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TEMPORALITY AND REPRESENTATION:

A STUDY IN PSYCHOLOGICAL SEMANTICS

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TEMPORALITY AND REPRESENTATION:

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By

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ABSTRACT

TEMPORALITY AND REPRESENTATION:
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By

Stuart L. Doneson

This thesis presents a semantic approach to the problem of conceptualizing basic theoretical terms in psychology, in this case "temporality" and "representation". More specifically, a brief history of the theoretical treatment of temporal experience pointed to the intimate connection between representation as cognitive structure and function, and temporality as a condition of articulated experience. The fate of this "intimate connection" in the course of psychological theorizing was traced by schematizing the basic dimensions of representation, viz., motivational, formal, modal, and temporal. This schema of basic distinctions was then used to successively isolate different aspects of representing, thereby raising questions concerning the temporalizing potentials of different modes of representation. With this background, the epilogue attempted to sketch a psychoanalytic action language approach to temporality, as well as to indicate the possibility of reconceptualizing the relations between primary and secondary processes as figurative and literal modes of representation.

For Susan, Daniel and David.

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I would like to thank Dr. Albert Rabin for giving me the time and space I needed to follow the bent of my curiosity; Dr. Griffith Freed for his unflagging interest in my conceptual excursions; and Dr. Bertram Karon for sharing his points of view.

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INTRODUCTION

Statement of Purpose

Like every inquiry, the psychological investigation of temporality and representation requires an orientation to the phenomenon in question, a way of talking about the subject matter that enables us to identify relevant instances and to organize them into a domain of actual and possible facts. These ways of talking are inextricably bound to the implicit or explicit terms and terminologies we employ. Consequently, our access to the phenomena that interest us is governed by the resources of the set of concepts and methods we use to take hold of them and which inform the questions we ask and the answers we seek and find acceptable.

Thus, we proceed with the realization that there is no single way of pointing to what we're talking about when we speak of temporality or representation. Instead we are confronted by a chorus of different and competing voices, each claiming to organize and unify the deliverances of experience, and each providing a language to talk authoritatively about a selected range of facts. However, the existence of this basic ambiguity of psychological theorizing raises a set of questions which delineates a fundamental (and often neglected) task for psychologists, viz. the removal of the ambiguities which surround basic terms by

spelling out their relevant meanings and regions of application as these are developed by the semantic resources of a particular theory. (cf. Carnap, R. 1950).

By proceeding in this manner, "temporality" and "representation" become themes which hold the diverse theoretical voices together as so many variations. Moreover, such an approach to a psychological question is not empirical, but "pre-empirical". It asks the prior question about what we think with when we inquire about these things. Thus, we shall seek to elucidate these tools of inquiry by examining the scope and limits of the leading frameworks and languages that govern contemporary approaches to temporality and representation.

The subject matter and meaning of statements about "temporality"-- what temporality is and what one discusses when one discusses it-- will be discovered by examining the terms in which the theories are stated. The ambiguity of statements made and the manifoldness of things designated can be brought into coherence as they are arranged according to systematic principles. Consequently, the discussion of temporality begins with a history which traces the implications of deriving terms and principles from "things", from "thought", and from "language and action". With beginning points drawn from "things", discussions of time are physically and metaphysically oriented; with beginning points drawn from "thought", discussions of time are epistemologically oriented; with beginning points drawn from "language and action", discussions of time are symbolically and semiotically oriented. Intimately linked to the fate of "temporality", the treatment of "representation" moves though a similar sequence. In particular, the focus on the relation

between representation <u>as</u> cognitive structure, and representation <u>as</u> symbolic vehicle, provides a way of mapping out the continuities and discontinuities of much contemporary theorizing in this area.

Close attention to the shifts in the basic terms of the leading theories reveals the likenesses and differences in subject matter. Although the <u>word</u> "representation" remains the same,different <u>terms</u> pick out and focus upon different aspects. Inevitably, particular theories and families of theories select one set of facts out of all possible facts and one set of languages out of the many available. From this review of theories a four dimensional semantic schema was constructed (see Appendix A) as a device for specifying the terms and aspects taken as basic in approaching "representation," viz., motivational, formal, modal, temporal. The schema was used to clarify the complicated relations between different theories and findings by demonstrating how the basic dimensions of representing are transformed in different theories. With the construction of the schema and the locating of temporality as a dimension of representation, the work of the main body of the essay drew to a close. The preliminary tasks of psychological semantics had been achieved: (1) By a kind of conceptual housecleaning, order was restored to the chaotic chorus of theoretical voices; (2) By showing the relevant sense and the appropriate region of their application, wherein the same ambiguous word is used by different theories to develop different solutions to different questions, the angry Babel of critical refutation and counter refutation was replaced by a pluralistic (not syncretistic or relativistic!) conversation.

In an extended Epilogue, an attempt was made to indicate the major conceptual impediments to a serious and whole-hearted approach to temporality. Not merely the reign of S-R psychology and behavioristics, but the underlying committment to motion language, and explanations in terms of antecedent causes and elements, tend to obscure the role of temporality in the construction of wish, desire, intention, purpose, will, etc. Consequently, the epilogue attempts to situate in a preliminary way the dimensions of the semantic schema within a descriptive or "action language" (Schafer, 1976) context with temporal terms taken as architechtonic of the schematism. In effect, this amounts to a reappraisal of psychoanalysis as the archeology and teleology of desire (cf. Ricouer, 1970). Consequently, the figure of the Janus-faced structure of representation as projected backward and forward in time is articulated. Finally, the epilogue sketches the need for an adequate theory of sublimation, and more fundamentally, of the relations between primary and secondary processes reconceptualized as the relations between analogical and univocal terms, between figurative and literal modes of representation. But this is another problem and the task for another inquiry, e.g., a dissertation on the role of literal and figurative modes of representation in the construction of temporal perspectives.

METAPSYCHOLOGICAL ORIENTATION:
THE SEMANTICS OF TEMPORALITY[1]

> The aspects of things that are most important for
> us are hidden because of their simplicity and fa-
> miliarity. (One is unable to notice something
> because it is always before one's eyes).
>
> -Wittgenstein-

The history of psychology bears witness to an inveterate tendency

to conceptualize psychological processes by means of spatialized terms

and metaphors. Aviaries, telephone switchboards, computers--not to

mention Freud's hydroelectric power plants, icebergs, and buried cities

--are only more blatant instances of this ubiquitous habit of thought.

Less graphic perhaps, but even more profoundly ramifying, is the in-

evitable use of one or more of the following contraries in mapping out

the structure and function of personality: "internal-external", "sur-

face-depth", "boundary-core", "part-whole". Needless to say, these

terms help mark off crucial distinctions, without which theory and

practice would be greatly impoverished. It is precisely this massive

theoretical importance--reflecting as it does the spatial conditions

of life--that threatens to obscure, conceal, or distort the signifi-

cance of time, of temporality in human experience. Indeed, psycholo-

gists would be well advised to reflect on Kant's contention that while

space is the form of our "outer experience", time is the form of our "inner experience" (Kant, 1965). Developmentally, the differentiation of inside and outside is an event only equalled in importance by the differentiation of before and after.

There is no minimizing the profound and vertiginous conceptual reorientation entailed by interpreting the organizing principles of psychological processes in terms of time; that "psychic structures", the "inner world", the "stream of thought", etc., are fundamentally temporal rather than spatial in nature. Indeed, the history of psychological theorizing may be productively viewed as the periodic rise and fall of the predominance of spatial versus temporal root metaphors. Thus, for the fourth century Greeks, the twelfth century Scholastics, and the seventeenth century Rationalists, thought was oriented metaphysically, i.e., things were taken as the measure of thought. Being was represented by a spatially visualized and ordered cosmos. As a result, time was viewed as transitory succession, mere becoming as opposed to permanent, eternal Being. The task of both theory and practice--of philosophy and religion--was to keep men attuned to eternal things. Treatises on psychology sharply distinguished between reason and imagination, one oriented to Being, the other to Becoming. For the Stoics and Epicureans, for St. Augustine in the fifth century, as well as for the great thinkers of the eighteenth and nineteenth centuries, the skeptical and critical question of "how we know?" took precedence over "what?", and epistemology superceded metaphysics as the archetectonic discipline. It is no accident that many of the greatest psychologists appeared during these epochs. Not only

Epictetus in Antiquity, and St. Augustine, but the emergence of psychology as a scientific discipline in the nineteenth century, bear witness to the refocusing of inquiry from the modes of things and being to the modes of thought and the psychological conditions underlying knowing, doing and making.

It is under this epistemological dispensation that the role of time in human psychology, (and correlatively, of history in human affairs at large), became manifest. No longer just objective, cosmic time--time as the general scheme of serial order and succession comprising all events--but the time of experience, of consciousness, of the human subject, became the locus of new questions and new discoveries. Theorizing about psychic time was gradually freed of distorting spatial analogies, (such as the image of a flowing river, or a line moving ineluctably from past to future through a succession of points existing one after the other), and was replaced by a psychological appreciation of the active relation between past, present, and future as grounded in the special distinction that the cognitive capacities of memory and anticipation confer on human existence.

On the Temporal Organization of Experience

"Le present est chargé du passé, et gros de l'avenir"
                                        -Leibniz-

It was St. Augustine who recognized that man lived and moved and had his being in time; that memory held the key to the structure of temporality--and therewith to the continuity of identity as the basis
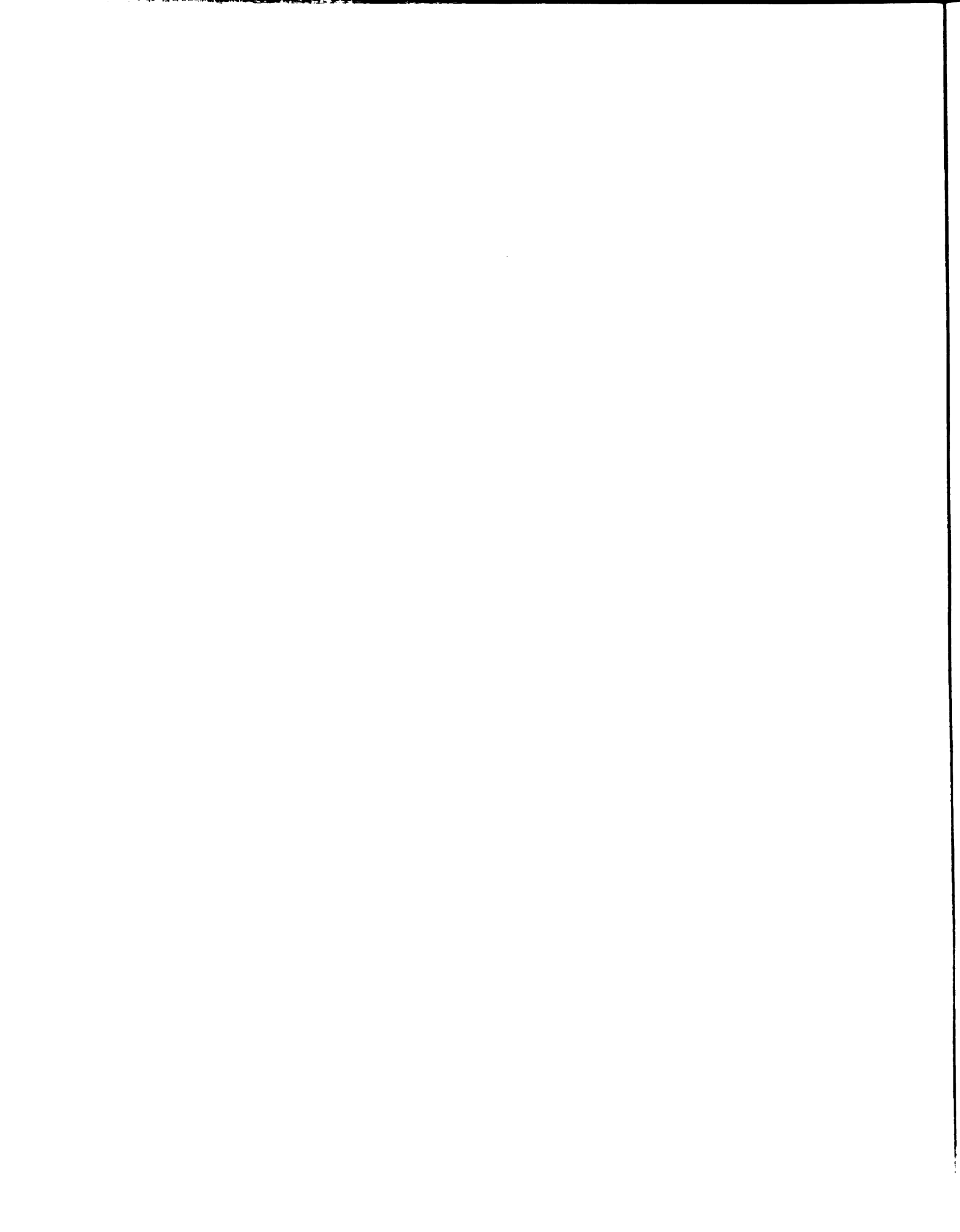
of selfhood (St. Augustine, 1962). More precisely, Augustine dis-
tinguishes three actions of the mind: memory, attention, and an-
ticipation; all of which exist as present actions. In this way, past,
present and future co-exist in the present. The past is the present
memory of the past; the present is present attention to the present;
and the future is present anticipation of the future. What is novel
about this approach is that it entails _active_ relations between the
temporal modes in codetermining the articulation of experience. By
virtue of memory and anticipation our experience becomes connected;
"before", "now", and "after" linked into the particular continuity of
individual lives. From this perspective, memory and anticipation are
viewed as active and pervasive mental operations which organize present
experience by comparing it with what has been and with what might be.
In the broad, ambiguous sense, these activities establish and link--
or by virtue of repression, fail to establish and link--past, present
and future into an interpenetrating continuity which lays the founda-
tion for the meaningful articulation of the experience of identity and
reality, of the self and the object world.

Temporality and Representation

"All our knowledge is thus finally subject to
time, the formal condition of inner sense...
This is a general observation which, through-
out what follows, must be borne in mind as
being quite fundamental."

-Kant, _Critique of Pure Reason_-

As Rabin (Rabin, 1976, p.3) has reminded us, "temporality, the conception of and awareness of the passage of time--past, present, and future--is a uniquely human characteristic which is closely re- lated to a series of complex psychological aspects of persons". The human capacity to transcend the present field of experience calls attention to the epistemologically fundamental act of representing - re present ing- experience. Or put more strongly, the power of representation is constitutive of man's human way of being. Thus understood as the active process of making present-of re-presenting or recreating the presence of something absent, representation comes to light as "the common but to us unknown root" (Kant, 1965) of human cognition. Indeed, recollection and anticipation presuppose the poss- ibility of distinguishing the present now from past or future "nows" while bringing them both simultaneously to awareness (cf. Wm. James, 1950; Rabin, 1974). Thus, the capacity to distinguish this now from others, i.e., the capacity to render or re-present a present in gen- eral--provides the principle for integrating experience. If we had no way of knowing that what we think is the same as what we thought before, we would be damned perpetually to Heracleitean purgatory in which we could not step in the same river twice--or even once!, for there would be no basis for referring to the river as the "same".
As Cassirer wisely notes:

> "Everything that we call the identity of concepts and
> significations, or the constancy of things and attri-
> butes is rooted in this fundamental act of finding
> again. Thus it is a common function which makes poss-
> ible on the one hand language and on the other hand
> the specific articulation of the intuitive world."

                                    (Cassirer, 1957, p. 114)

Presentation and representation--the capacities to "have" present and absent objects--are basic to recollection and anticipation, the processes which make past and future present. Moreover, because it binds before, now, and after into the experience of ongoing duration rather than instantaneous present points, representation is inextricably involved with temporality. As an example, even the simplest perception presupposes a time spread by which the chair that I see is perceived as one chair "enduring" across several eyeblinks-- and which includes my own "enduring" as well. Thus, it is increasingly apparent that the capacity of representation to rise up and go beyond, to transcend, immediacy creates the possibility for the continuity o the object as well as the subject, for the epigenesis of self and object. The linking and ordering of "separate" perceptions, the maintenance of continuity which is termed "object constancy", is grounded in acts of representing the past and the future in relation to the present which make recollection and anticipation possible.

A summary of this argument might be put as follows: the formal structure of representation presupposes temporality as an experiential time-field in which the differentiation of past, present, and future makes possible the concurrent appearance of subject and object enduring through change.

PSYCHOLOGICAL ORIENTATIONS

Thus far, the discussion of temporality has hinged on the re-alignment of theorizing made possible by those recurring revolutionary shifts in the history of thought away from the primacy of metaphysical categories to the primacy of episemological categories. Kant's "Copernican revolution" has been singled out as paradigmatic of this shift from the modes of things and being to the modes of thought and knowing. By virtue of this change of focus, the centrality of the psychological dimensions of time comes into view. After Kant, discussions of time were no longer dominated by considerations of space and motion. Instead the human time of duration and temporality receive vigorous attention in their own right. (Bergson and Proust are probably the premiere embodiments of this development). Consequently the codetermination of self and other, subject and object, was discussed in terms of the essential temporalizing function--the creation of a time field--intrinsic to the act of representation.

At this juncture we are once again confronted by a fundamental question. Just as metaphysics gave way to epistemology under the assault of the question "How do we know?"; the potential for spinning abstruse, autistic fantasies renders epistemological analysis vulnerable to the question "How do we know that we know?" This question, when taken seriously, results in a third and equally fundamental

realignment of the terms of inquiry. Instead of categories drawn from the modes of things and Being as in metaphysics, or from the modes of thought and knowing as in epistemology, this question marks the shift to the primacy of the categories of Expression, the modes of language and action. For speaking broadly and ambiguously, the answer to the question, "How do we know that we know?, is in terms of words and deeds.

It is surely no accident that the twentieth century has witnessed the appearance of the architectonics of language and action. Consider the creation and veneration of such disciplines of language as: linguistics, general semantics, symbolic logic, ordinary language philosophy, communications, media studies, symbolic forms, "the new criticism", and psychoanalysis, "the talking cure"; as well as such disciplines of action as: pragmatism, Marxism, Existentialism, action painting, operationalism, behaviorism and behavior modification, the "action cure". Indeed, scientific experimentation itself, which makes possible the basis of objectivity in the consensual validation of trained observers-scientific communities--turns on the philosophical importance of the public visibility of language and action.

In light of these considerations, the epistemologically oriented interpretation of representation and temporality remains merely formal unless complemented by a discussion of the vehicles or modes through which representation is expressed. For representation is only given as expression, as embodied or materialized in a specific modality. This fact cannot be overemphasized. In an important sense it marks the transition from metapsychology to psychology. The theoretical

skeleton that has been developed to understand the cognitive significance of temporal experience raises a new set of questions which cannot be solved by speculation and theory alone. Rather, an answer is required from nature via empirical investigation. Thus, even if representation is the mental activity that is presupposed in the construction of temporal orientation and perspective, (and the human psychological world in general), there remain open questions about the kinds of representations--or representational systems--that the organism has available for mediating these cognitive processes. Hence, claims about the character of internal representations are empirical in the sense that empirical data would tend toward confirmation or disconfirmation.

That representation occupies the core of human mental life is a thesis acknowledged by most cognitive, developmental, and psychoanalytic theories. Yet the significance of this acknowledgement seems to be more honored in the breech than in the commission of detailed analysis of its implications. Thus, while representation is explicit or implicit in virtually every explanation advanced by these psychologists, the fact that representing presupposes a medium in which to represent is not always made explicit. Perhaps more seriously, the vital questions to which this assumption leads--e.g., what properties does a system of representations have?, in what ways do different media affect the process of representing?,--are rarely made explicit and taken as the focus of sustained research.

ON THE MAJOR THEORIES OF REPRESENTATION :
WITH SPECIAL REFERENCE TO THE QUESTION OF MODE

In spite of the manifest differences in terminology, principles, and methods, there is a surprising formal similarity in the model of representation presupposed by many of the leading theories in the area. With certain notable exceptions to be discussed below, the major theoretical approaches posit a two-tier structure of representation based on an underlying organization or coding process which may be manifested phenomenally, with varying degrees of distortion, by different media. Thus, in the psychoanalytic tradition, Beres and Joseph, (1970), distinguish representation as "unconscious psychic organization" from such conscious derivativees as "symbol, image, fantasy, thought, affect or action" (1970, p.2). From the organismic-developmental perspective, Werner and Kaplan (1964), treat representation in terms of the "intentional act of a human being and not in the material which is utilized qua vehicle" (1964, p.333). The act of representing, or symbol formation which is a synonym in this terminology, is exhibited more or less adequately in different media, with imagery a poor relation of language. Thus "it is only at levels of linguistic codification that one observes a progression towards the attainment of full-fledged means for the differential articulation of the various aspects of an event" (p. 498). In a similar fashion, Piaget views

the development of thought as the underlying process which he calls
"representational intelligence", or representation "in its broader
sense" (1945). In the narrower sense, representation is restricted
to mental imagery. Although Piaget's treatment of imagery (Piaget
and Inhelder, 1971), is sensitive to the developmental possibilities
of the medium, these changes in the direction of greater abstraction
are attributed to the development of underlying operative structures.
As a result, imagery is viewed as essentially designative, figurative,
personalized, and preconceptual, whereas language is the medium in
which the potentialities of intelligence may ultimately reach fruition.

Notwithstanding other basic differences, the same pattern of ex-
planation may be detected in the work of cognitive experimental psych-
ologists and psycholinguists. Thus, in an influencial review article,
Plyshyn (1973), strenuously argues that "the need to postulate a more
abstract representation--one which resembles neither pictures nor
words, and is not accessible to subjective experience--is unavoidable.
As long as we recognize that people can go from mental pictures to
mental words and vice versa, we are forced to conclude that there must
be a representation (which is more abstract and not available to con-
scious experience) which encompasses both. There must be, in other
words, some common format or interlingua" (1973, p.5). Plyshyn's
view is echoed by other experimentalists who have fallen under the
spell of computer models. For computer simulations of artificial in-
telligence require an abstract coding base or programming language.
Also consonant with these approaches is Chomsky's view of language
learning as based on some innately specified system of language uni-
versals which is instantiated in the grammars of the different natural
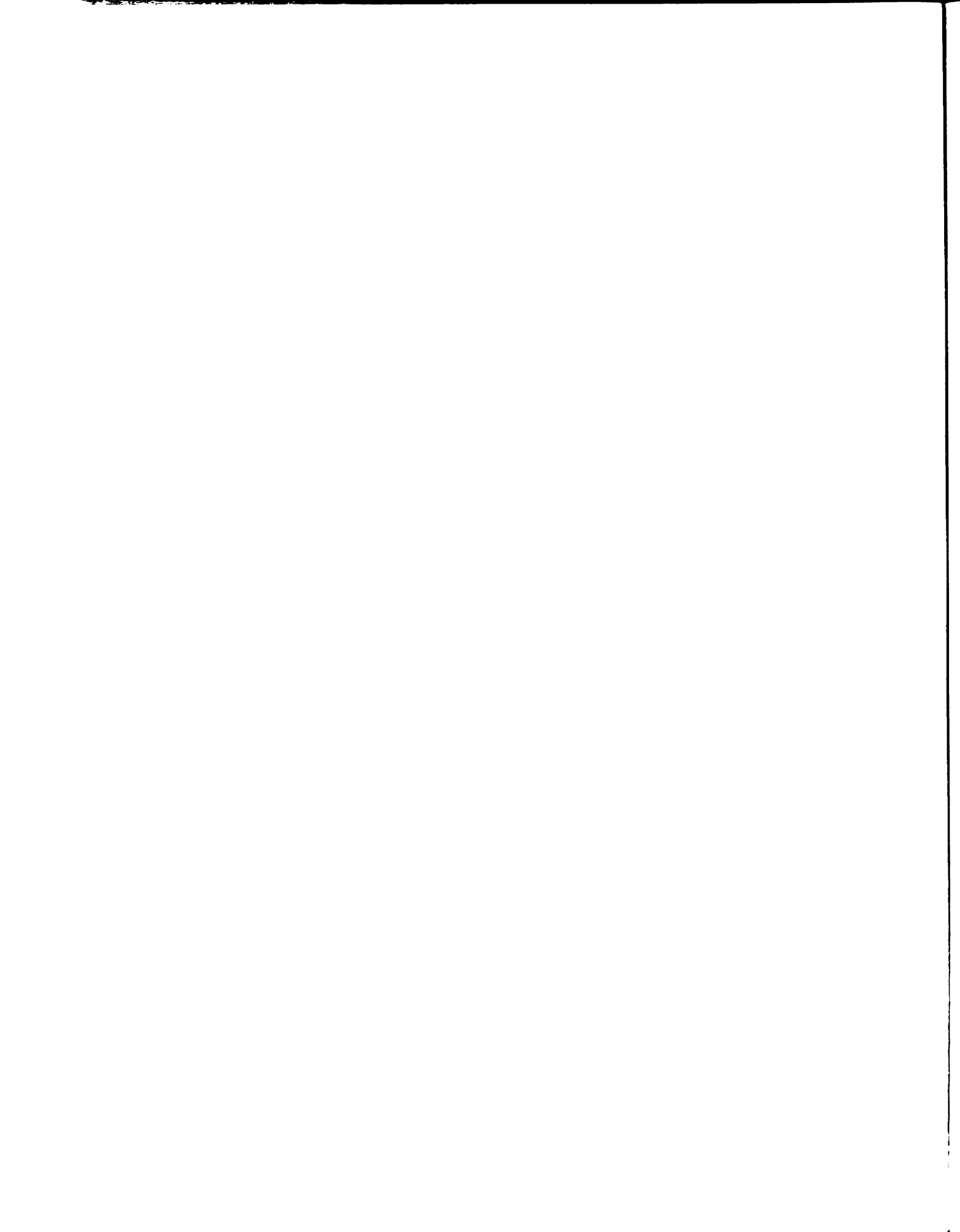
languages. Indeed, there seems to be a pre-established harmony between these views.

What is common to these admittedly diverse theories is a pattern of interpretation in which representation as phenomena (as given in appearance and statement) derive their character from a structure assumed to underlie or transcend phenomena or statements. Moreover, this underlying structure of representation achieves its fullest realization in language--with imagery and action at best regarded as privative cases.

Against the background of this conceptual unanimity, it is not surprising to discover that the bulk of the research generated from these theoretical positions has chiefly been focused on questions concerning how adequately the surface expresses (or represses) the depth, how the vehicles of representation reveal or conceal the underlying structure of representation. Consider, for example, the psycho-analysts' attempt to move from remote conscious derivatives to the unconscious representation. In a like manner, Werner and Kaplan study imagery and non-verbal media in order to shed light on "the genetically early stages of symbolization....that eventually culminate in the autonomous symbol-systems of speech" (1964, p.355).

In contrast to the unitary or monistic model of representation, which assumes a single underlying cognitive process expressed more or less adequately in different media, a smaller number of theorists opt for dualistic and even trinitarian approaches. Thus, in experimental psychology, Paivio (especially 1971) has emerged as a prolific and influential advocate of the "dual coding approach" to mental represen-tation. He assumes that verbal and non-verbal information are

represented and processed in two distinct but interconnected symbolic systems which are functionally independent (Paivio, 1974). Furthermore, he regards the non-verbal or imagery system as specialized for representing non-verbal information--concrete objects and events--in an analog fashion via imagery. Whereas the verbal system is specialized for dealing with linguistic units and generating speech. From a psychoanalytically oriented perspective, Reyher's recent analysis of the two incommensurate modes of information processing based on the functional lateralization of the brain also develops a dualistic approach to representation. Reyher distinguished two unique modes of representation: the semantic-syntaxic and the analogic-synthetic. The former finds expression in language, the latter in imagery (Reyher, 1976, pp.14-15). In his most recent theorizing about daydreaming, Jerome Singer also adopts a dual coding point of view (Singer, 1974).

Finally, there is the trinitarian approach to mental representation of Jerome Bruner and his coworkers in developmental psychology (Bruner et al., 1964, 1966); an approach which has also been used by Mardi Horowitz (1970, 1971), to rethink certain aspects of the psychoanalytical theory of cognition. These authors distinguish three separable subsystems of processing information by which humans construct models of their world: through action, through imagery, and through language (Bruner, 1964, 1966). In Bruner's view, action--the enactive mode of representation--is highly concrete, being under the immediate control of particular environmental stimuli. Imagery--the iconic mode--is seen as a somewhat more flexible and abstract system that is

relatively independent of action. At the same time, it is tied to the "surface of things". Consequently, imagery is regarded as relatively concrete and static, leaving only language--the symbolic mode of representation--as capable of achieving the full range of categorical and hierarchical organization which produces the requisite freedom for treating abstract problems and concepts. In Bruner's rather vivid image, language is "an extraordinary swift system in contrast to action and imagery, the two rather sluggish modes of representation" (1966, p.40). Finally, for Bruner, action represents "past events through appropriate motor responses", (1964, p.2); images represent by "standing for" perceptual events; whereas language represents by "design features" that include displacement and arbitrariness.

The existence of monistic, dualistic, and pluralistic theories of representation testifies to the presence of serious ambiguities, not to mention contradictions, surrounding the use of basic terms. Typically ambiguities and contradictions are dealt with in one of two ways: they are eliminated by selecting one of several meanings of an ambiguous term and by then showing the others to be ridiculous or inappropriate; or they are used by discriminating different senses or aspects of a term and the appropriate regions and limits of their application. While the former approach tends to develop controversial oppositions, the latter lends itself to more irenic resolutions. In any event, the present discussion is offered as no more than a prolegomenon to a proper conceptual analysis of the different principles and methods that contribute to the fertility as well as the productive ambiguity and the need for conceptual housecleaning that characterize this field.

CONCEPTUAL REORIENTATIONS:

THE SEMANTICS OF REPRESENTATION

> In psychology there are experimental
> methods and <u>conceptual</u> <u>confusion</u>.
>
> -Wittgenstein-

In order to introduce some order into the Babel of competing
voices, of overlapping and contradictory theories that characterize
the discussion of mental representation, it is essential to find a
means of productively comparing the similarities and differences of
the various approaches. Since the activity of comparison involves
clarifying the respect or respects of comparison, it is
possible to exploit the resources of ambiguity surrounding the term
'representation' in order to delineate a set of respects, of dis-
tinctions, by which to schematize the parameters of a more rounded
approach. Such a procedure will facilitate the review of the confus-
ing array of predicates assigned to 'representation' in the context of
different theories, as well as their coordination based on a multi-
dimensional conceptual analysis. For in themselves differences and
ambiguities are not pernicious, but the tendency to interpret them as
real contradictions is. That path leads to dogmatism and fanaticism,
relativism and nihilism; surely the Four Horsemen of the Apocalypse

as far as science is concerned.

Since 'representation' can be addressed theoretically only to the extent that the terms of discussion permit, every discussion is relative to its formulation. Consequently, attention to the aspects of representation that are selected by different theories, provides the starting point for this discussion. Thus, it has already been noted that Bruner, Paivio, Reyher, Horowitz, and Singer have revitalized the discussion of representation by making the media of representation their basic consideration. By focusing attention on the potentialities of the media, these authors have argued that the different vehicles have different intrinsic organizational tendencies. Perhaps the crucial distinction is the one drawn between the sequential organization of information of verbal representations as contrasted with the simultaneous arrangement of information of imagery representations. Consequently, the structural features of the former system have a special capacity for transforming abstract properties of linguistic units and hierarchies, whereas the latter is better suited for transforming information concerning the figural properties of concrete events (cf. Paivio, 1975, p.635). Moreover, the spatial 'format' of imagery representations would seem to allow simultaneous (or at least very rapid), access to information, while the linear format of verbal representations seems to permit a more sequentially ordered, discursive access to information.

It is apparent from this discussion that although the modal dimension, (the media or vehicle) of representation is taken as basic, other aspects of representation were brought in as derivative terms

to complete the analysis. Thus, in Paivio and Bruner the formal dimension of 'concrete-abstract' was subordinated to the characteristics of the modes. Nevertheless, Paivio goes on to elaborate the modes in terms of three formal "levels of transformation or coding....these levels of meaning reactions will be described here as (a) the representational process (or representational meaning), (b) referential associative reactions (or referential meaning), and (c) associative chains or structures (or associative meaning)....This feature of the model relates it closely to the abstractness-concreteness dimension of stimulus meaning" (1971, p.52-53). Similarly, Reyher (1963, 1976), Horowitz (1971), and Singer (1965, 1975), treat the motivational dimension of representation in terms of the relative proximity of imagery and language to affect and drive systems. Further, Reyher introduces the formal dimension by distinguishing the indirect, referential "gradients of structural, functional, and qualitative similarity" (1976, p.13) of "imagoic-depictive vehicles" from the semantic representation of conceptual-verbal vehicles.

A realignment of like magnitude is seen when the formal dimension --which might be called the level of processing dimension--is taken as the basic term of analysis. Thus, both Werner and Piaget treat the act of representing in terms of the "orthogenetic principle" of increasing differentiation (Werner and Kaplan, p.40), or of the formalization of operations (Piaget and Inhelder, 1969, pp.152 ff.). From this perspective, Werner and Kaplan view the modal dimension as hierarchically ordered, with imagery the lisping anticipation of verbal symbolization. By contrast, Piaget was able to demonstrate that the

formal dimension is operative even within the medium of imagery (as well as the medium of language); that imagery also moves from concrete to abstract--from reproductive to anticipatory and transformational--in the course of cognitive development (Piaget and Inhelder, 1967).

Thus, it is not enough to claim that humans have access to a variety of media for representing events; even when it is added that the media of imagery and language have differing cognitive and emotive assets and liabilities. For in addition to the media, it has been advanced that humans also have access to a variety of formal levels of processing, of representing information. To put it much too simply, the media of representation may be viewed as coding input into words or images, whereas processing events establish the formal level of representing, particularly the conscious context or level of awareness which regulates attentional processes and the field of consciousness, (and presumably the underlying microstructural organization of brain assemblies as well (cf. Globus, 1973; Schafer, 1967). Common experience, as well as controlled observation, recognizes a continuum of awareness running from dreaming to hypervigilance, with such intermediaries as hypnosis, sensory deprivation, free association, relaxation, meditation, etc. Various theoretical languages have been developed to call attention to and further differentiate the formal level of processing dimension of representation. Freud's discrimination of the primary and secondary processes remains the most famous as well as the seminal analysis of this phenomenon (Freud, 1900; Noy, 1969). In Werner's terminology, levels of differentiation and dedifferentiation cover similar ground (Werner, 1947). While Piaget

seems to get at the same process in terms of the relative primacy of assimilation and accomodation (Piaget and Inhelder, 1969). With explicit acknowledgement of Freud's contribution, the cognitive psychologist Neisser (1963) distinguishes multiple and sequential information processing based on analogies borrowed from computer programming. Finally, Sperry et al. (See especially Levy-Agresti and Sperry, 1968) may have provided the neurophysiological basis of this distinction by calling attention to the hemispheric differences in the modes of information processing.

It is interesting to note that those theories which make the formal level of representing the basic dimension of analysis tend to treat other aspects of representing as derivative. Thus, Werner and Kaplan consider issues of media insofar as they reflect different levels of symbolic differentiation. While Piaget detects the progressive formal development reflected in the media themselves, from concrete to formal operations. Similarly, in his major "revision of the psychoanalytic theory of the primary process", Pinchas Noy (Noy, 1969), traces the continuum of psychic organization from primary process to secondary process as reflected in the shift from "thing representations" (images) to "word representations" (p.169 and passim). In this way, the psychoanalytic theory of cognition is recast from the formal level of processing point of view. Furthermore, these theories tend also to subordinate motivational considerations to formal ones. Piaget argues for a "functional parallelism" whereby the development of affectivity--the "energetics of behavior"--mirrors the form of cognitive development (Piaget and Inhelder, 1969, p.158). In a similar

move, Noy as well as Schafer refer to Rapaport's "drive organization of memory" and "conceptual organization of memory" as constituting the progressive formalization of motivational structures from primary to secondary process (Noy, 1969, p.166; Schafer, 1967).

These comparisons of the diverse aspects of representation highlighted by the different theoretical frameworks may be thought of as supplying the 'vertical' dimension (formal levels of processing), which complements the previously discussed 'horizontal' dimension (media) of representation. Against this background the character of representation may be viewed as codetermined by modal and formal dimensions. However, even this double aspect approach does not exhaust the dimensions of representation that have been taken as basic in psychological theorizing. On more than one occasion, reference has been made to the motivational dimension of representation. Piaget captures this aspect very neatly in his recognition that affectivity is an "irreducible" aspect of behavior, providing the "energetics of behavior patterns whose cognitive aspect refers to the structures alone. There is no behavior, however intellectual, which does not involve affective factors as motives" (Piaget and Inhelder, 1969, p.158). Perhaps nowhere is the motivational aspect of representation more fully articulated than in psychoanalytic theory. Indeed, for the classical position as developed by Fenichel, mental representation originates out of the frustrated drive state of the organism as an "hallucinatory wish fulfillment" (Fenichel, 1945, p.47, ff). Representations come into being as vehicles for the satisfaction of wishes--psychic representatives of the instincts manifested as hallucination, image, fantasy, and gradually sublimated into the higher

forms of symbolic functioning. To the extent that the economic and dynamic points of view provide the 'natural base' of the theory, the other points of view may be seen as cultural elaborations of these starting points in the direction of the reality principle and adaptation. Without getting too involved in the finer points, it is sufficient to call attention to the motivational basis of representation in psychoanalytic theory and to indicate its priority to other aspects. Thus, contrary to the "formal" interpretation of Noy, Schafer, Gill, and Holt, the distinction between primary and secondary process originally referred to "modes of discharge of psychic energy and not the manifestations of these discharge processes--thoughts, dreams, fantasies, neurotic symptoms or motor acts" (Beres, 1960, p.259. But compare Noy, 1969; Gill, 1967; and Holt, 1967). It is the energic and dynamic vicissitudes that determine the "formal" level of representation.

As Freud pointed out early in his investigations, "nothing but a wish can set our mental apparatus at work" (Freud, 1900, p.567). Consequently, "the urge to fulfillment of the wish is the motivating force in human psychic activity or motor response" (Beres, 1960, p.258). Primary processes are regulated by the immediate discharge of the wish; secondary processes by delay of discharge. Similarly, the various modes of representation are classified in accordance with how they serve primary or secondary process discharge. Traditionally, imagery--"plastic representation"--is viewed as the special province of primary process (cf. Freud, 1915). For present purposes, (and notwithstanding the fact that the recent work of the ego analysts Hartmann (1964), Arlow (1960), Beres (1960, 1961), Singer (1965), etc., have attempted to redress this one-sided emphasis by demonstrating the role of imagery in secondary process thinking), classical

psychoanalytic theory remains the foremost example of the establish-
ment of the motivational dimension of representation as fundamental,
while formal and modal aspects are treated as derivatives of motiva-
tional considerations.

ON THE TEMPORAL DIMENSION OF REPRESENTATION

By sifting through the sometimes bewilderingly inconsistent theoretical statements and experimental yield, three irreducible aspects of representation were found to be presupposed in every treatment of the topic. For all their ambiguity, the differences between representation as modal, as formal, and as motivational run through each discussion, and are still operative in generating theoretical and empirical problems. Indeed, so salient are these dimensions in current controversy that they tend to overshadow the aspect of representing set forth at the beginning of this study, viz., representing as temporalizing. In spite of, or perhaps because of, its very obscurity, the temporalizing function of representation lays claim to a status equal to the other dimensions; therewith turning the trio of basic aspects into a quartet: modal, formal, motivational, temporal. Moreover, it can be argued that the temporal dimension might properly be regarded as first among equals. As stated earlier re present ing is interpreted as the active process of creating or recreating presence; of making and keeping present, time past and time future, things known and things unknown. Representation presupposes the presence of what is absent: the "what has been" or the "what is not yet". Furthermore, representing brings the nonactual (past or future) into the present, thereby 'binding' time together; where the

nature of the 'binding' in any particular case depends, at least in part, on the purposive orientation of the subject. Needless to say, 'purposing' itself--the "feedforward that structures all activity" (Richards, 1955)--is fundamentally temporal, constituting the synthesis of the temporal field in the light of future representations. It is this process of binding the presently possible future with the presently recollected past into a unified field of experience, that led Kant and Heidegger to regard the temporal dimension of representation as the ground of the purposive structure of experience.

In a more circumscribed usage, the term 'temporal orientation' "refers to the preferential tendency discovered in individuals with respect to past, present, and future" (Rabin, 1976, p.7). Thus, if the shifting fields of our experience are structured in terms of dominant interests and purposes at the moment, it might be expected that different classes of purposing will presuppose different forms of temporal orientation and perspective. More will be said about this intriguing possibility when the other dimensions are reintroduced to further articulate this aspect of representing.

It is interesting to note that while the three previously observed dimensions of representation--modal, formal, motivational--have vociferous champions on the present North American psychological scene, the fourth dimension remains mutely and ingloriously obscure. This is not to say that the other theories disregard time. On the contrary, every theory makes some provision for temporality. Thus, Piaget has written a complete book on the subject, as well as several extended discussions scattered through the remainder of his works.

Werner and Kaplan also devotes several chapters to the subject. With-
in the purview of research on the functional laterality of the brain,
Efron has demonstrated in a series of articles that time concepts
tend to be mediated by the left hemisphere (Efron, 1963a, 1963b).
While Freud's remarks on time--and timelessness!--are justly famous
(Freud, 1953). Finally, and perhaps most strikingly, it is seldom
appreciated that the distinction between the <u>simultaneous</u> organization
of imagery processing versus the <u>sequential</u> organization of verbal
processing, which figures so centrally in the work of Paivio, Neisser,
Reyher, and Singer, is clearly based on time, on two ways of repre-
senting temporality. Lest this discussion leave the impression that
time has been given its due, it is important to recognize that in
every instance temporality is considered in terms of other distinc-
tions taken as more fundamental. It is hardly an exaggeration to
assert that the treatment of the temporal dimension of representation
is conspicuous by its absence in current debates--if it was even
recalled that temporality constituted a dimension at all!

In this regard, Loewald's work deserves special mention precisely
because it exhibits in an exceptionally vivid way the new problems
and the new perspectives that are brought to light when temporality
is taken as the keystone of a theory of representation. More than
anyone else, Loewald appreciates the central role of temporality in
psychoanalytic theory and practice.

> Here are some of the temporal phenomena and concepts that
> most obviously are of importance in psychoanalysis: Mem-
> ory, forgetting, regression, repetition, anticipation,
> presentation, representation; the influence of the past on
> the present in thought, feeling, and behavior; delay of
> gratification and action; sleep-wakefulness and other

> rhythmicities in mental life; variations and abnormal-
> ities in the subjective sense of elapsed time; the so
> called timelessness of the id; the role of imagination
> and fantasy in structuring the future; values, stan-
> dards, ideals as future oriented categories; concepts
> such as object constancy and self identity; not to
> mention the important factor of time in the psycho-
> analytic situation itself, in technical aspects,
> appointments, length of hour, etc. (Loewald, 1973, p.402).

Indeed, when viewed from this perspective, psychoanalysis offers

perhaps the most sustained consideration of the multi-leveled

temporality of human existence.

While this is not the place for an extended analysis of Loewald's

position, it is interesting to observe how the other dimensions of

representation are recast by taking temporality as the starting point,

the principle of explanation. As a result, motivational aspects are

viewed as "primitive" propelling forces of the past, as in early id

psychology, or as the pull of future possibilities and purposes as in

ego psychology and object relations theory. While this is clearly not

a case of either -or, it does allow Loewald to reconceptualize the

relations between the so called life and death instincts as marking

the motivational oscillation between future and past time orientations

(Loewald, 1973, p.404). Consider also the hypothesis that structural-

ization--the development of psychic structures--is not spatial but

temporal in organization. As Loewald phrases the issue: "it might

well be useful to explore further not only the superego in its rela-

tions to the temporal mode future, but also the time dimension of id

and ego and their relations to the temporal modes past and present"

(Loewald, 1962, p.502). In this way, the formal dimension of rep-

resentation is accounted for by assimilating it to the progressive

or regressive temporal differentiation of present experience (Loewald, 1962b; p.268; but cf. also 1972, p.407). Finally, Loewald addresses the modal dimension of representation by distinguishing the unconscious primary enactive memory system from the conscious secondary representational memory system (Loewald, 1975, pp. 318-319). This can be loosely described as a continuum from unconscious transferential acting out of the past--in which past isn't distinguished from present (cf. Bruner and Horowitz on enactive representation)-- to the "higher forms" of memorial activity of "thing presentation and word presentation", i.e., of imagery and verbal modes (321 ff.).

SUMMARY

Even if any given terminology is a <u>reflection</u> of
reality, by its very nature as terminology it
must be a <u>selection</u> of reality; and to this extent
it must function also as a <u>deflection</u> of reality.

-Kenneth Burke-

The impetus for reexamining the meaning of 'representation' came

from recognizing the possibly under-appreciated fact that psychologi-

cal theorists do not mean the same thing when talking about 'repre-

sentation'---and most other basic terms for that matter. In order to

explore in some detail the different meanings, relations, and impli-

cations that have been assigned to the common term 'representation',

a four dimensional schema was constructed and employed as a device to

specify basic aspects of 'representing'. Consequently, it has been

possible to trace the way in which an initially ambiguous term is

given different meanings within the context of different theoretical

languages. This process occurs by establishing one dimension as basic

in terms of which the others are interpreted; and by further elabo-

rating that dimension in the context of the specific terminological

and methodological resources available in a given theory. Ambiguities

initially arise in the attempt to assimilate the other three dimen-

sions to the one taken as basic. The schema helps clarify the comp-

licated relations between different theories and findings by

demonstrating how the basic dimensions of representing are transformed in different theories. Thus, theories such as Freud's and Fenichel's, which take the motivational dimension of representing as primary, endeavor to show how representation is constructed out of elements of the 'representable', viz., the unconscious structure of instincts. Whereas theories such as Piaget's and Werner's, which take the formal dimension of representing as basic, attempt to assimilate the other dimensions--motivational (or the 'representable'), modal (or the represented), temporal (or the 'representer')--to the formal level of representation (See Appendix A for an attempt to graphically depict these various schematizations of 'representing'). In a like manner, Bruner, Paivio, Reyher, Horowitz, and Singer highlight the modal dimension or vehicle (the represented), in terms of which they treat the other aspects. Finally, theories such as Loewald's, that emphasize the temporal dimension of representing, discriminate the other dimension as the products of the temporalizing activity of the representer (cf. also Kant, 1965, Husserl, 1962, Heidegger, 1962).

The advantages of such a schematic device are twofold. On the one hand, by revealing the different references, the different questions and meanings concealed behind a common term, apparent inconsistencies and contradictions are minimized; therewith undermining the grounds for dogmatism and skepticism. Thus, in showing the proper senses of a given usage of a term, it becomes apparent that different theories focus on acceptibility obvious and different aspects of the multivalent phenomenon of representation. On the other hand, the schema of basic distinctions, by isolating different aspects of representing, can articulate the four dimensions in

various ways, thereby raising new questions and new perspectives.

If there is any moral to be drawn from this semantic approach to the ambiguities of 'representation', it lies in the recognition that the multiplicity of theoretical languages--of subject matters and systems of inference--facilitates the differentiation of the complex and richly diversified meaning of this fundamental concept. That different terminologies direct attention to distinguishable major aspects of the phenomenon of representing, precludes the necessity for choosing one language and banishing all others--as if salvation rested on the proper declaration of faith. Rather, the different theoretical languages are more modestly and usefully viewed as so many tools of the trade, each with its own assets and liabilities for solving distinct kinds of problems. By the same token, the fourfold dimensionalization of 'representation' constitutes yet another analytical device, another tool of inquiry that will have to prove its mettle in the only relevant arena: that working with it produces positive and verifiable results concerning the questions that interest us.

EPILOGUE - RETROSPECT AND PROSPECT

A retrospective look at the movement of this preceding discussion reveals the joints, the transition points of the argument, and intimates the direction of its further elaboration. By puzzling about the place of time in psychology we attempted to trace a kind of recurring historical cycle, wherein time is treated first in terms of "things", as the universal context of motion, then in terms of "thought", as the formal structure of the knower; and finally, in terms of "language" and "action", as the temporal structure of representing. Thus, 'context', 'agent' and 'act' provided different perspectives on the meaning of time and its placement in psychological theory; and we had occasion to note that the temptation of using models of time derived from the perspective of things tended to obscure vital aspects of temporal experience; (but more about this later). Thus, after passing from the psychological status of temporality to the act of temporalizing, we sought a new perspective by playing with a pun on the grammar of the term "representing" (as re presenting). Following a suggestion of Kant's, we hoped to find the "unknown root" of temporality by digging into the "ground" of representation.

After a brief detour through selected philosophers as a way of getting oriented to the complicated connections between temporality and representation, we turned to the major psychological theorists of representation, in the anticipation of finding there the conceptual resources to make Kant's suggestion pay off; or, to change the metaphor, sensing the "catch" that would justify the fishing expedition. Surprisingly, the catch was neither fish nor fowl, but good red herring. To begin with, the literature on representation is rife with ambiguities--if not downright contradictions. Further, and in spite of the almost unanimous agreement that "representation" functions as a pivotal concept, there are virtually no careful conceptual analyses of the term to be found, certainly none that go beyond the somewhat parochial boundaries of different schools. In order to fill this vacuum, we attempted a provisional semantics of psychological theorizing, focusing on the vicissitudes of meaning assigned to the term "representation". Three basic terms were found to be featured in the different theories: representation as _formal_, representation as _modal_, and representation as _motivational_. Each of these terms provided a perspective on representing in which the other terms played a secondary or derivative role. But while this finding was not without intrinsic interest and implication, it failed to shed the desired light on representing as the foundation of temporality.

Sometimes the failure to find what is expected can be more illuminating than success. Rather than pass too hastily over the absence of discussions linking time and representation, we might take heart from the example of another student of representation, and above all, misrepresentation. In this, as in so many other things, Sherlock Holmes

points the way. When Holmes observed that the dog's barking held the key to the mystery of <u>The Hound of the Baskervilles</u>, Watson protested that the dog did not bark that night. And that, of course, was the point. And that may be our point as well. The absence of discussions of time in the context of theories of representation may not be adventitious, but instead prove to be the most revealing clue of all; drawing attention away from the quarry of temporal experience, and to the devices we have fashioned, the terminological nets and networks we use in taking hold of it.

From this vantage point, the theoretical obliviousness to time as temporal experience may be traced to committments to concepts and methods which dictate the acceptable categories of explanation (including the criteria and rules for what counts as elements, facts, and relationships), which in turn render certain kinds of evidence inexpressible in its terms. Needless to say, such considerations touch on profound and controversial issues in epistomology and the philosophy of science. With respect to the question at hand, we are witnessing certain local effects of the more general decision about the nature of science as it bears on the study of human behavior. The policy of substituting "how" questions for "why"; of treating humans as "objects" explicable by mechanisms and processes; the banishment of final causes and the sovereignty of efficient causes, all point to the triumph of "natural science" methods of approaching and organizing the domain of psychology. The purpose of mentioning this is not to detract from the hard earned successes of this approach in its proper place, but rather it is, in the words of Whitehead, "to draw attention to the mass of evidence...which is simply ignored in the prevalent scientific

doctrine. The conduct of human affairs is entirely dominated by our recognition of foresight determining purpose, and purpose issuing on conduct. Almost every sentence we utter and every judgement we form, presuppose our unfailing experience of this element in life. The evidence is so everwhelming, the belief so unquestioning, the evidence of language so decisive, that it is difficult to know where to begin demonstrating it" (Whitehead, 1966, p.13). In short, we are proposing that the indifference to temporality stems from conceptual committ-ments (we almost said "occupational psychosis") to what might be called the project of replacing the "impure" language of intentional-ity by a purified language of causality; a project which promises to bestow the blessings of science on the heads of its practitioners. But since blessings are dialectically related to curses, it would be remiss to assume that this project is not without its cost, its shadow side. Or, to quote Whitehead once more: "Scientists animated by the purpose of proving that they are purposeless constitutes an interesting subject for study" (ibid., p.16).

At the heart of this controversy, which is at least as old as Galileo's (if not Democritus') rejection of final causality, is what Roy Schafer (1976) has recently christened the debate between "action language" (or as George Klein (1976) calls it, psychoanalytic 'clin-ical theory') and "metapsychology" (construed as the translation of meaning into the underlying dynamics of energy). In their stronger, ontological form, action models presuppose the human body in con-scious or purposive motion, whereas motion models seek to reduce action to its antecedent internal or external causes. Thus,

behavioristic explanations seek to reduce or dissolve act and actor
into conditioned responses to environmental stimuli, while dynamic
explanations reduce act to actor who in turn is driven by motives
which have their foundation in such natural mechanisms of motion
as drive and instincts. Both internal (drives) and external (environ-
mental)   causes reduce action to concatenations of motion, sheer
motion. (Consider such terminological strategies as 'instincts',
'drives', 'homeostatic regulators', 'information processors', etc.).
Moreover, motion models rely on tracing chains of <u>antecedent</u> causes,
thereby decomposing complex motions (behaviors) back to simpler
motions (instincts or reflexes), ultimately, in their ontological
forms, to the laws of chemistry and physics. In such theories, past
present and future are stretched out in an (external) sequential and
causally related order, with the explanatory power rooted in the past
(e.g., biological continuity and learning histories).

In its more cautious, semantic or "logological" forms (i.e.,
words about words), these models represent different policies about
the kinds of terms or "languages" that are most relevant for an ade-
quate psychological account of human behavior. Such policy decisions
establish the criteria for singling out elements of experience, for
classifying them into kinds based on relevant resemblances, and for
systematizing the coherences and relationships among them. Different
terms and languages will "feature" certain resemblances in certain
respects and neglect other resemblances and other respects. From
this angle, the paucity of attention to temporality takes on new
significance. When employed as a way of classifying theories of
representation, the "action-motion" dichotomy brings to light the

way different theories exploit the ambiguity in such terms as "behavior", "movement", "instinct", "program", "homeostasis","information processing" and even "representation". For all these terms can mean either action or sheer motion. Such accounts acquire a certain plausibility by moving illicitly from one set of meanings to the other, by sliding from an ostensibly rigorous theoretical language of causes to the ordinary language of meaning and intention. These conceptual sleights of hand provide the best of both worlds: theorists can have their verisimilitude, and their scientific consciences too!

Rather than giving a detailed account of the specific sins of each theorist, or ranking their sins in order of magnitude (for this, c.f., Schafer, 1976), suffice it to say that the lure of causal explanations of representation directs attention to the influence of the past and therein obscures the radical way in which time enters into human life, the way in which action can be seen as a time-structure that is intrinsically different from simple biological development. In this vein, we will attempt to detail the conceptual transformations entailed by extending the three dimensions of representation--modal, formal, motivational--from their original matrix in various causal theories, and relocating them in an action model of representation that takes temporal representation and perspective as the semantic rock bottom of explanation.

On the Temporal Structure of Action

This epilogue has moved beyond the essay's original aim of attempting to neutrally state the structure of different theories of representations as a way of discovering basic conceptual dimensions, and toward a restatement of those dimensions in an action language framework. But even this project must be approached with circumspection lest it become merely the substitution of one set of crude abstractions for another. For the distinction between causal and intentional languages, and the action-motion polarity on which it is based, is not without its own ambiguities. Once the smooth surface is scratched, the concept of "action" seems to cover a multitude of sins, stretching over a series of graduated differences in meaning and shades of qualification. In this way our dramatic use of the action-motion dichotomy may actually blur further necessary distinctions, thereby becoming inadequate to the complexity of experience.

With these caveats firmly in mind, it will be nonetheless contended that time is implicit in the logic of the concept of action and action language; that in contrast to need driven conceptions, temporal perspective is a necessary condition of action. "Action" presupposes an <u>actor</u> who <u>acts</u> in various <u>contexts</u> with intentions, plans, <u>purposes</u>, foresight, etc., i.e., temporal perspective informed by the past and oriented to future projects (both long and short term). Thus time and temporal perspective become the fundamental dimension when explanatory strategies shift from "metapsychological", "economic", "drive discharge" constructs to those of an intentional, action language. Moreover, the concept of temporality expands to include not

only the past but the future as well, i.e., not only the "objective" literal history of environmental contingencies and antecedent causes but above all the figurative history of personal meaning (e.g., dreams, wishes, fantasies, symptoms--the "symbolics of desire").

Such a project, if carried out, would bring to fruition the high hopes with which we turned to 'representation' as a clue to understanding temporality. Not only would this vindicate that theoretical gamble, but it would also proivde a satisfying symmetry to the argument; completing the movement from 'time' to 'representation' and back to 'time' again; but this time armed with the new perspectives acquired as a result of the expedition into representation. Specifically, it would require the coordination of the dimensions of representations into a differentiated temporal organization consistent with an explanation in terms of meanings, intentions and actions. Further, it would provide a preliminary glimpse at what "the native tongue of psychoanalysis" would look like if the spatial analogies in the service of explanatory mechanisms and causes were replaced by the temporal structuring of meanings and intentions. This would involve extending the claims staked out in Loewald's work, as amplified by reconceptualizing the dimensions of representation as coordinate perspectives on temporality.

On the Temporal Structure of Motives

Etymologically, motives and motivation are concerned with the sources of human movement. It has been an abiding hope of scientifically minded psychologists to explain human motives according to the

prestigious paradigms established by the classic science of motion viz. physics. As a result, it seems perfectly natural to find Piaget appealing to the "energetics" of behavior as the focus of motivation. Similarly, Freud's interest in the economics and dynamics of behavior was the legacy of his earliest speculations in the "project of a scientific psychology" (Freud, 1895). However, it is a tribute to Freud's genius that he used terms that could double as both movements and acts, causes and reasons. Thus, when he writes that it is "the wish that sets the mental apparatus in motion", he leaves himself the option of interpreting wishes as energies derived from instincts or in their more ordinary sense as representations of desire. (At this level of analysis, Freud joins up with that tradition of Western Psychology that regards Eros (Plato), appetition (Leibniz), conatus (Spinoza), i.e., desire, as definitive of human being). Treating the motivational dimension of representation in terms of the modalities of desire--rather than by adducing a more basic level of account in terms of the regular laws governing movement, i.e., metapsychology-- is not to postulate an occult faculty. Rather, it draws attention to the person wishing as engaged in the personal _act_ par excellence. For the idea of an unhindered wish contains the notion of a spontaneous disposition which comes from the agent rather than being imposed by others (cf. Taylor, p.51). The "I wish" is the person acting and not being acted upon from outside; the person and not a faculty or an underlying instinct. In this fashion, wishing, as Freud wisely observed, is the principle, the origin; but not of motion but of action--the paradigm of self-generated action.

In this fundamental usage, wishing is not the antithesis of reality, but rather the basic act which relates the person to objects, to the world. Or, as Fenichel (1945) would have it, "the first signs of object representation must originate in the state of hunger" (p.35) which is merely the obverse of his telling remark: "if every need could be immediately taken care of, a conception of reality would probably never develop" (p.34). It is this conjunction of wishing, longing, frustration and satisfaction that enables Fenichel to state that "the origin of the ego and the origin of the sense of reality are but two aspects of one developmental step" (p.35). The existence of desire implies an absence, a lack in the one who desires. Thus desire testifies to the impossibility of the dream of self-sufficiency, of that special kind of timeless solipsism that Freud terms "primary narcissism". It is by virtue of desire and its aims and objects that man is situated in the world. Yet the infant's inability to satisfy his desires himself gives rise to "the most fundamental anxiety" (p.44). This cleavage opened between desire and fulfillment is bridged by primitive forms of yearning and anticipation which are the precursors of a sense of time. This transition from passive or reactive waiting to active anticipation marks the simultaneous appearance of (rudimentary) action and temporal perspective (Hartocollis, 1974, p.299). Finally, in analytic theory, "the first signs of object representation must originate in the state of hunger" (Fenichel, 1972, p.35), which in turn presupposes memory oriented toward future fulfillment of frustration. Thus, even within psychoanalysis the priority of the future over the past

is acknowledged. In a paradoxical way which remains unthematized within psychoanalytic theory proper, memory is first manifested as anticipation of future satisfaction. The famous image of the "hallucinated breast" as the paradigm of mental representation embodies this bipolar temporal structure: presumably, the remembered representation is experienced as futural, is projected into the future as the satisfaction of desire. As a result, representing emerges as Janus-faced, turned to the past as "archeology" and to the future as "telelogy" (cf. Ricouer, 1970).

Thus far, this attempt to trace the temporal conditions of motivation by reconceptualizing psychoanalytic theory in an "actional" vocabulary, focused on the constellation of interlocking terms that emerge from the "dialectics of desire" (Ricouer, 1970): satisfaction and frustration, representation and reality, timelessness and time. Focusing on the birth of desire out of an undifferentiated state gives the impression that desire is prior to the other terms. Yet it must be borne in mind that such descriptions of origins, of genesis, are necessarily "mythological"--even when clothed in the respectable garb of the latest fashionable vocabulary. The point of using myths, of telling "likely stories" as Plato used to call them, is to "set in motion", to place in the temporal order of becoming, the timeless logical implications that inhere in the cycle of terms implicit in this concept of action. As Freud said in a different context:

> To be sure, this is only an hypothesis, like so
> many others with which archeologists endeavor to
> lighten the darkness of prehistorical times--a
> "Just-So story" as it was amusingly called by
> a not unkind critic (Kroeger); but I think it

> is credible to risk a hypothesis if it proves
> able to bring coherence and understanding into
> more and more new regions.
>
> -Freud, 1960, p.69-

In similar fashion, we have used the historical terminology of psycho-

analysis' genetic point of view to state something about the "essen-

tial" conditions of action, which may or may not have existed

ab initio, but which do exist now. Thus, temporal perspective, as

implicit in the Janus structure of representation, is the condition

whereby appetite (tension) transcends the moment and is projected

toward the future as desire and experimental action.

On the Temporal Structure of the Formal
and Modal Dimensions of Representation

Taking the motivational dimension of representation as a starting

point may have suggested that motives (as desire) are clearly sep-

arable from the other dimensions. But this is only the case at the

level of discourse. Our distinctions live in the words chosen to draw

them. In actuality, the dimensions are given together. Representa-

tion and action are seamless webs that are divided into dimensions

only in our theoretical talk about them. And, as we have had ample

occasion to observe, not only do we use words, but they also use us.

Hence, some of the tangles, paradoxes and ambiguities that keep in-

truding into the attempt to get clear about time and representation.

Even in so called action language, the temporal structure of

representation as the archeology and teleology of desire--or less

presumptuously as the varieties of wishing and planning and willing--

is always qualified adverbally by the "formal dimension", e.g.,

"concretely" or "abstractly", "prudently" or "compulsively", etc;
and by the "modal dimension", e.g., "imaginatively" or "verbally".
To further thicken the plot, at the same time that they mediate
motives, the formal and modal dimension cross classify each other
as well.

In his own way and for his own purposes, but without naming it
as such, David Shapiro involves the dimensions of representation in
his account of action:

> Conscious motives are generated by the experience of
> needs (our archeological pole of the motivational di-
> mension) in a mind that is aware of the possibilities
> of action (the telelogical pole of temporal perspec-
> tive). It is evident, then, that the particular form
> and conscious motive will depend not only on the nature
> of those needs but also on various other characteris-
> tics of that mind: the style of thinking (an aspect
> of our formal dimension), imagination (our modal
> dimension without the additional division between
> verbalizing and imaging), and anticipation (the
> temporal dimension again); relevant attitudes or points
> of view; and always, an existing context of other
> motives, including relatively stable ones such as
> long-range arms and intentions (temporal dimensions
> qualified by abstract pole of formal dimension).
>
> -Shapiro, 1970, p.336-

Shapiro goes on to observe that in the course of development "it is
no longer possible, even if it is desired, to act without imagination,
anticipation, and awareness of the self acting" (p.336). The pro-
jections of the self's action in the media of imagination become the
possibilities which are deliberated about in the process of decision
making. Shapiro has brilliantly delineated the formation and deforma-
tion of the experience of volition as it is affected by different
cognitive styles (Shapiro, 1966, 1970).[2]

From the perspective of the terminology developed in this essay, the logic of desire terms unfolds into the archeology and teleology of representations: with archeology as the genesis of the forms and figures of desire grounded on the legacy of past identifications and fixations; and teleology, as the transformation or sublimation of desire into long and short range temporal perspectives as acculturated plans, projects, goals and so forth. From the formal point of view, archeology is regressive, characterized by "primary process" modes of thought, while teleology is progressive characterized by the "secondary processes". That the transformation of the infantile wishes from the primitive and the past, (with their repetition compulsions enacted transferentially), into the realm of culture and the future is a vastly complicated process goes without saying. An adequate account of the transformation of desire (and its aims and objects) from the base to the sublime would require a fully developed theory of sublimation, one grounded in the language of action rather than economics.

Finally, the modal dimension cuts across the others, with action, images and words having inherently different temporalizing potentials which are in turn modified by the formal levels of regression or progression. Since cultural experience is largely publicly codified in verbal forms, it is to be expected that the forms of language (literal and figurative) would mediate the development of both extended time perspective and sublimation of aims and objects. Images, by virtue of their greater privacy, appear to be in closer "proximity" to earlier wishes (cf. Flugel, 1953). (Surely, the manipulation of imagery to gain control of motivation has never been lost on those

who would control others: from Dostoevsky's grand inquisitor to
Madison Avenue, and from Plato's Philosopher Kings to Wolpean desen-
sitizers). But even here, care must be taken to distinguish the
primitive wish fulfilling images of infancy from the sublime images
of the "fine" arts and the high religions. It might be added that
the goal of psychoanalysis (and linguistic analysis as well) can
be described as breaking the blinding powers that certain pictures
(images) and words (concepts, habits, thought models) have to in-
fluence and distort our lives in the present. In this way the patient
is freed from neurotic bondage to models formed in the past and has
gained "the freedom to decide one way or another" (Freud, Standard
Edition XIX, p.50) in light of imaginatively entertained possibilities
of an open-ended future.

Conclusion: The Representation of Representation

In spite of the "imperialistic" tendency to present itself as an
all encompassing theory, the present study has been explicitly con-
cerned with exploring the psychological implications of the terms
"representation" and "temporality". It goes without saying that any
selection of terms is necessarily no more than a "point of view".
And, while different theories of representation have been analyzed
and reduced to a four dimensional semantic schema, this was never
meant to provide a definition of representation or even to set forth
a definitive doctrine of what representation "is" or what the word
"representation" means. Likewise for "temporality". For as we have
seen, representation and temporality are given together, codetermine
each other. Both of these concepts have the character of elementary

notions, not to be explained by translation into other terms; but rather to be used themselves in any attempted explanation. Stated paradoxically, representation, at least the way the term is used here, is what makes language use possible; while at the same time, language is required to explicate the nature of representation. The very activity of explicating constitutes both an expression of and an amplification of the capacity for representing. Consequently, the different theories of representation are, when taken generically, representations of representation. In this they testify to an essential fact about human beings: man is that animal who can re-present his experience, and in turn, re-present his representations.

This reflexive or second-level character of representation of representations—including words about words, images of images, words about images, and images of words, etc.—opens onto a specifically human existence within the symbolic universe of cultural systems. As the "symbolic animal"—which is the modern version of Aristotle's "rational animal"—or "that being for whom being is in question" (Heidegger)—man is the creature who asks questions and invents theories about himself—as well as images, fictions, illusions, de-lusions, etc.—and then attempts to live in their light. Moreover, the term "symbolic animal" suggests that man is simultaneously the citizen of two realms: the sumbolic and the animal, each with its own source of motives and intentions. To make matters even more complex, the coexistence in the two realms suggests two kinds of explanations: 1) the reduction of the "animal" to bodily causes and ultimately to motions, and 2) the elaboration of the "symbolic" into

meaning and action. That this dual character of human life has been represented in terms belonging to each of these dimensions comes as no surprise at this stage of the game. The perennial squabbles between mechanists and mentalists, behaviorists and cognitivists, causal concepts and intentional concepts, motion and action bears witness to the endless temptations of reducing one term to the other.

And yet the idea of a "symbolic animal" puts both orders of explanation together. Similarly, the reflexivity of representation of representation--of which this essay is an example--puts active and passive together, "representer representing" as cause, and "representer represented" as caused in a way that suggests a third kind of explanation, a mixed explanation wherein mechanism and meaning are dialectically assimilated to the active and passive dimensions of representation (cf. Ricouer and Whitehead). But be this as it may, these are matters of the greatest difficulty and obscurity.

Suffice it to say that this study of representation and temporality, by selecting the terminology it did, directed attention to certain aspects of these phenomena--and inevitably away from others. In one sense, it had no other aim than the re-exploration of "representation" and "time" without necessarily seeing them in the constellations imposed upon them by old habits of thinking and talking. That this new classification has its own limitations, its own blind spots, points once again, to the invincibly perspectival character of representation as both revealing and concealing. Consequently, there is no danger that this study constitutes a final, synoptic perspective on perspectives, and no reason to believe that a definitive representation of representation has been achieved.
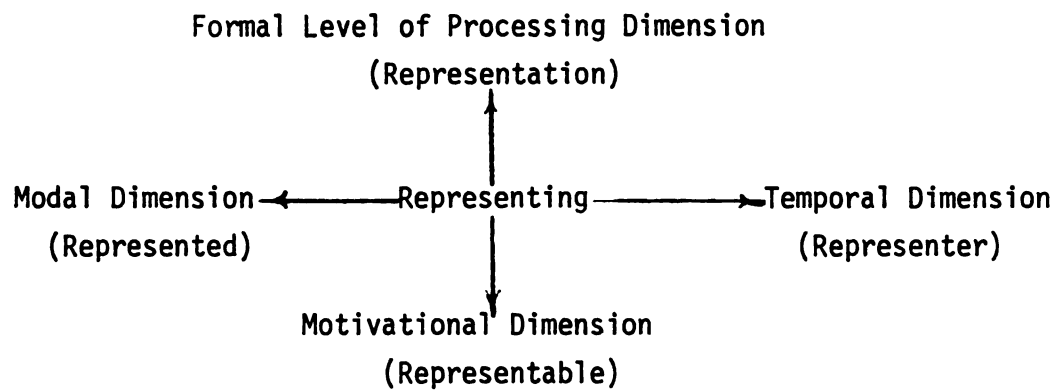
FOOTNOTES

FOOTNOTES

1. In more ways than it would be possible to document, the discussion which follows depends on the investigations of Augustine, Cassirer, Heidegger, Wittgenstein and the "Chicago 'Neo-Aristotelians'" in philosophy; and on Freud, James, Loewald, Paivio, Piaget, and Werner in psychology.

2. In our terminology, cognitive styles would be resolved into different ratios of temporal, formal, motivational and modal dimensions. Thus, the obsessive style would comprise a preponderance of the verbal mode experienced as a necessity "often accompanied by such phrases as 'I must', 'I should', 'I musn't', in inner speech" (Flugel, 1961, p.18). Whereas the "impulsive style" would consist in the primacy of wishful images (i.e., at the concretistic formal, motivational, modal ratio) with the attenuation of long range aims (temporal dimension) and the absence of a flexibly articulated verbal value hierarchy, etc. It would appear that Shapiro's schema can be generated from the various ratios of dimensions. In principle, such a reduction would eliminate much of the ambiguity in Shapiro's treatment, while at the same time systematically highlighting basic aspects of each style for further study.
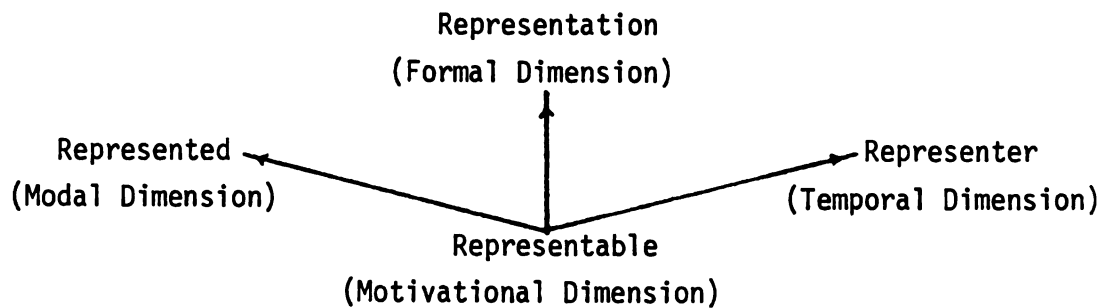
APPENDIX

APPENDIX A

1. Schema of basic terms used to interpret 'representing'.
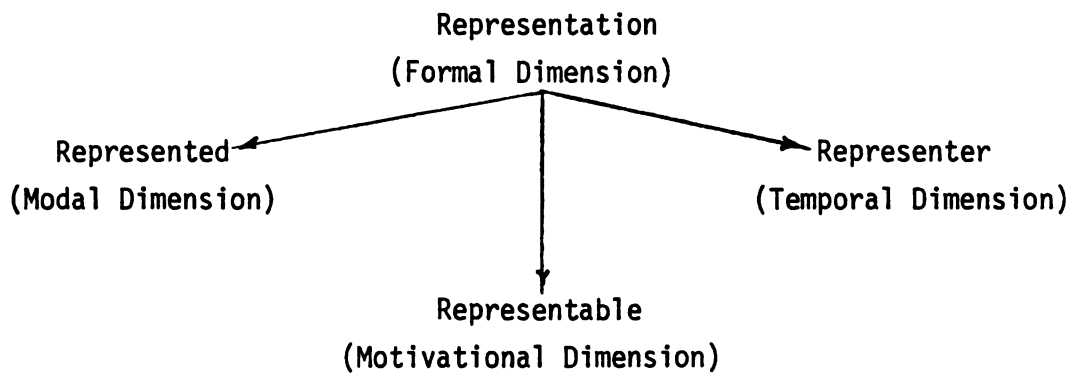
Formal Level of Processing Dimension
(Representation)

Modal Dimension ◄————————Representing————————►Temporal Dimension
(Represented)   (Representer)

Motivational Dimension
(Representable)

APPENDIX A - continued

2. Transformations of schema of basic terms:

a. Motivational terms as archetechtonic of schema;
e.g., Freud and Fenichel.

Representation
(Formal Dimension)

Represented   Representer
(Modal Dimension)   (Temporal Dimension)

Representable
(Motivational Dimension)

b. Formal terms as archetechtonic of schema;
cf., Piaget, Werner, Noy.

Representation
(Formal Dimension)

Represented   Representer
(Modal Dimension)   (Temporal Dimension)

Representable
(Motivational Dimension)

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