleasant personal and social consequences of having transgressed against the mores of her tribe); but she will take comfort from her success as an incubator, and from having arranged for her infant to have a chance at a better home environment in which to grow up than she could have provided. And these still constitute the attitudes and acts of a fostering organism.

Gestalten. One aspect of these Gestalten would comprise the process of embryogenesis. But let us now take a closer look at other aspects of these Gestalten. The *generalization* formed under these conditions of life we could call *faith*: the non-verbal attitude that “My environment will support me.” (But since something on the order of 10 % of human zygotes do not survive to term, and at least some of these deaths result from developmental errors of the zygotes, we must not consider the processes which make up intra-uterine life and embryogenesis as ‘automatic’ or ‘easy’ for the fetus.)

As we already pointed out, the process of maintaining contact with one’s environment, expecting to succeed in achieving the fundamental focal condition of preservation-and-growth through some finite period, constitutes “the effort to ‘complete’ a situation (a behavioral Gestalt or a Cs subset of the Self)” which we previously discussed (Hilgartner & Randolph, 1969b, pp. 361-3, 365-7), and we indicated by the operator \square (affirmation). We pointed out that \square constitutes a definite mode of using the sensori-motor-and-secretory apparatus, which remains detectable by the organism, by means of proprioception.

Even though about 10% of human zygotes do not survive to term, we must regard the intra-uterine environment as very favorable: a fetus does not have to get its own air, food, or water, to do its own excreting, or to regulate its own temperature. These biological variables held constant for a fetus constitute a number of e_F ’s, environmental ‘forgotten factors’, which a fetus does not have to take into account, yet. We have already seen, however, that the act of leaving out of account some e_F ’s involves in the same act the leaving out of account those aspects of the operations of the Self involved in dealing with the e_F ’s,

$$(104) e_F \Leftrightarrow sf_F$$

Furthermore, we have seen that this whole ‘leaving out’ operation proves psycho-logically equivalent to the act of assuming some kind of identity-mapping(s) on the environment, I_E , which has (have) the effect of eliminating the variables involved from the organism’s accounting.

$$e_F \cup sf_F \Leftrightarrow I_E : [e_F \notin \text{“E”}] \cup [sf_F \notin \text{“Sf”}] \quad (154)$$

Let us now designate any situation in which an organism forms a ‘picture of himself⁴-and-others’ which includes some kind of identity-mapping(s) on the environment which get(s) assumed as the result of the fact that due to his developmental state he has never encountered situations in which the expectations based on this (these) identity-mapping(s) get contradicted by observations, as a situation of **primary confluence**:

a) The first of these comprised the situation in which Myth₁, as a joint

⁴ In the era in which Randolph and I originally wrote the four papers in this series, customary usage still called for the masculine to stand for either gender, as per the law-school adage: “In law, ‘man’ embraces ‘woman’.” In the remainder of this we refer to the organism under scrutiny as ‘himself’ or ‘he’.

consequence of his own structure and of encounters with rectangular environmental objects, W_r , infers the rectangular assumptions $G_1 G_2 G_3$. When $Myth_1$ encounters the trapezoidal window display, W_T , he finds a contradiction between what he expects and what he observes; and as a result of analyzing his own situation for himself, he takes into account some ‘forgotten factors’ of environment and Self, and thus eliminates from the operations of his Self at least one assumed identity-mapping on the environment, or, he changes his premises. Specifically, the variables eliminated by this identity-mapping comprise the **interacting of the boundary**, e.g. :

- i) the **physical functions F** by which any environmental object gets mapped into the set of **stimuli**; and
 - ii) the intra-organismic processes by which these stimuli *produce activated states of sensory elements*, which get integrated into sets of activated sensory states, which then get mapped successively into ‘**present experience**’, ‘**awareness**’, ‘**consciousness**’, **expectations**, etc. This assumed identity-mapping stands equivalent to the delusion that our ‘perceptions’ give rise to ‘absolute certainties’; and the trapezoidal window display provides an opportunity for our organism to disconfirm this untenable generalization by presenting him with a situation in which, ‘perceptually’, $A^i + A^j \neq \emptyset$.
- b) The second of these examples constituted the analysis of the phenomenon of ‘**aware projecting**’. We discussed this phenomenon as a concealed implication of the new (korzybskian) premises which our organism chose to replace the Aristotelian premises underlying $G_1 G_2 G_3$, after he had disconfirmed the latter as a result of the encounter with the W_r . Specifically, the variables eliminated by this assumed identity-mapping comprise
- i) the **unavoidable uncertainty inherent in ‘perception’**, which requires that any organism which would use its ‘perceptions’ as a guide to behavior must engage in a “guessing game” concerning whether or not there exist any environmental objects which correspond to the presumed “objects” which the organism ‘perceives’; and
 - ii) conversely, the **fundamentally self-correcting structure of organisms**, which holds that any organism embodies procedures for **generating and testing hypotheses**: if at any instant an organism uses its ‘perceptions’ as a guide to behavior, it has in effect made use of its ‘perceptions’ as hypotheses, and has put them to test by the act of using them as guides to behavior.
- c) The third example of primary confluence constituted the analysis of the phenomenon of ‘**conscious projecting**’. This too comprised a concealed implication of the new premises. We pointed out that in traditional Western

viewpoints, this phenomenon gets selectively excluded from ‘awareness’; therefore most readers of this theory will find the points made concerning ‘conscious projecting’ quite “unreal” until after they have eliminated from the operations of their own Selves the assumed identity-mapping under discussion (cf. Meyers, 1949). In this instance, the variables eliminated by the assumed identity-mapping include the phenomenon of **multi-ordinality**: the human capacity to regard the operations of one’s own Self with which one orients himself in one’s here-now situation as a part of the ‘environment’ in which he must operate.

Let us designate these three identity-mappings as \mathbf{BIE} , \mathbf{PaIE} , and \mathbf{PcIE} respectively.

To make use of this terminology here, then, we assert that, in the situation of primary confluence *in utero*, a fetus cannot take into account, and therefore assumes an identity-mapping which eliminates, variables concerned with the existence of nutrients, oxygen, water, or waste-products, or the possibility of temperature-variations, as well as any of the operations of his Self which he would have had to make use of in handling or responding to these variables. We may designate this as \mathbf{vIE} .

But our account of the relations of fetus to mother remains still painfully incomplete. If we regard the relationship of fetus to future mother as “all ‘take’ and no ‘give’,” we would have fallen into the trap of treating a fetus as an organism in ‘isolation’. The act of expressing **faith**, e.g. the act of accepting nutrition, remains, by sentence

$$(102A) \quad \neg \mathbf{Oe}^i \Leftrightarrow \neg \mathbf{Se}^i,$$

not only an affirmation of Self, but also an affirmation of the Other. In the act of accepting from the future mother the proffered nutrition, forming a behavioral Gestalt in the form of a subset of **Cs**, and thereby undergoing growth, a fetus indicates (‘communicates’) that his focal conditions do keep getting fulfilled. Since for the fetus to have his focal conditions fulfilled constitutes fulfillment of the relevant focal conditions of the future mother, and conversely, since by continuing to proffer nutrition the future mother indicates that her focal conditions do keep getting fulfilled, then it becomes unmistakably clear that the fundamental psycho-biology of gestation involves a relation between future mother and fetus characterized by **mutual fostering**.

At this point in our discussion of intra-uterine experience, we have outlined a far-reaching set of ‘social’ directive correlations characterized by mutual fostering: a growing marital relation supported in the matrix of a particular culture, and supporting that culture; the mutual fostering of the future mother and her mate; and the mutual fostering of future mother and fetus.⁵

⁵ That this account of the ‘social’ matrix of reproduction remains incomplete we can briefly indicate by alluding to the relations of the current members of a tribe with their progenitors, the relations of current members of one tribe with current members of other tribes, the ecological relations between the human species and other organisms, etc.

We can now complete the job of specifying in our notation the structure of the strifeless “preconscious mode” described by Burrow, by defining one more operator, one which can function also as a relation. On several earlier occasions in this series, we have discussed a non-verbal attitude which an organism engaging in ‘unimpaired’ behavior displays, which we have termed **faith**:

The structure of ‘aware projecting’, then, is such that the organism is required ‘consciously’ to recognize the uncertainty inherent in ‘perception’; and yet, in the face of this recognized uncertainty, the organism is required to make an affirmation to the effect that the ‘awareness’ is the product of contact with something ‘real’. These requirements are equivalent to the requirement that the organism display unmistakable **faith**, the confidence that the operations of the Self will somehow serve as reliable guides to behavior, with the result that the organism will once more be able to achieve the focal condition of his own preservation-and-growth. (Hilgartner & Randolph, 1969b, p. 362)

And earlier in the present paper (p. 16, B, 4 b), we characterized **faith** as “the non-verbal attitude that ‘My environment will support me’.” This ‘non-verbal attitude’ we shall represent by the operator **Re**, **the sense of relatedness-in-a-field**. Then the ‘requirement quoted above we can state in our notation as

$${}^o\text{—}^i \Leftrightarrow {}^o\text{Re}^i \quad (155)$$

We shall not retreat from the position that ‘the sense of relatedness-in-a-field’ constitutes a ‘non-verbal attitude’, or in other words a non-verbal ‘state’ of the organism; but as with other human activities, we can *describe* it, or in other words, we can regard it as a non-verbal “assertion”, the non-verbal equivalent of a verbal statement. In brief, one shows a ‘sense of relatedness-in-a-field’ iff he acts as if both he and the various environments in which he finds himself comprise the products of several billion years of evolution. As Perls, et al., put it,

In our view the body is full of inherited wisdom - it is roughly adjusted to the environment from the beginning: it has the raw materials to make new wholes, and in its emotions it has a kind of knowledge of the environment as well as motivations of action; the body expresses itself in well-constructed purposive series and complexes of wishes. Perls, et al. (1951, p. 440)

Thus this new operator, **Re**, functions as a coenetic variable indicating a state of our organism; or, when the organism remains in contact with an environmental object **X**, this operator functions as a relation, **Xⁱ Re Oⁱ**, our organism at time **T_i** continues **relating**, or exists **related** to, **Xⁱ ⊂ E**.

Furthermore, as a consequence of sentence (155), those operations which involve affirmation, e.g. emulating, fostering, and mutual fostering, can act iff we can characterize the state of the organism as **Re**.

$$\text{Et}^i \cup \text{Fo}^i \cup \dots \Leftrightarrow \text{Re}^i \quad (156)$$

At this point in our argument, the state of at least some of the readers who have seriously tried to understand our formulations must approach anguish. Before finishing off our discussion

of intra-uterine and early infantile experience, let us turn and try to deal with at least one of the difficulties which we foresee as possibly involved. According to this theory, as a result of the fact that up to now, we humans have had only more or less 'demented' societies in which to get born and grow to adulthood, virtually every human alive today has learned how selectively to exclude from 'awareness' that mode of using his sensori-motor-and-secretory apparatus which we have designated as \dashv , affirmation; or, alternatively stated, each of us has learned how selectively to exclude from 'awareness' **Re**, his own sense of relatedness-in-a-field. Moreover, each of us can re-awaken 'awareness' of **Re** in himself iff in the process of re-awakening, he permits himself to experience and to tolerate the *stark terror* by which we anchor down our own 'impaired' functioning (cf. Hilgartner, 1965). In other words, the situation of discussing these formulations seems a bit like the situation of a person at least partially (but progressively) recovering from psychogenic blindness trying to discuss subtleties of the experience of **seeing** with others who do (or at least did) show psychogenic blindness. (And to make matters worse, here the 'discussion' takes place not in a face-to-face situation, but rather via printed pages.)

Thus, even though every possible reader of this theory, like its authors, did live *in utero* and did at that time form a 'picture of himself' characterized by the affirmations and which assumes the identity-mappings under discussion, it seems almost certain that virtually *everyone* will experience difficulties in imagining the 'picture of himself' elaborated by an organism who has no mode of operation but affirmation, and yet which has never experienced, and could not survive, these 'difficulties' under discussion.

And the psycho-logical difficulty which leads to this paralysis of imagining gets further compounded by the ponderous nature of logical analysis: Proceeding step-by-step, we have provided a picture of 'unimpaired' behavior, which constitutes that mode of behavior generally regarded as intolerably dangerous, viz., \dashv : but so far, we have reached only the very early stages of sketching out our picture of the contrasting actuality, the psycho-dynamically stabilized distortions of behavior which each of us has devised in the process of trying to survive a few minutes longer in the midst of a 'demented' society. Without this explicit contrast, the existing formulations remain incomplete, and therefore to some degree unintelligible.

Then the major aim of this paper comes into focus as an effort to show how, under unfavorable environmental conditions, an organism comes to distort its behavior into a form which no longer corresponds to \dashv , but rather to the divisive, conflictful, self-centered striving pattern which Burrow termed *ditention*, or which we term 'impaired' behavior.

5. Near term, a fetus finds itself in a deteriorating situation: The placenta has definite limits, for example, as an oxygen-exchanging unit; and, as the fetus grows larger, its oxygen demand increases as a function of its volume. Therefore, the fetus finds itself in an environment with an inexorably diminishing partial pressure of oxygen, such that, near term, its blood oxygen tension remains about like that of an adult, without special breathing apparatus, on top of Mt. Everest. Partly as a result of the special oxygen-transport characteristics of fetal hemoglobin, a fetus tolerates these conditions of low

oxygen tension better than an adult would; but even so, it faces a crisis: It must get born, or die. Let us consider in detail the exact terms of the crisis:

- a) The fetus has grown; it has no resources to do otherwise (and live);
- b) It cannot stay *in utero*, continuing to grow, and live;
- c) In the process of embryogenesis, it has built lungs, etc., which should allow it to stay alive outside the uterus;
- d) But it cannot get born, *by itself*. (And yet we still do not understand the happenings which initiate labor. Does normal labor get initiated by a stimulus from the fetus? If so, this would stand as the non-verbal equivalent of the verbal statement, "I have become ready to get born.")

6. Birth, then, shows the form of a re-education experience: after it emerges from the birth canal of its mother, a newborn infant finds it necessary to take into account sets of hitherto-neglected e_F 's, environmental 'forgotten factors', and in the same act, to take into account hitherto-neglected aspects of its Self. Thus the experience of getting born involves excitement, growth, and attendant unavoidable suffering: which means that it shows all the earmarks of an *adventure*.

Although we have known all the elements of this view of birth for a long time, most students of behavior have not regarded the process of getting born as an adventure, but rather, after Freud, have elaborated a distinctly paranoid formulation of "the birth trauma", which constitutes one aspect of the basic dichotomy of 'self' vs. 'external world'. Perls, et al. pointed out this dichotomy as a fundamental theoretical error:

"Self" and *"External World"*: this division is an article of faith uniformly throughout modern western science. It goes along with the "Body" vs. "Mind" split, but perhaps with more emphasis on threats of a political and inter-personal nature. Unfortunately, those who in the history of recent philosophy have shown the absurdity of this division have been infected with either a kind of mentalism or materialism. Perls, et al. (1951, pp. 240-1)

Furthermore, they offered an interpretation of the psycho-dynamics of this dichotomy:

If we return to the psychoanalytic theory of Freud, we find that along with the body and the various kinds of "mental", he spoke of Reality, and then of the "reality-principle", which he contrasted with the "pleasure-principle" as the principle of painful self-adjustment to safe functioning. It can be shown, we think, that he conceived of reality in two different ways (and did not understand the relation between them). In one way, the mind and body are parts of the pleasure-system, and reality is primarily the social "External World" of other minds and bodies painfully constraining one's pleasures by deprivation or punishment. In the other way, he meant the "External World" given in perception, including one's own body, and opposed to the imaginary elements of hallucination and dream.

The social External World he thought of especially in connection with the so-called helplessness and delusional omnipotence of the human infant. The infant lies there isolated, has ideas of its own omnipotence, and yet is dependent for everything except the satisfactions of its own body.

But let us consider this picture in its total social context and it will be seen to be the projection of

an adult situation: the repressed feelings of the adult are attributed to the child. For how is the infant essentially helpless or isolated? It is part of a field in which the mother is another part. The child’s anguished cry is an adequate communication; the mother must respond to it; the infant needs fondling, she needs to fondle; and so with other functions. The delusions of omnipotence (to the extent that they exist and are not adult projections), and the rages and tantrums of infinite abandonment, are useful exhaustions of the surface-tension in periods of delay, in order that inter-functioning can proceed without past unfinished situations. And ideally considered, the growing apart of the infant and the mother, the disruption of the field into separate persons, is the same as the increase of the child in size and strength, his growing teeth and learning to chew (and the drying up of the milk, and the turning of the mother to other interests), and his learning to walk, talk, etc. That is, the child does not learn an alien reality, but discovers-and-invents his own increasing reality.

The bother, of course, is that the ideal condition does not obtain. But then we must say, not that the child is essentially isolated and helpless, but that he is soon made so, thrown into a chronic emergency, and eventually he conceives of an external social world. And what is the situation of the adult? In our societies that have no fraternal community, one exists in and grows deeper into this same isolation. Adults treat one another as enemies and their children as alternatively slaves or tyrants. Then, by projection, the infant is inevitably seen to be isolated and helpless and omnipotent. The safest condition is then seen, truly, to be a breaking, a disconnection, from the continuity with the original unitary field. (ibid., pp. 270-1)

In a later publication (), we intend to offer a mathematical representation of these fundamental errors of psycho-dynamic theory. Meanwhile, let us return to our argument.

7. Immediately upon emerging from the birth canal of his mother, the newborn infant encounters novel environmental conditions, e.g. drastically altered skin temperatures, contact with solid objects, a rapidly decreasing blood oxygen tension, and perhaps a spank on the bottom from the obstetrician or midwife. We have already discussed the phenomenon of *surprise*, **Sp** \subset **Em**, e.g. the experience of finding a contradiction between what one *expects* and what he *observes*, as a response observable throughout the animal kingdom; and we have pointed out that, in mammalian species, this response includes the startle reflex, and the motor act of deep inhalation (Hilgartner & Randolph, 1969b, pp. 352-3 (sentences 80-82)). (In the context of our previous discussion, our hypothetical organism found his encounter with the trapezoidal window non-dangerous, and he displayed well-developed behavioral techniques for handling the situation: he explored the trapezoidal window and the rectangular window with great thoroughness, and then set about constructing an intersection of all his observations. Infants frequently treat separation from the mother figure as a severe emergency—they become aroused, cry, thrash about, etc., But the behavioral repertoire of a newborn human remains very limited, and includes only such overt activities as breathing, sleeping, sucking, ingesting, excreting, ‘aimless’ sensory scanning, ‘non-purposive’ thrashing about, crying, etc.)⁶

⁶ Findings published some five years after I drafted this paper (Condon & Sander, 1974a,b) require that we fundamentally revise this estimate of the behavioral capabilities of newborn humans, and where they fit into the human species. See APPENDIX, pp. xxx-yyy.

As the first concerted action of a newborn, he cries. This act has an obvious physiological role in the aeration of the lungs. But it also constitutes a cry of distress ('overstimulation'); and as such, it serves as a coenetic variable which ordinarily suffices to elicit maternal fostering acts, e.g. fondling, bathing, wrapping in a warm blanket, and perhaps suckling, from the mother or her attendants: acts which relieve the distress; and once the distress has gotten discharged the infant becomes serenely alert. In the hundred or so deliveries in which I have taken part, I have repeatedly observed that newborn infants, warm and snuggled in their soft blankets, usually remain awake and in contact (I imagine it as *tingling* contact) with their new environments for some time before they first fall asleep.

This view of 'the birth experience' we could represent in our notation as a directive correlation which, from the point of view of the infant, consists of the temporally-ordered intersection of operators representing the 'awareness' of activated states of pressure receptors all over the body (related to uterine contractions), and the tactile 'awareness' related to getting moved thru the birth canal, and lack of head support upon emerging, and 'awareness' of the absence of the familiar intra-uterine sounds and of the presence of novel sounds, and 'awareness' of skin deformation from getting handled and then held up by the heels by the obstetrician, and 'awareness' of stimulation of cold-receptors in the skin, and of rapidly increasing deficit of oxygen, and tactile 'awareness' from a spank on the bottom, and surprise, and deep inhalation, and the motor act of forced exhalation against closed vocal cords (crying); and, after the discharge gets completed, unhurried tranquillity. (It seems unnecessary actually to write out this expression in the notation.)

As a consequence of the intrinsic rates of interchange with the environment of different essential substances, the first *learned skill* an infant develops, in his directly correlated efforts to stay alive a few moments longer, comprises the alternating muscular contracting and relaxing which makes up **breathing**. Perhaps by the time he first falls asleep, a healthy infant has already assimilated this process and made it **habitual**; in other words, he acts confident that he can depend on his environment and on himself to function so that the non-verbal 'need' for intake of oxygen and disposal of carbon dioxide will continually recur, and through this assimilated skill of breathing, will get satisfied.

Later, the infant organism repeatedly (periodically) experiences the sequence of 'awareness' of some kind of deficit (e.g. hunger-thirst), and distress, and the act of crying, and visual-and-tactile 'awareness' of some environmental object **X**, and the act of suckling, and the act of intake, and 'awareness' of no deficit (satiety), and the act of falling asleep. (Again, it seems unnecessary to write out this expression in our notation.)

In these periodic sequences, the infant organism gradually becomes focally 'aware' of the environmental object **X**, which he gradually comes to 'recognize' as a mothering 'person'; and he becomes subsidiarily 'aware' of the 'needs', motor acts, and other operations of his Self by

which he gets what he ‘needs’ from her.⁷ These repeated encounters constitute a process of progressive discrimination-and-recognition (the development of ‘meanings’ to go with his non-verbal sensory intake), which make up the infant organism’s first (cumulative) experience of satisfaction of the fundamental ‘social’ focal conditions, **As** \cap **So**. (This formulation implies transactional explanation for the phenomenon of early infantile autism, which we may develop when the notation can deal with it.)

In terms of the fundamental psycho-biology, however, the environmental conditions of an infant human mammal remain potentially as favorable as the environmental conditions of a mammalian fetus *in utero*: Those things he initially cannot do for himself get done for him, until he “grows up” enough to learn by example how to do them for himself (Perls, 1967). Therefore, as an infant organism comes to recognize the existence of the other organisms which make up his ‘social’ environment, he necessarily ‘places an exceptional degree of confidence’ in those ‘persons’, and engages in the form of imitative behavior we have designated by the operator **Et**, **emulating**.

By the time an infant can track moving objects with his eyes (at about two months of age), he has become able to attend to, and become focally ‘aware’ of, his own body-parts: this seems clearly apparent to anyone who has ever observed the fascination and delight with which an infant studies, wiggles, and tastes his own hands and feet (along with everything else in his environment which he can reach). And as he becomes able to develop focal ‘awareness’ of his own body parts, he therefore begins to manage to classify his experiences of **distress** into situations which involve **danger** and those which involve **frustration**. (Often even at very early ages, the parents of an infant distinguish differences of tempo, tone, and volume in the cries of their baby, and thus “get the message” of the child as clearly as if he could speak in words; and these ‘differences’ imply non-verbal classifying acts performed by the infant.)

XVIII. The Genesis of ‘Impaired’ Behavior

At this point, we have before us sufficient resources to permit the specification of the structure of ‘impaired’ human behavior. But in order to make the best possible use of these resources, we shall again use as the nidus of our formulations an alleged “encounter”, this time borrowed from Brock Chisholm (1957, pp. 40-42).

A. Verbal Model

I have been discussing the small child’s need for love as a primary condition of his effective development. Any threat to love, any risk of loss of love, is for a child a nightmare, a threatening barrier between him and his continued exploration of life. Yet, very many children run into the threat of loss of love very early in life, sometimes even within the first year. Whenever a child behaves in ways that are not acceptable to the ideas,

⁷ For example, authors have cited the observation that children of deaf-mute parents at very early ages abandon the ineffectual audible cries of distress as means of obtaining parental attentions, and develop instead communicative actions which prove more effective, e.g. head banging, or (later), stomping on the floor, etc.

attitudes, and moral codes of his parents (particularly of his mother), he risks running into active disapproval. This is interpreted by the child as a threat of loss of love.

The very young child is not concerned at all with the local behavior customs of the natives; he is born not knowing anything about them. One can call him uncivilized, born in sin, or just not grown up; they are all the same thing. He is a “natural”, born the way he is born. And, furthermore, there are no laws anywhere saying what a child one year old should be like; he is not in any danger whatever of coming into conflict with the laws of the land and being punished for it. All he is in danger of is running into the certainties or rigidities of his parents, but there is plenty of danger in that for most children.

Most parents have rather unbending ideas about what a small child should be like, how he should behave, what he should and should not do, even about when he should do it and when he should not. Most parents will not admit that these are really only matters of convenience for themselves or for the local customs of the natives, and that they have no real universal validity whatever. When a child first begins to explore his environment—the world as he sees and feels it—he doesn't know any rules. He has no taboos. He reaches out in all directions to find out what it's like. He tries to ingest everything because this is the primitive method of getting acquainted, but he finds some things can be ingested to his advantage and some things cannot. He learns to accept and reject, and his developing morality is based simply on what is pleasant and what is found to be unpleasant.

But even today, when very small children behave in various natural ways, parents disapprove violently. The form of behavior that gets almost certain disapproval lies in the sexual area. That is, a child, one or two years old, exploring his total environment, finds amongst everything else in his reality, his own genital area, and it still happens (though I hope and believe not as frequently as it used to) that his mother has extremely rigid ideas about genital areas, and when the child is caught engaging in such exploration, the mother expresses disapproval very emphatically.

The child should be exploring his total environment at that stage, and there should be no taboos placed upon such exploration. This is generally acceptable, but apparently many mothers haven't been told about it, or, if they have, they can't quite believe it because of the way they have been brought up themselves. Very many children meet violence for the first time in their lives from their mother at this stage of their development. It is still common for mothers to slap a child's hand and to say to him, “Dirty! Dirty! If you do that, Mother won't love you any more!”

This is a very damaging experience. The part of the child's physical equipment which is associated with basic intersex relationship has been made dirty and its existence associated with loss of love rather than the expression of love.

B. Extensions of notation

In order to examine the structure of the “damage” produced by encounters of this form, we must as usual define several new notational conventions, sets, or operators:

- α) Let $\mathbf{Gn} \subset \mathbf{B}$ stand for **the genitals** of our organism. Also, let $\mathbf{Hd} \subset \mathbf{B}$ stand for **the hand** of our organism.
- β) Let the subscript \mathbf{h} placed to the right of an operator indicate **the audible** or **heard**; e.g. \mathbf{At}_h , attending to the audible.
- γ) Let the subscript \mathbf{w} placed to the left of an operator indicate **word-choice**, e.g. ${}^w\mathbf{Th}$, threat via word-choice.
- σ) Let the subscript \mathbf{tv} placed to the left of an operator indicate **tone-of-voice**, e.g. ${}_{tv}\mathbf{Th}$, threat via tone-of-voice.
- ε) We shall indicate **a blow** by the operator \mathbf{Bl} . Thus we read ${}^{Mo}\mathbf{Bl}(\mathbf{O})^i$ as “a blow to the organism by the mothering ‘person’ at time t_i .”
- τ) We shall indicate the act of **disapproving** by the operator \mathbf{Dp} .
- η) We shall indicate **tantrum** by the operator \mathbf{Tt} .

C. Expectations

In accordance with our custom, let us now specify the expectations held by our organism at the beginning of this encounter. We shall make the simplifying assumption that, prior to this encounter, our organism has sustained no psycho-logical damage, but rather that following previous emergencies, he managed to undergo discharge, and thus during his lifetime has operated only in the ‘unimpaired’ mode of behavior characterized by \mathbf{Re} . Since in this passage we consider our organism as the logical equivalent of a child, much of his behavior remains tacit, or in other words, there exist assumed identity-mappings in the operations of his Self, which constitutes the situation of primary confluence. However, his expectations concerning the relations between his Self and non-living or living environmental objects we can specify by the use of the operator \mathbf{Re} , ‘the sense of relatedness-in-a-field’ (or ‘faith’), as a result of which he engages in emulating his parent-figures, even though both of these processes remain tacit. In his ‘perceptual’ expectations, the primary confluence (\mathbf{Co}_s) we can indicate by listing these expectations as $\mathbf{G}_1 \mathbf{G}_2 \mathbf{G}_3$ (and eliminating $\mathbf{G}_4 \mathbf{G}_5$). In his inter-personal expectations, the primary confluence (\mathbf{Co}_{pe}) we can indicate by showing him as expecting that his continued preservation-and-growth, or even his continued bare survival, remains dependent on the continuation of the association with his parent-figures. The variables eliminated by the assumed identity-mapping involved in this primary confluence include

- a) the ‘aware projecting’ and the ‘conscious projecting’ involved in classifying an environmental object as an element of the set of human beings (\mathbf{Pe}) (sentence 126), and
- b) the ‘aware projecting’ and the ‘conscious projecting’ and the covert imitative movements involved in empathizing with a ‘person’ (\mathbf{Ez}) (sentence 127); furthermore,

c) since we represent our organism as never having operated in the ‘impaired’ mode of behavior, he necessarily cannot suspect the possibility that his parent-figure(s) might show ‘impaired’ behavior in relation with him, but rather must assume that their states, like his own, we can characterize by the operator **Re**.

D. Notational Deployment

We can represent our organism’s expectations as:

$$\begin{aligned} O^0 : {}^0Ex^0 &= [G_1 G_2 G_3 [Co_s^0 = I_E : [Cq_1(G_4 G_5) \not\subset Se] \cup [Cq_2(G_4 G_5) \not\subset Oe]] \cap [O : Re, \\ &{}^0Re \Rightarrow [[\text{‘}\neg\text{’} [(Mo Im O)^i \Rightarrow {}^0Oc^j \subset {}^0FC]’] = (Mo Et O)^i] \cap \\ &[\text{‘}\neg\text{’} [[[] {}^0Oc^i \subset {}^0FC] \subset {}^{Mo}FC] \cap [[{}^{Mo}Oc^i \subset {}^{Mo}FC] \subset {}^0FC]’] = \\ &[(Mo Fo O)^i \cap (O Fo Mo)^i]] \cap [Co_{pe}^0 = \text{‘‘}Pr^j \cup {}^0Sv^j \Leftrightarrow {}^{Mo}So(O)\text{’’}]] \end{aligned} \quad (157)$$

We can represent our organism’s discovery of his own genital area as:

$$\begin{aligned} O^0 : CV^0 &= [Df_i(Gn) : Aw_p(Gn)^0] \cap Ip_{(hdAp_{t,p}(Gn) \cap gnAp_{t,p}(Hd))}^1 \\ FC^0 &= Cs_{t,p}(Gn \cap Hd); (At_{t,p} \cap In_{t,p})(Gn \cap Hd)^2 \end{aligned} \quad (158)$$

$$O^3 : {}_{hdAp_{t,p}}(Gn)^3 \cap {}_{gnAp_{t,p}}(Hd)^3 \cap {}_{hdAt_{t,p}}(Gn)^4 \cap {}_{gnAt_{t,p}}(Hd)^4 \cap {}^0Ec^4 \quad (159)$$

“It is still common for mothers to slap a child’s hand and say to him, ‘Dirty! Dirty! If you do that, Mother won’t love you any more.’ ”

$$\begin{aligned} O^5 : {}^0At_{t,p}(Gn \cap Hd)^5 \cap {}^0Ec^5 \cap {}^{Mo}Bl(O)^6, \\ \therefore O^7 : {}^0CV^7 &= [[{}^0Pn^7 \cap {}^0Sp^7] \subset {}^0Em], \\ {}^0FC^7 &= {}^0Pr; \\ [{}^0Pn^7 \cap {}^0Sp^7] &\Rightarrow {}^0Ir(Ap_{t,p}(Gn \cap Hd))^8 \cap {}^0Ir({}^0Ec)^8 = \\ [SI^8 \cap [{}_{hd}Rf^9 = [{}_{hd}M_{ap}(Gn)^9 \cap {}_{hd}M_{av}(Gn)^9]] \cap [{}_{gn}Rf^9 = \\ [{}_{gn}M_{ap}(Hd)^9 \cap {}_{gn}M_{av}(Hd)^9]] \cap (At_{v,h} \cap In_{v,h})^9 \cap [Ax^9 = \\ M_{Br}^9 \cap [M \overline{Br}]^9] \cap Au^9 \end{aligned} \quad (160)$$

$$\begin{aligned} O^{10} : ({}^0At_{v,h} \cap {}^0In_{v,h})^{10} \cap {}^0Em^{10} &= [Ez(Mo)^{10} = \\ [{}^{Mo} : {}^{Mo}_fRw(O)^{10} \cap {}^{Mo}_wTh({}^{Mo} \overline{So} (O))^{10} \cap {}^{Mo}_wTh({}^{Mo} \overline{So} (O))^{10}] \end{aligned} \quad (161)$$

$$\begin{aligned} O^{11} : {}^0Em^{11} &= [{}^0Ir(Ap_{t,p}(Gn \cap Hd))^8 \cap {}^0Ir({}^0Ec)^8 \not\subset {}^0FC^0, \\ {}^{Mo}_fRw(O)^{10} &\not\subset [(Mo Fo O) \cap (O Fo Mo)], Th({}^{Mo}_{tv,w} \overline{So} (O))^{10} \not\subset {}^{Mo}So(O)^{10}; \\ \therefore {}^0Oc^{11} &\not\subset {}^0FC^0 \cup {}^0FC^7, {}^0Oc^{11+j} \not\subset {}^0FC^0 \cup {}^0FC^7] \end{aligned} \quad (162)$$

$$\begin{aligned} \text{‘‘}{}^0Oc^{11} \not\subset {}^0FC^0 \cup {}^0FC^7, {}^0Oc^{11+j} \not\subset {}^0FC^0 \cup {}^0FC^7\text{’’} &= [Cs^{12} = \emptyset] = CV^{12}, FC^{12} = {}^0Sv; \\ \therefore [{}^0Sc(Gn \cap Hd)^{14} &= [[{}^0_{gn}Rf^{13} \cap {}^0_{hd}Rf^{13}] : [{}^0_{gn,hd}St^{*14} \subset \overline{L}_H] \cap \\ [{}^0_{gn,hd}P^{*14} \subset \overline{L}_H]]] \cap {}^0Ax^{14} \cap [{}^0In_{t,p}(Gn) \cap {}^0At_{v,h} \overline{Gn}]^{14} \cap {}^0Au^{14} \end{aligned} \quad (163)$$

Furthermore, in this situation the mothering ‘person’ forbids our organism to discharge his ‘overstimulation’:

$$\begin{aligned} \text{O}^{15} : \text{Em}^{15} &= [{}^{\circ}\text{Ez}(\text{Mo})^{15} = \text{‘Mo}^{15} : {}^{\circ}\text{Dc}^{15} \subset {}^{\circ}\text{D}^{15}\text{’}], \\ \therefore {}^{\circ}\overline{\text{Dc}}^{16} &= [{}^{\circ}\overline{\text{Cl}}(\text{Mo})^{16} \cap {}^{\circ}\overline{\text{Cr}}^{16} \cap {}^{\circ}\overline{\text{Tt}}^{16}] \end{aligned} \quad (164)$$

Finally, at the point when our organism’s fundamental affirmations stand utterly defeated and his behavioral “healing processes” remain blocked, the mothering ‘person’, showing in her facial-expressions-and-gestures an affect of *triumph*, **Tm**, indicates to our organism the cessation of her disapproval, which stands equivalent to the proposition that if our organism refrains from further genital exploration, she will not terminate her association with him:

$$\begin{aligned} \text{O}^{17} : \text{Aw}_v(\text{Mo})^{17} \cap [{}^{\circ}\text{Ez}(\text{Mo})^{17} = \text{‘Mo}^{17} : {}^{\text{Mo}}_{\text{nw}}\text{Aw}_v[{}^{\circ}_{\text{hd}}\overline{\text{At}}(\text{Gn})^{14} \cap {}^{\circ}\overline{\text{Dc}}^{16}]^{17} \cap {}^{\text{Mo}}_{\text{f}}\text{Tm}^{17} \cap \\ [{}^{\text{Mo}}_{\text{vw}}\overline{\text{Dp}}(\text{O})^{17} = [{}^{\circ}_{\text{hd}}\overline{\text{At}}(\text{Gn})^i \Rightarrow {}^{\text{Mo}}\text{So}(\text{O})^{i+1}]^{17}\text{’}] \subset {}^{\circ}\text{Sv}^{17} \not\subset {}^{\circ}\text{Pr} \end{aligned} \quad (165)$$

Our organism, as a perfect logical machine, can derive from this one encounter the ‘correct’ conclusion. (A real child might prove somewhat hardier, and decline drastically to modify the structure of his behavior as a result of a single ‘traumatic’ encounter; but even if that proved the case, unless the attitudes of the parent-figure(s) should change after the one encounter, our theory holds that a real child would go through encounters of this form repeatedly, until he finally did modify his behavior.)

E. ‘Consciousness’

The structure of the ‘correct’ conclusions to draw from this encounter we can show by specifying first the subset of **Cs** formed as a result of this encounter, and the first **Cq** correspondence (the Self-component) of this subset of **Cs**, and then by comparing these two sets with ‘unimpaired’ behavior. (When we state these two propositions in words, we shall in the same act give the verbal equivalents of some of our new notational expressions.):

$$\begin{aligned} \text{Cs}^{18} &= {}^{\circ}\text{Ex}^0 \cap {}^{\circ}\text{Aw}_p(\text{Gn})^0 \cap {}^{\circ}\text{Ip}_{(\text{gn,hdAp}_{\text{t,p}}(\text{Gn} \cap \text{Hd}))^1} \cap {}^{\circ}\text{At}_{\text{t,p}}(\text{Gn} \cap \text{Hd})^5 \cap {}^{\circ}\text{Ec}^5 \cap \\ &{}^{\text{Mo}}\text{Bl}(\text{O})^6 \cap {}^{\circ}\text{Ir}(\text{Ap}_{\text{t,p}}(\text{Gn} \cap \text{Hd}))^8 \cap {}^{\circ}\text{Ir}({}^{\circ}\text{Ec})^8 \cap [{}^{\circ}\text{Em}^{10} = [{}^{\circ}\text{Ez}(\text{Mo})^{10} = \\ &[{}^{\text{Mo}}\text{O}^{10} : {}^{\text{Mo}}_{\text{f}}\text{Rw}(\text{O})^{10} \cap {}^{\text{Mo}}_{\text{tv}}\text{Th}({}^{\text{Mo}}\overline{\text{So}}(\text{O}))^{10} \cap {}^{\text{Mo}}_{\text{w}}\text{Th}({}^{\text{Mo}}\overline{\text{So}}(\text{O}))^{10}\text{’}]] \cap \\ &{}^{\circ}\text{Sc}(\text{Gn} \cap \text{Hd})^{14} \cap ({}^{\circ}\text{In}_{\text{t,p}}(\text{Gn}) \cap {}^{\circ}\text{At}_{\text{v,h}}(\overline{\text{Gn}}))^{14} \cap {}^{\circ}\overline{\text{Dc}}^{16} \cap [{}^{\circ}\text{Ez}(\text{Mo})^{17} = \\ &\text{‘Mo}^{17} : {}^{\text{Mo}}_{\text{tv,w}}\text{Aw}_v[{}^{\circ}_{\text{hd}}\overline{\text{At}}(\text{Gn})^{14} \cap {}^{\circ}\overline{\text{Dc}}^{16}]^{17} \cap {}^{\text{Mo}}_{\text{f}}\text{Tm}^{17} \cap [{}^{\text{Mo}}_{\text{tv,w}}\overline{\text{Dp}}(\text{O})^{17} \\ &= \\ &[{}^{\circ}_{\text{hd}}\overline{\text{At}}(\text{Gn})^i \Rightarrow {}^{\text{Mo}}\text{So}(\text{O})^{i+1}]^{17}\text{’}] \subset {}^{\circ}\text{Sv}^{17} \not\subset {}^{\circ}\text{Pr}] \neq \emptyset \end{aligned} \quad (166)$$

This sentence says that the subset of ‘consciousness’, **Cs**¹⁸, formed as a result of this encounter, consists of the same elements as does the set of expectations described above, (sentence 157), at time **t**₀, and proprioceptive ‘awareness’ of the genitals at time **t**₀, and the impulse to approximate genitals and hand via touch and proprioception (viz. to approach the genitals with the hand and to approach the hand with the genitals) at time **t**₁, and tactile-and-proprioceptive exploration (**At**_{t,p}) of genitals-and-hand and the organism’s excitement at time **t**₅, and a blow from the mothering ‘person’ at time **t**₆, and interrupting of the tactile-and-proprioceptive approximating of genitals and hand and interrupting of the organism’s excitement at time **t**₈, and a state of emergency at time **t**₁₀, which consists of the same elements as does the

act of empathizing with the mothering ‘person’ at time t_{10} , which in turn consists of the same elements as does the proposition that “the mothering ‘person’ at time t_{10} exists such that she shows facial-expressions-and-gestures of fierce white fury toward the organism, and by tone of voice and word choice she threatens to discontinue her association with the organism, at time t_{10} , and blotting-out of genitals-and-hand at time t_{14} , and self-distracting (tactile-and-proprioceptive interest in the genitals and visual-and-auditory attending to non-genital objects) at time t_{14} , and the blocking of discharge at time t_{16} , and empathizing with the mothering ‘person’ at time t_{17} , which consists of the same elements as does the proposition that “The mothering ‘person’ at time t_{17} exists such that, by tone-of-voice and by word-choice she indicates her visual ‘awareness’ that the organism at time t_{14} has ceased exploring his genitals with his hand and that at time t_{16} the organism has blocked his discharge, and by facial-expression-and gestures she shows an affect of triumph at time t_{17} , and by tone-of-voice and word-choice she indicates cessation of her disapproval of the organism at time t_{17} , which consists of the same elements as does the proposition that if the organism, at any time t_i , does not explore his genitals with his hand, then at the subsequent moment t_{i+1} , the mothering ‘person’ continues her association with the organism”; this whole expression comprises a subset of our organism’s bare survival at time t_{17} , but not a subset of our organism’s preservation-and-growth; and Cs^{18} does not stand equivalent to the empty set.

In presenting the first Cq correspondence of Cs^{18} , we shall not write out the step which shows a subset of Se such that these things happened in proper temporal order during the period covered by time-indices t_0 through t_{17} ; instead, we shall present a generalization of this encounter in which our organism predicts that, given similar starting-conditions, similar events will occur during any period with time-indices t_i thru t_k . The resulting expression shows the form “A; and if A precedes B (which constitutes a subset of C), then D, which comprises a subset of E, which stands equivalent to F, which stands equivalent to G ; and if G precedes H (which comprises a subset of J), then K, which comprises a subset of L, but not a subset of M.” We may understand this expression as an abbreviation of a proposition to the effect that “These things happened in proper temporal order this time, and given similar starting conditions, similar events will occur during any period with time-indices t_i thru t_k :

$$\begin{aligned}
Cq_1(^0Cs^{18}) &= ^0Se^{18} : [[^0Ex^0 \cap ^0Aw_p(Gn)^0 \cap ^0Ip(^0_{hd,gn}Ap_{t,p}(Gn \cap Hd))]^1]; \\
& [^0Ip(^0_{hd,gn}Ap_{t,p}(Gn \cap Hd))^i \Rightarrow [(^0Ap_{t,p} \cap ^0At_{t,p})(Gn \cap Hd)^{i+1}] \cap ^0Ec^{i+1}] \subset ^0(-\{ Se \cup -\{ Oe \}) \Rightarrow \\
& [[^0Aw[^{Mo}Bl(O) \cap ^{Mo}_fRw(O) \cap ^{Mo}_{tv,w}Th(^{Mo}\overline{So} (O))]^j \subset [^{Mo}Dp(O)^j]] = \\
& [^0Oc^j \not\subset [^0Cs_{t,p}(Gn \cap Hd) \cup ^0Pr]^j] = [^0Cs^{j+1} = \emptyset], \\
& [[^0Cs^{j+1} = \emptyset] \Rightarrow [^0Sc(Gn \cap Hd)^{j+2} \cap ^0(In_{t,p}(Gn) \cap At_{v,h}(\overline{Gn}))^{j+2} \cap \\
& \quad ^0\overline{Dc}^{j+2} \subset ^0Ir(-\{ Se \cup -\{ Oe \}) \Rightarrow [^{Mo}_{tv,w}Aw_v[^0_{hd}\overline{At} (Gn)^{j+2} \cap ^0\overline{Dc}^{j+2}]^k \cap \\
& \quad ^{Mo}_{tv,w}Tm^k \cap ^{Mo}\overline{Dp} (O)^k] \subset ^0Sv^k \not\subset ^0Pr] \tag{167}
\end{aligned}$$

This sentence says that the first Cq correspondence of Cs^{18} consists of the same elements as does a subset of the Self-component of ‘consciousness’, Se^{18} , such that there exists the set of

expectations already described, at time t_0 , and proprioceptive ‘awareness’ of the genitals, at time t_0 , and the impulse to approximate genitals and hand (via touch and proprioception) at time t_1 ; but if the impulse to approximate genitals and hand via touch and proprioception at any time t_i precedes tactile-and-proprioceptive approximating ($\mathbf{Ap}_{t,p}$) and exploring ($\mathbf{At}_{t,p}$) of genitals-and-hand and the organism’s excitement, at time t_{i+1} (which comprises a subset of the organism’s fundamental affirmations), then at time t_j the mothering ‘person’ strikes the organism, shows facial-expressions-and-gestures of fierce white fury toward the organism, and via tone-of-voice and word-choice threatens to discontinue her association with the organism, which comprises a subset of the act of the mothering ‘person’ disapproving (\mathbf{Dp}) of the organism, which consists of the same elements as does the expression that “The outcome (for the organism) at time t_j does not comprise a subset of a tactile-and-proprioceptive ‘consciousness’ of genitals-and-hand, nor of the organism’s preservation-and-growth, at time t_j ,” which in turn consists of the same elements as does the expression that the ‘consciousness’ at time t_{j+1} is equivalent to the empty set; and if the recognition that the ‘consciousness’ proves equivalent to the empty set precedes blotting-out of genitals-and-hand, and self-distracting, and the blocking of discharge, all at time t_{j+2} (which constitutes a subset of our organism interrupting his fundamental affirmations) then at time t_k , by tone-of-voice and by word-choice, the mothering ‘person’ indicates her ‘awareness’ that the organism has stopped exploring his genitals with his hand, and that he has blocked discharge, and, showing facial-expressions-and-gestures of triumph (\mathbf{Tm}), she indicates by tone-of-voice and by word-choice the cessation of her disapproving of the organism; this outcome makes up a subset of our organism’s bare survival, at time t_k , but not a subset of our organism’s preservation-and-growth.

F. The Dissociative Gestalt

As we indicated above, we are envisioning a situation in which the attitudes of the parent-figure(s) do not change as a consequence of this encounter: she (they) will permit neither genital exploration nor discharge of the frustration engendered by blocking genital exploration, ever, under (threatened) penalty of termination of the association with the parent-figure(s). In the act of recognizing the unchangingness of the attitudes of the parent-figure(s), which we have indicated by showing our organism as generalizing from the particulars of this one encounter to the assertion that, given similar starting conditions, similar events will occur at any time t_i , our organism has “become desperate” (cf. Perls, et al., 1951, p. 432). Let us now try to gain perspective on the stages, the meaning, and the consequences of this desperation.

Since the outcome of this encounter did not prove fatal to our organism, we may speak of this as a **low-grade** emergency. As a consequence of the unchanging attitudes of the parent-figure(s) (and the blocking of discharge), the state of emergency has not ended at the end of this encounter, but rather remains as a **chronic** low-grade emergency. And it seems by now apparent that our child-organism at this point in his life has no technique for dealing with this chronic low-grade emergency other than to make sustained use of emergency-functions. Previously

(Hilgartner & Randolph, 1969a, p. 323), we cited a passage from Perls, et al. (1951, p. 261) which pointed out that we may consider temporary use of these emergency-functions ‘healthy’ (in our terms, a subset of ‘unimpaired’ behavior). But the desperation of our organism involves at least two stages: first, the process of making *sustained* or *chronic* use of emergency-functions; and second, the *recognition* that he must make sustained use of emergency-functions. We assert that *chronic* utilization of emergency-functions stands as the first step in the elaboration of psycho-dynamically stabilized distortions of behavior. After Perls, et al. (1951, p. 361, 366), we designate the sustained use of emergency-functions as ‘**withdrawal of the self**’, ${}^{\circ}\text{Wd}$. And as we shall show below, this process of *recognition* of the necessity of ${}^{\circ}\text{Wd}$, ‘withdrawal of the self’, produces (or constitutes) the state of ‘**resignation**’, ${}^{\circ}\text{Rs}$.

Our notational definition of ‘withdrawal of the self’ constitutes an expression of the form, “A, and B, and C, which stands equivalent to the proposition ‘If D (which makes up a subset of E), then F’; therefore G.”

$$\begin{aligned} {}^{\circ}\text{Wd}^j &= [{}^{\circ}\text{CV}^h = [{}^{\circ}\text{Df}(\mathbf{A}) : [{}^{\circ}\text{Ic}_a^{*}]^h \cap {}^{\circ}\text{Aw}_v(\mathbf{x} \in \mathbf{A})^{h+1} \cap {}^{\circ}\text{Ip}(\text{Ap}(\mathbf{x} \in \mathbf{A}))^{h+2} \cap {}^{\circ}\text{Ec}^{h+2}], \\ {}^{\circ}\text{FC}^h &= [{}^{\circ}\text{It}(\mathbf{x} \in \mathbf{A}) : {}^{\circ}\overline{\text{Df}}(\mathbf{A})], \\ {}^{\circ}\text{Oc}^i &= “[{}^{\circ}\text{Ap}(\mathbf{x} \in \mathbf{A})^p \cap {}^{\circ}\text{Ec}^p] \subset ({}^{\circ}\neg \text{Se} \cup {}^{\circ}\neg \text{Oe}) \Rightarrow [\text{Cs}^{p+1} = \emptyset]”^i; \\ \therefore \text{O}^j &: {}^{\circ}\text{r}^0(\neg \text{Se} \cup \neg \text{Oe})^j \subset {}^{\circ}\text{Sv} \not\subset {}^{\circ}\text{Pr} \end{aligned} \quad (168)$$

This sentence says that the operator ‘withdrawal of the self’ consists of the same elements as does a formulation to the effect that the coenetic variables for our organism (at time \mathbf{t}_h) consist of the same elements as do a deficit of physiological parameter \mathbf{A} , such that there exists a ‘present experience’ of activated states of interoceptors sensitive to \mathbf{A} (at time \mathbf{t}_h), and a visual ‘awareness’ of an environmental object $\mathbf{x} \in \mathbf{A}$ (at time \mathbf{t}_{h+1}), and the impulse to approach this environmental object $\mathbf{x} \in \mathbf{A}$ and the organism’s excitement (at time \mathbf{t}_{h+2}), and that the focal condition for our organism (at time \mathbf{t}_h) consists of the same elements as does the act of our organism intaking this environmental object $\mathbf{x} \in \mathbf{A}$ such that there exists no deficit of physiological parameter \mathbf{A} , and that (at time \mathbf{t}_i) the outcome for our organism consists of the same elements as does the proposition that “If (at any time \mathbf{t}_p) our organism approaches an environmental object $\mathbf{x} \in \mathbf{A}$ and becomes excited (which constitutes a subset of his fundamental affirmations), then (at time \mathbf{t}_{p+1}) our organism’s ‘consciousness’ proves equivalent to the empty set”; and therefore, at time \mathbf{t}_j , our organism exists such that he interrupts his own fundamental affirmations (at time \mathbf{t}_j), which constitutes a subset of our organism’s bare survival but not a subset of our organism’s preservation-and-growth.

In other words, in sentences 157-168, we have sketched out a new set of contingencies, a special ‘social’ situation in which our organism must conclude that the operations of his Self (his fundamental affirmations) will NOT serve as reliable guides to behavior. This conclusion has a very curious structure:

- 1) A sequence such as that composed of all the terms in sentences 157-160 bearing time-indices \mathbf{t}_0 thru \mathbf{t}_5 , which we may conveniently abbreviate as $\mathbf{O}^{(0-5)}$, constitutes a subset of

the fundamental affirmations of our organism, or in other words,

$$O^{(0-5)} \subset {}^o(\neg Se^i \cup \neg Oe^i) \quad (169)$$

- 2) Moreover, we have already shown that an organism engages in the mode of affirmation iff we can characterize his state as **^oRe**, ‘the sense of relatedness-in-a-field’ (sentence 155).
- 3) But in this ‘social’ situation, in the presence of these unaltered attitudes of the parent-figure(s) and these primary confluences of our organism, the fundamental affirmations of our organism inevitably lead to an outcome which in no sense comprises a subset of his focal conditions, as we showed in sentence (163) above, the key point of which we summarize as:

$$(163) \quad {}^oOc^{11} \not\subset {}^oFC^1 \cup {}^oFC^{7''} = [Cs^{12} = \emptyset]$$

- 4) For the ‘consciousness’ to remain equivalent to the empty set, of course, stands as the defining mark of an intolerable emergency, and serves as a coenetic variable to elicit emergency-functions such as blotting-out and self-distracting (or in general, the (temporary) interrupting of his fundamental affirmations), with the focal condition of **^oSv**, bare survival. But in this chronic emergency situation on the level of ‘social’ relations, we have sketched out some important differences from the non-‘social’ emergency situations already considered:
- a) In non-‘social’ low-grade crisis-situations, the emergency would not prove chronic but would pass, after which our organism could relax his emergency-functions, undergo discharging, and then ‘breathe freely again’; (sentences 150-153) and
 - b) In non-‘social’ emergencies, our organism would not already have engaged himself in defining his standards and his ‘picture of himself’ by emulating the environmental object which precipitated the emergency (sentence 157); and finally
 - c) In non-‘social’ emergencies, our organism would not feel that his preservation-and-growth, or even his bare survival, remained dependent on the continuation of his association with that environmental object (sentence 157).

As a consequence of these differences, the handling of a ‘social’ emergency will differ drastically from that of the non-‘social’ emergencies already considered.

- 5) Thus in this novel situation, we find that our organism, having concluded that the operations of his self will NOT serve as reliable guides to behavior, enters a novel state, which we shall designate as **^o \overline{Re}** , **the sense of ‘isolation’**.
- 6) The set of expectations which underlies ‘unimpaired’ relations of our child-organism with his parent-figure(s) have undergone disconfirmation in this encounter ($Cs^{12} = \emptyset$); and in the act of engaging in emergency-functions, our organism has already tentatively modified his premises: he has ceased to approach the environment in his efforts to satisfy his dominant focal conditions, and now expends his energies in efforts to make the crisis

more manageable by blocking his own 'unimpaired' outgoing activities, thus in effect avoiding (seeking to annihilate) what he takes as the dangerous aspects of the environment and of his own Self (sentences 160-165). These altered activities imply new premises; and by the use of our logical calculus of behavior, we shall explore these new premises, make them explicit, and show some of their implications. This we can do by showing the immediate and later consequences of 'withdrawal of the self'.

- 7) The actions of our organism after time t_{12} led to an outcome at time t_{17} which did qualify as a subset of our organism's bare survival. This means that the new premises have undergone testing once without unequivocal disconfirmation.
- a) But since the state of emergency has not ended, or in other words, since our organism did not manage to undergo the discharge by means of which he could destroy (de-structure) the events which make up this outcome, taking in and recombining these elements so as to form a behavioral Gestalt (which would serve to convert a subset of his bare survival into a subset of his preservation-and-growth), the affect of our organism remains one of at least low-grade distress and desperation. In other words, strictly speaking, this test of the new premises remains inconclusive.
 - b) Moreover, sustained use of retroflexion soon becomes painful, as anyone can demonstrate for himself by forcefully clenching his fist and keeping it clenched for even three minutes by the clock. Likewise, sustained very shallow breathing for a matter of minutes (which produces decreased oxygen tension in the blood, resulting in the classical symptoms of anxiety) becomes first uncomfortable, then frightening, then intolerable. In general, sustained use of emergency-functions (withdrawal of the self) remains intrinsically painful. Thus, a chronic 'unfinished situation' involves both chronic frustration and chronic danger, and the affects of pain, distress and desperation which accompany these.
- 8) Moreover, in this situation, since our organism has satisfied no focal condition beyond $^{\circ}Sv$, bare survival, he has taken in no new material. He has not altered the deficit of genital touch-contact, and therefore proprioceptive 'awareness' of the genitals and the impulse to approach and to explore genitals-and-hand via touch and proprioception will soon recur.
- a) But we have shown our organism as expecting that his continued preservation-and-growth, or even his bare survival, depends on the continuation of his association with his parent-figure(s); and we have represented this expectation as a form of primary confluence, involving an identity-mapping which eliminates the operation of **G₄**, **G₅**, **Pe**, and **Ez** from his account of self-and-others; and furthermore, which eliminates the possibility of 'impaired' functioning from his account of self-and-others.
 - b) Since the mothering 'person' has expressed her disapproval of our organism's

genital explorations by means of the threat to discontinue her association with our organism, and since our organism lacks the psycho-logical tools with which to protect himself from these actions of his parent-figure(s), therefore if he should act upon this impulse, and thereby should allow his excitement to develop (in other words, if he should attempt to ‘complete’ this ‘unfinished situation’), that act would reinstate the felt threat to survival.

- c) And yet, as we have indicated, the genital ‘awareness’ and the impulse to explore do recur; but now our organism regards them as dangerous and they function as a source of pain, again eliciting ‘withdrawal of the self’ so as to prevent the catastrophic ‘completion’ of this ‘unfinished situation’. This construct corresponds to the notion of ‘reversal of affect’ (Perls, et al., 1951, pp. 431-2). Thus ‘withdrawal of the self’ as a technique for handling a recurring chronic emergency of this type stands as the notational equivalent of the previous verbally-defined notion of “self-paralyzing activities” (Hilgartner, 1963, p. 8)
- d) But the notion of “self-paralyzing activities”, as exemplified by ‘reversal of affect’, as we shall show below, implies that our organism has “turned against his own need” (cf. Perls, et al., 1951, pp. 360-362; also Hilgartner, 1963, pp. 10-11)

Although (strictly speaking) this test of the new premises remains inconclusive, the subset of Cs formed in this encounter does not stand equivalent to the empty set. And though we must regard the Gestalt formed under these circumstances as ‘impaired’, we can represent the deranged process of ‘assimilation’ of this encounter without modifying our formalism. In so doing, we take our argument one step further, and subsume the recurring nature of the chronic emergency situation. (Below, we will specify differences between the structure of the ‘impaired’ construct elaborated here and the structure of ‘unimpaired’ behavior.)⁸ We refer to the generalization formed here as a subset of the *dissociative Gestalt*, G_d :

$$\gamma(^0Cs^{18}) = [“Se^i : [{}^0Aw_p(Gn)^i \cup {}^0Ip_{(hd,gn)Ap_{t,p}}(Gn \cap Hd))^i : {}^0Ec^i] \subset {}^0[{}^0Se^i \cup {}^0Oe^i] \subset {}^0D \subset E, \\ \therefore [{}^0Aw_p(Gn)^i \cup {}^0Ip_{(hd,gn)Ap_{t,p}}(Gn \cap Hd))^i : {}^0Ec^i] \Rightarrow {}^0Wd^{i+1}”] \subset {}^0G_d \quad (170)$$

This sentence says that the mapping of Cs^{18} into the set of behavioral Gestalten consists of the same elements as does the proposition that the Self-component of ‘consciousness’ at any time t_i exists such that proprioceptive ‘awareness’ of the genitals or the impulse to approximate genitals and hand via touch and proprioception such that the organism shows excitement (at any time t_i), a subset of the fundamental affirmations of our organism, makes up a subset of the dangerous subset of the environment; and therefore if at any time t_i there exists proprioceptive ‘awareness’ of the genitals, or the impulse to approximate genitals and hand via touch and proprioception, with concurrent excitement, then the organism will engage in ‘withdrawal of the Self’; and this proposition comprises a special case (subset) of the dissociative Gestalt.

This expression shows our organism as having classified a portion of the operations of his

⁸ To review the mapping γ , see Hilgartner & Randolph 1969a, p.308, paragraph 4b and sentences (22) & (23).

own Self as dangerous; more than that, he classifies them not as parts of the organism, but rather as portions of the dangerous subset of the environment. Formally speaking, by means of this operation, our organism has set up an identity-mapping with which symbolically to replace elements of the $(\mathbf{O} \times \mathbf{E})$ field by elements of an alleged $(\mathbf{O} \times \mathbf{O})$ or $(\mathbf{E} \times \mathbf{E})$ ‘field’. In more humanly understandable terms, he has classified portions of his own Self as ‘alien’ to the rest of his Self.

In our discussion of the phenomena of multi-ordinality (Hilgartner & Randolph 1968a, pp. 317-18) (sentences 43-44), and in the discussion of Korzybski’s ‘theory of sanity’ and the operational basis for it (Hilgartner & Randolph 1969b, p. 363), we considered the ways that the recent past actions of our organism constitute a part of his here-now environmental situation; and we pointed out that

“... an organism which, like $\mathbf{G}_4 \cup \mathbf{Myth}_1$, learns how adequately to take into account his own role in the situations in which he finds himself, will be able to achieve his focal conditions in situations in which he otherwise could not do so.”

These manifestations of self-reflexiveness involved no solecism, for there we both represented and regarded the processes as composed of *ordered relations*, and these comprise proper elements of the $(\mathbf{O} \times \mathbf{E})$ field.

But here, after sufficient exposure to a situation of chronic emergency, not only has our organism classified a portion of the operations of his own Self as a dangerous part of the environment (and thus has posited an $(\mathbf{O} \times \mathbf{O})$ or an $(\mathbf{E} \times \mathbf{E})$ ‘field’) but he has done so *as if for all times*, thus eliminating *order* from his accounting. In other words, as we said above, at this point our organism, in a chronic low-grade emergency, has “turned against his own ‘need’”, which constitutes the crucial operation in the syndrome of ‘resignation’, \mathbf{Rs} . This amounts to representing his own Self as being split into two opposing factions (“safe” vs. “dangerous”); from this point on, we can regard our organism as “at war with himself.”

Our notational definition of ‘resignation’ constitutes an expression of the form, “A, and B (which comprises a subset of C), and D (which proves equivalent to E, which in turn comprises a subset of F); and therefore G, such that if B (which constitutes a special case of H), then J; and this whole proposition turns out equivalent to K.”

$$\begin{aligned}
 {}^0\mathbf{Rs}^i &= [{}^0\mathbf{CV}^h = [{}^0\mathbf{Df}(A) : \text{“Ic}_a\text{”}]^h \cap {}^0\mathbf{Aw}_v(x \in A)^{h+1} \cap {}^0\mathbf{Ip}(\mathbf{Ap}(x \in A))^{h+2} \cap {}^0\mathbf{Ec}^{h+2}, \\
 {}^0\mathbf{Ex}^h &= [{}^0\mathbf{Aw}_v(x \in A)^p \cup \mathbf{Ip}(\mathbf{Ap}(x \in A))^{p+1} \cup \mathbf{Ap}(x \in A)^{p+2} \cup {}^0\mathbf{Ec}^{p+2} \cup \\
 &\quad {}^0[\mathbf{It}(x \in A) : \text{“}\overline{\mathbf{Df}}(A)^{p+3}\text{”}] \subset {}^0\mathbf{D} \subset \mathbf{E}], \\
 {}^0\mathbf{FC}^h &= [{}^0\mathbf{Av}({}^0\mathbf{D} \subset \mathbf{E})] = [{}^0\overline{\mathbf{It}}(x \in A) : \text{“}\overline{\mathbf{Df}}(A)\text{”}] \subset {}^0\mathbf{Sv}; \\
 \therefore {}^0\mathbf{I}^i &: [[{}^0\mathbf{Aw}_v(x \in A)^h \cup {}^0\mathbf{Ip}(\mathbf{Ap}(x \in A))^{h+1} \cup {}^0\mathbf{Ap}(x \in A)^{h+2} \cup {}^0\mathbf{It}(x \in A)^{h+3} \cup {}^0\mathbf{Ec}^{h+3}] \subset \\
 &\quad {}^0(\neg \mathbf{Se} \cup \neg \mathbf{Oe}) \Rightarrow {}^0\mathbf{Wd}^i] = {}_{\mathbf{rs}}\mathbf{I}_E : \text{“}(\neg \mathbf{Se} \cup \neg \mathbf{Oe}) \Rightarrow {}^0\overline{\mathbf{Pr}}\text{”}, \\
 {}^0\mathbf{Sv} &\Leftrightarrow [{}^0\mathbf{Df}(A) : \text{“Ic}_a\text{”}] \cap [{}^0\overline{\mathbf{It}}(x \in A) : \text{“}\overline{\mathbf{Df}}(A)\text{”}]
 \end{aligned} \tag{171}$$

This sentence says that the operator ‘resignation’ (at any time \mathbf{t}_i) consists of the same

elements as does a lengthy formulation to the effect that (at time t_h) the coenetic variables for our organism consist of the same elements as do a deficit of a physiological parameter \mathbf{A} such that there exists a 'present experience' of activated states of interoceptors sensitive to \mathbf{A} (at time t_h), and a visual 'awareness' of an environmental object $\mathbf{x} \in \mathbf{A}$ (at time t_{h+1}), and the impulse to approach this environmental object $\mathbf{x} \in \mathbf{A}$ along with the organism's excitement (at time t_{h+2}); and that the expectations of our organism (at time t_h) consist of the same elements as does the proposition that (at any time t_p) a visual 'awareness' of an environmental object $\mathbf{x} \in \mathbf{A}$, or the impulse to approach $\mathbf{x} \in \mathbf{A}$ (at time t_{p+1}), or the act of approaching $\mathbf{x} \in \mathbf{A}$, or the organism's excitement (at time t_{p+2}), or the act of intaking $\mathbf{x} \in \mathbf{A}$ such that there remains no deficit of \mathbf{A} (at time t_{p+3}) constitute a subset of the dangerous-to-our-organism subset of the environment; and the focal condition for our organism (at time t_h) consists of the same elements as does the act of our organism avoiding the dangers, which stands equivalent to our organism not intaking $\mathbf{x} \in \mathbf{A}$, such that he does not relieve the deficit of \mathbf{A} , which comprises a subset of our organism's bare survival \mathbf{Sv} ; and therefore (at time t_i) our organism remains such that if (at time t_h) there exists a visual 'awareness' of $\mathbf{x} \in \mathbf{A}$, or the impulse to approach $\mathbf{x} \in \mathbf{A}$ (at time t_{h+1}), or the act of approaching $\mathbf{x} \in \mathbf{A}$, or the organism's excitement (at time t_{h+2}), or the act of intaking $\mathbf{x} \in \mathbf{A}$ (which, taken together, constitute a subset of our organism's fundamental affirmations), then (at time t_i) the organism engages in 'withdrawal of the Self'; and this entire formulation stands equivalent to an assumed identity-mapping on the environment, ${}_{rs}\mathbf{I}_E$, such that there exists the proposition, "The organism's fundamental affirmations imply the organism's not-preservation-and-growth, and moreover the organism will achieve the outcome of his own bare survival iff he maintains the intersection of a deficit of physiological parameter \mathbf{A} such that he maintains a 'present experience' of activated states of interoceptors sensitive to \mathbf{A} and the not-intaking of $\mathbf{x} \in \mathbf{A}$ such that the deficit of \mathbf{A} does not get relieved."

At this point in our argument, we have shown that the combination of chronic emergency with an affect of desperation, and chronic sustained use of emergency-functions with attendant intrinsic pain as a technique for handling chronic emergency, constitute mutually-reinforcing conditions which make ${}^0\mathbf{Sv}$, bare survival, appear as the highest 'goal' our organism can hope to attain, and which make ${}^0\mathbf{Wd}$, 'withdrawal of the self', appear as a necessary condition for our organism to achieve his own bare survival.

As long as the chronic emergency does in fact continue to exist, or as long as he *believes* it still exists (whether or not it does), our organism has no readily available procedure by which he can disconfirm the assumptions which underlie these maneuvers. Thus at this point we have given a notational formulation which corresponds to the previous verbally-defined notion of "self-paralyzing, self-defending assumptions" (Hilgartner, 1963).

In the cited document, I pointed out that "self-paralyzing, self-defending" assumptions must include assumed logical constructs (here called identity-mappings) which serve to eliminate from our organism's accounting at least one crucial variable concerning our 'resigned' organism, and at least one crucial variable concerning his immediate environment; therefore these assumptions

involve at least one solecism, and thus by logical criteria remain demonstrably untenable. We shall now proceed to make explicit these assumptions, and to show in just what sense we regard them as untenable. This we can do by giving an explicit notational definition of the ‘dissociative Gestalt’, and then by examining that construct in the light of our formulations concerning \dashv , affirmation.

The dissociative Gestalt comprises the conclusion that our organism cannot, by means of his fundamental affirmations, achieve the focal condition of his own preservation-and-growth, and that he will continue to achieve the focal condition of his own bare survival if and only if he maintains a stable state of self-paralysis, viz., if he manages in each encounter to interrupt his own fundamental affirmations:

$$G_d = \text{“}^{\circ}(\dashv Se^i \cup \dashv Oe^i) \Rightarrow ^{\circ} \overline{Pr} \text{ , } ^{\circ}Sv^j \Leftrightarrow ^{\circ}Tr[^{\circ}(\dashv Se^i \cup \dashv Oe^i)]\text{”} \quad (172)$$

G. The Structure of Affirmation and of the Dissociative Gestalt

We originally introduced the operator \dashv , affirmation, in order to make explicit the “major revision of our theories of the structure of human psycho-dynamics” (Hilgartner & Randolph, 1969b, p. 373) produced as a result of encounters with one of the Ames demonstrations, the trapezoidal window display, W_T . We defined \dashv (ibid., pp. 361 and 365) as the process of making the inference that the organism’s ‘awareness’ at a given moment t_i tells not only about the state of the organism, but also about the state of ‘environmental conditions’, viz., that the ‘awareness’ resulted from contact with something ‘real’. In particular, $^{\circ}\dashv^i$ constitutes the process of taking the relation $U(Se^i) = Oe^i$ as representing not only a tautology concerning the state of the organism, but also, the process of taking the Gestalt $Oe^i : x_{cs}/(E-x) \mid x_{cs} = (y^i)_{cs}$ as equivalent to a composition-mapping from E into the second Cq correspondence of Cs , viz., $Cq_2\beta\alpha pf(y^i)$.

Then, by contrast to sentences (82) and (103), which deal with the topic of an emergency situation in which our organism judges it necessary to **interrupt** his own ongoing activities so as to turn and deal with the emergency, we pointed out that

the effort to ‘complete’ a situation constitutes a mode of using the motor and secretory apparatus, which we have thus far indicated by the operator \dashv ; and this too is detectable by the organism, by proprioception. This operator indicates a set of specific, observable, proprioceptable phenomena, which form an intrinsic part of every experience, and which give an autonomous criterion of the degree of ‘completeness’ of the subset of Cs involved. (Hilgartner & Randolph, 1969b, p. 366)

Explicitly stated, the operator $^{\circ}\dashv^i$, paraphrased as the effort to ‘complete’ a situation, proves equivalent to a simple conditional proposition:

$$^{\circ}\dashv^i = ^{\circ}[[\text{“}(O \times E)^p : ^{\circ}CV^p \cap ^{\circ}Or^q \cap ^{\circ}Aw^q \cap ^{\circ}(At \cap In)^q \cap ^{\circ}Ec^q \cap ^{\circ}M^q \Rightarrow [^{\circ}Oe^s \subset ^{\circ}FC] \subset ^{\circ}Pr^s \text{”}]^i = ^{\circ}Tr(O \times E)^i \subset ^{\circ}Cs^i(^{\circ}Cs^{i+1}) \subset ^{\circ}Cs \quad (173)$$

Sentence (173) asserts that the operator $^{\circ}\dashv^i$, our organism’s ‘affirmation’ at any instant t_i ,

consists of the same elements as does the organism’s proposition (at any instant t_i) that “The ($O \times E$) field exists such that if at any instant t_p , coenetic variables operate, and at subsequent instants t_q , the organism orients himself and forms an ‘awareness’ and attends and shows ‘interest’ and becomes excited and (at subsequent instants t_r) uses his motor operators, then the outcome for the organism at some subsequent moments t_s will comprise a subset of the organism’s initial focal conditions, which in turn will comprise a subset of the organism’s preservation-and-growth”; and this entire proposition, which stands equivalent to our organism’s trusting the ($O \times E$) field (at any instant t_i), comprises a subset of the organism’s ‘consciousness of his own consciousness’, which in turn comprises a subset of Cs .

Since ${}^0\downarrow^i \subset Cs$, we can resolve ${}^0\downarrow^i$ into its first or second Cp or Cq correspondences. As Perls, et al., point out,

“Both as an organism and as a personality one grows by assimilating new material. To compare the acquisition of habits, attitudes, beliefs, or ideals to the process of taking physical food into the organism strikes one at first as merely a crude analogy, but the more one examines the detailed sequence of each, the more one realizes their functional identity.” (Perls, et al. (1951, p. 189)

Thus in order to show these Cq correspondences, I shall indicate these aspects of the coenetic variables 0CV which refer to our organism’s ‘need’ (as previously) by the symbolism ${}^0[Df(A) : "Ic_a^*"]^i$, and shall indicate an outcome 0Oc which satisfies the ‘need’ by ${}^0[It(x \in A) : {}^0 \overline{Df} (A)]^i \subset {}^0FC$. Then:

$$\begin{aligned} Cq_1({}^0\downarrow^i) &= Se^i : "[{}^0[Df(A) : "Ic_a^*"]^p \Rightarrow [{}^0Or^q \cap {}^0(At(A) \cap In(A))^q \cap {}^0Ec^q], \\ &{}^0Aw(x \in A)^q \cap {}^0It(x \in A)^r \Rightarrow {}^0 \overline{Df} (A)^s \subset {}^0FC]^i" \\ Cq_2({}^0\downarrow^i) &= Oe^i : "[{}^0\downarrow \exists x^p \in A \subset E : Cp_2\alpha p f_v(x^p) = "y_v/(E - y) | y_v = (x^p \in A)_v", \\ &[{}^0[Df(A) : "Ic_a^*"]^p \Rightarrow {}^0It(x \in A)^r] \Rightarrow \\ &{}^0 \overline{Df} (A)^s \subset {}^0FC]^i" \end{aligned} \quad (174)$$

Sentence (174) asserts that the first Cq correspondence of the operator ${}^0\downarrow^i$, affirmation (at any time t_i), consists of the same elements as does a subset of the ‘self’-component of ‘consciousness’ (at time t_i) such that there exists the proposition (at time t_i), “if (at any time t_p) the organism shows a deficit of a physiological parameter A such that he develops a ‘present experience’ of activated states of interoceptors sensitive to deficit of A , then (at subsequent moments t_q) the organism will orient himself and will attend to and show ‘interest’ in matters related to physiological parameter A , and will become excited, and if (at some time t_q) the organism becomes ‘aware’ of an environmental object $x \in A$, and (at times t_r) intakes that environmental object, then (at times t_s) the organism will show a **not-deficit** of physiological parameter A , which comprises a subset of his focal conditions.”

Sentence (174) further asserts that the second Cq correspondence of the operator ${}^0\downarrow^i$, affirmation (at any time t_i), consists of the same elements as does a subset of the ‘other’-component of ‘consciousness’ (or a subset of the organism’s ‘consciousness’-Gestalt) (at time t_i)

such that there exists the proposition (at time t_i), “The organism affirms that there exists (at any time t_p) at least one element $x \in A \subset E$ such that the composition mapping from E into the visual second C_p correspondence consists of the same elements as does a visual image of $x \in A$ (at time t_p), and if (at time t_p) the organism shows a deficit of physiological parameter A such that he develops a ‘present experience’ of activated states of interoceptors sensitive to deficit of A (at time t_p), followed by the intaking of $x \in A$ (at some subsequent time t_r), then (at time t_s) the organism experiences a not-deficit of physiological parameter A , which comprises a subset of his focal conditions.”

Since this sentence asserts that our organism regards the environment as containing at least one element $x \in A \subset E$ visually detectable by the organism and capable of satisfying the organism’s ‘need’, we must conclude that here our organism has explicitly distinguished between the structure of environmental objects $x \in A$ (which in principle remains unknown to him) and the subsets of his Self, such as his ‘needs’ ${}^0[Df(A):{}^*Ic]{}^i$, or his own ‘pictures’ of environmental objects $C_{q_2}\beta\alpha pf(x^i) = Oe^i$; thus by no stretch of the imagination could this formulation remain indistinguishable from an identity-mapping on the environment. Therefore ‘affirmation’ explicitly assumes-and-implies the non-aristotelian premises:

$$C_{q_2}({}^0\lrcorner^i) + I_E(x^i) \not\subset \overline{L_M} \Leftrightarrow \text{Premises } 1 \cap 2 \cap 3 \cap 4 \cap 5 \quad (174a)$$

To summarize in words, the operator \lrcorner , ‘affirmation’ (which I might verbally translate as “I affirm that” or “I take a stand that” or “I commit myself that”), expresses that ‘picture’ of (set of expectations concerning) the ordered relations between organism and environment held by our organism during those moments when he bases his actions on the korzybskian premises: viz., when he acts as if **the satisfaction of his ‘needs’ remains possible.**

We first used the operator \lrcorner in sentences (100) and (102). We translated the conditional clause of sentence (102) into words as, “I recognize the existence of a subset of my Self, and affirm that there exists in the environment an object $y^i \in E$, which corresponds to this subset of my Self.” (Hilgartner & Randolph, 1969b, p. 365). Then, in order to facilitate the mutual translation between the notation, the words, and personal experience, we introduced a pair of operators to correspond to the two halves of the verbal sentence: For the verbal expression, “I affirm that there exists in the environment an object $y^i \in E$ which corresponds to this subset of my Self,” I substitute the symbolism $\lrcorner Oe^i$, where

$$\lrcorner Oe^i = [\lrcorner \exists(y^i \in E) : C_{q_2}\beta\alpha pf(y^i) = Oe^i : x_{cs}/(E-x) \mid x_{cs} = (y^i)_{cs}]^i$$

Likewise, for the verbal expression, “I recognize a subset of my Self (and affirm, etc.),” I substitute the symbolism $\lrcorner Se^i$, where

$$\lrcorner Se^i = [\lrcorner \exists(y^i \in E) : C_{q_1}\beta\alpha pf(y^i) = Se^i : U(Se^i) = Oe^i : x_{cs}/(E-x) \mid x_{cs} = (y^i)_{cs}]^i$$

By the postulate of Self-reflexiveness, the relations between these two expressions stands as

$$(102A) \quad \neg Oe^i \Leftrightarrow \neg Se^i,$$

where $Cq_1^{-1}(\neg Se^i) = Cq_2^{-1}(\neg Oe^i) = \neg Cs^i \subset Cs$.

We defined the union of these two relations, $(\neg Oe^i \cup \neg Se^i)$, as the ‘**fundamental affirmations**’ of our organism.

Consider this in the “larger context” of directly correlated activities: Since by sentences (17) or (20) we can resolve any subset of **Aw** or **Cs** into a ‘self’ component ($Cq_1(Cs) = Se$) and an ‘other’ component ($Cq_2(Cs) = Oe$); and since \neg designates ‘the effort to ‘complete’ a situation’: then we may regard the ‘fundamental affirmations’ ${}^0(\neg Oe^i \cup \neg Se^i)$ as our organism’s efforts to ‘complete’ his situation by the use of the ‘operations of the Self’, where $\neg Oe^i$ represents **his efforts to ‘complete’ his situation ‘externally’** (with relation to the environment), and $\neg Se^i$ represents **his efforts to ‘complete’ his situation ‘internally’** (with relation to himself).

Previously we showed (Hilgartner & Randolph, 1969a, p. 321) that (at least in the context of ‘unimpaired’ behavior) the ‘operations of the Self’ prove synonymous with the ‘structure of growth’. The above considerations indicate that the ‘fundamental affirmations’ (at least in the context of ‘unimpaired’ behavior) also prove synonymous with these two synonymous constructs.

Also, we showed the fundamental role of ‘excitement’ in the structure of growth (Hilgartner & Randolph, 1969a, p. 320):

In a situation in which the organism is vitally involved, in which its survival is in some way or other at risk, the organism is to some degree or other *excited*; and each alternative it faces promises to increase or decrease the excitement. Furthermore, its own state of excitement is apparent to the organism, by proprioception. And finally, each choice it makes which brings it nearer to the achievement of its focal condition serves to increase the level of excitement, up to the climax of the experience. Excitement, then, comprises a feedback-process without which directly correlated activities in principle could not achieve the focal condition, i.e.d. could not exist.

Finally, in the present paper (supra, pp. 34ff) we showed that \neg , affirmation (and therefore ${}^0(\neg Oe^i \cup \neg Se^i)$, the fundamental affirmations) depend upon the

“... unmistakable *faith*, the confidence that the operations of the Self will somehow serve as reliable guides to behavior, with the result that the organism will once more be able to achieve the focal condition of his own preservation-and-growth.” (Hilgartner & Randolph, 1969b, p. 362),

which we showed constitutes a state of the organism, and which we designate as ${}^0Re^i$, the sense of relatedness-in-a-field. We expressed this requirement in our notation by showing that our

organism engages in affirmation iff his state constitutes the sense of relatedness-in-a-field:

$$(155) \quad {}^{\circ}\downarrow^i \Leftrightarrow {}^{\circ}\text{Re}^i$$

To summarize, in this logical calculus of behavior which we claim shows similarity of structure to the non-verbal phenomena which we refer to as ‘the behavior-and-experience of human organisms’, we both regard and symbolize the ‘*operations of the self*’ (the ‘processes of growth’, also referred to as the ‘fundamental affirmations’ of our organism) *as non-aristotelian in structure*; and we understand the operator ${}^{\circ}\text{Re}^i$, the sense of relatedness-in-a-field, as **the state of our hypothetical organism when his ‘picture of himself’, Se, implies-and-assumes the non-aristotelian premises of Korzybski, so that his actions remain consistent with the non-verbal, phylogenetically-evolved requirements, the conservative “wisdom of the body”.**

In contrast, we showed in the present paper that in a chronic low-grade emergency, our organism elaborates the so-called ‘dissociative Gestalt’, Gt_d , which holds that the organism’s “fundamental affirmations will NOT serve as reliable guides to behavior” (supra, p. 68) (specifically, it holds that they will lead to ${}^{\circ}\overline{Pr}$, his not-preservation-and-growth); and that if he would attain even ${}^{\circ}\text{Sv}$, his own ‘bare survival’ (with attendant pain, distress, and desperation), which under these conditions seems “the highest ‘goal’ our organism can hope to attain” (supra, p. 68), then in every relevant situation he must interrupt his own fundamental affirmations.

In order correctly to interpret the dissociative Gestalt, we must recall the significance of ${}^{\circ}\overline{Pr}$ (Hilgartner & Randolph, 1969a, p. 311:

“When an organism finally *fails* to preserve itself, and its integrated set of directive correlations breaks down, then:

“**i**) its part-processes, no longer integrated together for the preservation of the organism, lead to the destruction of the fine-structure of the form;

“**ii**) its composition is such that it represents a rich local concentration of the raw materials from which living things can be constructed; and so its form is also destroyed by other living creatures, and its raw materials are utilized for the growth of these other creatures.”

Likewise, we must recall our rigorously-defined terminology of **emergency, frustration, danger**, etc. (Hilgartner & Randolph, 1969a, pp. 322-3; supra, pp. 5-8 and sentences (145) thru (147)) ${}^{\circ}\text{Sv}$ designates the focal condition of ‘bare survival’, such as the living through of an ‘intolerable’ emergency by means of

“... the behavioral responses described in the passage quoted from Perls, et al. (1951, pp. 261-2), viz., the subactive devices (panic “mindless” flight, shock, anesthesia, fainting, playing dead, blotting out a part, amnesia, etc.), which relate to danger, and the superactive devices (hallucination and dream, lively imagination, obsessive thought, brooding, motor restlessness, etc.), which relate to frustration....” (supra, p.6)

As we point out (supra, pp. 7-8),

“The operator **Sv**, bare survival, comprises a non-terminal stage of an encounter, a *partial* focal condition. In order to ‘complete’ a situation, an organism must (after the emergency has passed) perform further operations, which we discuss on pp. 18ff, in order to convert an outcome which comprises a subset of **Sv**, bare survival, into an outcome which qualifies as a subset of **Pr**, his own preservation-and-growth. If our organism does not do this or cannot do this, then the encounter remains what Perls, et al. (1951) refer to as an ‘unfinished situation’ (in our terminology, an ‘impaired’ subset of **Cs**).”

Thus it becomes apparent that, in direct contrast to ${}^0\downarrow^i$, **G_d** asserts that the ‘completion’ of our organism’s situation would lead to his total destruction, and that if our organism would attain even the uncomfortable outcome of his own bare survival, he must (in every relevant encounter) somehow succeed in interrupting his own efforts to ‘complete’ his situation.

G_d comprises a behavioral Gestalt,

$$(22) \quad \gamma(\cap Cs^i) = G_d \subset O;$$

thus in subsequent encounters it will function as an expectation,

$$(24) \quad \omega(G_d) = Ex^k$$

But we can resolve any expectation into its first and second **Cp** or **Cq** correspondences, the ‘self-component’ and the ‘other-component’. In interpreting the correspondences of **G_d**, we must remember that the proposition ${}^0(\downarrow Se \cup \downarrow Oe)^i \Rightarrow {}^0 \overline{Pr}^j$ stands as an abbreviation for a somewhat longer proposition:

$$[{}^0[Df(A) : \text{“}Ic_a \text{”}^*]^p \cap [{}^0Aw_v(x \in A)^{p+1} \cup {}^0Ip(Ap(x \in A)^{p+2} \cup {}^0Ap(x \in A)^{p+3} \cup {}^0It(x \in A)^{p+4})] \subset {}^0(\downarrow Se \cup \downarrow Oe)^{p+i} \Rightarrow {}^0 \overline{Pr}^q]$$

Further, we must remember that if there exists the intersection of the deficit term with one or more of the terms connected by union signs, then the organism will experience the affect of **Ec**, increasing excitement:

$${}^0[Df(A) : \text{“}Ic_a \text{”}^*]^p \cap {}^0Ap(x \in A)^{p+3} \Rightarrow {}^0Ec^{p+4}$$

So as his primary strategy for interrupting this fundamental affirmations, our organism will strive to block his own increasing excitement. Then

$$\begin{aligned} Cq_1(G_d^j) = Se^j : & \text{“} [{}^0[Df(A) : \text{“}Ic_a \text{”}^*]^p \cap P^*({}^0Ec^p)^p \subset {}^0(\downarrow Se \cup \downarrow Oe)^p] \Rightarrow [(O \times E)^p : {}^0D^p], \\ {}^0D^j \Rightarrow & [{}^0Av(D)^{j+1} = [{}^0Ir({}^0(\downarrow Se \cup \downarrow Oe)^j)^{j+1} : \\ & P^*({}^0[Df(A) : \text{“}Ic_a \text{”}^*]^j)^{j+2} \cap P^*({}^0Ir({}^0(\downarrow Se \cup \downarrow Oe)^j)^{j+2})] \text{”} \end{aligned}$$

$$\begin{aligned} Cq_2(G_d^j) = Oe^j : & \text{“} [{}^0[Df(A) : \text{“}Ic_a \text{”}^*]^p \cap P^*({}^0Ec^p)^p \subset {}^0(\downarrow Se \cup \downarrow Oe)^p] \Rightarrow [(O \times E)^p : {}^0D^p], \\ {}^0D^j \Rightarrow & [{}^0Av(D)^{j+1} = [{}^0Ir({}^0(\downarrow Se \cup \downarrow Oe)^j)^{j+1} : \\ & P^*({}^0[Df(A) : \text{“}Ic \text{”}^*]^j)^{j+2} \cap P^*({}^0Ir({}^0(\downarrow Se \cup \downarrow Oe)^j)^{j+2})] \text{”} \end{aligned} \quad (176)$$

Sentence (176) asserts that the first **Cq** correspondence of the operator **G_d^j**, the dissociative Gestalt (at any time **t_j**) consists of the same elements as does a subset of the ‘self’-component of

‘consciousness’ (at time t^j) such that there exists the proposition (at time t^j) such that there exists the proposition (at time t^j), “If (at any time t^p) the organism shows a deficit of a physiological parameter A such that he develops a ‘present experience’ of activated states of interoceptors sensitive to deficit of A , and propriocepts his own state of excitement (at time t^p), which (taken together) comprises a subset of his fundamental affirmations, then (at time t^p) the organism \times environment ($O \times E$) field exists such that the organism stands in danger of total destruction; and if (at time t^j) the organism stands in danger of total destruction, then (at time t^{j+1}) the organism will avoid the danger, which stands equivalent to interrupting his fundamental affirmations, such that (at time t^{j+2}) he will propriocept his own deficit (such that he shows a ‘present experience’ of activated states of interoceptors sensitive to deficit of A) and will also propriocept his own interrupting of his own fundamental affirmations (at time t^{j+2}).”

Sentence (176) further asserts that the second Cq correspondence of the operator G_d^j , the dissociative Gestalt (at time t^j) consists of the same elements as does a subset of the ‘other’-component of ‘consciousness’ (or a subset of the organism’s ‘consciousness’-Gestalt) (at time t^j) such that there exists a proposition (at time t^j) composed of the same elements as those which make up the proposition equivalent to the first Cq correspondence of this operator.

This result, that $Cq_1(G_d^j) = Cq_2(G_d^j)$, may at first seem astonishing. But when we recall that the notion of ‘danger’ refers to “an emergency in which the coenetic variables involve mainly the stimulation of exteroceptors (e.g. vision)” (supra, p. 5), viz., to a condition of the ($O \times E$) field such that there exists at least one environmental object X such that if our organism interacts with that X , then damage to the boundary will follow:

$$(147) \quad \begin{aligned} {}^oD^j &= [(O \times E)^j : {}^oO_c^j \supset [(O, X)^j = Dm(B)^{j+1}], \\ {}^oCV^i &= “S_v^*(X)^i”, {}^oFC^i = [{}^oAv(X)^j : {}^oPr^k] \end{aligned}$$

and further, when we take stock of the fact that the holding of G_d means that our organism has concluded that an intra-organismic condition, the intersection of a ‘need’ term (a subset of oCV) and a state of heightened excitement (a subset of oCs), implies that in the ($O \times E$) field at that moment our organism stands in danger of total destruction (or in other words, that our organism takes an intra-organismic condition as reliable evidence that there exists in the environment at that moment an environmental object which threatens totally to destroy the boundary); then we must conclude that our organism has failed to distinguish between the structure of environmental objects $y^j \in E$ and the subsets of his own Self. Therefore, G_d demonstrably implies-and-assumes the Aristotelian premises—as I shall now show.

In our previous statements of premises (viz., the non-aristotelian postulates of Korzybski (Hilgartner & Randolph, 1969a, pp. 295-7) and the “Laws of Thought” of Aristotle, which when stated in our notation of the interacting (organism \times environment) field become the postulates of Identity, Allness, and Linearity (Hilgartner & Randolph, 1969b, pp. 354-6)), we make use of several different sets of conventions. In order to complete the proof that G_d implies-and-assumes the Aristotelian premises, I must now reconcile these various sets of conventions.

In one lexicon, we let **Y** stand for the set of characteristics of the ‘territory’, the environmental object $y^i \in \mathbf{E}$; and we let $\beta\alpha\phi(y^i) = \mathbf{Z}$ stand for the set of characteristics of our organism’s ‘picture’ of $y^i \in \mathbf{E}$. Then the contrasting postulates of Non-identity and Identity become

Non-identity: No “thing” exists identical with any other “thing”; a ‘map’ does not consist of the same elements as does the ‘territory’ which it represents.

(Premise 1) $[y^1, y^2 \in \mathbf{E}, t_1 \neq t_2] \Rightarrow y^1 + y^2 \neq \emptyset,$

Or, alternatively stated:

(177)
$$\mathbf{Y} + \mathbf{Z} \neq \emptyset$$

Identity: (Aristotle does not explicitly distinguish ‘name’ (or ‘map’) from ‘thing named’ (or ‘territory’)).

(89)
$$\mathbf{Y} + \mathbf{Z} \subset \overline{L_M}$$

Stated in words, the postulate of Identity asserts that the symmetric difference between the set of characteristics of ‘territory’ (**Y**) and that of ‘map’ (**Z**) remains negligible (subliminal, so small as to escape detection).

In a slightly different lexicon, we defined a mapping from **Y** onto **Z** (as in Premise 2) or sentence (90)), viz.

(90)
$$Q \subset Y, \rho(Q) = \{z \in Z \mid \exists y \in Q, z = \rho(y)\},$$

in terms of which we defined two difference relations, $\mathbf{Y} - \rho^{-1}(\mathbf{Z})$ and $\mathbf{Z} - \rho(Q)$. Then the contrasting postulates of Non-allness and Allness became

Non-Allness: No ‘map’ can show ALL the characteristics of the ‘territory’ which it represents; no ‘map’ remains free of elements extrinsic to the ‘territory’ which it represents.

(Premise 3)
$$\mathbf{Y} - \rho^{-1}(\mathbf{Z}) \neq \emptyset$$

(Premise 4)
$$\mathbf{Z} - \rho(Q) \neq \emptyset$$

[INSERT 1?]

Allness: (Since Aristotle did not explicitly distinguish between ‘name’ (or ‘map’) and ‘thing named’ (or ‘territory’), he also failed to take into account the concurrent and related problems of the ‘incompleteness’ of ‘maps’ and of the inclusion in ‘maps’ of elements extrinsic to the ‘territory’.)

(91)
$$\mathbf{Y} - [\rho^{-1}(\mathbf{Z})] \subset \overline{L_M} ,$$

(92)
$$[\mathbf{Z} - \rho(Q)] \subset \overline{L_M} .$$

We used a third lexicon in stating the postulate of Self-reflexiveness, and yet another in

stating the contrasting postulate of Linearity. Possibly, this difference of notation serves to conceal or at least obscure the contrast between these two directly contradictory postulates; thus I shall proceed to make this contrast explicit.

Originally, we stated the postulate of Self-reflexiveness in terms of awareness, Aw (sentences (16) through (18)):

Self-reflexiveness: No action or utterance of any organism (or exists) free of self-reference.

(Premise 5) $“x_i/(E-x)” \Leftrightarrow “Sf_i”$.

Stated in words, the postulate of Self-reflexiveness asserts, “Gestalt (indicated as a focal figure (environmental ‘object’ x, via sensory modality i)) against a background (remainder, *environment*, E minus that x)”, [exteroceptive indicated by enclosing the phrase in double-quotation marks], if and only if subsidiary ‘awareness’ of the intra-organismic processes by which our organism puts together his Gestalt [interoceptive indicated by enclosing the phrase in reversed double-quotation marks].” (Here the term ‘Gestalt’ refers to a structure composed of a *figure of focal interest* to our organism (in sensory modality *i*) bounded by a *ground* or *context* more or less empty of interest.)

Now, using the relations involving Cs given in sentence (20), I can reconcile the sets of conventions displayed so far.

(20) $Cs = Se \times Oe$
 $Cq_1(Cs) = Se, Cq_2(Cs) = Oe$
 $U(Se) = Oe$

$$\begin{aligned} Z \subset Cs, \quad Cq_1(Z) = Se = [Z - \rho(Q)], \\ Cq_2(Z) = Oe = [\rho(Q)] \end{aligned} \tag{178}$$

If we paraphrase in terms of Cs, the postulate of Self-reflexiveness becomes:

$$\text{Self-Reflexiveness:} \quad Oe \Leftrightarrow Se, \tag{179}$$

or paraphrasing in terms of the mapping (ρ),

$$\text{Self-Reflexiveness} \quad [\rho(Q)] \Leftrightarrow [Z - \rho(Q)] \tag{180}$$

From these formulations emerge some implications which illuminate the contrast between Aristotelian and non-aristotelian premises. For example, in terms of our mapping (ρ),

$$\rho^{-1}(Z) = Q \subset Y \tag{181}$$

According to the postulate of Allness,

$$(91) \quad Y - [\rho^{-1}(Z)] \subset \overline{L_M},$$

from which it follows that

$$(93) \quad Q + Y \subset \overline{L_M}$$

or, stated in words, the symmetric difference between the (sub-)set of characteristics of the ‘territory’ which our organism can in principle detect by means of his unaided sensory receptors (Q) and the entire set of characteristics of the ‘territory’ (Y) remains negligible (subliminal).

Also, from sentence (178), $Cq_2(\mathbf{Z}) = \mathbf{Oe} = [\rho(\mathbf{Q})]$. But according to the postulate of Allness,

$$(92) \quad [Z - [\rho(\mathbf{Q})]] \subset \overline{L_M} \quad ,$$

from which it follows that

$$(92a) \quad Z + \mathbf{Oe} \subset \overline{L_M} \quad .$$

Thus, stated in terms of symmetric differences, the postulate of Allness becomes

$$(93) \quad Q + Y \subset \overline{L_M} \quad ,$$

But if sentences (92a) and (93) hold, viz. if the ‘territory’ includes practically no elements undetectable by the unaided sensory receptors of our organism and if our organism’s ‘picture’ of the ‘territory’ includes practically no extrinsic elements, then at the very least the relation between **Y** and **Z** approximates a 1-to-1 (and onto) function (cf. Hilgartner & Randolph, 1969a, Appendix 6, sentences (1), p. 335)

$$\rho^{-1}(\rho(y)) = y \text{ for each } y \in Y \quad (182)$$

Or, regarding $\rho^{-1} \circ \rho$ as a set,

$$\rho^{-1} \circ \rho = \{(y, y) \mid y \in Y\} \quad (183)$$

But a 1-to-1 (and onto) function implies an identity-function (identity-mapping),

$$[\mathbf{I_E} = \{(y, y) \mid y \in Y\} : \mathbf{I_E}(Y^i) = Y^i] \Rightarrow \rho^{-1} \circ \rho = \mathbf{I_E} \quad (184)$$

Then we could interpret an identity-mapping on the environment, $\mathbf{I_E}(\mathbf{Y})$, as specifying a “point-for-point perfect replica of” **Y**.

But if the postulate of Allness ((91) \cap (92)) held, so that ρ specified a 1-to-1 and onto function, which maps from a ‘territory’ practically devoid of “undetectable” elements into a ‘picture’ practically devoid of “extrinsic” elements, then in effect our organism’s ‘picture’ of the ‘territory’ (**Z**) would prove indistinguishable from an identity-mapping on the environment:

$$Z + \mathbf{I_E}(\mathbf{Y}) \subset \overline{L_M} \quad (185)$$

In other words, the postulate of Allness implies-and-assumes the postulate of Identity:
(91) \cap (92) \Leftrightarrow (89).

Otherwise stated, according to the postulate of Allness, our organism’s ‘picture’ of the

‘territory’ constitutes a ‘point-for-point perfect replica of’ the ‘territory’—a very curious conclusion (or premise).

Furthermore, according to sentence (178),

$$[Z - \rho(Q)] = Se = Cq_1(Z).$$

But according to the postulate of Allness,

$$(92) \quad [Z - [\rho(Q)]] \subset \overline{L_M},$$

or, stated in words, the ‘self’-component of ‘consciousness’, **Se**, remains negligible (subliminal). This leads to another very curious conclusion: The operator **U** designates the *section* over **Se** (cf. sentences (2) and (20)), viz.,

$$U(se^i) = \{oe^i \mid (se, oe)^i \in Cs\} \quad (186)$$

Obviously, as defined, **U** comprises a relation rather than a 1-to-1 function, since **U(seⁱ)** designates a *set* of elements, **{oeⁱ}**. But if we grant the postulate of Allness, and thus of Identity, then we must regard **U** as a 1-to-1 and onto function, which implies an identity-mapping on the ‘other’-component of **Cs**:

$$U \circ U^{-1} = \{(oe, oe) \mid oe \in Oe\} = I_{Oe} \quad (187)$$

Then the section over **Se**, which we may interpret as the set of activities by which our organism puts together his Gestalt, becomes indistinguishable from an identity-mapping on **Oe**:

$$U(Se) + I_{Oe} \subset \overline{L_M} \quad (188)$$

We still need one more detail: We have already shown that, according to the postulate of Allness, the symmetric difference between **Z** and **Oe** remains negligible (sentence (92a)), and that **Z** itself proves indistinguishable from an identity-mapping on the environment (sentence (185)). Thus (granting the postulates of Identity and Allness) there remains no way to distinguish an identity-mapping on the environment from an identity-mapping on **Oe**:

$$[Y + Z \subset \overline{L_M}] \Leftrightarrow [I_E + I_{Oe} \subset \overline{L_M}] \quad (189)$$

As originally stated, the postulate of Self-Reflexiveness refers mainly to the structure of intra-organismic relations (Hilgartner & Randolph, 1969a, p. 297). But to mention ‘intra-organismic relations’ presumes first that we distinguish between ‘name’ and ‘thing named’. Thus we can see that this postulate states the dual requirement that we distinguish between ‘name’ and ‘thing named’, and that we distinguish between our organism’s Gestalt and the intra-organismic processes by which he puts together his Gestalt. Putting these requirements into notational form, I could paraphrase the postulate as

Self-reflexiveness:

$$\begin{aligned} Y + \beta\alpha pf(Y) &\neq \emptyset, \\ Se + U(Se) &\neq \emptyset \end{aligned} \quad (190)$$

which obviously implies-and-assumes Non-identity.

If, however, we admit the postulate of Identity, then we transform our account of the structure of the transactions of an organism-as-a-whole-with-his-environment-at-a-date in such a way that

a) our organism’s ‘name’ or ‘map’ or ‘gross perception’ constitutes a “point-for-point perfect replica of” the ‘thing-named’ or the ‘territory’ or the ‘thing perceived’, and

b) the activities by which our organism puts together his Gestalt constitute a “point-for-point perfect replica of” his Gestalt.

Then the postulate of Linearity becomes

$$(96) \quad Y + Z \subset \overline{L_M} \Leftrightarrow \beta\alpha pf(Y) + I_E(Y) \subset \overline{L_M}$$

$$(97) \quad \Leftrightarrow U(\text{Se}) + I_E(Y) \subset \overline{L_M}$$

Thus this reconciliation of notation makes apparent the direct contrast between the postulates of Self-reflexiveness and of Linearity.

It also serves to make immediately apparent the significance of the finding that $\mathbf{Cq_1(G_d)} = \mathbf{Cq_2(G_d)}$. For, granting non-aristotelian premises, this finding expresses a solecism, which contradicts the postulate of Self-reflexiveness. But if, in accordance with the postulate of Allness, we regard \mathbf{U} as a 1-to-1 and onto function, this implies also an identity-mapping on the ‘self’-component of \mathbf{Cs} :

$$U^{-1} \circ U = \{(se, se) | se \in \text{Se}\} = I_{\text{Se}} \quad (191)$$

And by reasoning similar to that set forth in sentence (189), if we grant the postulates of Identity and Allness, then there remains no way to distinguish an identity-mapping on the environment from an identity-mapping on \mathbf{Se} :

$$[Y + Z \subset \overline{L_M}] \Leftrightarrow [I_E + I_{\text{Se}} \subset \overline{L_M}] \quad (192)$$

Thus

$$\begin{aligned} [\mathbf{Cq_1(G_d)} = \mathbf{Cq_2(G_d)}] &\Leftrightarrow [\text{Se} + \text{Oe} \subset \overline{L_M}], \\ [\text{Se} + \text{Oe} \subset \overline{L_M}] &\Leftrightarrow [U(\text{Se}) + I_{\text{Oe}} \subset \overline{L_M}] \cap [U^{-1}(\text{Oe}) + I_{\text{Se}} \subset \overline{L_M}] \\ &\Leftrightarrow [I_E + I_{\text{Oe}} \subset \overline{L_M}] \cap [I_E + I_{\text{Se}} \subset \overline{L_M}] \\ &\Leftrightarrow Y + Z \subset \overline{L_M} \\ &\Leftrightarrow (\text{O} \times \text{E}) + (\text{X} \times \text{X}) \subset \overline{L_M} \\ \therefore \mathbf{G_d} &\Leftrightarrow \text{Identity, Allness \& Linearity} \end{aligned} \quad (193)$$

Furthermore, in the present paper we showed that in a chronic low-grade emergency, our organism, having concluded that the operations of his Self will NOT serve as reliable guides to behavior, enters a novel state, designated ${}^0 \overline{Re}^i$, the sense of ‘isolation’. In the previous sections (supra, presenting sentences 163 through 173), we showed that when we can characterize his state as

° \overline{Re}^i , our organism comes to act on $G_t a$ as his expectation, viz., that his fundamental affirmations will lead only to his total destruction, and that if he would attain even the uncomfortable outcome of his own bare survival, then he must somehow manage to interrupt his own fundamental affirmations.

$$\begin{aligned} & G_d^i \Leftrightarrow \text{° } \overline{Re}^i, \\ \text{° } \overline{Re}^i & \Leftrightarrow \text{Identity, Allness \& Linearity.} \end{aligned} \tag{194}$$

To summarize, then, we may understand the operator $\text{° } \overline{Re}^i$, the sense of ‘isolation’, as **the state of our organism when his ‘picture of himself’, Se, implies-and-assumes the Aristotelian premises, so that his actions contradict, and thus produce continual conflict with, the conservative “wisdom of the body.”**

Thus in the phrase “ ‘impaired’ behavior”, the term ‘impaired’ refers to a disorder of the organism’s *growing*—we might also say *acculturating*—within a culture which relies upon aristotelian assumptions.

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Name for “Doings” or “Happenings”	Symbols	Negated symbols
Affirming	⊥	
Associating (Self with some Other)	As	\overline{As}
Continuing the associating (of Self with some Other)	So	\overline{So}
Attending	At	\overline{At}
Breathing	Br	\overline{Br}
Clinging	Cl	\overline{Cl}
Crying	Cr	\overline{Cr}
Danger	D	\overline{D}
Deficit	Df	\overline{Df}
Discharging	Dc	\overline{Dc}
Disapproving	Dp	\overline{Dp}
Genitals	Gn	\overline{Gn}
Intaking	It	\overline{It}
Mothering 'person'	Mo	\overline{Mo}
Motor operators ('moving so as to locomote')	M _L	$\overline{M_L}$
Not-deficit of A		$\overline{Df(A)}$
Preservation-and-growth	Pr	\overline{Pr}
Sense of relatedness-in-a-field	Re	
Sense of 'isolation'		\overline{Re}
Tantrum	Tt	\overline{Tt}
Threshold for habituating	L _H	$\overline{L_H}$
Threshold for magnitude-and-duration	L _M	$\overline{L_M}$
Urgency	Ur	\overline{Ur}
Water	H ₂ O	$\overline{H_2O}$
Abstraction	Z	\overline{Z}

Copy of APPENDIX 2 from H & R 1, pp. 337-8 [needs proofing]

Glossary of Abbreviations

Af	affect
Ap	approach
At	attending
Au	autonomic discharge
Av	avoid
Aw	awareness
B	boundary
Br	breathing
C	central nervous system
Cp	correspondence
Cq	correspondence
Cs	consciousness
CV	coenetic variable
D	danger
DC	directive correlation
Df	deficit
E	environment
Ec	excitement
e _F	forgotten factor
Em	emergency
Ep	present experience
Ex	expectation
F	field
FC	focal condition
A	frustration
Ft	fainting
G	Gestalt
H (as in L _H)	habituation
Ha	hallucinating
I	identity-mapping
Ic	interoceptors
Ig	integument
In	interest
It	intake
L	threshold (limen)
L (as in M _L)	locomotion
M	motor apparatus
M (as in L _M)	magnitude-and-duration
N	novelty
O	organism
Or	orientation
Os	osmolarity
P	proprioceptors
p	probability
Pj	projection
Pr	preservation-and-growth

R	record
Rf	retroflexion
S	sensory receptors
Se	self
Sf	self
Sk	seek
Sp	surprise
St	stimulus
U	section over Cs
Ur	urgency
V	section over .-Aw,
W	section over F
Z	