

Double Helix

Master of Philosophy Working Papers

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Forward

These papers were the basis for my being allowed to transfer from Master of Philosophy (M.Phil.) to Ph.D. program at London School of Economics, University of London, circa 1974. In effect these papers were the informal equivalent of a masters thesis as they allowed me to transfer into the Ph.D. program. These papers were presented to my advisor David Martin of the Philosophy department. After that I went on to write a dissertation titled, The Structure of Theoretical Systems in relation to Emergence, and receive the Ph.D. in 1982. Subsequently I wrote Wild Software Meta-systems, Fragmentation of Beng and the Path beyond the Void, Reflexive Autopoietic Systems Theory and other works. See http://works.bepress.com/kent_palmer and also scribd.com.

Diagrams may be viewed in the PDF of the original. Footnotes except for those in section one lost. Because subsequent section footnotes were lost I did not correct the placement of these footnotes. See PDF of original for footnotes. Minor changes as corrections or for clarity have been made. Because the OCR

process is erratic some errors may have been introduced. Check the original if in doubt. This version has been created so that it can be indexed by search engines.

Many of the themes of philosophy and systems theory endeavors are evident in this early document. During the Ph.D research I wrote a thousand pages of working papers during approximately the sixth year of my research. The Guide which is a summary to these working papers is available. The actual working papers are not available at this time.

At the time of writing these papers which was the very beginning of my research I was hoping to pursue the development of a Sociology of Creativity. Notice this terminology is used in this paper at one point which is italicized. But when it was discovered that there was not much sociological literature in that vein, the subject switched to the Philosophy of Science which was popular at L.S.E. and became a Sociology of Emergence based on that idea from G.H. Mead in the Philosophy of the Present.

Section 1

This is really a series of improvisations, the first of which takes as its task the formal derivation of a questionable flash of inspiration. The flash in question descended upon me around Christmas 1973 as I was engaged in writing my two MSc papers. (1) It entailed a specific configuration in which parts of the respective theories of G. H. Mead, A. Schutz and M. Heidegger might be stacked upon one another to form a single interlocking theory. Ever since then I have been engrossed in attempting to understand the significance of the interconnections of these theories for the theories themselves, and to understand the structure and the interconnections. This section will concentrate upon the elucidation of the structure itself and the next will discuss the implications of the structure for the theories it originally embraced. Tentatively I might call the object of discourse here the M.S.H, triune series. It basically involves stacking the major

elements of G.H. Mead's "primitive situation", (2) Schutz's "theory of relevance", (3) and Heidegger's threesome –Verstehen, Rede, Befindlichkeit – (4) on top of each other, and attempting to understand them in terms of descriptions from different logical levels of the same basic phenomena. In this paper I won't attempt to defend my arbitrary linking of the theories of these three gentlemen, but primarily I will be attempting to understand the formal generation of the triune series, which emerged from this arbitrary linking as such. As a means of approach to the definition and explanation of the triune series we will first have to dispense with the problem of how it is possible to generate a genuinely unitary triad from a threefold categorical system.

Wilden (5) presents us with a good starting point when he relates C.S. Peirce's categories to those of J. Lacan. This comparison, may be amplified by adding the consideration of a similar categorical system propounded by F. de Saussure, (6) J. Monod, (7) and P. Munz. (8) It will be seen that by folding these successive attempts to develop the same basic theoretical perspective over on top of one another, that what emerges is a highly powerful theoretical tool.

C.S. Peirce's categories of Firstness, Secondness, the Thirdness are developed in such a way as to make clear the path we want to follow. That is he develops these categories not only as an epistemology but also as a semiotic. This corresponds closely with the distinction set as a problem in paragraph one above, because Peirce sees the three elements involved not only in categorical relation to one another but also in a unitary relation. Unfortunately, Peirce doesn't specify how he was able to make, logically, this critical transition. Briefly, (9) Firstness is pure sensation who's appearance to the "lonely phenomenological pragmatist" (10) cannot be determined with any specificity and only exists as a probability or feeling. Secondness is a fact which is evidenced in the struggle for existence between two points (firsts) of given data. Thirdness is a mediation between what is

First and what is Second (or last), and is known as a law or relation. We might represent the relationships between these three categories in the following manner.

FIGURE 1

We may look at the categories in terms of the order of their logical presentation (order of complexity where the simplest is presented first), or in terms of their interrelation where thirdness being a mediation is necessarily seen as poised between First and Second. However, either way what we are in essence describing is pictured most fully in Figure 1. Originally there are only a myriad of related points. From this emerges important oppositions between specific points and through the working out of these oppositions the points define themselves in terms of one another. Finally we look for the origin of these oppositions and find at their core an essential mediation, or link, or identity which is the underlying basis of any superficial opposition.

Peirce's categories, then, are primarily about the makeup of dichotomies. (11) Peirce is not satisfied with the description of dichotomies and wants to stretch his categories to describe trichotomies as well. To do this, what is essentially needed is a reification of the concept of thirdness forgetting it is a mere relationship and treating it as a thing of some sort. Peirce most obviously does exactly that in his semiotic theory. Signs (representamen) are in this theory seen as mediators between Mind and Matter or more specifically between thoughts (meaning) (interpretant) and objects in the world. However, since signs are objects too, we might also see the interpretant (thought) as mediating between two objects. Either way Thirdness is no longer merely a relationship but has been reified (12) into a thing by its identification with the mind. It is now a specific thought.

[Note: Thirdness represents continuity.]

FIGURE 2

On the whole this semiotic is better than Saussure's inasmuch as it allows one to make the distinction between, a sign and the object which that sign indicates in the world. The simple dualism of Saussure's "signifier/signified is adequate for describing language as a system, unrelated to any world, but it cannot handle the fact that words and meanings do in fact refer to events which occur outside language itself. Now, what is important to us here is the fact that Peirce comes up with a mediated triangular relationship in which a shift is indicated distinguishing the generation of the triad from its second order (or hybrid) mediation. (13) This is a point upon which this paper will dwell. Mediated triangular relationships, it will be discovered, possess an unexpected theoretical importance and the difference between the two types of mediation pictured in Figure 2 is crucial. Unfortunately Peirce, though he used these two forms of mediation as a descriptive tool in the application of triads to philosophical and linguistic problems, was more interested in classification and categorization than in indicating in any precise way the derivation of the tools which he used for that purpose. Thus we are left to discern for ourselves how he was able to transform his three category description of dichotomies into a system of mediated triads.

The usefulness he saw in categorization for its own sake is beyond my comprehension. What possible use could a classification system for signs with 59,049 divisions be to anyone. (14) The horrendous job of defining just what fits into each of those categories was too much for Peirce himself. (15) The real import of Peirce's semiotic then is not the categories he generates themselves, but the method of generation. We must understand precisely what he means in saying, "If you take any ordinary triadic relation, you will always find a mental element in it", (16) We are concerned with precisely where this mental element comes from and what it is. Peirce's semiotic is undermined by an underlying mind/body dichotomy which forms

the implicit foundation of his philosophical perspective. These two problems must be rigorously separated from one another. Peirce saw by means of their confusion a justification of the mind/body dualism in the fact that triadic relations have a mental element. This mental element, which is the necessary by-product of every triadic relation might better be called meaning perhaps. In another context Peirce says bluntly, ". . . every genuine triadic relation involves meaning, as (conversely) meaning is obviously a triadic relation." (17)

Wilden draws a simple comparison between Peirce's system and J. Lacan's structuralist psychoanalytic categories of the Real, the Symbolic, and the Imaginary. The Real, "contains everything which is real to the individual, not only in his perceptions of the world but also in his internal thoughts and emotions as they are experienced. It is a subjective and collective reality, which may or may not correspond to 'common sense' . . . (objective) reality. Elements of the Real are distinguishable by differences . . . everything which is Real, but not real (existent) is either symbolic or Imaginary." (18) "The Symbolic . . . is born out of an exchange between subjects. It is the set of elements which are given a meaning which goes beyond the physical nature of the object, gesture or word exchanged. They are given meaning by distinctive features which define them as units . . . and by the context within which the exchange occurs." (19) The Imaginary is the last category and it is the realm of, "pairs of mutually exclusive terms, that is, pairs of binary oppositions." (20) Simply the correspondence is as follows:

FIGURE 3

Notice, what is struggle and fact for Peirce is merely Imaginary strife for Lacan, and what on the other hand is merely feelings and probabilities for Peirce is the Real for Lacan, All the while both Peirce and Lacan's mediating categories are identical; that is without differing connotation. We can almost see Peirce and Lacan standing at opposite

points of view looking at the same basic set of categories attempting to destroy each other's illusions as to what is real and what isn't. What is uncertain for one is certain for the other and vice versa, but always the structure remains the same and for both the symbolic third is the unquestioned central pillar. Peirce and Lacan's mutually exclusive viewpoints on the same system is a theoretical opposition similar to that I've described before in relation to phenomenology with its solipsist and materialist (intersubjectivist) brands. (21) In this case the system upon which there are two mutually exclusive points of view is an explanation of why just that should be so. Thus Peirce and Lacan are taking up opposite positions in an Imaginary (Second) dualism. According to Wilden's information theory interpretation of Lacan this has come about because both have digitalized the system that Figure 3 refers to. They have transformed the general referential system into categories of First - Real, Second - Imaginary, and Third - Symbolic; and through that digitalization have caused an Imaginary (second) opposition to emerge. If, however, they had not each in their own way digitalized the system it would have remained just a system of exchange or mediation on the Symbolic (third) level. In that case it would have been impossible to describe the system in any meaningful way whatsoever. It is an essential truth that without Imaginary coordinate matrices it is impossible to describe any exchange system. On the other hand once one has brought into use Imaginary matrices one has moved outside the system one wants to describe and one is very likely to get lost in the Imaginary and lose sight of the Symbolic realm one originally intended to describe. (22) At any rate, since mediation is "what this paper is all about this opposition of viewpoints is an essential theme to be brought out. It is, of course, best not to get lost in imaginary or one-sided descriptions especially when describing mediation itself.

All in all, though, the Lacan formulation only allows us to rename Peirce's original categorization and beyond that only to escape the minor pitfall of Imaginary descriptions of

It, Lacan's categories don't really tell us anything further to help us understand the basic triadic relationship more fully. To help us here I suggest, another more fruitful comparison with F. de Saussure's distinction between Dichotomy and Synchrony. Saussure uses this distinction as a basic tool for understanding the development of language. For him it works chiefly to allow him to discount the causal properties of change in language. Above we have learned from Lacan to suspect any dichotomy of being Imaginary, Synchrony/Dichotomy is no different here and upon careful scrutiny this dichotomy reveals a structure very similar to the Peirce-Lacan trichotomous classification.

Saussure picks an arbitrary point in time and assumes that at that time a language as a whole is a unity in which each of its elements is defined exclusively by the arrangement of relationships between all elements in the system simultaneously with it. (23) Thus signs are diacritical and derive their meaning exclusively from their position in context - - - that is from the rest of the language system as used at that moment. He then defines change in language as merely a succession of these synchronic wholes. Change in language through time is totally fortuitous and occurs because of the completely arbitrary nature of the signifier/signified relationship. It occurs in three steps. First there is a functionally unitary Synchronic language. Then there occurs a change in one of its elements, because of the arbitrariness of the signifier/signified relation upon which language is based. Thirdly, the whole system, the language, must rearrange itself diacritically in relation to the one changed element. Then again one has a functionally unitary and systematic whole of Synchrony. We can see immediately that Saussure's description of change in three stages may be likened to the Peirce-Lacan trichotomy as follows:

FIGURE 4

Now, I believe that this comparison yields much more than the simple Peirce-Lacan

comparison of Wilden. (24) It does so by bringing the dimension of time into play which was totally absent in Peirce or Lacan. However, I must admit that it appears to me that time is taken into account only as a means of discounting it altogether. The synchronic/diachronic notion of language swallowing random change in successive gulps is merely a ruse to skirt a major problem with which Saussure's linguistic analysis cannot really cope. That problem is temporality. Merleau-Ponty tells us:

"If the objective world is incapable of sustaining time, (as we somehow feel it to be in Saussure's description) it is not because it is in some way too narrow, and that we need to add to it a bit of the future. Past and future exist only too unmistakably in the world, they exist in the present, and what being itself lacks in order to be part of the temporal order, is not being of elsewhere, formerly, and tomorrow. The objective world is too much of a plenum for there to be time. Past and future withdraw of their own accord from being and moreover in to subjectivity in search, not of some real support, but, on the contrary, of a possibility of not being which accords with their nature. If we separate the objective world from the finite perspectives which open upon it, and posit it in itself, we find everywhere in it only so many instances of 'now.' These instances of 'now,' moreover, not being present to anybody, have no temporal character and could not occur in sequence. The definition of time which is implicit in the comparisons undertaken by common sense, and which might be formulated as a :succession of instances of 'now' has not even the advantage of treating past and future as presents: it is inconsistent, since it destroys the very notion of 'now' and that of succession." (25)

This brings us right to the core of the matter. Saussure's synchronic 'nows' do not cope with time, they destroy it and we find in this destruction the very mechanism objectification. We may then look again at the Peirce-Lacan-Saussure trichotomy and see the means of objectification of the world. It

contains merely a system of devious distortions of an illusory nature by which we mask the world from ourselves. We can see that the Peirce-Lacan-Saussure trichotomy is merely another version of the circularly dialectical system described in my second MSc paper. In any such circularly dialectical system a world of absolute heterogeneity (Firstness) through struggle of oppositions (Secondness) is transformed into a world of unity (Thirdness) only to deteriorate again, It is this very dichotomy between the world viewed as unitary versus heterogeneous which is Imaginary. This is the same which generates the Empiricism versus Rationalism (Intellectualism) false debate upon which Merleau-Ponty is so outspoken. (26) Both of these objectifying points of view (27) are too extreme and the world, as the origin of all thought as it is lived, is poised between these two extremes. It is poised between these two extremes not as a synthesis, but as an origin of Ambiguity which is there prior to any extremes, which might be synthesized. (28)

If the Symbolic-Third is identified with pure unity on the one hand and the Real-First is the same as pure heterogeneity on the other then we are left with the Imaginary-Second as the mediator between these two extremes. <PAGE> The Imaginary is the category Lacan deprecates most. However, it is the very one which brings to our attention the absurd ambiguity of the mutually exclusive opposites or dichotomy. When we look again, though, we see that Lacan's system has gained some clarity from the comparison with Peirce and Saussure. Clearly, what is mediated by the ambiguous and Imaginary is a world of exchange versus a world without exchange a world of differences that make a difference versus a world of pure difference. Exchange versus no exchange is the same sort of Imaginary dichotomy as unity versus heterogeneous content. (29) It is always this sort of basic distinction which creates the Imaginary, by trying to make clear the ambiguous. The choice is always between A and not A. Think again — it is precisely this generation of the Imaginary which

distinguishes uniquely man and woman kinds speaking. It is precisely this, which we wish to study and understand. The primary question is how does the Imaginary emerge from the origin which is on the hither (29a) side of all thought or speech. The same mechanism that leads; theoreticians to assume Imaginary dichotomies as the premises of their theories must be the one on which speech itself is founded. Binary oppositions are the hallmark of culture as Levi-Strauss might say. However, the precise relationship between these oppositions, speech, and meaning is far from clear. (30)

Just as Lacan's system is more sophisticated than Peirce's, J. Monod's (31) thoughts are an improvement on Saussure's structure of change. Monod's system most simply put is a means for the conversion of chance into necessity. It is the ability to account for teleology which makes this paradigm so strong. It must be noted that this is the major failure of Saussure's model. Monod shows us that biological evolution is based upon two factors: <PAGE> invariant re-production and pure (unstructured) chance. These two factors combine to cause what appears to us a teleological or purposeful development in nature that seems to contravene the laws of physics (eg entropy). Note how much Invariance and Variance look like our old friends exchange/no exchange and unity/heterogeneity. (32)

How does Monod pull the teleological rabbit out of the hat of nature based upon variance/invariance? Easy! He uses a brand new idea of levels, that is, of unstructured chance, (33) and invariance. Put simply it goes something like this. The sequence of the polypeptide chain is random, but it is reproduced invariably to give us the building blocks of the cell -- proteins. (34) Proteins are produced invariably through the handy work of DNA which not only carries the instructions for making proteins but also can reproduce itself invariably. That is invariably except for inevitable random error (chance), which is, when it occurs, passed on or reproduced

invariably. Thus the initial system was a chance arrangement, which was reproduced over and over to produce order. Then whenever there is a mistake (35) in this invariant reproduction, if that mistake is caused by a deformation of the DNA, that mistake is reproduced over and over to produce a new and contrasting order. These chance changes in the DNA message occur in random individuals of a given species mutating them. These individuals who represent errors in coding, are then submitted to the rigid requirements of the ecology of the environment, and if their error is not detrimental to the organism-environment system, then the individual may be admitted through the Teleonomic filter into the overall system. If on the other hand the system of errata-environment is an improvement in the negative entropy (36) of the system than that individual way be selected to multiply and create a new and higher level of order in the environmental system In summary, what is detrimental to the existing order Is destroyed, what has neither positive or negative impact on the ecology is allowed to proliferate, that which boosts the integration or compactness of the ecological system as a whole Is picked out and actively fostered.

What this is then is a layering of chance and Invariance at three successively more encompassing levels to produce a system, which has a built-in teleology or purpose. Teleology or seeming purposefulness is created by the slight shifts toward higher order, which are accepted through the Teleonomic filter. These slight shifts indicate the re-orientation of the whole system diacritically. The new orientation gives greater specificity to the telenomic filter and makes its requirements for acceptance more rigorous. The total system acting as its own teleonomic filter selects from a controlled and delimited pool of random variance those specific variations which will cause the system to become more ordered. It does not simply accept Into its body any random change as Saussure's model does. The elements in the system are then only diacritically related to elements which have

passed through the teleonomic filter and then the range of diacritical relation is regulated by how close the given elements are to one another in terms of their logical types.

Now the way is prepared to show the correspondence between Monod's paradigm and those of Peirce, Lacan and Saussure.
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FIGURE 5

Structured chance through the struggle of variance and invariance yields purposeful necessity. The system moves continually toward an increasingly negentropic state. Monod's paradigm can easily be seen as a real improvement on our trichotomy. No longer does the system have to gulp totally arbitrary change down irrespective of where or what that change entails. Change is now controlled. Its appearance is structured (37) and influence is limited, besides the fact that the eco-system (38) picks and chooses from among its offerings just what building blocks will best fit into the gaps in the existing system. The next changes of the system are selected from a large pool of possible ones only a delimited number of which will be complimentary to the configuration of those previously chosen. Each successively neg-entropic change adds to the specificity of the next selection through the mechanism of the diacritical readjustment of the whole eco-system. In this, way there is produced what P. Munz (40) calls a typological <PAGE> series as the eco-system shows increasing differentiation through time.

Describing such a series in relation to mythological systems Munz summarizes by saying . . .

"If the bottom (natural event) and the top layer (meta-physic) are thus added to the series, we can learn something about its inherent meaning. We first of all watch the direction in which the first divergence from a report of a natural event to a myth takes place, Then we gauge, by following the stages of progressive

specification, the sense of direction. And finally, we can discover how the whole series is topped off not by a further story but by a conceptual summing up of the whole series. In such a series we call the earlier story a type of a later story; or we can say that an earlier, less specified story prefigured the additional bottom and the additional top layer into consideration, becomes a typological system." (41)

Whether such a typological system is useful in understanding myths may be doubtful but there is no doubt that it is an accurate description of the effect of a teleonomically filtered eco-system through time. The hypothetical natural event corresponds to the state of things just prior to the emergence of the eco-system at which time pure chance (unstructured) reigned supreme. The ". . . intersection of (any) two totally independent chains of events. . ." (42) may serve as keynote for the establishment of an eco-system and thus the take-off point for "deflection" (43) into a typological series. The series once founded gains specific direction as the eco-system becomes ware intricately ordered. Finally it can be seen that this 'direction' of the series points to a certain interpretation that seems to be the 'limit' of the series, For Munz this is a transition from myth into metaphysics, but for us the limit of the series is its more and more clearly emerging necessity. One thing must be made clear, however, which Munz does not. That is the transition from Natural event by deflection to typological series and by interpretation to <PAGE> metaphysic is not a movement of the series itself. The series is closed off from what we designate as its base and top. This is to say that there is a, difference in logical type separating the series itself from its designated end-points. The series itself has no real beginning or end-points, it merely stretches on out of an anonymous past into the same sort of future. (44)

FIGURE 6
FIGURE 7 (45)

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What is it which allows the Monod system to improve our idea of what the three categories are all about? It is obvious that Monod's system owes its vitality to the concept of different levels upon which the same duality (variance/invariance) plays itself out again and again. In this way it acts as a teleonomic filter to yield Munz's typological series as the ecosystem develops through time. What is important here is that in both lateral and vertical columns each stage upward or to the left is a commentary on those stages below or to the right. This is the theory of logical types. Briefly, the theory of logical types was developed by B. Russell to deal with a plethora of paradoxes which were plaguing the development of exact logic around the turn of the century.

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Briefly, the theory of logical types was developed by B. Russell (46) to deal with a plethora of paradoxes which were plaguing the development of exact logic around the turn of the century. It solved these problems but created others. In a theory of logical types it is . . .

“. . . necessary to distinguish (1) terms (individuals), (2) classes (of individuals), (3) classes of classes (of individuals), and so on ad infinitum we shall have to hold that no member of one set (type) is a member of any other set (type), and that $x \in u$ requires that x should be of a set (type) of a degree lower by one than the set (type) to which u belongs. Thus $x \in x$ will become a meaningless proposition; and in this way the contradiction is avoided (Russell, 1903, 517). This account of the Simple Theory of Types is phrased in terms of individuals and classes, and divides into two parts, The first part posits an infinite hierarchy of types: Type 0 consists of all individuals, Type 1 consists of all classes of individuals, and in general Type $m+1$ consists

of all classes of entities of Type m . The second part imposes a condition of significance on formulas of the patterns y : such a formula is significant if and only if the type of x is one lower than the type of y . It is clear that both parts are required to eliminate the Russell Paradox of the class of all classes that are not members of themselves. It should also be clear that all other paradoxes concerning classes are also eliminated." (47)

The obverse of the Russellian Theory of logical types is the distinction between object-language and meta-language. This distinction is . . .

". . . generalised to a hierarchy of levels of language: language, meta-language, meta-meta-language, and so on, most extensively developed by Tarski (1956, 152-278), it had its historical root in an idea suggested Russell (1922, 23) These difficulties suggest to my mind some such possibility as this: that every language had, as L. Wittgenstein says, a structure concerning which, in the language, nothing can be said, but that there may be another language dealing with the structure of the first language, and having itself a new structure, and that to this hierarchy of languages there may be no limit. An essential part of what we shall call the levels of language doctrine is that semantic predicates, such as 'true', 'false', 'designates', etc., for the terms and formulas of a given language L cannot consistently be defined or introduced into that language L itself, but can occur only in the meta-language for L .

"The Kneales have argued that this need to distinguish among languages of different levels can be derived from the Simple Theory of Types."

"They consider the sentence 'Designates' designates designates, which attempt to state what 'designates' designates. Here we have an obvious violation of the Simple Theory of Types, with a relation purporting to be, gone of its own relata (Kneale and Kneale, 1962, 665)." (48)

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"The Kneales' improper sentence can be expressed unobjectionably as "Des2 (Des Des1)" (49) in logical functional notation using subscripts to show the meta-level of each term. Each meta-level may be considered a commentary on the level which it is above. Thus the definition (Des1) of 'Designates' ('Des') is a statement about or commentary on the meaning of a first order term. (Des2) on the other hand is a connector which indicates a level of rules for transformations.

Transformational rules are obviously of a higher order than mere commentaries on first order terms. From G. Bateson's article, "The Logical Categories of Learning and Communication," (50) one may gather that terms of meta-level zero have no cognizance of themselves, terms of meta-level one are commentaries and imply the reflexivity that level zero lacks. Terms at meta-level two are rules, which govern the inter/intra relations of levels zero and one. Meta-level three gives the rules for changes in the rules at meta-level two, Meta-levels four and beyond are merely hypothetical, when describing ecosystems and information systems.

The theory of types and the theory of meta-language and the obverse or one another because they basically look at the same phenomena in opposite ways. We may say, "... the logical typing of the infrastructure is higher than that of the super structure. The higher the level of logical type, the lower the level of organization". (51) In this terminology the superstructure is a meta-statement on the infrastructure. Thus levels of logical typing run in the opposite direction (in terms of notation) from meta-levels. The higher the logical type the lower the meta-level and vice versa. However not only the letter but the spirit of the notation is the opposite as well. Higher logical levels are less organized and this means that fewer distinctions are made in organizing elements. But less organization must be distinguished from simplicity or elegance of

organizations. Very complex organizations may be organized in terms of simply stated structural principles. In fact as an organization becomes more intricate it is fundamentally necessary that the organizational principles be simpler and more compact. Thus, in moving from higher logical types to lower, the specificity of definition of the units in relation to one another increases. Meta-language conveys the identities, transformations and organizational principles, which control the complexities of the organization at lower logical levels.

Unfortunately, it is not all this simple. Through this simple comparison between meta-levels and logical types we have entered the frontiers of Symbolic Logic. Therefore, as a stopgap measure I will present an abbreviated account of a ramified theory of meta-language. It is obvious that in the preceding there is a contradictory usage of the idea of meta-statement. One usage attributes recursive specifying as an inverse of logical typing. The other usage suggests that meta-languages define object languages in terms of reflective identities, transformational rules and rules governing change of rules, I would suggest that this is a confusion, which is common in the literature outside logic on the subject. This confusion arises because definitions, which combine these two properties, are usually used as a take-off point for the definition of meta-levels, G. Bateson in "A Theory of Play and Fantasy" (52) confronts this problem head on and it causes him to make a distinction between meta-communicative statements and meta-linguistic ones. We shall use this distinction here to name our first and second usages respectively.

FIGURE 8

The first thing to notice is that types and meta-commutative levels work together to define the upper and lower limits of whatever systems is being type-cast. Meta-level zero sets the upper limit of generality and type-level zero sets the lower limit of specificity for the smallest element. Obviously one could go on delimiting

elements within elements forever and one might well always conceive of more and more general categories to place any finite system into. (53) So type-level zero and meta-level zero set the boundaries as to the inner and outer horizons of the system under consideration. Now both types and meta-levels are ramified but we shall leave aside the types and consider the ramifications of the meta-levels alone. Ramifications are the successive reduplication of sets of meta-levels into orders. Thus as <PAGE> meta-communicative levels of higher and higher specification range away from meta-level zero as if they were reflected in a double mirror, they are reduplicated in toto over and over again. Meta-level zero is a sort of pivot point and as such it seems not only as the origin of a meta-communicative series of meta-levels, but also for a meta-linguistic series of meta-levels. Without going into the interrelations between these series and their origin and to make a long story short as possible, let us say that meta-communicative meta-levels indicate increasing specificity wherein each level is a comment on the last one specified. The range of orders of its ramification re-presents all the different interrelated sets of referents with which any one meta-level may be further specified. On the other hand meta-linguistic orders of ramification indicate the many possible different identities, rules and rules of change which may be used to describe any one linguistic statement. The meta-linguistic meta-levels then indicate the different statuses of such terms used in linguistic description wherein identities, rules, and rules of change must each be logically separated from one another. Hopefully this cursory presentation will serve well enough for the present study,

And finally . . .

"The only points I wish to make here are (1) that the transcendence of any paradox or double bind in logic" or in life, involves some form of meta-communication, and (2) that the transcendence itself engenders paradox at the meta-communicative level or at the level of the next higher logical type. In other words,

Russell's "theory of logical types, Carnap's levels of language, and the double-bind theory of schizophrenia are all paradoxical in themselves. It is easy to see why. On the one hand all such theories correspond to the necessity of digitalizing analogue continuums by introducing discrete boundaries into the non-discrete. On the other, in logic and in language they involve the use of 'not.' Not itself is a meta-communicative boundary essential to the 'rule about identity' which is the sole sufficient and necessary condition of any digital logic. In other words, boundaries are the condition of distinguishing the elements of a continuum from the continuum itself. 'Not' is such a boundary. It is the question of boundaries between logical types that generates the limiting paradox of the Russellian theory, which . . . was designed to solve the antinomies involved in defining class membership, i.e., boundaries, . . . (There is an intrinsic) impossibility of, ultimately transcending paradox in human communication." (54) It is now possible to notice that the levels of logical typing express themselves in the very setting forth of Monod's three categories: Chance, Teleonomic Filter, and Necessity. The primary distinction variance/invariance is of a higher logical type than the more sophisticated categories of Chance and Necessity which derive from their layering. It is through this layering of variance/invariance that they become a teleonomic filter. Acting as a filter they give rise to the more stable categories: Pool of chance mutations and Necessity or evolutionary purpose. Thus variance/invariances as a filter comes to mediate the relation between Chance and Necessity.

FIGURE 9

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Chance and Necessity might be understood as a meta-statement about the more general dichotomy of variance/invariance. It can easily be seen, though, that both Chance and Necessity are forms of invariance. They are restrictions on total unmitigated variance or

unstructured chance. Necessity restricts variance for only variance, which accords with the higher ordering of the system, is fostered. Structured Chance is a form of invariance because it restricts mutation to a confined pool outside the system proper, which is carefully policed by the system. If this is so than we may begin to look at these three categories in terms of a triangular , relationship involving two dichotomies related through a step up or down in logical type.

FIGURE 10

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You will notice that the term 'teleonomic filter' has disappeared. (55) It is only needed if one wishes to express the entire system at the same level of logical typing. This is a mistake because it hides the structure of the system from view. It is convenient only if one is obsessed with categorical systems, but any categorical system is dangerous theoretically if one does not know the higher-level dichotomy which is its foundation. This is In fact the problem with the categorical systems of Peirce, Lacan, and Saussure, It may be stated as a general principle that theoretical constructs of the same logical type can only describe Dyadic relationships when they alone are used.

I propose that all triangular relationships have this form: they are constructed out of two dichotomies one of which Is a meta-statement concerning the other. (57) The meta-dichotomy is derived from the higher logical type by taking one of the poles of that higher type and polarizing (dichotomizing) it again. Several triangular relations of this general sort can be pointed to.

FIGURE 11 (57)

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It doesn't just, end there either, but many logical levels may be stacked, on one another to form a structure of interlocking triangular relationships. Between each two levels directly

adjacent to one another a triangular relation holds between higher type and meta-level. It is important though that each of these triangular relations belong to the same progression of meta-dichotomies. That is because the triangular relations are interlocking, not just that anything can be thrown into the logical progression. The meta-dichotomies must be deductible from the higher types.

FIGURE 12 (61)

FIGURE 13

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Within these triangular relations derived from the progression of meta-dichotomies a curious phenomena emerges which it is essential to explain. Two sorts of mediation arise. The first sort of mediation derives from the genesis of the triangles out of the progression itself. Then there is also a hybrid mediation which appears in the Levi-Strauss triangle, for example. In that triangle (Figure 11c) savage thought (or common sense) mediates between particularistic thought and no thought.

The genetic mediation is easy to account for as it is merely where the term of higher logical type mediates between the two lower ones. This mediation derives from the fact that the seta progression is nothing more than a progressive binary bisection which requires "division into two parts . . . one of which by definition could not contain the answer -- and discarding the sterile part . . ." (62) in order to bisect the fertile part again.

FIGURE 14

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Progressive binary bisection, then, is the origin of the progression of meta-dichotomies. Within this progression triangular relations are de-rived by relating the throw away category of higher logical type to the two parts of the

meta-level coining from the bisection of the fertile category.

FIGURE 15

FIGURE 16

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Here we see a simple displacement, where the mediating category is the throw away 'sterile' part of the type and it mediates between the 'fertile' and 'sterile' sections of the antitype. This is the genetic mediation, which is only noticed if one looks at several levels of a series of logical type at one time. If one looks only at two levels, for example, it appears to be merely a dialectic. The 'yes' of the type appears to be the synthesis (or synopsis) (63) for the thesis (yes) and antithesis (no) of the antitype. The network of mediations is missed completely.

Now that genetic mediation has been explained satisfactorily, the next step is to account for the shift of emphasis that causes a hybrid form of mediation to emerge. For example, where savage thought mediates between 'No' thought and particularistic thought in R. Silverstone's analysis of Levi-Strauss.

FIGURE 17 (64)

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The hybrid mediation might also be called 'transtypical'. It is obvious that 'no thought' is the genetic mediator and that 'thought' is the synoptic origin of 'savage' and 'particularistic' thought on the antitype level. At the next hypothetical stage or meta-level, then, 'savage thought' would become the new genetic mediator. Genetic mediation shifts from 'no thought' to 'savage thought' as we ascend the meta-levels. However, in addition, a hybrid mediation develops which 'looks' back down the staircase. This has the effect of binding the levels together. We notice, then, that at every meta-level excluding the topmost of any progression that the 'Sterile' element serves a double function of genetic and hybrid mediator

binding the progression together. This we might see as a division of labor between the 'fertile' and 'sterile' segments of each level. The fertile element is the center for reproduction (65) and the sterile element does its bit by holding the generations together, This shift in mediators through the progression may be seen much better if we stack all the successive triangles derived from progressive bi-section on top of one another and orient them all in the same direction.

FIGURE 18

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Notice how the mediation shifts around the stacked, reoriented triangles. "A" is genetic mediator at the lowest level and at the next level the mediation shifts to "B" which assumes the added function of hybrid mediator. In this way the mediation of a progression moves contra-clockwise around as it ascends.

Now, the necessity of the next step in the development of the argument here (66) is a bit more difficult to explain. This is because that necessity, derives not from the formal description itself but from the use of what is being formally described here as a theoretical tool. In order to get over this hump we will refer to what G. Bateson has to say about Hierarchies.

"I have remarked . . . that in hierarchies of logical typing there is often some sort of change of sign at each level, when the levels are related to each other in such a way as to create a self corrective system. This appears in a simple diagrammatic form in the initiatory hierarchy, which I studied in a New Guinea tribe. The initiators are the natural enemies of the novices, because it is their task to bully the novices into shape. The men who initiated the present initiators now have a role of criticizing what is now being done in the initiation ceremonies and this makes them natural allies of the present novices. And so on. Some-thing of the same sort also occurs in American

college fraternities, where juniors tend to be allied with freshmen and seniors with sophomores.

"This gives us a view of the world which is still almost unexplored. But some of its complexities may be suggested by a very crude and imperfect analogy. I think that the functioning of such hierarchies may be compared with the business of trying to back a truck to which one or more trailers are attached. Each segmentation of such a system denotes a reversal of sign, and each added segment denote a drastic decrease in the amount of control that can be exerted by the driver of the truck . . . If the trailer is in line or almost in line, with the truck, the control is easy, but as the angle between trailer and truck diminishes a point is reached at which control results in jack-knifing of the system. When we consider the problem of controlling a second trailer, the threshold for jack-knifing is drastically reduced, and control becomes, therefore, almost negligible."

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"As I see it the world is made up of a very complex network (rather than a chain) of entities which have this sort of relationship to each other, but with this difference, that many of the entities have their own supplies of energy and perhaps even their own ideas of where they would like to go." (67)

FIGURE Fraternity Hierarchy

Here Bateson draws a distinction between self-corrective hierarchies and those which are not. Self-corrective hierarchies have the characteristic of a reversal of sign at each level. Such as in the Fraternities where hazing is kept within reason by the opposing attitudes toward it held by members in different stages of the hierarchy.

FIGURE 19

Non-Self corrective hierarchies do not have this additional dimension of sign reversal. The

hierarchy of triadic relations that have been dealt with up to this point have been of this sort, Now we have the problem of how to add this new feature to the hierarchies that have already been described. The answer is relatively simple. Merely intertwine two such hierarchies; one of which balances the other by being of opposite sign. Then, as R. B. Fuller says . . .

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"The inter-relationship between . . . two identical bisection systems might be described as a double helix or corkscrew movement (geodesic lines) . . . (it is) the most economical lines of inter-relationship between two independently moving events." (68)

It should be noted that the twist in the helix derives from the genetic hybrid mediation series already described and the double helix itself is just the opposition at each level of two identical single helices. So whenever there is a hierarchy which alternates signs (positive/negative) as one moves upward or downward in terms of logical typing then it is a self-correcting system involving two independently moving events.

A view of such a double helix would look something like the folio "wing in which larger triangles indicate higher logical type.

FIGURE 20

At each level the 'blue' helix is opposed by its negating opposite the 'orange' helix. These two helices are identical. The change of sign consists in the 180 degree rotation of the isomorphic anti-helix. This is the formal derivation of the double helix form. Any double helix is essentially a stack of <PAGE> regular octahedrons (69) each connected to the next at three verticals or opposite faces. A stack of live such octahedrons gives us a double helix each of whose single helices "turns a complete 360° as they twist from one end of the stack to the other. Such a series of five octahedrons containing helices that make

a 360° degree twist is properly called a 'segment'. Any number of segments may be stacked up to a double helix structure of any proscribed length.

FIGURE 21

Now, the double helix itself may be seen as a self-generating dialectical progression in which no elements are ever lost. Take for example any octahedron in a double helix, its two faces that join it with the rest of the stack are opposite each other, parallel planes, and the triangles point in opposite directions. In this way they are antithetical and actually belong to different progressive bisections. Then again they are connected <PAGE> by the octahedral structures. Now, notice that in the movement from Thesis to Antithesis through the octahedral structure, that there occur three simultaneous syntheses without the loss of any elements.

FIGURE 22

For example A synthesized with C yields (->) X; (syn. B^Z; B syn. A=Y). This means, more precisely, that A and C taken as sub-thesis and sub-antithesis within the thesis face of the octahedron may be synthesized to yield X of the antithetical face of the octahedron. If the three possible such syntheses are carried out simultaneously a triangle at the next stage rotated 60°. The mediation of the rotated triangle is exactly opposite that of the thesis triangle A, B, C.

FIGURE 23

As one works down the double helix carrying out triple simultaneous syntheses in order to move from one octahedron interface to the next one finds that the helix is composed, of pairs of antithetically mediated joining faces and that each pair are turned so that the axis of their opposition rotates 60° from the axis of opposition of the last pair because of the genetic-hybrid mediation of each bisectational progression.

FIGURE 24

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Well, this all probably sounds more like a geometry lesson than anything else. The significance of all this trigonometry is probably at this point difficult to grasp. Essentially, though this is an exercise in the mechanics of theory construction. The double helix form is essential to the description of any theory which use both dialectics and the theory of logical types. Perhaps the most useful aspect of this structure is the description of the mechanics of mediation which is now becoming a frequently used theoretical tool. The relationship between mediation, dialectics and logical types is of the utmost significance. The remaining sections of this paper will explore some of the uses of aspects of the double helix structure.

Section 2: Presentation of the M.S.H. triune series with corresponding critique emanating from the work of Merleau-Ponty.

Section 3: This will look at the implication of the incarnate triangular relation for the construction of a non-dualistically based semiotic theory employing some ideas of G. Bateson on meta-communication.

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Section 4: An extension of G. Bateson's theory of 'play' Into a theory of inter-subjective illusion and then into a basis for a theory of creativity.

Before moving on to the next section a further word must be said to tie things together concerning the relationship between J. Monod's theoretical scheme and the double helix. The theoretical sophistication of the latter over the former is incredible. Monod's system merely relates two planes of structuralization of differing logical type

within one event. The whole structure was based upon variance/invariance dichotomy and the variance member of that dichotomy represented unstructured chance. Monod defines unstructured chance as the coming together of two unrelated sequences of events. This unstructured chance is the bedrock of the Monod system and, therefore, it is assumed. This means the Monod system cannot explain what happens when two unrelated events interact, but can in fact only predict what will occur with respect to one of them when these two events are held constantly alongside one another in synchrony for a designated period of time (e.g. Chance and Necessity happens). On the other hand, the double helix structure can and does explain the sequence of interaction between two events that randomly intersect each others paths while being held alongside one another. Thus, in terms of Peirce's crude categorical conceptions, <PAGE> Monod's system only accounts for first order phenomena, while the double helix paradigm accounts for second order phenomena (struggle). If this is so then the question arises as to an account of third order phenomena. What the structure of such a three-way interaction, which could serve as the basis of explaining the interaction of all events in the Universe (of Discourse), is anybody's guess. The reason such a threefold structure would explain the interaction of all events is that the interaction of any higher number of events may be expressed in terms of three-way relationships. My guess is that the structure is provided again by the stacked octahedrons. One might notice that it is capable of providing a framework to support just three single helixes intertwining.

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[Note: Footnotes exist for this section only.]

SECTION II

In the last section the difference between objectification which was the result of Peirce-Lacan-Saussures mere categorization and an analysis introducing logical types shown to us

by Monod and Munz was briefly discussed. Objectification by means of its henchmen Empiricism and Intellectualism (Rationalism) not only destroys time but also space through the devaluation of perspective and depth. Beyond this it distorts our whole notion of what the world is like as lived and surreptitiously (as Husserl says) is substituted for the life world. (1) In this section we will again be dealing with theories, which merely categorize when conceived outside a framework of logical types. However, here we will see these theories fitted-in to a scheme of logical types. Now this will bring to the fore a fundamental criticism of these theories. The fact is that theories, which merely categorize seem to stand up until considered from the perspective of logical types. Then their fundamental flaws appear and they are shown up for the Imaginary relationships they really are. They will be shown to be haunted by the ghost of their merely objective genesis. Now, what lies in obscurity will come to the fore; that objective (Imaginary) descriptive analysis and Phenomenological description go hand in hand. In order for a phenomenological description of the Life world to be presented, one must first present a dualistic, objective, and Imaginary description. When the Imaginary "objective" description is isolated from the phenomenal description its genesis is distorted in such a way that it is haunted by the ghost of the phenomenological, description which is its necessary antithesis. There can be no meaningful phenomenological description antithesis without an Imaginary Ground laid first of objective <PAGE> description. However, on the other hand objective description may be conceived without phenomenal description guiding its genesis because objectivity is the thesis which brings the necessity of phenomenal description to light. In this section we shall see how merely categorical descriptions are haunted by phenomenological description when set in a framework of logical types. Here, it will be shown how the Helix of logical types nay provide a fundamental criticism of merely categorical systems and thought.

Necessarily only a sketch will be presented here of the inter-relations between the various theories mentioned, To defend, support fully, and explore all the implications of my more or less arbitrary linking of these gentlemen's theories in this way would take another paper itself. This sketch only intends to show how the double helix may be used as a critical tool. What is important is that it is through such an arbitrary stacking of theories that the form of the double helix was given to me. Now through the precise definition of that form, in turning it back on those theories which were the means of its appearance, we find that these theories themselves are unequal to the job of containing the double helix form. This reveals the importance the double helix over and above any specific phenomena it is used to describe.

<PAGE>

FIGURE 1

FIGURE indicates mediation

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The figure on the previous page will give some idea of where we intend going in brief while we begin our sketch at the bottom (triangle I) with G.H. Mead and his definition of the "primitive situation". (2) This is as close as Mead gets to any real philosophical grounding of his Social Psychology. He presents it as the bare minimum requirements for the development of symbols and significant symbols and through them Society, Generalized Other, Self and Mind. An analysis of this situation in which two organisms confront one another in a conversation of gestures reveals that each of them must be capable of awareness, behavior and memory. All other human qualities, given these a priori elements, may arise out of the interaction itself through its independent course and unique evolution. Here it will be useful to point out, as Merleau-Ponty (3) has demonstrated, Perception (Awareness) and Behavior are in fact the same thing. Perception consists in an

orientation of the body. The movement of the eye toward an object and the perception of that object are the same. The hand that grasps, also feels. This distinction between perception and behavior for Mead is really then a distinction between one's Percepto-kinesthesia for oneself and one's Percepto-kinesthesia for others. (4) It is this hidden Imaginary distinction which gives rise to the blind spot in Mead's Social Psychology between "I" and "Me" in the subject's experience of his action. This blind-spot is, as Merleau-Ponty has shown, a fallacy made necessary by the attempt to describe the human body/subjects being-in-the-world, present at a situation, in "objective" terms. (5) The truth is that in lived experience there is no blind spot between the "I" and "Me", between act and intent. Percepto-kinesthesia is a unity beyond any intent or action. The blind spot is only an analytic <PAGE> device designed to allow for objectivity. It is as Bateson says, (6) an arbitrary slash drawn across the analogue nature of lived experience. Merleau-Ponty has shown us that no such absolute blind spot or unconsciousness is possible. (7) What is unconscious is never totally so. It is in fact precisely what is present but held at a distance and in the case of Repression it is known precisely to the extent it is ignored or avoided. We may say that Percepto-Kinesthesia sight have more fruitfully defined in Suzanne Langer's terms of Felt as impact (Perception) and Felt as action (Behavior). (8) This is the real dichotomy of which Percepto-Kinesthesia makes us aware. However, by reducing Awareness and Behavior to this more essential dichotomy we would be leaving out the essential element of our series. The blind spot is necessary inasmuch as it represents intersubjectivity in disguise as objectivity. However, as long as we know that the lacunae is a positive element we may then move to express the essential dichotomy in Langer's terms.

Moving on then we may say further that Percepto-Kinesthesia (which allows feeling of impact and outward action) and the blind spot constitute a presence and an absence which are together a PRESENCE. This PRESENCE is in

turn an Immanence over against the Transcendence of memory. (9) Memory is the mediator between felt as impact and felt as action. It is the link, which allows us to jump over the gap in objective description. This memory however, like awareness and behavior is an objective concept, which distorts our primordial experience of Time and Memory. The future is collapsed into the past, which in turn is withdrawn into a mere representation formed in the present. Past and future lose their live quality by being closed off from the person whose memories they are. The original experience of time as the upsurge of our subjectivity as a being in the world where Past and Future co-exist in the present is lost all together. We are forced to recognize that Memory too is really indistinguishable from Percepto-Kinesthesia inasmuch as every movement and perception is based on those It follows and those to come. What is revealed then is a single unity of the body/subject's being-in-the-world as the upsurge is time which is split up into a crude trichotomy as if by a South American Butcher with no knowledge of anatomy. We are witness then to the emergence of our double helix out of a foundation of lived experience. Instead of taking that experience with it; instead of trying to lie along the contours of that experience; it separates itself from phenomenal experience and thereby creates only Imaginary dichotomies which lie hidden In the heart of the double helix. What we see hidden in the lacuna is the positive presence of self-other Imaginary dichotomy which will plague the whole structure of this double helix precisely because this ambiguity is not brought out into the light and shown to be implied in the structure of thought.

FIGURE 2

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The lacuna covers up the origin of the helix, which is the unity of the body/subject as the advent of time in presence-at-the-world. Memory cannot effect any real mediation across the barrier of the gap because instead of

allowing time into the system, as it seems to want to do, it closes time out.

The Antithesis to Mead's triangle is derived in three simultaneous syntheses from it, giving us Schutz's three relevances:

- Awareness + Memory = Topical Relevance
- Behavior + Memory = Motivational Relevance
- Behavior + Awareness = Interpretational Relevance

Here we have entered a wholly Imaginary system of thought untempered by the knowledge of primordial experience before any words of reflection. What is felt as impact in interaction with objective memory yields what is to us of Topical Relevance? Our objective behavior in conjunction with Memory yields what is of Motivational Relevance. Schutz's own categories when analyzed critically are only a little more subtle than that, inasmuch as his phenomenological description splits the realm of Action from that of perception. It is through reflection that in each of these realms relevances are generated, Interpretational Relevance on the other hand presents us with a tricky problem. Interpretational Relevance is the mediator between Topical and Motivational Relevances. Now the blind spot in Schutz's (10) system occurs between Reflection and Perception/Action, Although he separates Perception and Action for analysis sake they are really structurally the same, That is, he posits that there are fields of pure perception and pure behavior which are unstructured. It is when reflection comes to play on these that meaning is given and they are structured. There is a gap between pure perception and action and reflection proper.

Now, motivational relevance and topical relevance are automatic responses to given stimuli, whereas Interpretational Relevance on the other hand directs reflection itself. Thus topical and motivational relevance appear to a sort of automatic memory, which is activated

whenever the appropriate sense or action structure appears on the horizon. What is of Interpretational relevance however is not tied to this sort of automatic memory. In fact it is through Interpretational Relevance that reflection proper builds up new structures to register in the automatic memory. Interpretational relevance is the active search of reflection for what is necessary to build up new structures of Topical and Motivational Relevances. This active search must occur in the presence of Behavior and Awareness. It is Reflections very act of pilgrimage to the fecund plenum of present Behavior and Perception (Awareness) without its prejudices of already acquired structures of Topical and Motivational Relevance. It shows us that reflection is distinguished from the objective memory of Mead and is in fact the source of those memories.

FIGURE 3

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The lacuna has turned 90° and followed us upward in our helix. Here the lacuna hides, or rather is, the dichotomy between Reflection and Pure Behavior and Pure Perception. This distinction is Schutz's own attempt to unite the un-uniteable opposites of pure unity and pure heterogeneity.

At the next level we find Heidegger's holy triune with the help of three simultaneous syntheses:

- TR + IR = Befindlichkeit (facticity of thrownness)
- MR + IR = Verstehen (understanding)
- MR + TR = Rede (talk)

At this point the derivation is very complex and just as doubtful but briefly what is topically relevant to perception in connection with the searching of reflection (IR) yields up knowledge of the facticity of his being to the subject. On the other hand what is motivationally relevant, that is, what attracts the attention of the subject through what he

finds himself doing, through the intervention of searching reflection leads to understanding. It must here be remembered that understanding is closely related to the nature of equipment building for Heidegger. Rede or talk is that to which the subject is most "care-fully" oriented in an attempt to de-throw himself. It is what primordially attracts his motivational and topical interest and in doing so manipulates his being. Under striding is the mediator between the subject's (Dasein's) realization of his facticity of thrownness and on the other hand this desire for the illusion that he can de-throw himself by losing himself in The They.

This is really the most complex of all the levels of our sample double helix, because Heidegger's philosophy takes the time to go all the way down to uncover the origin from which we departed. Here it is only necessary to uncover the lacuna which renders that origin false. I have described the levels of Heidegger's philosophy by which he descends to that origin in my second MSc paper. Sufficient to say here that Heidegger puts his ultimate value on separating his dasein from all influences of the They, that is on total individuation. To find what is authentically daseins and not one iota of which can be claimed by the They Heidegger, must appeal to death as the only thing which is uniquely untainted by the They. This analysis is of supreme importance in that conversely we discover just how far Intersubjectivity penetrates to the core of the individual. Only in his not being can the individual say This is mine alone. However, on the other hand if we agree with Merleau-Ponty that ultimately the subject does not experience either his birth or death we may realize quickly that our subject cannot really even claim death as his alone. (11) Heidegger would like to provide his subject with death in life in order to make up for this lack. This, the stage of *don't care*, is an experience of an eternity or timeless moment in which one transcends through the cares of the world. It must be realized along with Merleau-Ponty that this eternity is really the resolute upsurge of time in the world. (12) It is a positive, not a negative state. We may then

see, in short, that in Heidegger's lacuna is a subject whose individuality is posited but is ungraspable. Heidegger reveals in the clearest manner what Merleau-Ponty quotes so often from Husserl that "Transcendental subjectivity is intersubjectivity." (13) In other words, there is not one bit of the individual which may be called authentically his alone. In his attempt to reach for some ultimate particle deep within the core of Dasein which is authentically purely his alone Heidegger has proved once and for all the impossibility <PAGE> of the venture. According to Desan the biological vehicle, Dasein's body, is given to him by the intersubjective "Totum" (14) Beyond that this body is transformed into a body/subject through its interaction within the overall system of the intersubjective community. All that might be said to be uniquely and authentically any one individual's is perhaps a certain ephemeral style of being-in-the-world which derives from that individuals particular status and place within the world and the intersubjective community. However, even this ephemeral style is not Dasein's because it can only be apprehended by another, Dasein can apprehend the style of "the being of the world but not that of himself present-at-the-world. This philosophical discovery that, "Transendental Subjectivity is intersubjectivity", is not just a revolutionary development in the history of philosophical tradition, but it is also of tremendous import for Sociology. It points out the philosophical significance of Sociology. However, it is not Sociology as an objective science which becomes significant here but on the contrary a genetic sociology of intersubjectivity. That is a sociology on the hither (15) side of the emergence of any objective dichotomies: a sociology of the origin of the intersubjective and the subjective, and their advent into the world which is undertaken anew at each moment in human history. This is the origin from which arise all social institutions.

The next stage (iv) we attribute to Husserl as the antithesis to Heidegger's system. Where Heidegger works from the "they" down to the inner core of Dasein by peeling away the

layers, Husserl, on the contrary, assumes the core and builds outward from there. Our three simultaneous syntheses are these:

- R+V — (understand talk) = transcendental intersubjectivity
- B + R — (fact talk) = lifeworld
- B+V — (understand fact) =transcendental subjectivity

The derivation is simple. The understanding, which operates through talk, is transcendental intersubjectivity as a unity. On the other hand the under-standing which is the facticity of thrownness is transcendental subjectivity. The realm in which the facticity of throwness (which is the individual) and talk (the They) close together is the Life World of Husserl's later works. This is where the two mutually exclusive assumptions are assumed to coincide. The lacuna shows itself at this level. Here the subject and the They have merged in their full reification to form an imaginary paradox. The two assumptions are mutually exclusive yet they must be a unity in the Life World. We see how the lacuna, which has haunted our helix from its inception, has now revealed itself fully as an emergent paradox. The lacuna at first was merely the implicit assumption of objectivity in the formation of our categories at level I. It has followed us through our formulation of levels II and III to now reveal itself fully. The implicit original assumption of objectivity was actually the assumption of Intersubjectivity. At level I we thought we were with Mead describing one Individual's capacities. In fact we find that implicitly one subject was confronting Intersubjectivity In the guise of objectivity. We now fully can appreciate Fuller's remark that the double helix is the sign of two interacting events. Our two interacting events here are the reified imaginary elements of the subjective/ intersubjective dichotomy.

The Life World of Lacan's terms is a symbolic realm of analogue exchange of distinctions. The dichotomization into the duality of subjective/objective <PAGE> (implicitly intersubjective) is just an imaginary distortion

of this inter-change. We know that this must be true, but having made this implicit assumption of the dichotomy from the first we are left now at this late date only with the alternative of unassuming our hitherto taken for granted assumption. That "Transcendental Subjectivity is intersubjectivity" . . . is beyond a doubt precisely because of the appearance of the paradox of the life world. In order to extract ourselves from the paradox we must go back and rethink our thoughts from the beginning, attempting to avoid the implicit assumptions we made at the beginning which have been brought to light by the development of our thought. Husserl's level in our sample double helix presents us in Bateson's (16) terms a classic double bind situation when that level is presented alone outside the context of the series. When it is presented outside the series there is no escape from the double bind as there exists in the series when one may always move to the next meta-level to escape the schizoid situation of the double bind. The next level on which it is possible to meta-communicate about the double bind situation on level IV we shall designate as Merleau-Ponty's level. We arrive there by three simultaneous syntheses:

FIGURE TI + LM

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The role of the They (TI) in the Life World is to create alienating, objective scientific knowledge which is in fact intersubjective knowledge in a reified form. On the other hand Dasein through self-reliance and doubt may provide a phenomenal description of the Life World. Following Merleau-Ponty's epistemology we may say that beyond this dichotomy there is an origin beyond all dichotomies which is the ground upon which the dichotomy of phenomenal versus objective is founded. Merleau-Ponty's epistemology right look something like this. (See Figure 4) At least this is an extrapolation of what his epistemology might look like. Here levels A and B are actually taken from Heidegger's epistemology since as far as I know Merleau-

Ponty doesn't develop the implications of his thought to that extent. In his lifework he really only went as far as level C. But, because of the closeness of Merleau-Ponty and Heidegger's philosophical aims I don't think this suggests is too outrageous.

FIGURE 4
FIGURE Condensed Progressive Bisection

<PAGE>

FIGURE Objective + Phenomenal

Now, it is at this origin beyond all dichotomies that the true unity of TE and TI will be found. Meanwhile our lacuna which emerged fully as a paradox on level IV has taken finally a positive shape as a distorted mediation of the level V triangle. Instead of the origin mediating between phenomenal and objective as might be expected; in fact, what we have is the phenomenal mediating between the Origin and the Objective. This indicates an estrangement between the origin and objectivity which we have already noted throughout this exposition. It is left, then, to the suppressed phenomenal description to try to pull together the imaginary separation between objectivity and the Origin which grounds it. The antithesis of level V, which defines the grounding of the inherent dichotomy between subjective and Intersubjective which is the basis of the life world. This is our last level to be considered: Level VI. This level VI goes beyond the grounding of the life world to the more fundamental question of the continual becoming, or the ever present advent, of the world as a teleological event in the Life World. We will identify this level with J. Monod and it is for us the most Important level to be considered. It owes its origin again to three simultaneous syntheses.

FIGURE

- Objective + Phenomenal -- Teleology of WORLD; Science Description through Reversibility

- Objective + Origin -- Problem Solving; Science "LANGUAGE"
- Phenomenal + Origin -- Creative Origination; Description "SPEAKING"

Objective Science and phenomenal description are our means of knowing the world. They reveal in the world a teleological movement which, following the Monod system, is a purposive movement without any ultimate goal. <PAGE> There is no master plan set at the beginning of the world but only an adaptive movement which gathers strength as it limits the possibilities of development through which chance elements it adopts. The origin must be understood on this level not just in terms of a grounding but in the further senses of founding and bestowal. (17) Objective Science believes that this founding occurs through the slow sedimentation of new knowledge. On the other hand Phenomenal Description recognizes this origination in the advent of new paradigms. This dichotomy between Sedimentation (Problem Solving) on the one hand and the advent of Paradigms (creative origination) is very similar to Saussure's dichotomy language/speaking. From the point of view of Language, Speaking entails only random errors, which build up to change the system. From the converse point of view of Speaking, Language is the distorting sedimentation of what is created originally in the existential act of speaking wherein essence and existence are one, (18) The origin, then, is not merely the ground of the Phenomenal and the Objective but is also the act of bestowal of order, which dichotomization represents, whose effects may be seen from the objective point of view in the sedimentation of all such acts. However, on the other hand, the origin seen from the phenomenal point of view represents a founding in the act of speaking (in the creative , act) of a new paradigm or world view which creates a new plane of reality in the world.

Notice that this final triangle's form with problem solving as the mediator, takes the

precise form of Monod's theoretical system comprised of Chance/Teleonomic Filter/Necessity wherein Chance = speaking, Teleonomic Filter = language, and Necessity = world teleology.

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What happened to our lacuna? Has It disappeared? Or perhaps it has only sunk back into the woodwork of the helixes. The latter is more likely. It is in fact the exposure of this lacuna again that confronts any serious consideration of creativity. The question, is it enough to merely separate Speaking from Language; creative origination from Problem solving, as Merleau-Ponty has done in his works? We must in fact say that it is not enough and that there is still a more vital ground upon which origination itself is based which is hidden in the Monod formulation. This ground upon which origination is based is pointed out by Merleau-Ponty himself. This ground is reversibility. The lacuna at level VI is the implied presence as art absence of Reversibility.

What is reversibility and what does it tell us? Briefly reversibility is the ability of the Chiasm to appear in either one of two ways. It is the basic ambiguity of Existence. It is this reversibility which has been hidden by the lacuna all along. It is this reversibility upon which the origin beyond all dichotomies is grounded which in turn is the ground for the subject/object split. It is the advent of Being in the form of the ambiguous being-in-the-world of the body/subject. It will be our job in the rest of this paper to explore the implications of this fundamental reversibility for creativity which makes the Speaking Language dichotomy unacceptable. Which forces us to recognize the basic inadequacy of the problem solving versus, paradigm creation distinction.

Before beginning the next section, one further point must be made which is that through the successive double syntheses there is a blending of whatever elements one begins ones analysis. Thus there is a threefold structure

In this double helix wherein original unity is broken up through analysis and then in successive stages re-synthesized. This is the very flaw which ruins the helix and gives rise to the lacuna. What we must, do is provide a helix which through a balance of objective and phenomenal criticism not owe its origin to the destruction and re-constitution of an original unity. Therefore, we have two goals:

- A theory of creativity which goes beyond the Monod structure into the realm of reversibility.
- A helix which does not destroy an original unity at its origination.

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Section III

In this section I am going to be adventurous and advance a semiotic and semantic theory. This theory will draw heavily on Merleau-Ponty's theory of the speaking subject and the "incarnate" triangular relations posed by the double helix. The heart of the theory will be an analysis of G. Bateson's theory of meta-communication advanced primarily in, "A Theory of Play and Fantasy."

The triangular relations represented at each level of the double helix are called "incarnate" because they participate in syntheses in three directions simultaneously in which none of the elements of the triangles are lost or disappear. In other words each apex of the incarnate triangle is simultaneously a syntheses for a lower level of the double helix, and a thesis and antithesis for a higher level (except for top and bottom levels), and beyond this the apex participates in a mediation (as mediator or mediated) at its own level. Through all this the triangle stands unmoved. Whereas on the other hand in dialectics viewed outside the double helix frame work at each stage of a new synthesis the thesis and antithesis of the previous stage are lost to sight. Thus as you move level to level elements disappear and

new ones appear. These triangular relations are ephemeral whereas through the framework of the double helix we may keep track of all the elements of different levels simultaneously. This is what leads us to call the triangular relations in the framework of a double helix incarnate.

The goal which we must set for ourselves is to frame a semiotic-semantic theory which has no reference to any dualistic foundation as we can see at the basis of Peirce's semiotic. For Peirce the sign mediates between <PAGE> object and interpretant or thought and In this way is a linking agent in a dualism of Mind/Body, thus Idealism/Materialism What is needed is a semiotic of speaking where the meaning is seen to be immanent in the message, signs, words themselves. (2) As Merleau-Ponty tells us the meaning must arise out of the gaps between elements of the message. On the other hand we must be able to show how Peirce was right in saying that Meaning is derived strictly from triadic relations. His own semiotic violated this premise by being based on an implicit — hidden dualism. This is where the incarnate triangle shows its real value. It's foundation is a theory of logical types not a dualism between Mind/Body, or any other duality for that matter. The fact is the Mind/Body dualism may be easily explained in terms of a theory of logical types and it is this that gives the incarnate triangle its inner strength. Merleau-Ponty in the Structure of Behavior introduces a theory of logical types to explain the antinomy of animal and human behavior in relation to their physical and organic bases. (4) These three logical levels are as follows:

- HUMAN LEVEL PERCIEVED SITUATION - WORK
- VITAL or BIOLOGICAL LEVEL VITAL SITUATION-
- INSTINCTIVE REACTION PHYSICAL LEVEL STIMULOUS-RESPONSE

What is important to us is that on page 210 Merleau-Pony has conceived that between any

two levels the upper would be the soul and the lower the body with respect to each other. This is precisely how levels of logical typing are related. Each successively higher level is a new realm of MIND, (5) a new level of systemic integration, with respect to the body of those levels lower than it. We may now say that Mind/Body duality is a relationship between hierarchic levels of control and must not be reified into an imaginary dichotomy. The incarnate triangle refers to just one <PAGE> level of mind which seen from a higher level may be seen as body. It is the advent of meaning in this level temporarily defined as mind with which we are concerned.

We will find ourselves analyzing the article, "A Theory of Play And Fantasy," from two directions. In this section we will extract from it a semiotic, and in the next section we will tear out of it the theory of play. Bateson's thoughts are in some ways very clear and precise and in other ways confused In the way they are developed. In rethinking with him hopefully the underlying profundity of his thoughts will be made more apparent. In this article he describes the following "triadic constellation." The says that beginning with a simple denotative statement (The cat is on the mat) there are two contrasting ranges of abstraction in which one may travel. "One range or set and these more abstract levels includes those explicit or implicit messages where the subject of discourse is language. We will call these meta-linguistic. The other set of levels of abstraction we will call meta-communicative. In these, the subject of discourse is the relation between the speakers."

Unfortunately, the "triadic constellation" doesn't remain so simple because both these ranges of abstraction have a tendency to multiply themselves and Bateson is forced to add three other elements to his system. One is the phenomena of "double framing'. "This double framing is . . . not merely a matter of 'frames within frames' but an indication that mental processes resemble logic in needing an outer frame to delimit the ground against which the figures are to be perceived . . . we

suggest that the need for this outer limit to the ground is related to a preference for avoiding the paradoxes of abstraction". (8)

We will refer to double framing as a meta-meta-linguistic level. On the <PAGE> other hand Bateson is forced to add two further levels in the realm of meta-communicative abstraction. Meta-communicative statements refer to the relationship between speakers. In discussing therapy for these relationships between speakers which have become pathological Bateson says, "Before therapy the patient thinks and operates in terms of a certain set of rules for the making and understanding of messages. After successful therapy, he operates in terms of a different set of such rules. . . . It follows that in the process of therapy, there must have been communication at a level 'Meta' to these rules. There must have been communication about a change in rules". (9) Interpreting this along the lines of Bateson's theory concerning the levels of learning, we may readily see that there are two further logical categories outlined here above Communication and meta-communication which are meta-meta-communication concerning the rules governing meta-communication and meta-meta-meta-communication concerning the change in those rules. Further complication ensues when we emphasize that meta-communication and meta-linguistic stay either be in implicit or explicit terms. Meta-communication when it is implicit concerns the relation between speakers but when posed explicitly in terms of a denotative statement it is revealed as a communication about the previous communication which elicited it. On the other hand a meta-linguistic when it's implicit refers to a specific frame that delineates a particular context in relation to the communication in question, but when posed explicitly it is a statement concerning the language of the previous communication.

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FIGURE 1

It might be pointed out that the difference between meta-communication and meta-linguistic comes to look very tenuous when we consider both their primary definitions (given initially in the article and their secondary definitions (taken from context later in the article).

The difference between implicit meta-linguistic and meta-communication is merely a matter of what sort of context is being referred to: the contextual relation between speakers or the contextual relation between speakers and something else. On the explicit side — a denotative statement about a particular communication is contrast to a denotative statement about the medium of communication which carries that particular communication.

Now what I propose is that we look at this mess of typifications in terms of incarnate triangles in order to sort it out. These would look something like this.

<PAGE>

FIGURE 2

The two added elements of Style and Elegance are taken from Bateson's article "Style, Grace and Information in Primitive Art" and because of the unity of his thought, even though they appear in another context fit in here quite well. We cannot be satisfied by only going this far, we must still account for the distinction between Implied and Explicit meta-communication and meta-linguistic Terms. Hypothesizing that if the meta-communication term in any triangle is Explicit then the meta-linguistic term will automatically be Implicit and vice versa, we may derive two alternative configurations of Implicit/Explicit structuring.

<PAGE>

FIGURE 3

This Implicit/Explicit structuring must immediately be contrast with a different sort of structuring in the unitary elements of Communication, Style and Elegance. This other sort of structuring is in regard to their being open or closed in Heidegger's language or precisely "put forward" (presented) and "withdrawn". Explicit/Implicit refer to whether the meta-linguistic or meta-communication are implied outside of denotative expression or expressed in explicitly denotative terms. On the other hand Communication is always denotative when it is presented but at some times it is withheld from expression as a sort of silence with respect to which other elements are expressed. Contrarily, Style is always implicit but at some moments it is presented as a strong atmosphere while at other moments it is withdrawn and hardly noticed. Elegance is neither Implicit or Explicit but merely a relationship between the present style and other possible styles. Elegance may be present or withdrawn. For anything to be <PAGE> withdrawn does not mean its total absence but more particularly its presence held at a distance.

FIGURE 4

COMM=STYLE=ELEGANCE=COMM=STYLE=ELEGANCE
 | | | | | | | |
 OPEN CLOSED OPEN CLOSED OPEN CLOSED

It should be noted in passing that the further structuring of communication, style and elegance gives us four permutations of structuring in their interaction with Implicit/Explicit structuring.

It is evident that we have before us a complex system of elements which are structurally inter-related, What is left for us to do now is to understand precisely what these elements refer to in communication and beyond that what their value to as a semiotic theory is. In order to elucidate this we will refer to a further set of diagrams, which show the relations between these elements in the concrete speaking situation. Because of the complexity of the diagrams we will build them up in stages and discuss each stage. Radically there will be

two composite diagrams each re-presenting half double helixes A and B in Figure 3. These will further be broken down into sub-diagrams showing the building complexity as one advances up these to helixes from level 1 to 3.

Well, now that we have complicated things sufficiently in our two composite diagrams of the interrelation of Elements in Structures A and B it is left to us to untangle matters step by step. First by defining carefully exactly what each of these elements refer to and then by showing how they combine, to form the diagrammatical relations shown.

A communication is any denotative message which arises within the systemic interaction of two or more body/subjects in their specific phenomenal milieu. Such a message may be spoken, written or transferred by means of a work of art. It is the result of structuring and redundancy produced in such a way that it reverberates in the communicational situation between the imaginary polarities of subjects X and Z. As soon as a communication is evident in such a system we also notice that a certain sympathy or empathy or understanding is realized between speaker and listener. Mead calls this the advent of significant symbols. Our communication takes place in terms of significant symbols. It arises through a particular interrelation between a communication, a meta-communication and a meta-linguistic element. That is to say that a communication is meaningless outside its relation to a meta-communication and meta-linguistic.

In structure A the meta-communication element is emphasized is Explicit and the meta-linguistic element is implicit. This means that the communication that consumes meaning is made in relation to a certain specified context beyond the relation between subjects X and Z. The communication directs both X and Z's attention to this context and calls <PAGE> attention to this context and calls for a meta-communication about the relation between communication and meta-linguistic (implicit). This meta-communication

(a communication about the previous specified communication) may either be a comment of Z's or more rarely a further comment of X's. The first form of the comment would be conversation and the second, thought. That is, X, "Nice day to day." Z: "Yep." Even such simple conversations involve: a degree of meta-communication where in Z comments upon the relation between the specified context pointed to by the communication and the communication by affirming its truth. The reply is just as much about agreement or truth as about the weather. Meaning is generated by the rising above the mere communication context relationship and making an assertion about the truth and that relation.

At the next level in structure A we see that a further order of meaning is generated. That is, the first order meaning is amplified through setting it in the context of a larger context. This larger context is referred to as M²L or the Double frame. An example might be seeing the foregoing statement and answer in terms of a whole conversation. It might in fact be the opening remarks leading into a conversation perhaps it is a standard opening for a conversation. If - so than in that larger context we can see that the meaning generated between C and MC rely on certain specified rules governing the opening of conversations which are implicit in relation to the larger explicitly specified larger context. The larger context of the conversation is in turn related to the specific phenomenal situation accruing between subjects X and Z, The phenomenal situation is the concrete setting and influences, which direct and underlie the specified layer context. For instance whether <PAGE> the conversation begins inside or outside, who is sitting or standing where. What everyone is wearing. What sort of objects are ready-to-hand and what sort of projects are at hand to be engaged in by either participant. All these concrete detailed elements which may be referred to, or not taken up, or ignored, but which are latently present all the time, contribute to what I would call the style of the situation. Style is the relation between what is explicit in the meta-meta-level of meaning and

the concrete phenomenal situation, At the third level of structure A an even more general meaning is generated by the simple greeting we are using as an example. This is on the level of change. If attention is drawn to this level what is noticed is that the Rules governing the formal structure of Level I are always subject to change and this possible change in rules for generating meaningful discourse has direct relationship to an implicit possible triple frame context for the situation. The triple frame is the possible alternative larger contexts (M^2L) which could be created by a simple change of rules. Elegance, then, is the relationship between what is explicit in the M^3 level and Style. It refers to a criteria for judging the merits of different sets of Rules and the styles they would create in respect to a specified concrete situation, These criteria are created according to aesthetic preference and economy of means and beyond these two on the basis of how this specific concrete situation is related to others both similar and different which are relevant to it in terms of the Cultural Milieu.

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This then is the description of structure A which we must now contrast to structure B which is Its inverse in respect to Implicit and Explicit structuring. Beginning at Level I of structure B we see that here our communication is made and immediately elicits a meta-linguistic statement like "What does that mean". A meta-linguistic statement (Explicit) is one which concerns the medium of the communication per se. This explicit meta-linguistic commentary on the medium of communication is a self corrective device which allows refinements in mutual understanding to occur. Meta-linguistic commentary always takes place in a specific relation which is implied to exist between the two subjects attempting to refine their mutual understanding by sharpening their tools of communication.

It might be said that such refinements always meaning a sharpening of the definition of the

implied relation between the speakers. When subject Z asks what X "means" he may be really asking implicitly what the meaning of their relationship is that has given rise to the communicated meaning which one of them did not totally grasp. Thus increasing the clarity of mutual understanding always implies the tightening of the bonds of mutual relationship making the two imaginary individual subjects feel closer.

At the second level of Structure B we have then the reference to the rules which allow meaning to emerge, "What do you mean", asks further if those rules by which communication takes place have been contravened or changed "without my knowing it." M^2C is the explicit formulation of the relation between X and Z in relational rules which are the basis for <PAGE> tightening of the net of understanding linking them. These explicit rules governing their relationship allow a reference to be made to the implicit transformational grammatical rules governing the generation of communication messages. Style here stands out as the relation between the concrete phenomenal situation and the rules governing the relationship as it stands between X and Z. Such things as whatever they are in bed together or merely eating lunch and a myriad of other concrete details which are latently but graspable in every concrete situation when related to the rules governing the relations between the subjects in that situation gives a definite style to the proceedings and to the act of sharpening conversational tools.

At the last level in structure B we see again change as an ever present possibility lurking within the inner recesses of the communicational situation. M^3L represents the explicit possibility that indeed another set of grammatical rules may be used or an addition to the existing sat has taken place. Thus the sharpening of conceptual tools implicitly refers to a Grammar for creating meaningful statements" -- this sharpening must refer to (explicit) the many possible grammars which might cause change in the

communicational situation. Here we are not referring to merely other permutations of the transformational grammar system. Here the other possible sub-grammars are those which relate Relational rules M^2 to the transformational grammar complex. It is the re-adaptation of Relational Rules (M^2C) to the transformational grammar which causes a modification in the rules and causes greater understanding.

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M^3C is the other possible relations which might be evoked between X and Z in order to change their capacity for understanding one another. Elegance is the relation between the style of the concrete situation as it stands and other possible styles which would be created if indeed another relation between the M^2C rules of relationship and the transformational grammar were chosen. Elegance is the possibility of bringing to bear upon these possible changes criteria of economy or aesthetics or cultural context in order to direct the formation of mutual understanding in specific directions. Mutual understanding between parent and child, man and woman, or friends, can grow only in culturally specified ways.

Through these two explanations of structures A and B it has become evident that structure A is directed outwards, toward the increasing of the range of what is communicated about. Whereas structure B is turned inward toward the heightening of the amount understood per communication interchange. Between these two structures there obtains a fundamental reversibility of emphasis. They are interchangeable. It is this interchangeability which allows communication to be built up and refined. Every conversation is a process of constantly changing the emphasis, which causes a reversal from structure A to B and back again. It is this, which allows a conversation to deepen and widen as it is carried on. Besides this structural reversibility with respect Implicit/Explicit dichotomy, there also operates another fundamental reversibility

between openness and closure with respect to the elements of "communication", "style" and "elegance". This means that the Implicit/Explicit chiasm operates in relation to a more basic chiasm of open/closure. In communication there is a continuous rotation between the messages made public and the pregnant silences.

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The positing of a message, speaking a sentence, making a face or gesture; all these take place as an opening out into an OPEN of what is closed up, folded in on itself and hidden. What is closed exists as a potential, unrealized until its dis-closure. As the message, sign or sentence is released it gradually opens out and is made public. Thus for communication there is a basic reversibility between its presence as a closed potential of a situation and its expressed presence as an opening out or unfolding of this potential. Whatever it is by degrees opened out or closed up this opening or closure takes place with respect to an "OPEN", which is always present as a cleft between opening and closure. This OPEN is primordially given. When "communication" is in a phase of closure then it is possible for Style to be noticed within the OPEN. Style too, may be a closed potentiality or may open out as a fundamental element of the concrete phenomenal communicational situation. Elegance too, at even a higher meta-level may be opened or closed. Its openness as an elementary possibility for a stylistic change occurs along with the opening out of the "communication". Elegance closes as "communication" becomes closed and style begins to open in its turn for only one style may be apprehended at once. It is the opening out of style in a communicational situation which makes silences pregnant and it is the fundamental reversibility between opening and closing with respect to the basic OPEN which makes silences so full because in them there is the ever impending threat that meanings will arise anew. Closure is never complete nor is it ever totally done away with. Things are only

open or closed by degree in respect to the "OPEN".

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The opening and closing of "communication" is the fundamental reversibility of any situation of concrete communication. Within this context the two structures A and B operate so that they enter both into the silences and messages. An implied element of either A or B structure may be indicated in a pause. An explicit pleasant of A or B could be the next message. In conversation A and B structures take part in a fundamental chiasm themselves. The conversation may advance outward to embrace another subject and then have to deepen to allow for this new breadth. Beyond this there is another reversibility between speaking and listening. This reversibility like the others is not an iron clad alternation of rules but on the contrary the fact that since both conversationalists are living the meaning of what is spoken, either could just as easily fee the speaker or listener. A person may answer his own question or question his own answer. On the other hand what is an opening of communication for one subject sight be an opening of style for the other. Thus it is because the conversation must take place against a plentitude of unexpressed latent details that it may be lived in many ways and still contain a unique and indisputable meaning. Silence is not just a vocal silence but a lack or closure of a significant gesture or look which would lead to a mutual understanding and the generation of meaning. Looks and gestures take place against a background of denotative communication and thus they are the implied meanings which are generated by segmented language.

At any rate we are left with two basic reversibilities in communication

FIGURE 7

Here we see that it is the OPEN, which underlies opening and closing of "Communication", "Style" and "Elegance"

which is important to us. The OPEN corresponds to the concrete, phenomenal situation before a word has been spoken. It is the fertile soil in which meaning say arise at any moment but as yet has not.

FIGURE 8

In order for meaning to arise, elements of an incarnate triangle must be made explicit or expressed together. Meaning is created through such expression of concrete relationships. Once meaning has been generated then it may be recalled or reconstituted by indicating the relationship which was once expressed in some way again. Thus once meaning has been created it may be easily implied through minimal indications of the relationship which ones called it into being. In this way we have derived a sequence of the coming into being of meaning and language.

FIGURE 9

You will note that this is the very threesome which was the level VI of our double helix in Section II and which we rejected as fundamentally inadequate as an ultimate explanation of creativity. What we must understand is what underlies both speaking and language which allows both creation and sedimentation of paradigms. At least now though we have shown how reversibility enters into this basic triune. (18) With this we have unearthed the fact of their inseparable intertwining. The origin before speaking is the OPEN within which the constant struggle ensues between the opening out of new paradigms in speaking and their closing up again into sedimented <PAGE> structures.

FIGURE Six triangles

We must insist that these three stages are all folded in on one another so that the relationship between speaking and sedimented language is not one in which a simple separation will suffice. Sedimented language is the basis of the creation of new meaning and new meanings, the origin of sedimented

language. The openness before speech is the origin of both speech and language but at the same time it is what has been spoken and is being spoken which defines the realm which is still open on the hither side, of all speaking. It is the process which underlies both speaking and language and also the origin before speaking for which it is crucial that we grasp. This will be the theme of the next section. For now, however, it is necessary to return to our semiotic and question how meaning actually arises within the incarnate triangular relationships we have specified.

So far the incarnate triangles we have developed have remained unmediated. Quite simply it is their mediation, which produces meaning, of the three apexes may mediate the incarnate and with the Explicit/Implicit distinction that gives us six different mediations.

FIGURE 10

Any of these apexes may mediate the incarnate triangle and with the explicit/implicit distinction that gives us six different mediations.

Here, are we in the realm of speaking rather than language? In the realm of generating original meanings rather than re-constituting old meanings? We can not go back to the first word which might have been <PAGE> a shout. (20) We can't even know meanings or paintings which are created without reference to any prior meanings or paintings. Thus how do you separate newly created meaning from resurrected meaning. The elements used to create new meaning are ripped out of other contexts and cannibalized like parts from broken down vehicles. They are used like tools made for another job to create these new meanings. (21) New meanings are interspersed between and surrounded, by hackneyed expressions and clichés until it is impossible "to separate what is new from what is old. Thus we must speak of the generation of meaning some of which are re-constituted while others must be created for the job at

hand. Here we want to concentrate upon the generation of new meanings among those re-constituted. We will hypothesize that old meanings need only summary indication of the relationship which gave rise to them while when new meanings arise the relationship must be expressed in full. If this is true then we should be able to spot new meanings by the fullness of the expression of the relationships which generate them.

Meaning is generated by the positing of the relationship between any two elements of an incarnate triangle. These two elements than call for the third element in order to make the triangle whole. Between the two elements lies a gap and the meaning rises out of this gap as the third element of the incarnate triangle makes its presence known as an absence. This latent element of the incarnate triangle mediates between the two expressed elements whose relationship is specified. The hypothesis is that in order to recall and resurrect already constituted meaning all that would really be necessary is a slight indication of perhaps just one of the elements of the incarnate triangle as a shorthand indication to resurrect <PAGE> and imply meanings already given. As an example we could say that given an opening out of a communication with a specified relationship to a implicit meta-linguistic element would call for its completion by an explicit meta-communication. ["When I was young we had respect for our elders" (communication)/ "he gives a glance toward some noisy kids nearby (meta-linguistic implicit) => calls for meaning "You really don't like kids do you Grandpa"(meta-communication explicit)] This example covers the first mediated triangle in Figure 10. In the second a communication with specified relation to a meta-communication always calls for => or indicates an implicit meta-linguistic content. ["I love only you" (communication) "that's a lie" => makes reference perhaps to "another woman" (seta linguistic implied)]. In the third a known explicit meta-communication and a indicated implicit meta-linguistic statement will call for a communication. ["you don't like me, do you?"

(meta-communication explicit)/ "glance at another "woman across the room" (meta-communication implicit)] calls for communication being opened between, the speaker and he who addressed to reassure her that indeed she is liked.

We could go on to give examples of all of the triangles, but this paper has gotten involved enough as it is. The fact is that adding the other two levels and the open/closed distinction generates 36 models of meaning and nuance, We won't go through all these here. From this though it is possible to see that besides the generation of new meanings, these mediated incarnate triangles provide the basis for the flow of conversation. Each incarnate triangle calls for some new element to be laid over what has gone before it. The calling of the two expressed terms for the third is at the same time a calling for the conversation to be renewed; for the new meanings to be elaborated in relation <PAGE> to already established ones; for the dialectic of widening and deepening to be extend to a new level.

What we have developed then is not a Peircian classification of signs but a classification of semiotic contexts in which language is continually folded over on itself again and again. We have a classification of these contexts which in their layering allow meaning new and old to arise. It is these multiple contexts which; are important within the diacritical mass of language not the diacritical elements themselves. They are merely anonymous differences which taken on significance only in the flow of multiple contexts over their surfaces. It is these contexts in their intertwining which decide which difference makes the difference.

The last point to be made in this section is that language conforms to the variance/invariance structure which produces chance and necessity via the teleonomic filter in the Monod theoretical system. Phonemes are arbitrary combination of binary articular elements which are held invariant and are reproduced, invariably. Words are arbitrary combinations

of these phonemes. Sentences are unique combinations within an invariant transformational grammar. These unique individuals are tested against a rigid environmental system which demands that they express a meaning in relation to the situation they are uttered against meaning does not arise from the structure of variance/invariance. Meaning is the teleonomic filter which arose from the interlacing of variance and invariance with respect to a concrete situation. This teleonomic filter separates the pool of structured chance (speaking) <PAGE> from the necessity of sedimented language forms. There Is in other words a pool of Spoken permutations which originate meanings which are constantly arising in everyday conversations. From these are chosen those meaningful designs which add to the order already preserved in sedimented language. What meaning creating structures are added is rigorously specified in a negative way through the system of restraints that sedimented language is. This provides for a quasi purposeful evolution in language toward greater and greater precision. The point is that Meaning cannot arise out of the sterile structuring of variance/invariance on many levels, Meaning arises as this teleonomic filter of meaning plays against itself, the concrete phenomenal, situation, the relationship between speakers, their relationship to other contexts, the rules by which their relationship and language is structured, and other possible situations, rules, relationships, contexts, languages etc. Thus it is the playing off of the teleonomic filter of language against all these elements described by Bateson that meanings are generated arising in the gaps between the purely diacritical distinctions of language. (27) Diacriticality means to become sterile outside any meaningful relationship with speakers in a situation. Once denotative meaning has arisen, in this way then the complex of meaning/denotation is again played off of a wide historical setting to generate all other forms of meaning and nuances. All not specifically denotative meanings attached to other signs and symbols of any sort are the product of a play of meaningful language and

speaking against a wider historical situation. The reverse is not the case. The word "tree" with its signified is the base <PAGE> upon which all symbolic or representational lineages of trees are founded to have meaning, language makes all other signs and symbols possible and plausible. This is why spoken language is so important.

This is true because all other meanings must be translated into language ultimately. Meanings from subsidiary sign systems may arise in themselves but they arise with language in the background of the concrete situation otherwise they don't arise. Beyond this all cultural systems and even the concrete natural world itself are meaning systems in relation to the background of language. The origin before speaking is a pause in speech and this gives everything in the world and the world itself meanings of their own.

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SECTION IV

In this section the aim will be to unfold a theory of play and: creativity hoping to expose a level of analysis more basic than that of Dichotomization which is the origin for speaking and language. The three previous sections have all been a groundwork laid for this enterprise. Our main duty is to intimately connect creativity with intersubjectivity in order to show the necessity of a sociology of creativity. *A sociology of creativity must be a philosophical sociology and simultaneously a sociologically oriented philosophy.* It lies in the ground which exists before either sociology or philosophy arise in which they interpenetrate. Such a sociology is an original task and a study of origins which takes us back to a realm in which the world first unfolds. It is a pre-objective sociology. This realm is not some prehistoric era, but on the contrary, it is an origin dragged with us down through the ages. It reasserts itself at each moment the world unfolds anew.

The sociology of creativity aspires to expose the mechanism by which new paradigms (cf. Kuhn) arise. As Merleau-Ponty tells us, we are capable of making tools to shape other tools and it is this continual reaching beyond what we have already created which really defines man. This reaching beyond what is already at hand, having been reached for, is the fundamental process which lies at the origin of knowledge, culture and society. To understand these products of the overreaching by man of himself, we must understand that fundamental act of going beyond the beyond, itself. The mere distinction between speaking and language, creativity and problem solving, the origination of the paradigm and the working out of the paradigm which Kuhn describes has already been rejected. Kuhn describes how Normal Science reaches crises when anomalies arise which no amount of puzzling over Mill solve. Out of this crisis situation a new paradigm arises which means, "a reconstruction of the field from new fundamentals, a reconstruction that changes some of the fields most elementary theoretical generalizations as well as many of its paradigm methods and applications".

Kuhn tells us however ". . . crisis simultaneously loosens the stereotypes and provides the incremental data necessary for a fundamental paradigm shift. Sometimes the shape of the new paradigm is foreshadowed in the structure that extraordinary research has given to the anomaly. Einstein wrote that before he had any substitute for classical mechanics, he could see the inter-relation between the known anomalies of black-body radiation, the photoelectric effect, and specific heats. (14) More often no such structure is consciously seen in advance. Instead, the new paradigm, or a sufficient hint to permit later articulation, emerges all at once, sometimes in the saddle of the night, in the mind of a man deeply immersed in crisis. What the nature of that final stage is how an individual invents (or finds he has invented) a new way of giving order to data now all assembled must here remain inscrutable and may be permanently so. Let us here note only one thing about it.

Almost always the men who achieve these fundamental inventions of a new paradigm have been either very young or very new to the field whose paradigm they changed.

The resulting transition to a new paradigm is a scientific revolution . . . (Einstein loc. cit.)" (5) We must reject the distinction between speaking and language for the very reason that from the point of view of this distinction we cannot explain how new paradigms arise and scientific revolutions take place, The lacuna of Section II is with <PAGE> us again. If we cannot understand the emergence of new paradigms "in the mind of the man deeply immersed in crisis" (6) we cannot understand either the nature of problem solving of Normal Science either. Puzzling of Normal Science guarantees a solution which only requires certain ingenuity.

What Kuhn fails to point out though is that Crisis which appears through the anomaly of solutionless puzzles also guarantees a solution which is fulfilled by the new paradigm. Problem solving within paradigms and the generation of paradigms rely on the same basic processes. To dichotomise them does not help us understand how they each arise. The distinction between speaking and language then seems to be an artificial distinction which is roads in an attempt to isolate problem solving which we think we can understand from the out and out creation of a new world. When paradigms change, the world itself changes with them." In fact, this is merely a stop gap measure which keeps us from exploring the territory by setting out an artificial frontier. So we reject the dichotomy between speaking and language and with that we must reject the fundamentality of their origin; that origin beyond all dichotomies is which is the silence awaiting an utterance. Our starting point is this rejection which causes us to search for a ground more fundamental that will embrace both the creativity I out of which new world views arise and the problems solving within a worldview.

Again we start with Bateson's article, "A Theory of Play and Fantasy". There he says that When organisms, "discover that signals are signals the characteristically human invention of language can follow, but also all the complexities of empathy, identification, projection and so on. This "and so on" is intersubjectivity itself. The discovery that "signals are signals" seems to be a pretty big *When*. It gives us our lever for going to <PAGE> the hither side of Speech and Language and their origin. Organisms discover that, "signals are signals", When they play. Bateson tells us that ". . . this phenomena, play, could only occur if the participant organisms were capable of some degree of meta-communication, i.e., of exchanging signals . . . When would carry the message 'this is play' "This is play" signifies" these actions, in which we now engage, do not denote what could be by those actions which these actions denote. The playful nip denotes the bite but it does not denote what would be denoted by the bite. Wilden puts this much simpler when he says that in a message information is disengaged from energy. (13) Thus the lip is a bite whose energy is strictly controlled so as not to be harmful. The animal goes through the actions of biting but strictly controls his actions so they will not be harmful. The bite denotes malice and aggression. The nip points to the bite by mocking its elements, but beyond that it denotes just the opposite of malice and aggression. The nip is a negation of the bite through its parody of it. "We fact then two peculiarities of play: a) that the messages or signals exchanged in play are in a certain sense untrue or not meant and b) that that which is denoted by these signals are non-existent." Thus not only does a nip not mean what a bite means, beyond this the bite referred to by the nip does not exist, or rather has not been expressed. One animal does not bite another and then nip at it in order to make the difference clear. Instead the nip somehow must carry inside it the reference to the bite as an absence which is a presence.

Bateson goes on to frame different categories of play — threat, histrionic behavior and

deceit, ritual, game (is this play?) and finally <PAGE> the metaphors which Is meant (the flag which men die to save). These categories seem to me to be not very well thought out with respect to their internal relations with each other. The distinctions made are not very different from those made by Huizinga in *Homo Ludens*. This is beyond our immediate concern. Our job is to frame the theory of play as meta-communication in slightly different terms.

D.D. Winnicott describes the genesis of Illusion as the primordial means by which the infant/mother relationship occurs. The good-enough mother through her attentive care which satisfies the infant's needs as they arise, produces in the infant the illusion of his omnipotence. This is the illusion that he can will the satisfaction of his own needs. There is, of course always some discrepancy between the needs and their satisfaction but as long as this is minimal the infant can intellectually (sic) cope with this margin of error. That is, the margin of error itself becomes an expectation. This discrepancy as the infant matures grows into the objective world. It is the manifestation of Peirce's (or Lacan's) second category. However, in as much as there is a fair correspondence between needs and their satisfaction, the infant supposes that his subjectivity ordains the satisfaction of his needs. This feeling of omnipotence would be the realm of Firstness for Peirce. Unfortunately it becomes painfully obvious with maturity that even though the infant subject does have a willful potency, he is not omnipotent. The presence of the false omnipotence points up a realm of illusion as a potential space or transitional medium between the nascent subjectivity and the discrepancies that are the first indications of the external (not-me) world. The intermediary of Illusion Peirce call Thirdness.

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Winnicott uses his quasi-Peircean categorical system to develop a rudimentary scheme in

which to understand psychopathology in child development. Beyond the difficulties already pointed out in Section I with any such categorical system which doesn't take into account a theory of logical types, Winnicott also suffers, along with Monad, Peirce, Mead and practically everyone else, from the worship of the imaginary ideal of objectivity. Merleau-Ponty has already offered a profound criticism of objectivity with its Janus faces of Empiricism and Intellectualism (Rationalism) in Phenomenology of Perception. (19) Winnicott identified the second category of Discrepancy with objectivity. The not-me object, intersubjective opinion and scientific objectivity are crammed in shoulder to shoulder in that small category. Basically, though, as omnipotence recedes the categories of object and Illusion grow in relation to one another while the category of subjectivity instead of shrinking, merely becomes disillusioned as the second and third (10) categories differentiate themselves. Disillusionment is the process of realizing ones illusions. Within the second category science and relationships with others are supposed to grow up while in the third category first transitional objects and later play, art and religion, find their places. Inner realities and intersubjective relationships are mediated by a category of experience which has the job of keeping inner and outer realities separated but inter-related. (21)

The inadequacies of the basis of Winnicott's theory are really too great to be patched over. It is the underlying dichotomy which, as in all logically non-hierarchical categorizations, is the biggest problem. In spite of this fundamental inadequacy of the formal theoretical vehicle in terms of which Winnicott's ideas are presented there is still something in them <PAGE> to be salvaged. Particularly interesting is the idea that illusion is the medium through which the primary intersubjective relationship develops. This echoes what Merleau-Ponty has to say about the essential features of inter-subjective relationships. He tells me I ass in the other my own intentions being fulfilled. (23) It is as if

those intentions of mine grew as an attempt continue to which I thought were my own to continue to elicit the actions of the other which I thought were my own when I discovered the illusion of my omnipotence. I learn to flex my body in specific ways in order to cause the reactions in the other, which I discover I cannot directly will. That this is necessary, surprises the infant. The infant believes that these responses of others to him are the result of his own intentions. From the point of view of the significant others, their responses serve to give definition to the inchoate desires of the nascent subjectivity. From the infant's point of view it is he who is in control. It is he who sets the schedule from birth and he who relaxes it as he feels he is ready. Of course, this is only a sort of blind control, which is unknown to itself. As dexterity increases the nascent body/subject bends all his effort toward eliciting in others the acts which will fulfill his intentions. Corollary to this is the notion that the first objects of nascent perception are the faces and bodies of significant others. It is in relation to these that all equipment and natural phenomena, which are as a halo surrounding these nexes of interest, are defined. These primary objects of nascent interest are known first as expressions, looks and intentions and only secondarily as having specific characteristics such as color or a particular shape. Thus the infant is primarily in contact with intentions and expressions directed toward him by significant others. He quite simply believes these are his own.

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The basic ingredient in all this is the idea of illusion. It is the medium, the plasma through which contact is maintained. (25) The contact referred to here is not between subjectivity and objectivity, intersubjectivity or an alter ego. What is really the greatest illusion is that there are such entities, such dichotomies in the system of mother and child. The contact isn't a contact between polarities but an incarnate CONTACT. It is not a slight gap but a positive link. In fact we might think of it as that link which gradually matures into a person. The

infant's intentionalities are fulfilled in the mother because they are indeed of one Mind. They form an incarnate system of exchange which is the embrace of their bodies. What we call illusory here is to Lacan what the Symbolic looks like viewed from the realm of the Imaginary.

It is not enough though that we see there is a medium of illusion which allows bodies to embrace as a single system of exchange within which subjects become distinguishable. This realm of illusion is more than merely a self-deception. Beyond this we can see arising a second order Illusion, which finds itself in and springs from the soil of the first order illusion. Winnicott's illusion is unrealized. This illusion 'in itself' folds back upon itself and realizes itself as 'for itself.' The imaginary subjectivities are a participant in the illusionary systematic relationship that binds them, realizes that it is all merely a pretense. This realization of the ambiguity of an illusion which does in fact link them, can be identified as the point at which true Illusion arises. At this very point subjectivities coalesce in the system of blind exchange and clinging between bodies and at the precise moment when these subjectivities become manifest they recognize the fact of their being based on an Illusion. This realization of their being founded on illusion is the same act as their arising out of the illusion, flat only is the relationship between infant and mother based upon untruth but what is denoted is non-existent. It is untrue that the infant's intentions are fulfilled in the mother's responses. The mother's responses are merely an attempt to maintain the infant's viability as a living partial system in relationship to the total system of infant/ complete environment. The mother is a mediating element which adapts the infant to environment and environment to infant. The infant cannot see the mother's mediating duties and to him she is the environment. It is he and she which form the system of mind. Further the infant identifies himself with the whole system of Mind (he and she) without distinction between self and other. It is in this context, the illusion that intentions are fulfilled

grows. The infant has a need; then it is mysteriously fulfilled. The infant Experiences this as a causal relationship between his intention and its fulfillment. That the fulfillment of the intention is done by an agency outside himself only occurs to the infant slowly as he realizes the illusion which is the medium of his link Kith others. There are no intentions, nor fulfilling responses in a total system of Mind. It is only the infant's partial view which makes him think there is.

Beyond that untruth of fulfilled intentions it is further realized that what is denoted by the untruth in respect to the relations between child and parent is non-existent. In short, the relationship is a myth (mythical), a Mutual self-delusion which paradoxically in fact binds, creates the appearance of a relationship which is non-existent. The relation-ship is non-existent because the end points supposedly in relation to one another are imaginary. Subjectivity arises, with the realization of illusion. The illusory is untruth but beyond that the untruth (nip is not a bite) points to a non-existence (there is no bite). In the case at hand the non-existence pointed to is that of the relationship between child and mother itself. Firstly, because the participants or end points in the relation are supposedly are non-existing. The relation as a relation between imaginary end points must be a fantasy. There are in fact only relationships without end points in a system of mind. That is only incarnate relationships. Secondly, once we have realized the imaginary character of the polarity and put our faith in the system (child/mother) we realize that by destroying the meaning of the polarity we have also destroyed the meaning of the system the polarity helped us to locate. Having lost the location of the polarity and thus the system we realize that the system itself was a myth also.

As an aside it should be noted that in order to describe relationships on a symbolic level of exchange it is necessary first of all to stipulate the imaginary polarity which locates the symbolic system to be described. This polarity is a reference matrix (as empiricism and

intellectualism are to Merleau-Ponty in Phenomenology of Perception which no description of more basic relations may be made. To negate the polarity when moving to a more fundamental level of analysis (as one must do if one has no theory of logical types to use as a guide) makes one literally lose ones place so that without the polarity one loses track of the bounds of the system and thus loses the whole system and makes description impossible at any level. What is left, in the ease at hand is the total system of child/total environment composed of only incarnate relationships, when the imaginary system <PAGE> of child/mother disappears.

However, let us think again. The realization of dis-illusionment. This does not mean the destruction of illusion but on the its compounding. The fundamental ambiguity of art, illusion that binds, explodes into a whole realm of Illusion. The paradox here is that instead of destroying illusion its realization makes it possible for the child to play upon the illusion that binds, because the realization of its essence makes it usable, serviceability to the ends of those embroiled in it. This brings us to the definition of this "playing upon" illusion in the realm of Illusion (second order). Thus we are introduced to the category of Play.

In Bateson's terms play is a meta-communication which carries the label, "This is Play". The status of this label, I feel is not very well thought out in, "A Theory of Play and Fantasy". Bateson calls it a meta-communication there. That is the exchange of gestures in play carry the message, "this is play. Now is my opinion, play is not merely a meta-communication but it is in fact a force field sat up within which the series of meta-incarnate triangles described in Section III operate. That is to say, play is the transparent envelope which must be evoked for meta-communication, meta-linguistic framing or communication to take place. In other words, it is in that envelope that incarnate triangles call for their own completion when two of their elements are specified.

The nip does not merely carry the message, "this is play", somewhere within it. (28) The nip is the very physiognomy of play. It is a spell cast over the multitudes which like shouting from the roof tops heralds a new order. The nip then carries within it not just a <PAGE> or a meta-communication but a structure which is the structure of a shout whose physiognomy is play. The nip then carries within it the full structure incarnate triangles and this structure is only possible in the envelopes of play which on the other hand play is only possible where this structure is upheld. It is thus that, that shout is not merely a shout but to have meaning. The nip, then, is a meta-comment on previous of either the nipping or nipped animal. The nip evokes and on a certain, "social" relationship between the animals. The nip indicates a specific contest in which it takes place. The nip is a comment on the medium of communication available to the animals in that it reveals the medium by diverting concern from the message (MeLuhan). (29) The nip is beyond all this a communication and in fact has a certain style. The nip in a primitive way indicates all these things all rolled up into ones straight forward, an unpremeditated mocking gesture. Here we see at work a basic principle of over-determination which Merleau-Ponty calls to our attention in discussing the sexual nature of man and dreaming. (30) Mans sexual nature is not limited to a" certain part of his being but permeates his entire being. The dream then has a sexual significance as a matter of course as a dream expresses the being of the dreamer. To only, emphasize the sexual significance of the dream must be wrong. What must be emphasized is the dreams relation to the total being at the world of the dreamer. We may see then that the dream is to the total being of the dreamer as the playful gesture is to the incarnate meaning generating triangles that are latent in it. No one element in the deep structure of play must be over-emphasized. Play then is like the dream in the way the play expresses the totality of the subject's meaning generating capability while the dream <PAGE> expresses the totality of the subject's 'being at the world. That Play could be seen as

a waking dream and the various implications which might be drawn from their internal correlation is taken to be obvious. Back to our point, all these specific context markers and communicative elements are present as latent possibilities as soon as the illusory mantle of play has been donned. So I disagree with Bateson's statement, "This phenomena, play, could only occur if the participant organisms were capable of some degree of meta-communication . . ." (31) Play and meta-communication have their advent in the same breath. But meta-communication is only a possibility latent in the deep structure of what we recognize as the physiognomy of play. Illusion (second order) is the foundation from which play proceeds. Play is an act of Illusion, self conscious illusion.

The principle that play is the envelope in which meaning as meta-communication may emerge is very important. To think it is the other way around definitely puts the cart before the horse. To say meta-communication precedes play leaves us at a dead end with no room for development. On the other hand if we consider play the ground of meta-communication what we are really saying is that all meaning is based on a platform of self-conscious illusion. Play is self-conscious illusion. It is the mode through which illusion, is and self-conscious and once so it then plays upon itself in that special mode. The infant at first is wrapped in a hermetically sealed container of illusion. Gradually he progressively becomes disillusioned. This does not mean he is brought face to face with some sort of objective reality. Disillusion means that he is brought to realize more and more the basic illusion of the system in which he is embroiled. His play is the display of his mastery over the illusive nature of the social milieu in <PAGE> which he is want to participate. His play is a parody of the illusory forces which bind him to others and bind others to each other. The play of children is not game practice, nor any imitation of adults. It is wrong to think of what adults are doing as some higher order of behavior than the play of children. Actually quite the reverse is true.

Childs play is a comment on all that is going on around them, which tells us that they understand their milieu and further they understand that it is all based on an illusion. Playing is the mastery of the world, in the sense that once the child has the secret upon which all the world is based (illusion), he can enter that world. First, out of the sheer joy of discovering the key of the first impulse of the child is to parody the world and show triumphantly his mastery. The play of children is a sarcastic meta-communication about what is being communicated to them from those around them, Adults usually just assume that kids games have nothing to do with them, that playing is just a release of energy or something to keep kids busy till their big enough to do something useful. The truth is that those games have everything to do with the adults and their relationships with other adults and to their children. Children make fools of the serious adults caught up in their fantastically intricate games, but who do not realize they are merely playing games. Games founded on primary illusion just as much as the play of children. Children caricature the neurotic antics of their keepers and show at least each other that they understand the farcical character of what to the adults are life and death situations. This meta-communicative parodying of adults and other children can only take place in a specially designated realm It is the capability of evoking this realm of illusion that play signals.

Briefly we may specify; levels of children's play. It is not my intention to dwell here in too much detail; but a couple of points should be made. First Winnicott's idea that before one may really be alone by ones' self one must before that be able to be alone in the presence of others is very important. The advent of illusion makes being alone possible. The infant becomes occupied with himself. This essentially means subjectivity arises with Illusion. The nascent subjectivity first appears as the ability to occupy oneself or be along within presence of others. This is because the infant is now distinguishing itself from others as imaginary points of reference in the total system of exchange. The possibility of being

alone with others is the converse of the ability to be with others. Before the advent of Illusion there were no self or others. Now with its advent the two possibilities of being alone or with others arise as options. The result of these two options is that the infant can now recognize when it is alone by itself. (34) The other (second) point which, should be made is that we can recognize three crudely defined levels of play which make up the options which the child has to occupy himself and others:

Spontaneous:

- PLAY at PLAYING Symbols of Exchange arise Spontaneous
- PLAY at ADULTS Symbols of communication arise
- PLAY at GAMING codification

Once the trick of how to evoke the Illusory realm has been grasped by the infant" than the primary illusion (37) is transformed into a sort of phenomenal solipsism. That is it does not disappear but becomes an underpinning, for Illusion. The phenomenal is a state in which the infant recognizes itself as essentially isolated even though embroiled in commerce with others.

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It is only in the self-conscious manipulation of Illusion that illusion serves as a means for communication with others. It is in fact in this realm in which others and the subject arise as possibilities beyond unselfconscious exchange. Before this there was only a blind-mute adherence of one being to another, a clinging of infant to mother, body to body. Until the realm of Illusion arises this phenomenal realm might be called real in the sense that it is all there is. It must be accepted at face value and stand unquestioned. Play is a coining to consciousness of the underlying ground on which taken for granted, or the accepted at face value, world of the infant is based. The simple

illusion of intentions which link infant and mother is brought to the surface and it is this which is played upon. Thus we can see that paradoxically illusions onto genesis is prior to Illusion but Illusion is exposed as a ground beneath illusion which must be there for illusion to be realized as not the ultimate truth. Illusion is the negation of illusion, the ground exposed more basic than illusion is the ground which allows the negation of illusion.

We can see that illusion is the primordial medium in which intersubjective experiences arise. When this illusion comes to consciousness it may be used as a self-conscious linking device, played upon and elaborated. First order illusion is folded back on itself and Intersubjectivity emerges as more than a mere clinging together of bodies. Language develops in this sphere of Illusion and in relation to these new meanings. Subjects appear, to coordinate their mutual activities. From the point of view of the subjects self-consciously enmeshed in a community through the medium of illusion become Illusion, what was their mere blind cohesion in the <PAGE> phenomenal world which has its own primitive meanings under the awesome cloud of communication and exchange, seems like an intolerable isolation. Second order Illusion is a rejection of that lonely world which must be accepted without contestation. Such a world must be rejected en tota in order for an alternative to appear. (38) It seems strange perhaps to say that infants must learn to be alone in order to become aware of how lonely they really were before they ever know how to be alone but this is the precise truth of the matter. Before subjectivities arise there is only unconsciously solipsist clinging in mute communion. When subjectivities arise in Illusion the must communion becomes intersubjectivity and individual bodies learn what true loneliness and true communion really is. The prior state is only a sort of dumb existing together without being able to ever reach one another.

To summarize, illusion is the medium that links bodies. When it is negated, or becomes

self-conscious, second order Illusion arises and first order illusion is transferred into the Phenomenal. In Illusion subjectivity as Inter-subjectivity dawns and the act of communion within the Inter-Subjective community is Play. Play has an immediately recognizable physiognomy in the world and it is the space in which meanings arise as its deep structure of incarnate triangles become manifest. The next step is for us to look closely at Play and Illusion by means of Huizinga's list of the formal characteristics of Play. In these we can discern the vague outlines of some of the elements of our incarnate triangles. These should be noted but not stressed. Play brings a totality, with a specific physiognomy blends these elements so that they may not easily be analytically extracted. It is best, I think, to keep separate our descriptions of Play as physiognomically whole and its analytically reduced deep structure which generates <PAGE> meaning. However it is good to see the basis for such analytical tearing out of the deep structure in the outlines of the physiognomy.

FIGURE Formal Characteristics of Play

Play (as in the play of children) is but a pare case of a more general phenomena. Huizinga says ". . . culture arises in the form of play. By this we do not mean that play turns into culture, rather that in its earliest phases culture has the play-character, As a rule the play element gradually recedes into the background, being absorbed for the most part in the sacred sphere. The remainder crystallizes as knowledge: folklore, poetry, philosophy or in the various forms of judicial and social life. The original play element is then almost completely hidden behind cultural phenomena, but at any moment, even in a highly developed civilization, the play-instinct may reassert itself in full force, drawing the individual and the mass into the intoxication of an immense game."

However we must reinterpret this notion to make it <PAGE> more acceptable. Culture does not corns from a play element as such,

Both play and culture are based upon a ground of second order Illusion to which we find our most direct access through its most pure expression in play. We must distinguish three sorts of play:

- Play of children and adults - most direct access to Illusion
- Play-like atmosphere in which cultural phenomena first arise.
- Play as analytic concept which is hidden in all cultural phenomena and may be uncovered again.

Culture in all its myriad manifestations is based on the ground of Illusion. We are able to understand culture better by going to play (first definition) because play exposes in a more rarified form the ground of both itself and culture. Huizinga bases play (first, second and third definition) on what Huizinga calls the play function or LUDIC function. This is merely a reification, an imaginary entity. It might as well be suspended in mid air. What it is acutely important for us to realize is precisely what the relation between Play and culture is.

The Play (1) of children and adults in the form of games, gay abandon, mimicry and parody and etc., is of the same logical type as any other cultural phenomena. Both play (1) and cultural phenomena such as specific sorts of work and communal activities such as town meetings, etc., all come under the class of Culture. The class Culture is based upon Illusion along with the general play form (definition 2). They are of the same logical type. Culture and the general play form as they first arise out of Illusion have a very similar structure. Thus culture is said to arise initially as a play-like atmosphere which as sedimentation sets in, becomes serious and in fact a sacrament. The Play Form goes on to become a general pattern accessible to evoke Illusion and generate meaning.

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Culture becomes a sedimented tradition which is referable. The play form is not cultural, it is an animate tool which man can call upon to become human. Culture itself is not a member of its own class but a general possibility to create a referable sedimented tradition. New cultural phenomena (eg a game) say arise through the evoking of the play form. That new element may only join the tradition with cultural phenomena by evoking its equal, the culture form.

FIGURE I Phenomenal Illusion Play 3, Play 2 form, Cultural Form Play 1

Both the play (2) form and the cultural form are of equal logical typing and are in fact broadly cooperative. This is to say, elements from the cultural form are borrowed to bring the play form into definition and on the other hand the playful elements can always be analytically separated from out of those cultural phenomena preserved by the cultural form. Cooperation between PF and CF is based than on a third sort of play. This is an analytic principle which can separate out of the cultural what is its sedimented play element and which can separate out of the playful (PF) what is cultural. This third definition of play takes more from the meaning of "room to move" or "leeway". It gives us "play" to weave back and forth between CF and PF.

Lastly, all this is based on Illusion, "which is even <PAGE> higher logical type than the play (3) analytic which is a higher type than PF or CF.

You may recognize here an old friend. That is the dichotomy between Speaking and Language. Speaking takes place in the PF and language in the CF. However these are not the full fledged concepts of speaking and language they lack some of the essential features such as a relationship to the origin and silence before speaking. We may say that the play form and cultural form are there as possibilities for language and speaking, but exist as only general forms before their existence. Let us not

rush into things — others it is only necessary to point out the resemblances.

FIGURE 2 PLAY FORM

Above is a diagram of the play form arising out of the ground of illusion. It is derived from a close analysis of Huizinga's formal characteristics of play. In the following I will briefly summarize the diagram.

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The first step to play is the preparation of the play-ground. (2) That is the first deviation away from the mere matter of course acceptance of the Phenomenal. To prepare the playground what Winnicott describes as the relationship of trust must be established. (42) This means that we must trust that the phenomenal ground won't slide out from under us if we leap to a higher level. We must really be able to take it for granted in order to act as if we do. This means it is necessary that the primordial world of illusion be accepted without question but beyond that this acceptance must be a conformity to it in the form of expectations fulfilled.

The second step to play and further deviation from the phenomenal is that markers in time and space are set up to set off the realm of illusion from the phenomenal realm. It must be noted that the phenomenal realm never disappears as such but is merely transfigured. The third step which brings the realm of illusion into full force is the application to only the limited marked off area, a special order which is repeatedly enforced and governed by specific roles. These rules govern the behavior of specified individuals designated as within the play community. The play community then manipulates the. hither to phenomenal world in order for representation OF something or in contest FOR something. This then evokes either realms of Communication or Exchange. The something which is communicated or exchanged is a very special something. It is a Phallas (as floating signifier) in Wilden's terms. (43) That is a symbol of Exchange,

Exchange of the symbol of exchange causes tension and uncertainty to arise within the system which in turn causes the individuals of the play community to be enchanted by the Game. The Exchange of the symbol of exchange is an end in itself. This occurs outside all values economic, moral and aesthetic because it occurs outside all restraints besides those of the system it <PAGE> produces the most crucial quality of Freedom. That is freedom to change.

I do not instead here to make a full explication of the cultural form as the twin of the Play form because it is not the direction which this essay must follow. However, it should be noted that the relationship between play form and cultural form is the same as the relation between origination and preservation which Heidegger describes. For preservation to occur a ground must be prepared outside the phenomenal and it must be marked off with time and space markers. A concert is a perfect example of preservation. That is, if it is a concert where a work which has been present ad many times before is given all over again. The first advent of the work occurred in the play form, but once it reached its finalized form then it was taken over wholly into the cultural form as you can see the first to preparatory stages outside the Box of specific Illusion generated the same for both forms. However, within the Illusion box the emphasis is quite different. That difference is the difference between origination and preservation. In the CF patterns, which arose in the play form, are reproduced as faithfully as possible. Thus the cultural form is of the same outward form as the play form except inasmuch as you add the means to reproduce specific patterns which arise in the play form. What is important is that the difference between origination and preservation is one of attitude, there is no formal difference. Preservation and origination are equally necessary and important. They take place within the exact same formal arrangements. Thus here we are getting a glimpse of the underlying unity of Speaking and Language.

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You can see how Huizinga's formal characteristics of Play (2) really describe the creation of exchange systems very precisely. He might well have concentrated on their analysis and, development instead of concentrating on linguistic and anthropological proofs. The phenomenal world becomes just that when Illusion (2) arises. The playground is prepared as an expectation of no drastic alterations in the sequence of events to come. Upon the playground, markers are set out as boundaries for the play. Then specific illusion arises as special rules are applied within these boundaries. This sounds much like some of the aspects of our incarnate triangles M²C rules applied to ML framed contexts and MC relations between playmates. It is only natural for the incarnate triangle by which meaning arises in communication to formalize the relations which are so important within the realm of illusion in which they arise. The question is whence the markers and rules that allow for illusion to arise? This question is however framed wrong. What is the world like when invaded by illusion? Illusion (2) does not come to eulogize Illusion (1) but to bury it. It moves in as a new world order which transforms everything and remakes all. The world in the transformation becomes like a never ending series of Hierarchic levels of Illusion in which one may no longer distinguish one as more real than another except in relation to another level. Any one marked off Area of Illusion is like a Play within a Play within a Play within a Play. The phenomenal is but an act of transition from Play to Play, a shock experienced at each change of Boundaries. (45)

Thus we do not ask where the Rules and Markers come from but where the Realm of Illusion (2), which transfigures the realm of Illusion (1), comes from. The realm of Illusion (2) itself is the ground for its markers and rules. Illusion (2) comes from the negation of Illusion (1). It is as <PAGE> simple as that. This negation causes the transfiguration of the

world. "Taking Myself in my absolute concreteness, as I am presented to myself in reflection, I find that I am an anonymous and prehuman flux, as yet unqualified as, for instance, a working man or middle class. If I subsequently think myself as a man among men this can be, it would seem, no more than a second order view of myself; I am never in my heart of hearts a worker or a bourgeois, but a consciousness which freely evaluates itself as a middle class or proletarian consciousness." (46) The anonymous prehuman flux is the phenomenal. The second order experience as workman is based in the Illusory. Now the Illusory is the product of an inherent reversibility, which appears in the ambiguity of the anonymous flux. As prehuman I could be bourgeois or workman equally as easily. My essential nature is an ambiguity, which could fit several molds. These molds arise in the realm of illusion as an expression of my ambiguity. Several arise with different features each laying claim to me. My being is expressed as the possibility of reversing my role and taking on the cloak of another alternative mold. The rules and markers arise as the mute features of these molds which, as they grapple for ray soul, become the expressed differences. In this way we may see that Illusion arises out of my very nature as an ambiguity. Since I am an ambiguity first and only a definite being second as I move toward the world in a particular direction, it is necessary for Illusion to arise both to define the alternatives of my being and remind ate of soy ambiguity the latent possibility of essential change.

FIGURE flux

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The markers and rules show us where we have a distinct amount of Play in our relations with the world. If we expressed ourselves in another way we could assume another mold with a different margin of play. I might be a taxi driver, student, clerk Defense Minister. Each of these roles are marked off and have certain concomitant rules. Each role gives its occupant

a certain degree of Free Play in relation, to others. It is only historical chance (structured chance) which puts one body rather than another in any of these situations or roles. As each ambiguous prehuman flux rises with its fellows to the level of being-at-the-world in the act of expression each must enter a certain play space with its fellows. As relations of exchange play themselves out each becomes a definite subject in respect to all the others, (Persons are diacritical as well as the signifiers of Saussure.) If the arbitrary markers were suddenly pulled up and the rule books burned each subject would again assume his essential ambiguity but we would all be lost.

Illusion (2) is the function of the chiasm in the being of Man at the world. Illusion (2) speaks of the moment when reversibility first begins to emerge and as the ambiguity that is each anonymous body/subject just begins to define itself in relation to all others in the play space. Concrete options emerge out of the indefinite state of potential for options. In their nascent state of ontogenesis, when still ill-defined and just visible. The options point-up the underlying possibility of reversibility. The fact of the existence of this reversibility is the ground of Illusion (2). In summary, Meaning takes shape in the envelope of play (2) which is grounded in Illusion (2); which speaks of reversibility that is inherent in the ambiguity at the level of Illusion (1); which is the ultimate nature of Man. Here we have finally traced creativity to its root in the indivisible, pre-personal, personal, pre-objective, advent of time, space, freedom and the world through <PAGE> the Body/subject which is Man and Womankind.

Unfortunately we cannot stoop here to congratulate ourselves. Beyond the Phenomenal and Illusory (2) there is yet another level which is just as important. This is the level of the Designated as Real. Reality emerges as an Intersubjective agreement. The Play community of preservers and originators becomes known as a real community. Designation as Real is a further negation of the negation of Illusion (2), a negation of dis-

illusioment. However, this is no mere return to the original state of illusion (1) except in as far as two negatives make a positive. Designating Reality is a step beyond the marking off of Illusory (2) spaces. A step beyond in the sense that it takes place within the realm of Illusion (2) and is the creation of a further moves? of illusion (0) to amplify that already in force. What is designated as real must already have been Illusory (2) and in fact it is still Illusory (2) and phenomenal too but the designated as real is even more illusory because a phantasm is created through which its illusory character is suppressed.

FIGURE 3

FIGURE 4

The Real as a designated state of affairs arises through the creation of a phantasy as a supplement to an already in effect Illusion. This supplementary phantasy postulates the negation of the Illusory state or in other words calls till the lie a lie. (47) The effect of the designation of what is real again limits the range of what is permissible and restricts the greater leeway or "play" at the lower level. Such restriction allows strict control of the communal play space and the possibility of even finer adjustment and articulation in interpersonally coordinated efforts.

Through the creation of the Real Category, options solidify and reversibility is attenuated, lost from sight. Because of the addition of the further category the relations between the Illusory and Phenomenal shift diacritically. The phenomenal takes on the look of subjectivity while this la opposed to the hardened intersubjective character (not intersubjective) of the Real. The realm of Illusion then comes more and more to look like the life world. Subjects again find themselves sealed off from other body/subjects. However, this time not as mute bodies but as full blown subjectivities. The mere being alone in the presence of others is transformed into being alone, without others in the presence of a

Reality of Reified Illusion, The designation of what is real and what is <PAGE> not Seal gives rise to values and beyond these to Power, Knowledge (as power), Morality, and Aesthetic taste. The social construction of Reality say then follow with all that it implies". Illusion is only allowed to rise up to the surface tethered by reality markers and the phenomenal is limited even more. That Illusion and the phenomenal underlying all that is designated as real is a fact hidden from everyone by the barrage of Reality designating that sustains the real. Intersubjective verdict becomes dogma and objectivity becomes the watch dog of the designated as real over Knowledge. Then Real is a tripled illusion. It is illusion (1) conscious of itself being conscious. However therein it promotes its own oblivion. (51) It wishes to hide its basis in Illusion in order for that which is designated as real to take the full stage. In the realm of Illusion and Play it was always the character of the medium which out shown that carried by the medium. Now the character of the medium is impressed so that what is carried by the medium may be highlighted.

When the designated-as-real arises then what is Illusory assumes the mantle of the unreal and what is Phenomenal seems sur-real. This may be explained quite simply by saying that what is Real is such a pervasive phantasy that it overshadows and defines all other states of mind. What is Illusory but excessive of what has been designated Real is simply unreal it is not to be considered as having power or pervasiveness. It is seen in fact as a counterfeit reality. On the other hand the Phenomenal is positively anathema, to the Real. What is Phenomenal is strangely accented, distorted, awkward, harsh and in some way an over-accented reality. Thus the phenomenal is paradoxically most distant in likeness from the Real but on the other hand because both have positive values the Real, and the Surreal are strangely, hauntingly similar. (52)

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Something else which should be noted is that what Play was to Illusion. Work is to the real. Work is Realized Play. It is play without the play spirit or rather with the play spirit suppressed. Work is play with a new and vital significance. It is more than serious it is in dead-earnest that work is performed. The contrast between preserving and origination is lost in work. (53) Work is a struggle with dehumanization and alienation. Here Marx's analysis begins to apply. It is not within the scope of this paper to consider the relationship between alienation and the Heal unreal and Surreal but such an analysis would be fruitful. (54)

Exchange and communication systems arias in the realm of illusion, but their entry into a designation as real is strictly limited. Also when in the envelope of play wherein meanings emerge, the Illusory (2) signs which suspend, these meanings are simply diacritical. However, when these sign systems are designated as real they take on a privileged status and the diacritical differences are hidden behind the substance of the sign as it is presented. Real language, Real speaking and Real Silence develop. Here what we saw as only the outlines of this trio as the Play and Culture forms on the level of illusion has exploded into the full-fledged triple categorization which we have rejected at the beginning of this section.

In the shadow of the designated-as-Real people are killed because of a verdict or perhaps an inopportune silence. A nations fate can rise or fall with the status of L notes and bars of gold. Creative speaking becomes a poor means of making a living for artists and writers who are preyed upon by the publishing industry and art market. People live in poverty next to fenced off mansions in St. Louis, Missouri, U.S.A. All this is not an opening out on to a real world out there somewhere which forms an unambiguous, <PAGE> true point of reference. On the contrary the Real is a further closing off to the phenomenal and Illusory (2) worlds which are primary. The Heal is the advent of the inhuman out of the human which

in turn emerged out of the prehuman. It takes many more personal defenses (not fewer) to watch others starve because, they are losing in the game of life made Real. The Barkers for the Real are in Heavy Magic Marker instead of the light pencil of Illusion which always has the erasers ready. The difference between Phenomenal, Illusory and Real might be stated like this. The Phenomenal consists of a scene in which there is a grassy lawn with many people about. The Illusory adds lime lines on the grass to direct the mutual games of the people on the lawn. The Real adds the death penalty for over-stepping those lines (of South Africa). Strict penalties of Death, Slavery, Torture, or the like are levied against those at inappropriate places in the system. These penalties along with concomitant manufacture of anxiety and sadness are the niceties which make life all too real. This reveals the biggest problem of Homo Ludens. Huizinga's description of cultural as play seems ludicrous when you consider the life and death struggle aspect of the fun and games he describes. It is not merely the present century in which things have gotten a bit rough either as he seems to be saying in his closing chapters. All human history has been Seal in this way. The institutions of Murder, Rape, Starvation, Torture are what make Play an almost unfathomable element in culture. It seems at first glance a short relief from the grim realities of the world. However, as we look closer we see that these grim realities are just as illusory as play itself and the distinctive grimness of Reality are just an extra-added attraction which makes one notice the reality markers a little quicker than the markers for a game. It is by <PAGE> means of these grim penalties that distinction between Real and Illusory Markers can be made. What is Real of course is much more pervasive than these penalty markers indicate but what is Real is usually always at least remotely tied to such markers. However that Culture could be Play when it is so closely attended by the gruesome guardians of Reality in the perverted game of survival of the fittest seems more like a joke than anything else.

I do not intend to give here a full exposition of the Real's structures because their intricacy has multiplied beyond the range of the grasp of this paper. It has been enough to point out the threshold of the Real and its place in the system of Phenomenal, Illusory and Real. This system has a limited correspondence to Pierce's categories and Lacan's categories.

FIGURE 5

However, I have the immodesty to believe that it is more sophisticated than any mere trichotomization.

FIGURE 6

The reason for this belief is the fact that there is no underlying dichotomy hidden in these categories as there are in Pierce and Lacan's categories. However on the other hand it doesn't aspire to the triangular structures that Monod has captured. This threesome holds a central position between the dichotomy of Pierce and Lacan and the triangular system of Monod.

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This is because it is more basic than either. It is a categorization, which cannot be split into dichotomy or by logical levels. This is its inner strength and through this strength we recognize in it a structure prior to the double helix. That is the origin of the three elements, which we begin with at the first level of the triune. This is to say I hypothesize that it is through this structure that the ambiguity of a true origin is turned into an incarnate triangle in order to allow the double helix structure to spin off.

FIGURE 7

END