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Simon, Percy Julius, Ph.D.

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THE THEMATIC AND TEMPORAL STRUCTURE OF CONSCIOUSNESS IN WILLIAM JAMES'S THE PRINCIPLES OF PSYCHOLOGY

by

PERCY J. SIMON

A dissertation submitted to the Graduate Faculty in philosophy in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York

1989

This manuscript has been read and accepted for the Graduate Faculty in Philosophy in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

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The City University of New York

In loving memory of my mother and father, Ilse Hirsch Simon and Hermann Simon, whose generous love made the love of learning, and this degree, possible.

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CHAPTER I: INTRODUCTION

The fundamental fact is that what we experience in space and time is an organization of stimuli. Temporal organization entails that whatever the thematic content of our consciousness, (that is, what we are thinking about, perceiving, remembering, etc.), our experiences are thought, perceived, remembered, etc., in temporal relation to other immediate content as well as to past experiences. These temporal-thematic experiences of both the external world and of ourselves presupposes an organization of mind that cannot be accounted for by our sensory apparatus alone. As Kant emphasized, temporal concepts of simultaneity and succession are not given as empirical data in experience. Our sense organs are merely the conduits through which raw data passes. That one "packet" of sensory impulses, rather than another, should be selected and experientially "connected" with other such packets in a thematically unified organization of temporal co-presence, presupposes a supersensorial, or as Kant would say, a "transcendental" structure of mind.

Although contemptuous of Kant's Transcendental Categories, William James, nonetheless, shares with Kant the belief that the unity, continuity and self-identity of personal experience is to be accounted for by and through the structure of consciousness itself. The fundamental question of consciousness, then, is: How is the temporal and thematic organization of experience made possible? That is to say, given the fact that regardless of "primary modality", i.e., whether the essential mental focus or intent of a particular state of consciousness is perceptual, cognitive, emotional, etc., "being conscious", "experiencing" or "consciousing" (as

Husserl would say), reveals itself in the lived actuality of normal, waking consciousness[1] as being continuous and unified both with respect to temporality and thematicity. The general question that this paper attempts to answer is: What is the formal structure of human consciousness like so as to make the continuity, unity and self-identity of experience possible?

In directing itself towards answering this question, this dissertation proposes two interrelated projects. It attempts, firstly, to interpretively construct from William James's The Principles of Psychology[2], (hereinafter referred to simply as Principles) a theory of how the thematic and temporal structure of consciousness makes possible the phenomenological organization of mental data that is manifested in lived and reflective experience.

Secondly, it introduces an additional, explanatory hypothesis about the operative processes by and through which mental states are structured so as to (a) reduce or eliminate some of the difficulties that arise from James's theory of consciousness, and (b) it is hoped, bring us one step closer towards a theory of the phenomenology of experience. Although my contention is that this organizing principle of consciousness, which I call "thematic synthesization", is interpretively implied by James's theory of consciousness and that, to some extent, it is explicit, at least in outline, in Principles, I believe that independently of the validity of the present interpretation of Principles, "thematic synthesization" may prove to have philosophical significance in its own right. What James offers, and what I build upon is a theory schema, not a specific theory in the sense that thematic synthesization does not allow us to make

predictions about what a particular person will experience in the future based upon what he has already experienced in the past. I have serious doubts that such predictive power could be generated for a particular individual: the variables (experiential unknowns) involved are of a magnitude of complexity that far outstrips psychology's current state of the art; until we know a great deal more about how the content of our mental states is actually processed, what psychological factors determine the weight that different content have in effecting alterations of successive states, etc., we have only a theoretically idealized structure that cannot be given individual application.

However, before outlining what it is specifically that I intend to do in the chapters to follow, a brief digression regarding the perspective and framework from which this paper is written and several caveats about what I am and what I am not hoping to accomplish may prove salutary in avoiding some possible pitfalls of misinterpretation. In some respects, the theory schema that is put forth in the last chapter of this paper bears some family resemblances to the kinds of inquiries that are amongst the "hottest" topics in contemporary philosophy of mind and psychology; in most respects, however, I believe that it constitutes an area of inquiry somewhat apart from the mainstream of Anglo-American research. To the extent that it is set apart, it represents an approach to the study of consciousness that I can see no <u>prima facie</u> argument for its being incompatible with the more popular trends and themes of contemporary philosophy although certainly the approach is not currently in high fashion. A great deal of interest today, (in experimental and theoretical psychology, as well as in philosophy), is focused on questions about the

representational status of mind. Some of these issues, Ned Block writes in the introduction to his anthology are:

> . . . the nature of mental representation in general and mental images in particular[3] . . . . how mental representations refer; how representations that express concepts combine to form representations that have truth value; whether mental representations requires a system of mental representations; whether the meaning of a mental representation is a matter of its role in inference, decision making, and other mental processes . . . whether natural languages (such as English) are the major systems of mental representation, or whether we have to translate from English into our internal systems . . . what the identity conditions on mental representations are; what the difference is between discursive representations and imagistic or pictorial representations . . .[4]

I take it as axiomatic throughout this paper that, as David Hills puts it, "utterances and inscriptions in human languages are capable of serving as a medium of communication and intercourse among us in part because they are capable of representing things."[5] I also assume that Fodor is correct in arguing that " . . . quite independent of one's assumptions about the details of psychological theories of cognition, their general structure presupposes underlying computational processes and a representational system in which such processes are carried out."[6] Given what we know about neural transmission, cybernetics, robotics, artificial intelligence, etc., it is difficult to suppose that the general structure underlying all mentation does not presuppose some sort or sorts of computational processes by and through which all experience is represented. To suppose that such is not the case, it seems to me, demands a defense that challenges our present state of scientific knowledge.[7] Fodor, however, is concerned with developing and formulating

the syntax and semantics of the internal code by and through which the representational process takes place. The difference between his project and those of, for example, Dennett, Pylyshyn, Harman and others, and my project in this paper, is that they are largely concerned with questions about the nature and structure of the inner system, and more specifically, the inner language of representations, and I am not. What I concerned with is the structural conditions of mind which make the use of any inner language possible, i.e., the formal, structural conditions necessary for experience, as it is given or presented in consciousness, to be possible at all. We shall look more closely at the relationship between contemporary research in the philosophy of psychology and mind, and the intent of this dissertation later in this Introduction.

Although we will be concerned with what, for want of a more suitable term, shall be called the "phenomenology of consciousness", I want to make it clear from the outset that the discussion that follows is not a treatise in classical, historical or traditional "Phenomenology" insofar as that term refers to the methodology and approach to the study of mind as developed by Edmund Husserl and practiced by his students and disciples. To be sure, concepts and terms, when applicable, have been borrowed from Phenomenology, (although I have taken some liberties with their "Husserlian" meanings), as well as from other branches of philosophy, but to see this inquiry as essentially Husserlian is bound to not only mislead, but to disappoint as well. There is abundant common ground to be sure: I assume that particular mental states, whatever they are in-themselves, are available for some kind of self-examination by their owners in a way that makes them peculiarly private and inaccessible

to all non-owners of those states. I also assume that the formational and presentational character of mental states is significantly similar throughout the entire community of past, present and, very likely, future Homo Sapiens so as to permit inter-subjective generalizations about the structure of mental states in general to be possible. These assumptions, I believe, are and must be shared by all who approach the study of the characteristics of the human mind from within. It is a truism to say that Skinnerian behaviorism has fallen on deservedly hard times; we may have no choice but to study the "mental life" of pigeons and other animals by the confining parameters of stimulus and response. But, by the same token, we cannot ignore the introspective and phenomenological dimensions of consciousness that distinguishes and characterizes the human mind. Most pre-twentieth century philosophers assumed that the "products" of mind, i.e., "states of consciousness" or "mental states", were directly and immediately experienced with attributes and characteristics shared by the human community as a whole. Having fallen out of favor for a time, the general consensus of contemporary philosophers, psychologists and psycholinguists seems, once again, to view the products of mind as legitimate subject matter for psycho-philosophical inquiry albeit contemporary science has somewhat shifted the focus and language of current inquiries. And no doubt, William James was, with some qualification, as much an "introspectionist" as his peers. Yet Principles attempts something weightier than a mere introspective compilation of the properties of mental states. The most philosophically interesting aspect of the two-volume masterpiece, it seems to me, lies in its efforts to articulate, as a first approximation, the species-specific structural

processes underlying the "products" of our experienced states.[8] To that end, it is what might be called a "meta-psychological" or "trans-phenomenological" treatise.

The ontological status of mental states and the nature of consciousness entails confronting two very special and difficult problems. Firstly, it epitomizes the perennial problem of "process" in that what is experienced as being continuous must be represented as being discrete if we are to schematize the structure of the phenomenological process. Secondly, it demands that we talk about consciousness qua mental experience, without imputing a substantial entityhood to "consciousness", i.e., objectifying it as a "stuff" or "thing". Consciousness has no counterpart in the observable world. We are forced to speak about "it" in ways that stretch the descriptive capability of available language formats.[9] Language must be adapted to accommodate the "experience of experiencing", and in the process of this accommodating, experience itself is altered so as to conform to the constraints of language. Language is most cooperative in our efforts to describe the "what" of experience that is perceived as being real and actual, i.e., the "objects" of experience entertained as "things" in the natural world. It falters at describing the process of awareness by and through which these things are experienced, i.e, made experientially possible. As a result, we encounter a linguistic shortage that fosters the invention of analytical "devices" which will allow us the capability to isolate, differentiate and categorize from the amidst the flux of experience, distinctive segments of that flux as if they were actual, particular, discrete experiences. A "mental state" or "state of consciousness" is not a self-contained,

"pre-packaged" unit of experience with flagged and determinable beginning and end markers; yet, the constraints of expressing our experience, through language, imposes on experience just such imaginary boundaries. A "mental state", as a self-delineated segment of experience is, in this sense, a fiction, - a functional, descriptive unit abstracted from the flow of consciousness that allows us to focus on some aspect of our total experience, for purposes of communication and analysis.

"Consciousness", James observed, "... does not appear to itself chopped up in bits .... It is nothing jointed; it flows. A 'river' or a 'stream' are the metaphors by which it is most naturally described. In talking of it hereafter, let us call it the stream of thought, of consciousness, or of the subjective life" (I, 239). Whatever the neurological basis of consciousness, although it may be, and very likely is, neurally discrete in its formation and execution, the subjective awareness of our own mental states feels continuous to the experiencer. So long as we confine our discussion of mental states to objects perceived by and through the "five senses", we seem to be able to speak with literalism; "hearing", "seeing", "smelling", etc., the external environment does not usually require the use of metaphors. But once we engage ourselves in speaking about the nature of the processes which make possible the "experiencing of experiences", and we inquire into the connections and relations within and between our mental states, we find our "object" language inadequate; we are compelled to employ non-literal expressions of object words. For example, consider this statement of James:

> What is true here of successive states must also be true of simultaneous characters. They also overlap each other in their being. My present

> field of consciousness is a centre surrounded by a fringe that shades insensibly into a subconscious more . . . What we conceptually identify ourselves with and say we are thinking of at any time is the centre, but our full self is the whole field, with all those indefinitely radiating subconscious possibilities of increase that we can only feel by conceiving, and hardly begin to analyze.[10]

Without concerning ourselves for the present with James's meaning, we see that there are numerous terms which are intended to express relationships between mental states that are not meant literally. Mental states, whatever they are, do not literally overlap. "Overlapping" is a concept of partial juncture or coincidence between two or more conceptual (e.g., mathematical, temporal) or physical entities; but mental states qua experiences are psychic events that occur successively and once past are no longer available (extant) to overlap with either their predecessor, successor or anything else. How then can experiences overlap with one another? What James is postulating, as we shall see later, is that the information or dynamic, psychic meaning that each state "carries" or conveys modifies or alters the intent or meaning of its successor. The succession of states is experienced in consciousness as bearing a new psychic meaning that is, descriptively, as if there were an "overlapping of mental states". The "overlapping of mental states" is a way of expressing the thesis that some underlying, structural process allows the informational load of one state to be "carried forward" or conveyed to its successor, even though what usually delineates and distinguishes one state from another is determined by linguistic convention, rather than actual, inner events. Similarly, "consciousness" is not literally a field, nor does it have a center, or a fringe, as James speaks of in the passage

quoted above, since clearly these are terms that have reference to physical entities. These are borrowed terms which all have their basis in external perception, particularly visual perception. We recognize that "consciousness" names an indivisible process which is peculiarly mental. When we "think about thinking", or introspect in general, we only figuratively "look" at or into our mental states. "Inward-looking" talk requires extensional and exceptional use of language, whether our terms be borrowed from perception or, more contemporaneously, stolen from computer analogues. It strikes me as inescapable.

But this act of linguistic theft need not result in philosophical imprisonment, committing us to an ontological mysticism where ghostly inhabitants dwell. Rather, it should serve to free us from dualistic tales, sense-datum fables and behaviorist myths. If the metaphorical use of language entails any logical or necessary commitment, it is only to the fact that the depth and richness of our mental life outpaces our descriptive vocabulary. States of consciousness, experienced as indivisible and continuous, present themselves through the formatting of an internal language or code as being organized into more or less bounded, quasi-syntactical units because language can know them no other way. Natural language (and perhaps the representational character of our internal language as well) formalizes and organizes experience into simplified, measured groupings that we categorize and conceptualize as "thoughts", "emotions", "perceptions", "feelings", etc. These groupings allow us to individuate the otherwise indivisible stream of mental experience into bite-size phenomenological segments suitable for intra-species communication. According to James, as we shall see, language

provides us with the syntactical and semantical apparatus with which to perform these vivisections, but at a price that is dear. Through language, we extrapolate from the stream of experience those central themes or "objects of thought" upon which our attention has been focused, ignoring and neglecting, however, the totality of experiential data that "suffuses" and "surrounds" this object of thought. We are at first insensitive, then indifferent, and eventually, oblivious to the penumbra of feelings or "fringes" that support, i.e., "suffuse and surround", our focal themes or topics. The object of thought, whatever it be, becomes the thematic core of cognitive unity by which successive mental states are held together, but it is precisely these acts of thematic centralization that often delude us into supposing that the thematic object of our utterances captures and exhausts the totality of our mental life. I shall have much more to say about this in Chapter I, but my present point is only that "mental states" or "states of consciousness" are, by virtue of their linguistic formatting, in this sense, fictions - communicational conveniences - in that we come to think of them as actual self-contained, organizational units of the psychic flux.

Although James expounds on the various characteristics of consciousness in Principles, he does not anywhere offer a definition of what "consciousness" is.[11] This conspicuous absence is indicative of James's spirit of catholicity when it comes to keeping his contexts open and free from lexical rigidity, especially as regards mental terms. But clearly, James wishes to dispel the Cartesian dichotomy of "spirit and matter" or "soul and body as equipollent substances quite on a par in weight and interest.[12] Trumpeted throughout Principles is the insistence

that there is nothing psychological that is not neurological, and suggestive innuendos of a seminal Identity Theory may occasionally slip through his formal position which vacillates between psycho-physical parallelism and interactionism.[13] The suggestion throughout is that "consciousness" names the fundamental, functional relationship between an organism and its experience of itself and its world. Although many years later, James explicitly developed this thesis of the functional relationship[14] no conscientious reader of Principles could infer that James believed "consciousness" to be an entity, an "aboriginal stuff". Perhaps the most elusive and difficult of all terms to define, James deftly avoids the temptation to do so, opting rather to treat "consciousness" and "awareness" as essentially primitive terms whose various meanings are best revealed in the contexts of actual usage. I think his practice makes good, pragmatic sense, and I shall follow the lead of the master in this matter.

The term, "consciousness", it seems to me, refers to at least six aspects of mental life: (1) the "act" of being aware by the sentient agent which is generally selective and demonstrative of the organism's peculiar propensity to stand in a functional, psychic relationship to its environment, (2) the "content" or "thematic load" which comprises the information or data of which the agent is aware, (3) the "awareness" itself which apprehends the psychic meaning or intent of the given phenomenological content, (4) the "events" that make up the successiveness of the mental stream, (5) the underlying "processes" of which the events are phenomenological manifestations, and (6) the quality of "succession" itself both as it refers to phenomenological events and underlying

processes. Every conscious state may be ideally analyzed into at least the first three aspects, although in practice it is often nearly impossible to distinguish between the act, the content, and the awareness of the content or act. But this tripartite discrimination only represents an analytic device by which to understand the complexity that is signified by the term "consciousness"; it does not imply that consciousness is intrinsically divisible or that conscious states, which are really "events" (in that they take place through an extended duration), have "parts". What is being expressed is the fact that "consciousness" names the fundamental functional relationship between the human mind and its own phenomenological data so as to enable us to analyze the content and structure of that relationship.

That one can make a distinction between the "informational import" or content of a mental state and the "awareness" of that content is evidenced by our dream life. When we awaken from sleep, we can often recall, usually for fleeting moments, informational episodes of our recent dream, often replete with emotional reverberations. But our "state of consciousness", or really more accurately, since our dream awareness is not what we normally mean by "consciousness", our system of mental vigilance, is altered during sleep. We are not "conscious" during the dream state of the dream content, yet when we awaken, we are; we become conscious of what we had not been conscious of only a moment earlier. The content endures, but the awareness-system alters. Almost instantly the dream content is "filtered" through the far more reality-oriented system of "conscious awareness". Thus, some sort of mental life continues, even through sleep, yet it is not generally apprehended, organized or

integrated into the functional system of the waking self. This leads us to hypothesize that some kind of mental activity continues unabated even during those times when we are not in what we shall call, "normal, waking consciousness",[15] (about which we shall have more to say later.) Of course, we often awaken from sleep without any dream recall, and there are more dubious cases when mental activity seems to have ceased altogether, in that we have no memory of any mental events having taken place, as is frequently the case in comas, while under general anesthesia, or other states of so-called "total unconsciousness". Yet, if it can be shown that there are at least <u>some</u> occasions when partial recall takes place, those instances would go a long away towards supporting the hypothesis that one's mental life is probably <u>always</u> functional and active to some degree, and at some level, of psychic vigilance. I believe that this is the case, and that while "consciousness" is the primary "species" of psychic vigilance, content/awareness of some sort is always going on such that our mental life is far more active and ubiquitous than we often tend to assume.[16] What I will be suggesting in this paper is a structural schema that represents how perhaps all mental content (or "data" in a purely informational or meaning-bearing sense), at various levels of psychic vigilance, may be processed so as to account for the enduring continuity, unity and self-identity of mental activity that characterizes the feeling of "sustained self" characteristic of human consciousness.

We must ever be on guard against terms and concepts that are dressed in object-ifying suffixes of "ness", "tude" and "hood". The "ness" in "consciousness", for example, tempts us into object-ifying and reifying the function of "being conscious". Yet "consciousness" is no more a

substantive entity than is the absence of light, i.e, darkness, a "thing". Our options are few: if we are to systematically examine the ontology of our mental states, then we must speak about consciousness as if it were composed of discernable, constituent parts, a convention which induces us to seek the aid of metaphorical, figurative and analogical extensions of linguistic usage. When James speaks of the "content of consciousness", for example, he does not mean that consciousness is a vessel or container that holds the "stuff" of thoughts, perceptions, feelings, etc., The "content of consciousness" is nothing else than "that of which we are conscious"; its usage does not, and ought not, commit us to any particular theory of how, if at all, that data is represented, or what the epistemological relationship between the observer and the observed might be. Just as we may, for purposes of analysis, speak of the constituents of an actual stream of freeflowing water without thereby denying its essential fluidity, so we may speak of consciousness and mental states as being composed of "parts", "sections" or "segments" without thereby denying their intrinsic indivisibility. It is both meaningful and useful, for some specific purposes, to speak of a stream of water's molecular composition as being composed of so many parts of hydrogen to oxygen. For yet other purposes, it is meaningful and useful to speak of the stream's volume, length, depth, current strength, ability to sustain life, degree of impurity, level of pollution, and so on. Streams of freeflowing water are conceptually analyzable and, James would argue, so are mental streams. Streams of water have a measurable rate of flow, pressure, tidal disposition, etc., which enables us to speak of them in structural terms, that is, by applying the same laws and principles to all bodies of water.

Minds too, James believes, may be spoken of in structural terms applicable to all, regardless of the specific content that is manifested at a certain moment for a particular, conscious stream. The very fact that the essential experience of ourselves in the world is one of continuity, unity and self-identity mandates the philosophical necessity of seeking those underlying structural principles which allows for and determines the forms of organization that experience reveals. Yet we must take care so as not to be misled by the inevitable entrenchment of an object-oriented language when we dress our inquiry in physicalistic metaphors - "domains", "fields", "levels of awareness", "specious presents", "transitive and substantive parts of the stream", "objects and contents of consciousness", etc.[17]

Recent evidence in neurophysiology strongly suggests, as George Mandler reports, that the neurology of consciousness is composed of impulses that are discrete, relatively short and quite transient.[18] But consciousness is, in general, not experienced as such. Just as the discrete motion of the pistons in an internal combustion engine is translated through the driveshaft into fluid motion, so the discrete firing of impulses along the neural pathways of the brain is translated into an unjointed experiencing of consciousness. What we stand in need of is a theory of the underlying structure of consciousness that can account for the fact that our mental states are experienced as thematically organized and temporally ordered with respect to continuity, unity and identity of self. What "experience" is may be an eternal mystery, but how it is that our mental states are structured so as to allow for the experiential given is a question that suggests the

possibility of an answer.

With regret, but without apology, I confess that I do not know what a mental state is, or what its specific relationship to neurophysiology comes to, but I take refuge and comfort in the fact that no one else seems to have much of a clue either. What can be said is that, whatever its intrinsic nature, every "mental state" is, in some sense, an organized event extrapolated from the experiential whole which conveys subjective meaning, often through syntactical and semantical forms, which, being focused on a central, unifying theme enables us to effectively express ideas, feelings, perceptions, etc., with intra-species communality. "Thinking" about something, for example, does not usually present itself in experience as tripartite, i.e., as (1) the particular act of thinking, (2) that which is thought about, and (3) the awareness or apprehension of that which is thought. But nothing prevents us from analyzing our thinking in this way if it helps us to better understand the structure of thinking or the thinking process. The recognition that something is intrinsically an indivisible (and unified) whole does not mean that it cannot be "broken down" for specific, analytical purposes into theoretical categories. For the most part, "states of consciousness" and "mental states" are uninterrupted, psychic processes, but it is James's belief, upon which I concur, that language forces us to extract and individuate from amidst the flux of thoughts, feelings, perceptions, etc., a central, focalized "theme" or "topic", calling it a "thought about X", or a "feeling of Y", and so forth. In so doing, language not only selectively makes discrete what is inherently experienced as continuous, but also may deceive us into supposing that the analytic decomposition of the

experiential process into static, "object-ified" mental states thereby effects a reification of that process into actual, self-existent, discrete units, "parts", "sections", "fields", etc. James speaks of the "transitive and substantive parts of the stream" and "fields of consciousness", and I use the terms "marginal and focal domains" in this paper in order to explicate the conceptual requirements of a structural theory schema of consciousness. Many terms are imported from the physical universe as useful metaphors for conceptualizing aspects of inner experience that we wish to analyze. But it would be a grievous error to suppose that these metaphors actually identify distinct and separate components of consciousness. As I have said, no one has really the slightest idea, apart from the immediate, lived experience of their own mental life, as to what "states of consciousness" are, or what "awareness" is, or what it means for something to be "mental". Just as Thomas Nagel gives us pause to wonder what it can mean to ask "what is it like to be a bat?", so we can also wonder, on seemingly more familiar territory, how to express "what it is like to be conscious" or "what it is like to have an experience". "Consciousness" as Nagel says, "is what makes the mind-body problem <u>really</u> intractable."[19] Not only do " . . . we have at present no conception of what an explanation of the physical nature of a mental phenomenon would be",[20] but also "without some idea, therefore, of what the subjective character of experience is, we cannot know what is required of a physicalist theory."[21] Yet it is patently obvious that we do experience; this fact alone should be sufficient to legitimize the objectives of the undertaking at hand.

James is not a dualist in the traditional, Cartesian sense; nor is he a monistic physicalist in the sense that mental experience is irreducibly only illusive (veiled) neurology. Realizing that experience is just that, "experienced", James accords both phenomenological psychology and physicalist neurology equal, explanatory credence, (although James has, according to some, "fathered" virtually every position, including "behaviorism".)[22] With the advent of the "computer revolution" and its offshoots of cybernetics, CAD-CAM robotics, and artificial intelligence ("AI"), not only has behaviorism lost epistemic momentum, but traditional physicalism, both of the "type" and "token" varieties, has taken a back seat to "functionalism". While we cannot here enter into a lengthy discussion of the current status and trends in the philosophy of psychology and mind, a few additional words on the subject may be worthwhile, if only to distinguish the objectives of this inquiry from the goals of much of contemporary research.

"Functionalism", (sometimes referred to as "Turing machine functionalism"), has gained considerable favor because, in part, it makes no claims concerning the precise electro-chemical composition of specific brain-states, so that certain bothersome problems, it is claimed, simply do not arise. For example, the question of whether two brains are in the exact neurological state when both minds are presumably (and hypothetically) experiencing the same mental state. For two entities to be in the "same mental state", functionalism requires only that both entities demonstrate the same "physical realization" so that, for example, as Daniel Dennett writes:

> . . . for two things both to believe that snow is white, they need not be physically similar in any

> specifiable way, but they must both be in a "functional" condition of being state specifiable in the most general functional language; they must both share a Turing machine description according to which they are both in some particular logical state (which is roughly like two different computers having the same program and being in the same "place" in their program.[23]

Functionalism, it is claimed, is not a reductionist thesis attempting to preserve the "unity of science" heurism, since, according to Fodor, there is no intent to eliminate " . . . mentalistic concepts from the explanatory apparatus of psychological theories."[24] And whereas behaviorism attempts to garb mental states solely in the raiments of observable stimuli and response, functionalism attempts to provide descriptions of realizations that are both psychologically and neurologically neutral; "One doesn't reduce Turing machine talk to some more fundamental idiom; one legitimizes Turing machine talk by providing it with rules of attribution and exhibiting its predictive powers. If we can similarly legitimize 'mentalistic' talk, we will have no need of a reduction."[25] Yet, clearly, there is a sense in which functionalism is reductionistic, namely, in the sense that it reduces what are generally thought of as the activities of higher mentation to the lowest common denominator of a Turing machine or "logical" state-description. What would appear, prima facie, to be the resultants of "intelligence" and "rationality" (purposefulness and teleology) are "reduced" to their functional components or equivalents; complex, sequential operations are assumed to be reducible to an internal code or language of representation in which elementary, functional units offering binary options like "1" or "0", "yes or "no", "on or off", etc., are the true constituents of our mental processes. Computers have taught us that "intentional systems" can

mimic complex, "intelligent" behavior and activity, and Dennett maintains that " . . . the concept of an intentional system is a relatively uncluttered and unmetaphysical notion, abstracted as it is from questions of the composition, constitution, consciousness, morality or divinity of the entities that fall under it."[26] It is precisely such bold optimism that Dennett feels warrants asserting that "complex control systems seem in the first blush of their intentionality to exhibit all the traditional marks of consciousness."[27]

Whether Dennett is entirely correct in his prediction remains to be seen. What is clear, however, is that while functionalism and intentional systems may account for much, they do not account for all, and the functions that they do not address are of equal importance in considering the analogical relationship between "real" experience and simulated, machine output. Fodor is sensitive to this shortcoming. While maintaining that the concept of Turing machine functionalism provides " . . . the required canonical forms for functional definitions of psychological kinds", he nevertheless believes, and I am in agreement, that there are stringent limitations on the kinds of achievements that we may expect functionalism to produce. The propositional attitude of "believing that P" is quite different from, for example, "having a pain":

> . . . the functionalist story is not in fact equally plausible in its application to qualitative phenomena and propositional attitudes . . . . Functionalism applies only to kinds whose defining properties are relational. And while it is arguable that what makes a belief - or other propositional attitude - the belief that it is the pattern of (e.g. inferential) relations that it enters into, many philosophers (I among them) find it hard to believe that it is relational properties that make a sensation a pain rather than an itch, or an after-image a green after-image rather than a red one . . . It seems to me,

> for what it's worth, that functionalism does not provide an adequate account of qualitative content; that, in fact, we have no adequate materialist account of qualitative content. Since I have nothing at all to add to this discussion - either here or in the papers to follow - I shall simply assume that the functionalist program applies at most to the analysis of propositional attitudes.[28]

Fodor's overall objective in The Language of Thought and in Representations, at least in part, is to defend the claim that the intentionality and semanticity of propositional attitudes is a result of symbols of mental representation. His The Language of Thought, for example, is an essay in "speculative psychology" which attempts " . . . to say how the mind works insofar as answers to that question emerge from empirical studies of language and cognition."[29] My dissertation is also an essay in speculative psychology that attempts to suggest how the mind works with respect to structural principles rather than psycholinguistic ones. Fodor (and others) are attempting to uncover the "internal language" that makes propositional attitudes possible and expressible; my concern is to uncover the internal, operative structure that determines how all our states of consciousness, as they are empirically given, are able to be organized around a uniquely identifiable self whose primary, distinguishing characteristics are continuity, unity, and self-identity of experience. Psycholinguistics in philosophy, as employed by Fodor, is a methodology to lay bare the logical and syntactical requirements for an internal code, a representational language: " . . . theories in cognitive psychology seek to explain the propositional attitudes of organisms . . . by providing, for each propositional attitude, nomologically necessary and sufficient conditions in terms of computational relations between the

organism and formulae on the internal representation system."[30] Clearly, my dissertation is an inquiry into a different aspect of the "mental mechanics" of representation. My analysis of Principles will set the groundwork for my thesis concerning how mental states are able to be sub-experientially organized into the phenomenological flow of felt unity; it is not about the computational vocabulary or grammar underlying mental processes. For many philosophers, their attention has been focused on answering questions like, what are the semantical, syntactical and logical properties necessary in order for propositional attitudes to be represented in and by an internal code? What are the necessary and sufficient conditions for a language by which thinking is accomplished? What has not been addressed are questions like, how is it that mental states in their entirety are organized in such a way that the intrinsic significance and meaning of each state is successfully transferred (carried forward in time) to its succeeding mental state, or how is it that memory preserves the prior (past) organization of conscious states in such a way that what is retrieved and presented in present consciousness is capable of reviving or reliving the emotional, sensational, perceptual, etc., reality of those past states?

Fodor has no thesis to offer regarding a materialist account of qualitative content; I have no thesis to offer as to the linguistic format or symbols of representation that mental states may take in order to be processable as and in lived experience. I do, however, adumbrate a thesis in Chapter III that I call "thematic synthesization" which suggests how the structural organization of phenomenological experience might account for the unity of selfhood feelings that, in general,

characterizes human experience.

Functionalism relies upon the "computer analogy" in at least two ways - as the idea of Turing machine reducibility of intelligent processes and as the idea of mental processes as formal representations on symbols, since among the more interesting things that Turing machines can do is " . . . simulate literally all formally specifiable symbol manipulations."[31] As a result, " . . . much recent theorizing in cognitive science has tended to view the mind as in important respects a symbol manipulating device."[32] But our enthusiasm for cybernetic correspondences must be guarded. Insofar as we are justified in using computers as possible models of mind, we must also be aware of their shortcomings. No model of mind can be complete or wholly satisfactory that disregards the special character of mind that is so elusively, yet conveniently captured by the concept of "consciousness". For it is the consciousness of an organic system that provides the seemingly limitless potential for quirks, errors, dreams and nightmares, queasy feelings, misgivings, misinterpretations, misunderstandings and other systemic "anomalies" that computers seem, at least for the moment, to lack the potential to acquire. The properties that I am referring to include what Gunderson has called the "program-resistant" features of mentality as opposed to the "program-receptive" features. These are the non-intentional attributes of mind like pains, sensations, feelings, emotions, "itches, images, yearnings, thrills of lust, and other raw feels"[33] that have not, as yet, proven simulatable by "artificial organisms". As Dennett correctly assesses, "if we are to capture the program-resistant features in an artificial system, we must somehow give the system a phenomenology, an inner life."[34]

"Consciousness", I believe, is an indispensable notion, not merely an adjunct to a comprehensive theory of mind. But it is not at all clear how we are to "make room for" the totality of mental content that is what we mean by "lived experience" on either purely physicalistic or functionalistic models. Meta-phenomenological hypotheses, like "thematic synthesization" are, it seems to me, as much a necessary part of a total theory of mind as any of its materialistically-oriented counterparts. Fodor is aware of this as we have seen, and Dennett concedes the same when he writes: "To build a self, a first-person, with a privileged relation to some set of mental features, out of the third-person stuff of intentional systems is the hard part, and that is where awareness[1], the notion Arbib finds of dubious utility, is supposed to play its role. Content is only half the battle; consciousness is the other half."[35] The thesis that I will be suggesting later in this paper is concerned with the total content of experience including both propositional attitudes and qualitative content, although by no means is it more than a tentative approximation to a full-blown theory.

This dissertation is partitioned into four chapters, Chapter I being the "Introduction". Chapters II and III essentially interpret, analyze, and critique James's thematic and temporal hypotheses, respectively, so that the theoretical framework is laid for the fourth chapter which presents and defends the constructive theory of "thematic synthesization", a thesis which, I believe, plausibly and consistently suggests, as a first approximation, how mental states might be internally structured so as to make possible the given of experience. More specifically, Chapter II, which is divided into two sections, explores James's thematic hypothesis

that the content of consciousness is analyzable as a "field-concept". There are two field-concepts suggested in Principles. Section One examines both the more narrow "transitive/substantive" field-concept which James intends as applying specifically to cognitive states, and the broader "marginal/focal" field-concept which applies to all conscious states. The relationship between the two field-concepts is also examined. The thesis is put forth that the "transitive part" of the one and the "marginal part" of the other field-concept together serve the function of suffusing, directing, and supporting the "substantive" and "focal" parts or "domains" of the field. Section Two raises questions about the legitimacy of the field conceptualization itself, i.e., (a) whether a field constitutes a "formally invariant" structure of consciousness, and (b) whether it is possible to develop a practical criteria or method by which the constituents of a particular, given field (state of consciousness) can be determined? By means of examples from both ordinary and altered states of consciousness, I hope to demonstrate that there are mental states that seem to be best characterized as either wholly marginal or wholly focal, thereby fostering some doubt about the legitimacy of the notion of "field-concepts" as invariable, structural distinctions.

In Chapter III, James's temporal hypothesis of the "specious present" is examined. Rather than seeing its primary significance, as James suggested, in being the original time-unit by which our intuition of internal time-perception is achieved, I argue that its utility lies in being that interval or span of duration in which earlier and later "phases" or "passages" of content are experienced as being co-present, that is to say, as the definitional parameters of that "fullness" of

content/awareness which is what we mean by a "state" of consciousness or a conscious "experience". The specious present is examined as that structural constant which enables us to apprehend the thematic content that is phenomenologically given as a sensible total of psychic meaningfulness. The span of duration of one's specious present embraces the psychic content that determines our capacity for meaningful experience. As such, I re-define "experience" as that fullness of apprehension whereby mental content that is objectively successive is cognized or apprehended as temporally co-present. Thus, the phenomenological "meaning" of the specious present is that it is for consciousness the temporal unit (durational span) that apprehends the given (thematic content) as a "sensible total" (field of conscious fullness). The specious present is that duration in which we experience the temporal order and thematic organization of the field of mental content. It is what is apprehendable in a unitive pulse of consciousness, so that any amount of "chunked" data or any duration less than that which is unitively apprehended, underfills the capacity necessary for a unified, mental whole and, ex hypothesi, cannot be apprehended via earlier and later phases as an "experiential total" in consciousness. Similarly, any chunked data or duration that is greater than one's specious present, overflows (or "overfills") one's total capacity for apprehending as a meaningful unity.

Since the specious present is analyzed in this paper such that the focal/marginal field of experience is an extended temporal horizon that reveals content apprehended in ordered relations of "earlier and later than" one another, an interpretation of James's thesis of the specious

present must be offered which will avoid certain well-known, logical difficulties centered around the impossibility of immediately "sensing" mental content that is before or after a time that we are no longer apparently apprehending. In order to dismiss this interpretation, I discuss some of its counterfactual consequences at length. Being at odds with ordinary experience, this unsatisfactory "mechanistic" interpretation is shown to require a new interpretation which is what "thematic synthesization" is intended to provide. To meet this need, then, I reinterpret the specious present as that temporal constant by which immediately past content is organizationally integrated into the totality of its successor as the earliest phase of psychic meaningfulness, whose own later content, conditioned by the just-past, earliest content, itself becomes the later phase of a newly apprehended experience. The elaboration of this continual process of "synthesization" constitutes the bulk of analysis in Chapter IV.

Finally, then, in Chapter IV, I apply the concept of the specious present as that span of duration in which the succession of earlier and later content is experienced as a co-present, organizational-whole within the wider context of experiences that encompass one's entire, experiential self-history. Developing a view of how the various, hypothesized "sub-processes" of thematic synthesization integrate successive, specious present fields, I offer a speculative interpretation of the structure of consciousness, as a "first approximation", that attempts to show how each lived experience influences its successor in an ongoing process of continual modification such that the past, being continually and enduringly a part of the ever-changing present, provides the underlying

unity of consciousness that manifests in each phenomenological moment. "Thematic synthesization" is postulated as being that structural principle and process whereby every total, temporary state of consciousness is partially modified, determined, or conditioned by one's entire, self-historical, experiential past. Each total, mental state, as it is succeeded and replaced by a new mental state, appropriates to its successor temporal and thematic content or information ("noesis") and psychic meaning or intent ("noema") which is assimilated by its successor as the subjective significance of its predecessor. Consequently, given the processional nature of consciousness, the character of each present state of consciousness is an experience of the given which has been modified, in effect, by the totality of one's entire, experiential self-history. (Although this theory no doubt has a counterpart in neurology, what its physical equivalent might be, is unknown.)

On this thesis, each "total field" becomes a "thematic datum" for its successor along with other "uninterpreted" data to yield the "earlier" and "later" phases of each new specious present. I then show how this hypothesis is consistent with ordinary experience and how it allows us to account for a variety of experiences that might not be structurally accounted for otherwise, e.g., the interruption of conscious continuity caused by sleep, remembrances, acts of recall, and the "association of ideas". I also show how thematic synthesization conforms to, and is suggested by constructive allusions and illustrations in Principles, particularly with respect to James's unique theory of Self and Personal Identity. I argue that not only does the concept of thematic synthesization arise out of James's theory of the temporal and thematic

structure of consciousness, but that it is, in natal form, already contained with his explicit theory of consciousness.

One final word: notwithstanding occasional digressions, the scope of this dissertation confines itself to the topics and problems outlined above. It is not, nor does it attempt to be, a thorough and detailed analysis of the entire two volumes of Principles in the way, for example, that Bruce Wilshire's book is. Many topics are left wholly untouched, with ne'er a mention; I have sought to follow such principles of selection and economy as would, in my opinion, best carry through the purposes of this thesis avoiding all other topics and issues, as interesting as they might be, which would distract us from achieving as unified a treatment of our subject as possible.

NOTES

CHAPTER I: INTRODUCTION

[1]The problem of what constitutes "normal, waking consciousness" is difficult to answer. Part of what we mean by "normal, waking consciousness" is what Ian Oswald, the sleep and dream-state researcher, lists as the "attributes of consciousness". These include "skilled response, the utilization of former experience, a subsequent statement of having been aware, and being now able to describe what passed . . ." [Ian Oswald, Sleep, (Baltimore: Penguin Books, 1966), p. 38.] Wakefulness alone is not sufficient, because as Oswald observes, it is possible to be awake without a cortex: "Animals from which the cortex has been removed show alternating periods of sleep and activity. While active they move about, eat and excrete and must be considered awake. [Yet] there are no grounds for inferring the possession of consciousness on their part." [Ibid, p. 38] What we still need to account for then, is what normal, waking consciousness means, or amounts to, experientiallly.

It is perhaps easiest to describe those characteristics that set "normal, waking consciousness" apart from what are often referred to as "altered states of consciousness". Charles Tart, the well-known researcher on altered states, writes that: "For any given individual, his normal state of consciousness is the one in which he spends the major part of his waking hours. That your normal state of consciousness and mine are quite similar and are similar to that of all other normal men is an almost universal assumption, albeit one of questionable validity. An altered state of consciousness, for a given individual is one in which he clearly feels a qualitative shift in his pattern of mental functioning . . . but also that some quality or qualities of his mental processes are different. Mental functions operate that do not operate at all ordinarily, perceptual qualities appear that have no normal counterparts, and so forth." [Charles T. Tart, "Altered States of Consciousness", Altered States of Consciousness: A Book of Readings, edited by C. T. Tart, (New York: John Wiley & Sons, 1969), p. 1-2.]

The distinction between "normal, waking consciousness" and "altered states of consciousness" though not easy to make, when experienced, is unmistakable. Tart regards altered states of consciousness as " . . . any mental state(s), induced by various physiological, psychological, or pharmacological maneuvers or agents, which can be recognized subjectively by the individual himself (or by an objective observer of the individual) as representing a sufficient deviation in subjective experience or psychological functioning from certain general norms for that individual during alert, waking consciousness." [Ibid, pp. 9-10] Tart has elsewhere proposed that we replace "state of consciousness" with "discrete state of consciousness", abbreviated as "d-SoC". In a "standard" d-soC, " . . . the overall component structures and subsystems show some variation . . . [but] the overall system properties remain recognizably the same. If, as you sit reading, you think, 'I am dreaming,' instead of 'I am awake," you have changed a small cognitive element in your consciousness but not affected at all the basic pattern we call your waking state. In spite of

subsystem variation and environmental variation, a d-soC is stabilized by a number of processes so that it retains its identity and function." [Charles T. Tart, States of Consciousness, (New York: E. P. Dutton & Co., 1975), p. 5.] "Normal, waking consciousness" or "ordinary consciousness" as used in this dissertation essentially follows Tart's approach. Tart's intention, via this "systems" approach is to enable us to distinguish between an "ordinary" and an "altered" state of consciousness, (abbreviated as "D-ASC"), the latter of which departs from a "baseline state of consciousness (B-SoC)" which is usually an ordinary d-SoC regarded as a baseline state. But Tart retains as baseline such states of consciousness as " . . . nondreaming sleep, dreaming sleep, hypnosis, alcohol intoxication, marijuana intoxication and meditative states" that I would regard as more properly being "altered" states of consciousness. [Ibid, p. 5] (The obvious question thus arises as to what constitutes the frame of reference by which "normal" states can be distinguished from "altered" states; guidelines, I believe, can be proffered which might be developable into an approximate criteria. Tart, to some extent, attempts to produce such a criteria in his book.)

[2]I shall follow standard practice in referencing quotes from Principles by merely indicating the volume number and the page number in parentheses, after the quotation.

Although it may be argued that throughout his career James remained interested in the problems of framing a structural theory of consciousness, I have chosen to limit my inquiry to Principles for several reasons. Firstly, nowhere, to my knowledge, in the entire corpus of his works has James advanced such a lucid, detailed and systematic treatment of the subject. Indeed, much of his later work, with respect to the structure of consciousness, may be seen as an extended footnote to Principles. Also, as James's interests moved away from "metapsychological" questions in his later pragmatic, pluralist and radical empiricist years, he seemed to have entertained more and more doubt about the concept of "consciousness". With respect to the metapsychological problems of this dissertation, Principles represents James's highest thought and achievement. I shall, however, make use of some of his other writings to emphasize various ideas as occasion warrants.

[3]Ned Block, "Introduction: What is Philosophy of Psychology", Readings in the Philosophy of Psychology, edited by Ned Block, vol. 1, (Cambridge: Harvard University Press, 1980), p. 1.

[4]Ibid, pp.2-3.

[5]David Hill, "Introduction: Mental Representations and Languages of Thought", Readings in the Philosophy of Psychology, vol 2., (Cambridge: Harvard University Press, 1980), p. 11.

[6]Jerry Fodor, The Language of Thought, (New York: Thomas Y. Crowell Co., 1975), p. 28.

[7]Experiments by Lee R. Brooks have shown convincingly that cognitive acts of judgement rely upon apparently different systems of schemata for encoding the information into and out of memory. There can be no doubt that in such mental states at least, not only does mental representation occur, but that it seems to involve differences that are modality-specific. Brooks's experiments seem to point to the possibility of specialized processing mechanisms for each modality of sensory information. [See Attention and Memory, Donald A. Norman, (New York: John Wiley & Sons, 1976), pp. 158-162 & 166-7.]

"Mental representations" seem to be of two forms, or rather, there are two primary contenders for what we mean by the concept of representation. As Donald Norman puts it: "The mental representations of information about the world mirror some of the properties of the world. When a representation has this property, we call it an analogical representation; it is an analog of the perceptual experience. Another basic representational format has interested psychologists studying memory: propositional representation. A propositional system encodes information in terms of interpreted, abstracted statements of the perceptual events. Propositions categorize the objects. The sentences of language, for example, are propositional in nature . . . . But proponents of the propositional representation do not restrict their claims to the study of language. They believe that all knowledge could be represented in this form." [Ibid, p. 167]

Propositional representation maintains that however knowledge is encoded, it is stored as specific statements about conceptual information. Analogical representation holds that information, particularly of a perceptual nature, is retained pictorially or in the form of images. It is quite possible that both forms of representation may take place. But, whatever the truth of the matter, it is clear that how information is encoded may be entirely different from how it is stored, and the storage of information may itself be in a different form than from how it is recalled or presented in consciousness. Zenon Pylyshyn has suggested that recall of past experiences, or parts of past experiences must involve propositional representation since one's memory of a past experience already contains "differentiated and interpreted perceptual aspects". Pylyshyn claims that "The argument is not simply that retrieval of images would involve a bewildering cross-classification system while retrieval in other forms of representation would not. The point is that because retrieval must be able to address perceptually interpreted content, the network of cross-classified relations must have interpreted objects (i.e., concepts) at its nodes . . . . We may assume, then, that the representation differs from any conceivable picture-like entity at least

by virtue of containing only as much information as can be described by a finite number of propositions." [Zenon W. Pylyshyn, "What the Mind's Eye Tells the Mind's Brain: A Critique of Mental Imagery", Psychological Bulletin, 1973, 80, pp. 10-11.] An elaboration of the argument is also to be found in Pylyshyn's "Imagery and Artificial Intelligence" in Ned Block's Readings in the Philosophy of Psychology, vol. 2.

It should also be noted, as Donald Norman points out, that philosophers often restrict the use of the concept of propositional representations since for them, " . . . a proposition must have a truth value that reflects its veracity as a statement about the world." [Norman, p. 167, footnote] Psychologists use the concept in the broader sense that a proposition is any concept, whether or not it is a statement, that contains conceptual information or can be used to express conceptual relationships.

[8]In offering a structural interpretation of consciousness as I extract it from Principles, I do not mean to imply that James was a forerunner of what used to be called "structural psychology". Its leading representative in the U.S. was Titchener in the first decade of the 20th century, and its methodology was the "analysis of mental states into component sensations, images and feelings." [Dagobert D. Runes, Dictionary of Philosophy, Totowa, N.J.: Littlefield, Adams & Co., 1965, p. 202.] Structuralism, in our sense, refers to the view that the understanding of observed phenomena is to be grounded in underlying psycho/physical structures.

In the history of psychology, James is often classified as a "functionalist", meaning here that "mind is conceived as a function of the organism, a kind of instrument which not only enables the individual to adjust to the existing environment but also, perhaps more importantly, enables him to change his environment in ways conducive to his ends." [Andrew Reek, An Introduction to William James: An Essay and Selected Texts, (Bloomington: Indiana University Press, 1967), p. 24] As Daniel Robinson adds, "Ever the functionalist, James insists that . . . where there is consciousness at all, it [a creature] must have a function, and the most plausible function is that of selecting significant features of the environment and directing the appropriate cerebral processes." [Daniel N. Robinson, Toward a Science of Human Nature: Essays on the Psychologies of Mill, Hegel, Wundt and James, (New York: Columbia University Press, 1982), p. 180.]

[9]Perhaps there are some languages where the world is construed as "process-descriptions" rather than as "things being at or in state-descriptions", but English and the other modern Indo-European languages are certainly not among them. According to L. L. Whyte, " . . . certain African and American Indian communities, the Hopi and others, appear to put the cognitive emphasis, not on separable traces representing isolatable entities, but on the actual process of personal experiencing. [Benjamin] Whorf has suggested that their languages are molded to represent the

transformation of the subject in the course of his experienced activities and of his participation in the processes of his world. The Hopi, for example, view reality as 'events', rather than as 'matter'. These languages, far from being vague or undifferentiated, make finer discriminations in regard to action of thinking than do the European." [L. L. Whyte, The Unconscious before Freud. (New York: Basic Books, 1960), p. 34]

Non-technological societies seems to have an advantage over us in terms of comprehending the quintessential flux of experience in nature. Dorothy Lee writes, of her own anthropological findings, that: "The people of the Trobriand Islands codify, and probably apprehend reality, nonlinearly in contrast to our own lineal phrasing. Basic to my investigation of the codification of reality in these two societies, is the assumption that a member of a given society not only codifies experienced reality through the use of the specific language and other patterned behavior characteristics of his culture, but that he actually grasps reality only as it is presented to him in this code." [Dorothy Lee, "Codifications of Reality: Lineal and Nonlineal", The Nature of Human Consciousness: A Book of Readings, edited by Robert Ornstein, (San Francisco: W. H. Freeman & Co., 1968), p. 128.]

At the risk of overstating my point, I take the liberty of elaborating a little further by quoting from the legendary Benjamin Whorf, one of the early pioneers in modern philology and psycholinguistics: "Segmentation of nature is an aspect of grammar . . . . We cut up and organize the spread and flow of events as we do, largely because, through our mother tongue, we are parties to an agreement to do so, not because nature itself is segmented in exactly that way for all to see . . . . We dissect nature along lines laid down by our native languages. The categories and types that we isolate from the world of phenomena we do not find there because they stare every observer in the face; on the contrary, the world is presented in a kaleidoscope flux of impressions which has to be organized by our minds - and this means largely by the linguistic systems in our minds. We cut nature up, organize it into concepts, and ascribe significances as we do, largely because we are parties to an agreement to organize it in this way - an agreement that holds throughout our speech community and is codified in the patterns of our language . . In English we divide most of our words into two classes . . . . Class 1 we call nouns, e.g., 'house, man;' Class 2, verbs, e.g., 'hit, run.' Many words of one class can act secondarily as of the other class, e.g., 'a hit, a run,' or 'to man (the boat),' but, on the primary level, the division between the classes is absolute. Our language thus gives us a bipolar [dualistic] division of nature. But nature herself is not polarized . . . .We are constantly reading into nature fictional entities, simply because our verbs must have substantives in front of them. We have to say 'It flashed' or 'A light flashed' setting up an actor, 'it' or 'light,' to perform what we call an action, 'to flash.' Yet the flashing and the light are one and the same !!! . . . . By these more or less distinct terms we ascribe a semifictitious isolation to parts of experience. English terms, like 'sky, hill, swamp,' persuade us to regard some elusive aspect of nature's endless variety as a distinct THING . .

Thus English and similar tongues leads us to think of the universe as a collection of rather distinct objects and events corresponding to words." [Quoted in Ken Wilbur's The Spectum of Consciousness, (Wheaton, Ill.: The Theosophical Publishing House, 1977), pp. 134-5.] James maintains that "things" are extracted from the teeming swarm of the chaotic given by selective attention picking and choosing from the total, sensory gestalt a "foreground" or "figure" from amidst the incessant "background" of everything else that exists, but holds no interest for us. That which we have selected by attending to, and returning to, on different occasions, gives rise to "sameness" and "resemblance", and it is the ability to create "sameness" that distinguishes some parts of the total sensorium as "substantial objects" of reality to the exclusion of other phenomenal data. I shall have more to say on this in the body of the paper itself. James, himself, wrote in a letter to Renouvier in 1884, that
" . . . before it is reflected on [introspection], consciousness is felt, and as such is continuous, that is, it potientially allows us to make sections anywhere in it, and treat the included portion as a unit. It is continuous as space and time are. And I am willing to admit that it is not a chose ensoi, for this reason, if you like, anymore than they. But as we divide them arbitrarily, so I say our divisions of consciousness are arbitrary results of conceptual handlings of it on our part. The ordinary psychology, on the contrary, insists that it is naturally discrete and that the divisions belong in certain places. This seems to me like saying that space exists in cubes and pyramids, apart from our construction." [Quoted in Gerald Myer's William James, (New Haven: Yale University Press, 1986), p. 505.]

[10]From A Pluralistic Universe, as quoted in The Writings of William James, edited by John J. MacDermott, (New York: Random House, 1968), p. 292.

[11]A major problem in discussing "consciousness" and "states of consciousness" is the vagueness and ambiguity of these, and related terms. As Ralph Barton Perry, James's distinguished biographer, has noted: "There is no philosophical term at once so popular and so devoid of standard meaning . . . One hears of the object of consciousness and the subject of consciousness, and the union of the two in self-consciousness; of the private consciousness, the social consciousness, and the transcendental consciousness; the inner and the outer, the higher and the lower, the temporal and the eternal consciousness; the activity and the state of consciousness. Then there is consciousness-stuff, and unconscious consciousness . . . " [Ralph Barton Perry, "Conceptions and Misconceptions of Consciousness", Psychological Review, 11: 282-96.]

As David Taylor correctly observes, "consciousness isn't just information; it's experience. It has a special quality that is uniquely its own and is directly evident to the one who is conscious." [David Taylor, Mind, (New York: Simon & Schuster, 1982, pg. 182.]

That "consciousness" has been traditionally seen as a sine qua non that elusively and perennially defies our attempts at defining it, can be

gleaned by even a cursory review of the history of mental philosophy. L. L. Whyte in his history of mind, maintains that " . . . the terms 'conscious' 'unconscious' 'subconscious' and 'preconscious', though valuable, are not entirely satisfactory, The trouble is not that they are ambiguous; that might be overcome by providing better definitions. It is that we do not yet know the right definitions to use, the meanings which would throw most light on the structure of mental processes. What we need is not merely words with definitions using other words, but insight into the changing structure of mental processes. Until we can identify a law covering all mental processes, definitions cannot do more than flatter us into imagining we are thinking properly, when we are not." [L. L. Whyte, p. 1.]

James, as we have already noted, shies away from attempting to define "consciousness", "mental state" or "states of consciousness". He often prefers using "Thought" and "Feeling" to "state of consciousness", and borrowing from Thomas Huxley, "psychosis" and "neurosis" for the "total mental state" and "total brain state", respectively (I, 185-6). Indeed, according to Hans Linchoten, James uses "consciousness" in at least four different senses [Hans Linchoten, On the Way Toward a Phenomenological Psychology: The Psychology of William James, (The Hague: Martinus Nijhoff, 1974), pp. 55-57.] That James should be guilty of employing "consciousness" in several senses is hardly surprising or disconcerting, since as James G. Miller has convincingly shown, there are at least 20 different senses of "unconsciousness", and for each sense, there is likely a corresponding sense of "consciousness" [James G. Miller, Unconsciousness, (New York: John Wiley & Sons, 1942), p. 22ff.]

David Klein, attempting to make a primary distinction between "consciousness" and "awareness", two terms that are used in everyday discourse as being virtually synonymous, maintains that "awareness" refers to "external" and "impersonal" perceptions, while "consciousness" refers to "internal" and "personal" ones [David Ballin Klein, The Concept of Consciousness, (Lincoln: University of Nebraska Press, 1984), p. 6.] But surely I am not using the term incorrectly if I say that "when I introspect, I am aware of myself being aware", yet "being aware" in my introspection is probably as "personal" and "internal" as one can imagine.

Arthur Deikman, proposes that "awareness" is what is left after all the contents of our consciousness are bracketed; he invites us to perform a self-experiment: ". . . images or memory patterns - any one component of our mental life can disappear, but awareness, itself, remains . . . . To experience this . . . Look straight ahead and be aware of your conscious experience - then close your eyes. Awareness remains. 'Behind' your thoughts and images is awareness" [Arthur J. Deikman, "The Meaning of Everything", The Nature of Human Consciousness: A Book of Readings, edited by Robert Ornstein, (San Francisco: W. H. Freeman & Co., 1968), p. 318.] G. E. Moore, of course, submitted a very similar opinion in 1903, in writing that: "We have in every sensation two distinct elements, one of which I call consciousness, and another which I call the object of consciousness. This must be so if the sensation of blue and the sensation of green, though different in one respect, are alike in another: blue is one object of sensation and green is another, and consciousness, which

both sensations have in common, is different from either . . . . for the element 'consciousness' being common to all sensations may be and certainly is regarded as in some sense their 'substance' and by the 'content' of each is only meant that in respect of which one differs from another." [George E. Moore, Philosophical Studies, London: Routledge, Kegan, Paul, 1922), pp. 17 & 23.] Needless to say, the awareness that awareness remains, is itself an object of thought. James suggests the same idea when he tells us that ". . . empty our minds as we may, some form of changing process remains for us to feel, and cannot be expelled" (I, 620). Yet, by 1906, James had reassessed his view of consciousness, and to that extent criticized Moore and others for representing consciousness as "an entity or as a pure activity, but in any case as fluid, nonextended, diaphanous, devoid of any self-content, but directly self-knowing, - spiritual, in short . . . that sort of consciousness is pure fancy . . . " [From "The Notion of Consciousness", Essays in Radical Empiricism, as quoted in McDermott's Writings of William James, p. 190.]

Attempts at defining "consciousness", "awareness", "states of consciousness", etc., do seem ill-fated as I have suggested in my "Introduction". Yet, except for the most hardcore behaviorists who might define "consciousness", as Timothy Sprigge suggests on their behalf, ". . . either [as] the observable behavioral propensity on the part of the organism to take account of its environment in the pursuit of its goals (the nature of which is another observable fact about its behavior), or a presumed something which is the basis of these dispositions and which science now reveals to be the brain, or at least a certain set of events in the brain", mentalistic terms are a necessary part of the fundamental understanding that we have of and about ourselves as being privileged (or cursed) with self-awareness. [Timothy L. Sprigge, "Consciousness", The Ontological Turn: Studies in the Philosophy of Gustav Bergmann, edited by M. S. Gram & E. D. Klemke, (Iowa City: University of Iowa Press, 1974), p. 116.] Yet, definitions like that of the phenomenologist, Henri Ey, in which "consciousness" is "the organization of the system of vital relations which binds the subject to others and the world", are as vague as the behaviorists' are unenlightening. [Henri Ey, Consciousness: A Phenomenological Study of Being Conscious and Becoming Conscious, (Bloomington & London: Indiana University Press, 1978), p. 26.]

In the end, we may be compelled to regard our mental terms as irreducibly fundamental and primitive, and so leave them undefined, hoping that the relevant contexts will suffice in making our specific meanings clear. Perhaps the best that we can do is to agree with James Mill that "conscious" and "consciousness" are "generical marks" for "sentient creatures" (although this does sound suspiciously tautological) and say that " . . . if we are in any way sentient; that is, have any of the feelings whatsoever of a living creature; the word Conscious is applicable to the feeler, and Consciousness to the feeling". [James Mill, Analysis of the Phenomena of the Human Mind, edited by J. S. Mill, (London: 1869), pp. 225-6.]

No matter how expansive or refined our definitional attempts, we cannot get away from the fact that "consciousness" is used to refer to, among perhaps other things, (a) the feeling that the subject has, (b) the

"act" of mind of which the feeling is a part, (c) the awareness of the feeling, (d) the "content" of which that feeling is composed, (e) the psychic "meaning" that the feeling provides to the subject, (f) the "unified, mental act" which permits psychic meaningfulness, and even (g) the epistemologically "pre-conscious" processing or synthesizing activity of that state. Since much may turn on how "consciousness" is being understood at various points in this paper, the wisest course of action, or inaction, it seems to me, is to follow James's lead and allow "consciousness" unbridled reign, attempting to apply definitional halters only as particular contexts warrant.

[12]William James, "Does Consciousness Exist?", quoted in MacDermott's The Writings of William James, p. 169. James's article was originally published in September, 1904 in The Journal of Philosophy, Psychology and Scientific Methods, vol. I, No. 18.

[13]James has often been called a "Fechnerian psycho-physical parallelist", a view which essentially expresses the relationship between what is mental (or psychical) and what is physical (somatic or neural) as being one of correspondence such that although separate, their manifestations and processes act in parallel with each other. Although, as Andrew Reek points out, "psycho-physical dualism is the doctrine that there are two principles, mind (or consciousness) and body (especially the brain), and that psychology as a natural science studies both and their relations to each other", it is also the case that James " . . . in general terms maintained that mind (or consciousness) is related to its body dynamically - i.e., causally . . . " [Andrew Reek, "Dualism in William James", Tulane Studies in Philosophy, XXI, 1972, p. 26.] James's ontological posture is generally "interactionism" in that he assumes causal relations between mind and brain and believes that not only do mental events cause other mental events, and physical events cause physical events, but that there is causal interaction between mental and physical events. Yet his posture is not wholly consistent throughout Principles, but as James Edie points out, James "seems to hesitate between parallelism, epiphenomenalism, and interactionism, depending on his polemical concern of the moment." [James M. Edie, "The Philosophical Anthropology of William James", An Invitation to Phenomenology: Studies in the Philosophy of Experience, (Chicago; Quadrangle Books, 1965), p. 128.]

According to John Dewey, James prescribed a new direction in introspective psychology and a shift away from classical dualism by denying that " . . . sensations, images and ideas are discrete and in which he replaces them by a continuous stream which he calls the 'stream of consciousness'. This conception necessitates a consideration of relations as an immediate part of the field of consciousness, having the same status as qualities." [John Dewey, "The Development of American Pragmatism", Philosophy and Civilization, (New York: Capricorn Books, 1963), p. 28, underlining mine.] Whereas mental "qualities" refers to how "things" are perceived so that mind retains its independent status, the

concept of "relations", which was later developed further by James, implies that the distinction between the perceived and the perceiver is one of perspective, not of substance,

[14]Although James's explicit denial of "consciousness" as an "aboriginal stuff" did not come about until quite late in his career with the publication of "Does Consciousness Exist?", it is clear from even his earliest writings that he was opposed to the view that "consciousness" is ever to be conceived of as a substantial, independent entity.

As John McDermott notes: "What James wishes to avoid is the view of consciousness as an 'aboriginal stuff or quality of being', that is, as a metaphysical reality. He holds that the attributes "'subject and object,' 'represented and representative,' 'thing and thought' mean, then a practical distinction which is of a FUNCTIONAL order only, and not at all ontological as understood by classical dualism.'" [From Essays in Radical Empricism as quoted in John D. McDermott's "Introduction" to The Writings of William James, p. 287.]

[15]"Waking consciousness", Montague Ullman believes: "is organized in relation to a series of selectively attended to events, each one having a specific afferent component as well as an immediate or potential efferent component. We have a certain say in relation to the stimuli we attend to and the actions that we take. As a consequence of this, waking consciousness has a distinctly 'voluntary' quality."

"When we turn our attention to dreaming, the first thing we note is that we are conscious while we are dreaming but that the way that consciousness is experienced, as well as its specific form and content, is qualitatively different from waking consciousness. It is involuntary in quality, sensory in form and creatively organized in its content. All theories of dreaming must account for these characteristics. But despite these rather dramatic differences and operating within whatever limits they impose, dream consciousness, like waking consciousness, is integrative and executive and just as contingent upon the capacity to attend selectively to an afferent input as well as to effect a behavioral response." [Montague Ullman, "Vigilance, Dreaming and the Paranormal", Consciousness and Reality: The Human Pivot Point, edited by Charles Muses and Arthur M. Young, (New York: Outerbridge & Lazard, 1972), pp. 38-9.]

As Erwin Strauss writes, "sleep and dream interfere with the possibility of establishing and realizing primary Mineness" [Erwin Strauss, Phenomenological Psychology, (New York & London: Garland Publishing Co, 1980), p. 102.] What has to be accounted for is how it is that we pick up the thread of our life-history after consciousness is interrupted by sleep and dreams: "In our waking existence, each day is connected with the past and prepares the future. Our 'days' consist of days and nights, but only the days are entered into the context of our life history. The events of the day carry the legend 'to be continued,' but dreams are not delivered in serials. A dream of one night does not follow up the dream of the preceding night. We do not pick up the thread of a dream where we left off the previous night, as, at the beginning of

the day, we resume the theme of our life history where we laid it down. Even if the same theme last through the dreams of several nights, the dreamer is not aware of this connection." [Ibid, p. 104]

[16]Recent studies according to researcher and writer, Kevin McKean, have shown " . . . for the first time in a convincing, repeatable way, that our behavior can be shaped by perceptions, experiences and memories of which we have no conscious knowledge. In one striking example, people who had undergone surgery were found to have unconscious memories of the things they heard under anaesthesia." [Kevin McKean, "In Search of the Unconscious Mind", Discover, February, 1985.] The article contains a number of other interesting examples of awareness of surrounding events while being in a condition of virtual unconsciousness.

[17]Bernard Bertocci warns us against what language will not permit to do otherwise: "We must avoid the picture-thinking responsible for such expressions as 'one moment of our experience "flowing" into the next,' or 'the present gradually emerging from the past." Such pictures might be true if any present were simply the spatial extension of a point being drawn into a longer and longer time. But we cannot spatialize a moment of mental experience, however our words tend to ensnare us into spatial traps." [Bernard Bertocci, "A Temporalistic View of the Mind", Theories of the Mind, edited by Jordan M. Scher, (New York: The Free Press, 1962), p. 403.]

Regarding our reliance upon spatial, and especially visual, analogies, Ulric Neisser has pointed out that, "spatial organization generates a wonderful variety of metaphors for the mind: we are 'in a position' to know something, have knowledge that is 'wide' or 'deep', look at 'the other side' of a question, study 'areas' and 'fields' of learning. A person who does not have an adequate orienting schema is 'lost' . . . " [Ulric Neisser, Cognition and Reality: Principles and Implications of Cognitive Psychology, (San Francisco: W. H. Freeman & Co., 1976), p.110.] Similarly, Henri Ey, makes the acute observation that the spatiality of the mental "field" is conceived as but an extension of the literal, agrarian field: "Even in its ordinary and agricultural sense, the concept of 'field' refers not only to a certain manner of being 'within boundaries' but also to a production which is contained within its limits. Moreover, the 'field' has a history, a genealogy, a stratification, a subsoil; it is even capable of changing." [Ey, p. 86-87.]

[18]George Mandler, Mind and Emotion, (New York: John Wiley & Sons, 1975), p. 58.

[19]Thomas Nagel, "What is it Like to be a Bat?", The Philosophical Review, (Ithaca: Cornell University Press, 1974) vol. LXXXIII, p. 435.

[20]Ibid, p. 436.

[21]Ibid, p. 437.

[22]The view that James was indeed an Identity Theorist and a seminal proponent of behaviorism is defended, (poorly in my opinion), by Chandana Chakrabarti, in his article, "James and the Identity Theory". Behaviorism 3, Fall, 1975. It is one thing to say that "James's interpretation of mental acts in terms of felt movements of the body bears some remarkable similarity with the identity theory [of] . . . J. J. C. Smart or U. T. Place", (p. 152), but it is quite another to then add that "introspective analysis does not reveal to James the existence of any mental activity." It is quite simply a thesis that is not supported by James's methodology, practices and statements.

[23]Daniel C. Dennett, Brainstorms: Philosophical Essays on Mind and Psychology, (Montgomery: Vermont: Bradford Books, 1978), p. xvi.

[24]Jerry Fodor, Representations, (Montgomery: Bradford Books, 1981), p. 10. Reductionism, and especially behaviorism, must fail, Fodor correctly points out, because psychology cannot be a "science of mental phenomena", (compare Fodor's phrase with James's definition of psychology as the "science of Mental Life [I, xiii]), without the concept of "mental causes": "Mental causes typically have their overt effect in virtue of their interactions with one another, and behaviorism provides no satisfactory analysis of statements that articulate such interactions . . . . the basic problem with behaviorism [is] that it can't reconstruct the notion mental process . . . it seems perfectly obvious that what's needed to construe cognitive processes is precisely what behaviorists proposed to do without: causal sequences of mental episodes and a 'mental mechanics' to articulate the generalizations that such responses instantiate." [Ibid, pp. 5-6. See also, Fodor's The Language of Thought, pp. 2-9.]

Dennett is equally critical of reductionism in general, and behaviorism in particular, e.g., "Skinner's experimental design is supposed to eliminate the intentional, but it merely masks it. Skinner's non-intentional predictions work to the extent they do, not because Skinner has truly found non-intentional behavioral laws, but because the highly reliable intentional predictions underlying his experimental situations . . . are disguised by leaving virtually no room in the environment for more than one bodily motion to be the appropriate action and by leaving virtually no room in the environment for discrepancy to arise between the subject's belief and the reality." Dennett, p. 15.

[25]Dennett, p. xvii.

[26]Ibid, p. 16. Dennett defines an "intentional system" as " . . . a system whose behavior can be - at least sometimes - explained and predicted by relying on ascriptions to the system of beliefs and desires (and hopes, fears, intentions, hunches, . . .). " p. 3.

[27]Ibid, p. 3.

[28]Representations, p. 13.

[29]Ibid, p. 17.

[30]The Language of Thought, p. viii.

[31]Ibid, p. 77.

[32]Representations, p. 14.

[33]Dennett, p. 30.

[34]Ibid, p. 32.

[35]Ibid, p. 30.

CHAPTER II: THE THEMATIC STRUCTURE OF CONSCIOUSNESS

SECTION ONE: JAMES'S FIELD-CONCEPTS OF CONSCIOUSNESS

By a "field-concept" in Principles, I am referring to both the "transitive/substantive" mental field that James tends to discuss specifically with respect to cognitive processes, and also the "focal/marginal" mental field that James applies to states of consciousness in general, regardless of "primary modality", i.e., whether the thematic center of one's immediate experience is a thought, feeling, perception, etc. Although the "focal/marginal" field-concept is more fully articulated in some of his later works, it is, nevertheless, the primary field-concept of Principles since the "transitive/substantive" field as it pertains to cognition may be considered a subclass of the "focal/marginal" field which holds for all states of consciousness.

In this section, the relational structure of transitive/substantive consciousness will be examined first. We shall also examine James's celebrated thesis that the transitive processes, i.e., "relations of tendency", "fringes of felt affinities", "signs of directions", "attitudes of expectancy", etc., have been neglected from the psychology of consciousness, and need to be recognized and restored to their rightful place within the overall structure of cognitive consciousness. As we shall see, "transitive parts" of the stream act as what might be called "vehicles of transport" in consciousness, allowing our thoughts to be

"suffused" with contextual significance that provides "inner", "subjective", or "psychic" meaning to all our cognitive experiences[1]; it "bathes" them in dynamic nuances of psychic "tone, color and texture". In addition, the transitive elements of consciousness and especially the "fringes", direct or guide our thinking processes toward the mind's "topic" or "theme" with "feelings of nearness or remoteness" and "harmony or discord". These "fringes" serve to advance our cognitive thoughts from one substantive idea to the next.

What usually concerns us most in our purposive thinking is that we progress from idea "A" to idea "B", from "B" to "C", and so on, until this chain of connective thoughts achieves a temporary terminus, i.e., an intermediary or final conclusion.[2] Once having reached this "resting place", the question of how we arrived there seems phenomenologically superfluous: "It then appears that the main end of our thinking is at all times the attainment of some other substantive part than the one from which we have just been dislodged. And we may say that the main use of the transitive parts is to lead us from one substantive conclusion to another" (I, 243, underlining mine).

The relational structure of the substantive to the transitive parts of the stream may be expressed as follows: if the "focus of consciousness" (or "attention") concentrates cognitive processes into a centralized perspective, theme or topic by channelling mental activity into organized articulations that have referential "end-points" or conclusions, then the "margin of consciousness" supplies the surrounding matrix of relational "fringes" that "meaningfulizes" both the progression of thoughts and those conclusions and end-points by bathing them in and surrounding them with various sensory, cognitive and affective contexts or "horizons".

> In all our voluntary thinking there is some topic or subject about which all the members of the thought revolve. Half the time this topic is a problem, a gap we cannot yet fill with a definite picture, word, or phrase, but which . . . influences us in an an intensely active and determinate psychic way. Whatever may be the images and phrases that pass before us, we feel their relation to this aching gap. To fill it up is our thought's destiny . . . Relation, then, to our topic or interest is constantly felt in the fringe . . . (I, 259, underlining mine)

What traditional psychology has consistently overlooked, James argues, is that every thought is "steeped and dyed in the free water [of consciousness] that flows round it" (I, 255). In other words, whatever meaning is conveyed by a thought to its thinker, it is due to the "free water" of the "halo" or "penumbra" of transitive "fringes" that "surrounds" and "escorts" the thought. But, we must not then imagine that the "object of one's thought" is the same as the "thought of the object". The latter is the theme about which all of one's cognitive fringes and relations of tendency cluster and gravitate; it is, properly speaking, the "substantive kernel" or "nucleus of the consciousness" (I, 275). The "Object", however, "is really the entire content or deliverance . . . neither more nor less than all that the thought thinks, exactly as the thought thinks it, however complicated the matter, and however symbolic the manner of thinking may be" (I, 275 & 276). What may be experienced twice, or again and again, is the "substantive kernel" or "grammatical object", not the "Object" proper. In order to re-feel a thought or experience in consciousness identically to a prior thought or experience, i.e., with the same idiosyncratic richness of inner meaning as the first time, the entire thought would have to be reproduced with " . . . every

word fringed and the whole sentence bathed in that original halo of obscure relations, which, like an horizon, then spread about its meaning" (I, 275-6, underlining mine).

The relational structure is such that transitive consciousness directs and guides our cognitive thinking from one substantive point to the next. James describes the structure of the transitive with such evocative terms as "penumbra", "horizon", "halo", "suffusion", "fringe" and "psychic overtone", all of which accentuate the fleeting, diffuse character of the processes involved. These terms draw our attention to the distinguishing features of transitive consciousness (and the marginal domain) which includes lack of clearness, non-thematization (or, non-focalization) of content, evanescence and recalcitrance to introspection.

The "work horse" of transitive consciousness is an elusive feature that James calls a "fringe". Neurologically, he believes that a fringe is " . . . the influence of a faint brain-process upon our thought as it makes it aware of relations and objects but dimly perceived" (I, 258); phenomenologically, a "fringe" seems to be a psychic "overtone" (or, perhaps "undertone") that makes each moment of cognitive experience "reverberate" with a sense of harmony or discord so as to either advance or retard the progress of our thinking towards attaining a substantive conclusion: "Relation, then, to our topic or interest is constantly felt in the fringe, and particularly the relation of harmony and discord, of furtherance or hindrance of the topic. When the sense of furtherance is there, we are 'all right'; with the sense of hindrance we are dissatisfied and perplexed, and cast about us for other thoughts" (I, 259).

Transitive parts of the stream are "places of flight" in consciousness, that James suggests, may be compared to the life of a bird, - "an alternation of flights and perchings" (I, 243). Transitive parts of the stream, like a bird in flight, cannot be detained for introspective study without disrupting the flight itself; yet without these fugitive fringes and halos of relations, our thoughts would be static, hollow shells devoid of the dynamic meaning that comes from perceiving the world in continually changing contexts of gradually expanding, epistemic horizons. The "topics" or "themes" of our thinking provide the substantive "resting-places" or "perchings" of consciousness to which we may return at a future time for re-examination. Substantive parts are " . . . usually occupied by sensorial imaginations of some sort, whose peculiarity is that they can be held before the mind for an indefinite time, and contemplated without changing; [while] the places of flight are filled with thoughts of relation, static and dynamic, that for the most part obtain between the matters contemplated in the periods of comparative rest" (I, 243, underlining mine). Since "the object of every thought, is neither more nor less than all that the thought thinks, [but] exactly as the thought thinks it, ... Whatever things are thought in relation are thought from the outset in a unity, in a single pulse of consciousness, a single psychosis, feeling, or state of mind" (I, 276 & 278). If a thought is to have psychic meaning, then it must be that " . . . in all cases where the words are understood, the total idea may be and usually is present not only before and after the phrase has been spoken, but also whilst each separate word is uttered" (I, 281). But this is not to say that what has already been thought or spoken at each moment is

"remembered" along with the present word or phrase: "It is an overtone, halo, or fringe of the word, as spoken in that sentence. It is never absent" (I, 281). "Each word", James tells us, "in such a sentence, is felt, not only as a word, but has having a meaning. The 'meaning' of a word taken thus dynamically may be quite different from its meaning when taken statically or without content. The dynamic meaning is usually reduced to the bare fringe we have described, of felt suitability or unfitness to the context and conclusion" (I, 265). The "halo" that surrounds what is focal at any moment in consciousness is the retentive "back-field" of "cognitive context" that is a modification of what it was a moment earlier, an "image" if you will, rather than a "verisimilitude" of its former lived actuality. The same idea applies to "protentions" or "anticipations" which are co-present with the focal datum, but as an overtone or halo of what shall perhaps be focal a moment hence. They are present now, and are not "in the future". Since they are part of the total brain state, their influence is felt within the total cognitive context as well. Everyday experience supports this notion: when we are thinking or speaking, all too often we do not know at its inception precisely where our thought or sentence will lead nor how it will conclude. But momentarily, before the actual words are known, the sense and meaning of our thought or utterance is already clearly established for us. And what we shall think or say a moment hence, shapes and determines what we do think and say now. As Linchoten expresses it, "to anticipate what is coming means that what is coming, the not-yet-fulfilled, running ahead of its fulfillment, is already active in my behavior."[3]

Distinction Between Marginal and Transitive Consciousness

The preceding suggests the possibility of drawing a terminological distinction between "marginal" and "transitive" consciousness such that the latter is applicable to primarily cognitive states of consciousness[4], while the former is applicable to all conscious states. The contexts in which James speaks of the "transitive" aspects of the stream are those which manifest in the "stream of thought", i.e., as thoughts cognized within the context of a discursive or cogitative argument or problem requiring a solution, resolution or conclusion. Transitive parts, in "problem-solving" type thinking, seem to function as cognitive "connectors" bridging one definite thought or idea to the next, and thereby contributing to the movement or progression of a "train" of cogitative thoughts. "Marginal consciousness", on the other hand, is broader in scope. It includes, as we shall see, interoceptions (bodily sensations of organic-kinesthetic nature), exteroceptions (perceptions of the external world), as well as memories, moods, affective attitudes, implicit beliefs, etc., which although experienced as co-present during cogitative states of consciousness, do not have any intrinsic relevancy or material relationship to the topic or theme. Except specifically for its "transitive parts", marginal consciousness does not, then, directly contribute to the progression of our cognitive thinking.

Reinstating the Dim and Vague

Historically, James maintains, philosophers have tended to consider only the substantive parts of consciousness as being real, i.e., existent: whatever can be named, exists; what cannot be named, does not exist. Our psychic life is filled with transitive and marginal sensings and feelings that, unlike substantive parts, are intrinsically dim, vague and fleeting, and as a result, tend to be regarded as insignificant, or more frequently, as non-existent. The elusiveness of the transitive and marginal parts of the stream is partially explained by the temporally, ephemeral nature of the mental processes involved; yet even when we deliberately attend to certain mental content so that it becomes our "focal object", its elusive, indistinct marginal quality remains, suggesting that dimness and vagueness are inherent in the mental structurization itself, rather than solely in the transient duration of its apprehension. A simple experiment illustrates this point: if right now, you diligently attend to some part of your own body, let us say somewhere in your abdominal region, you will find that you can become suddenly quite aware of subtle, somatic sensations or feelings which are perhaps neither pleasant nor unpleasant, but what we might call "feeling-neutral". Yet, attempting to describe those sensations or feelings, or trying to affix a name to them can be an exercise in futility. Even though we may not know what to call the content of our abdominal awareness, we have no doubt that we are attending to real sensations. Even when we are paying attention to them, these enduring, bodily feelings are experienced too tenuously to connect with common terms used to describe classes or kinds of definite sensations, e.g., sharp, dull, steady, sudden, aching, or throbbing pain. Yet, as

James alerts us, "namelessness is compatible with existence . . . language works against our perception of the truth. We name our thoughts simply, each after its thing, as if each knew its own thing and nothing else. What each really knows is clearly the thing it is named for, with dimly perhaps a thousand other things. It ought to be named after all of them, but it never it" (I, 241, underlining mine).

James chastises "empiricists" collectively for " . . . supposing that where there is no name no entity can exist" (I, 246). As a result, empiricists have suppressed all " . . . dumb or anonymous psychic states . . . . [that] if recognized at all, have been named after the substantive perception they led to . . . [since] it is hard to focus attention on the nameless" (I, 246 & 195). Yet, the relations between objects of thought, substantive themes, are as real as the objects themselves, even if we are unable to name or describe them:

> Unable to lay their hands on any coarse feelings corresponding to the innumerable relations and forms of connection between the facts of the world, finding no named subjective modifications mirroring such relations, they have for the most part denied that feelings of relation exist . . . . If we speak objectively, it is the real relations that appear revealed; if we speak subjectively, it is the stream of consciousness that matches each of them by an inward coloring of its own. In either case **the relations are numberless, and no existing language is capable of doing justice to all their shades** (I, 244-45, bold characters mine)

But "rationalism" too, it seems to me, must bear the brunt of James's criticism. For at least from Descartes forward, with his doctrine of man as res cogitans, purposively directed, cognitive thinking has been elevated from the primary "function" of mind to the singular essence of man's unique being. What raises man above the brutes is "reason", that

elite and elegant faculty in which "thinking substance", through its chief instrument, discriminatory "attention", selects at each moment, a single, focused articulation, upon which to apply its illuminating beacon. The legacy of classical Cartesianism has taught that it is "attention" alone that orchestrates the rhythms of thought in progression; acts of attention alone cause trains of successive thoughts to achieve their conclusions. And once the conclusion is realized, all else vanishes from memory: ". . . the means may be as mutable as we like . . . . What difference does it make what the means are?" (I, 260)[5]

Furthermore, in concluding that cogito ergo sum, Descartes also implied that "thinking" as an active, deliberate, applied mental activity is one and the same as "attending", "concentrating", or "focusing". What arose as a result is what we might call the "official mental equation" which thrives even to this day, namely, that "being conscious" is tantamount to being "attentive" or "attending". To say that a person is conscious, on this view, is to say that he can, in principle at least, "communicate" or "give a report" of what he is conscious of, i.e., experiencing. The assumption that only what can be communicated or reported comprises the sole content of consciousness is as much a heurism, an article of faith, for traditional rationalism as it is for empiricism. Yet, as our above experiment demonstrates, every constituent of consciousness is not uniquely identifiable, nameable, or recognizable, and hence may not be reportable.

The Focalization of the Marginal

Our introspective experiment shows that focusing one's attention on a dim and vague feeling or sensation that is normally consigned to marginal awareness may bring about a heightened awareness of that feeling or sensory content, without also bringing about a substantial increase in that sensation's distinctness or clarity. Recalling the provisional distinction made earlier between "transitive" and "marginal", it may be suggested that the more cognitively-directed transitive parts can become objects of focalization too.

"Feelings of tendency", "expectation" and "signs of direction" are those transitive relations or fringes in Principles whose function is not only to suffuse the thought with idiosyncratic, dynamic meaning, but also to provide psychic direction - to steer or guide the thought to its appropriate, conclusionary terminus. The common, connective thread between these various relations is that each serves to fill a cognitive "gap" in our thinking; gaps, that James maintains, feel wholly different, one from another. The kinds of experiences that James has in mind here, may be illustrated by the following passage from Principles: "Suppose three successive persons say to us: 'Wait!' 'Hark!' 'Look!' Our consciousness is thrown into three quite different attitudes of expectancy, although no definite object is before it in any one of the three cases" (I, 251, underlining mine). Apart from the "reverberating images" that each of the three words might manifest, there is, James tells us, also an awareness of a "sense of direction from which an impression is about to come" (I, 251). This "feeling of steerage", as it might be called, devoid of a definite object, demonstrates a curious feature of

some "fringes", namely, that although presumably on the dimmest periphery of one's momentary awareness, the fringe itself may dominate our attention and so be considered the legitimate object of one's focal attention. If this feature can be demonstrated, then it will show that (1) the focus of attention need not be a "concrete" or determinate mental object, and (2) feelings of tendency need not be peripheral feelings, but can be feelings that constitute the focus of attention. Surprisingly, this allows that, under certain conditions, consciousness actively engaged in its cognitive function is most intensely experienced not as the substantive "thought" itself, but as the feeling of movement, passage or progression towards a conclusion, i.e., the "feeling of tendency". Feelings of tendency, in this context, then may be understood as conscious efforts to relate or connect temporarily inaccessible or hard to recover ideas to a present problem.

Consider, for example, the attempt to recall a forgotten name, or to match a name with a face. I many exert strenuous mental effort in attempting to recall a forgotten name, putting "out of my mind" for the time being all other thoughts. This sheer effort to recall, then, is what absorbs me to the fullest so that my attention is focused on one specific objective or intention. This "intention", manifesting itself in my continual efforts at recalling the forgotten name, constitutes the guiding or directing topic about which all my efforts revolve; however, what is crucial to notice here is that it is not the intention or objective, but the effort to recall in itself that constitutes the legitimate object of my attention.

James says of this "peculiar" state that:

> There is a gap therein; but no mere gap. It is a gap that is intensely active. A sort of wraith of the name is in it, beckoning us in a given direction, making us at moments tingle with the sense of our closeness, and then letting us sink back without the longed-for term. If wrong names are proposed to us, this singularly definite gap acts immediately so as to negate them. They do not fit the mould. And the gap of one word does not feel like the gap of another, all empty of content as both might seem necessarily to be when described as gaps . . . . All that is there, so long as the effort to recall is vain, is the bare effort itself. (I, 251, underlining mine)

The fringe, or "halo of relations" that pervades this tendency, changes as each new name is tried out, so that the search is carried out as a more or less continual succession of efforts. Different names, parts of names and phonemic combinations come and go; some are rejected, a few are accepted as being on the right track. The quality of each effort, James says, feels differently. Yet, what changes through all the efforts, is not really the bare feeling of the effort itself, but the fringes that suffuse each effort as they either "reverberate" with the anticipation of nearing the goal, or the frustration of bring farther away from it.

Once again we see that "namelessness is compatible with existence" in that "there are innumerable consciousnesses of emptiness, no one of which taken in itself has a name, but all different from each other. The ordinary way is to assume that they are all emptinesses of consciousness, and so the same state. But the feeling of an absence is toto coelo other than the absence of a feeling. It is an intense feeling" (I, 251-2). The psychic overtones of the fringes are changing constantly. Yet, for all that James does observe about tendencies and signs of direction in

marginal consciousness, he falls short of explicitly stating the thesis that fringes which suffuse sheer effort, as in this example, actually constitute the focal object of one's attention.

Developing this thesis further, we look to those attitudinal states which exhibit "feelings of tendency". G. D. Marshall has called these "hybrid states of attention", states of alertness which "consist merely in actively noting and taking in the passing show."[6] Recall once again James's three different attitudes of expectancy aroused by "Wait!", "Hark!" and "Look!" - the "attitude of expectancy" experienced in these cases, far from being a dim and vague awareness, is an intense and active awareness, an alertness. But what is the "object" that the listener is being vigilant towards? The "object", it seems, is the "expectant attitude" itself; but since an attitude here is a fringe that suffuses an object, can it be its own object as well, and an object that is seemingly devoid of any "positive" or "concrete" content? Consider the following illustrations from Marshall:

> A runner is crouching in the blocks waiting for the gun; a driver is at the line waiting for the flag; a relay runner is on his mark waiting for the baton. There can be no doubt that each is concentrating his attention, but it is not clear what each is attending to. The initial question is whether there is a present object of attention.[7]

In one way these cases are to be distinguished from James's. When a person hears "Watch out!" (or "Watch!", "Look!", "Hark!", etc.), although he

> . . . is immediately all eyes and ears as he sweeps his perceptual environment looking for he knows not what . . . the object of his attention <u>is</u> his immediate perceptual environment (or any dangerous item in it), but it would be false to say the same of the runner and the driver. They

> know what they are waiting for, and their attention is focused, not sweeping. They are not concerned to take things in, but to keep them out.[8]

In James's example, the listener is simply exhorted to "Watch!", "Look!" and "Hark!". Since he does not know what to expect, he must "sweep" his perceptual environment for any number of possible dangers or curious features, and in that respect, his attention, although keen and alert, is "unfocused", i.e., undirected and untargeted. Both of the runners, and the driver, however, are predisposed or preconditioned towards being in a state of vigilant readiness, having trained specifically for their various competitive events. There are, to use the terminology of contemporary psychology, cognitive and performative "schemata of readiness" or "anticipatory structures" available and operative.[9] They know exactly what it is that they are being in a state of alertness (readiness) for; their objective is directed and targeted towards a specific end result, although the mental object of their state of alertness lacks concrete, positive attributes generally associated with focalization of content. What the solo runner, driver and relay runner are all presently attending to are "absences" - of the sound of the starter's gun being fired, the sweeping of the flag, and the baton's touch, respectively. Marshall's athletes each await a specific, anticipated change in their perceptual field that they have every reason to believe will occur shortly, whereas the attentive effort of James's listener is not focused or targeted on the absence of some specific feature in his perceptual field, for he knows not what to expect. Clearly, these differences are significant, yet what they share in common is a focalization of attention, that while they are all in states of

intense concentration or vigilance, their minds are yet devoid of a definite or concrete mental object. "Being vigilant" means an attitude of conscious preparedness or alertness in which although one's attention is keenly focused, it is not necessarily targeted towards a specific objective, nor need it entail that a positive mental object occupy the focus of attention. This mode of vigilance does, however, seems to structurally imply a kind of alertness in which "anticipation" or "expectancy" is mentally present.

Thus, "bare effort" need not be marginal; it may be intensely focal even though the indefinite object of this attitudinal state is only the peculiar feeling of the "effort" itself.

James's second concept of consciousness as a structured field, which we have already discussed at some length, holds that the psychic content of every "full", i.e., <u>total</u> experience, seems to be organizable into two differentiated domains of co-present content, the "marginal" and the "focal". James, however, did not fully articulate the "focal/marginal" field in <u>Principles</u> as he did in some of his later work. It is, for example, in his <u>Talks to Teachers on Psychology; and to Students on Some of Life's Ideals</u> that we find some of his clearest statements about the focal/marginal fields which are only skeletally defined in <u>Principles</u>:

> We have thus fields of consciousness, - that is the first general fact; and the second general fact is that the <u>concrete fields are always complex</u>. They contain sensations of our bodies and of the objects around us, memories of past experiences and thoughts of distant things, feelings of satisfaction and dissatisfaction, desires and aversions, and other emotional conditions, together with determinations of the will, in every variety of permutation and combination . . . . The sensations are the centre or focus, the thoughts and feelings the margin, of your actually present conscious field.

> On the other hand, some object of thought, some distant image, may have become the focus of your mental attention even while I am speaking, - your mind, in short, may have wandered from the lecture; and, in that case, the sensations of my face and voice, although not absolutely vanishing from your conscious field, may have taken up there a very faint and marginal place.[10]
>
> In the successive mutations of our fields of consciousness the process by which one dissolves into another is often very gradual, and all sorts of inner rearrangements of contents occur. Sometimes the focus remains but little changed, while the margin alters abruptly. Sometimes the focus alters, and the margin stays. Sometimes focus and margin change places. Sometimes, again, abrupt alterations of the whole field occur. There can seldom be a sharp description. All we know is that, for the most part, each field has a sort of practical unity for its possessor, and that from this practical point of view we can class a field with other fields similar to it, by calling it a state of volition, and the like . . . . The will still remains in the mental background as an extremely marginal or ultramarginal portion of my field of consciousness . . . .[11]

As we see, the focal/marginal field described here does not limit itself to cognitive states; in fact, sensations may dominate one's focus of attention. As James continues, the stream's "phases or pulses are like so many fields or waves, each field or wave having its central point of liveliest attention, in the shape of the most prominent object in our thought, while all around this lies a margin of other objects more dimly realized, together with the margin of emotional and active tendencies which the whole entails."[12]

Just as consciousness feels to itself as an unbroken succession of experiences, so each successive experience reveals itself, upon reflection, to be a complex, organizational whole; a temporal and thematic constellation of content filled with various horizons of latent,

dispositional, epistemic and psychic significance that includes such mental modalities as sensations, perceptions, emotions, attitudes, memory, volitions, cognitions, etc., all of which are experienced in an organized pulse of unity: "The experience is from the outset a synthetic datum, not a simple one; and to sensible perception its elements are inseparable, although sensation looking back may easily decompose the experience, and distinguish its beginning from its end" (I, 610). Regardless of how "easily" the decomposition of experience may actually be, each unitive pulse of the total constellation has a focalized "center" and a fringed "periphery" - the focal and the marginal domains of the total, temporary field. This field concept extends James's "transitive/substantive" field concept beyond cognition and, specifically, cogitation, i.e., thinking to or for a purpose. Thinking is not always problem-oriented and, therefore, need not be intended towards solutions; purposive ends are not always present in our acts of thinking. And, of course, it is possible that some mental states may lack a thinking component altogether.

The present field concept maintains that in addition to the suffusive and directive function, the margin also has a supportive function, serving as a "background" of "felt intuitions" against the high relief "foreground" of focalized attention; this background being largely composed of a variety of dim and vague somatic sensings and feelings may include "premonitory [psychic] glimpses of schemes of relations between terms" (I, 255), thoughts, images, etc. These "premonitory glimpses" are also what James means by "anticipations" and "expectancies" which he believes generally constitute the "forward" or "dawning" end of the specious present's span of dynamic temporal duration. They are part of

our normal behavior and are present in a variety of phenomena. For example, in listening to music, what we actually hear now is, in part, not only determined by what we "just heard" a moment earlier, but also by what we expect to hear, or anticipate, a moment hence. Even if it is music that we are completely unfamiliar with, we have an expectancy that the next musical phrase will be somehow, musically "consistent" or "consonant" with its preceding phrase. When a new section of an unfamiliar composition abruptly alters is rhythmic or tonal structure, we suddenly become very aware of the discrepancy between what is marginally anticipated and what is actually given. If the composition is a familiar one and a "sour" note or chord is struck, or a phrase receives an idiosyncratic interpretation, we are jarred by the cacophony, and become suddenly very alert and attentive. And yet, under other circumstances, the alien note or phrase may pass by virtually unnoticed, so accustomed have we become to hearing what we expect to hear.

When listening to a speech, or reading, James points out, we expect, because we anticipate, that what shall come next shall be in the same language, retain its customary, grammatical form, and shall not suddenly digress to a radically different subject or contradictory point of view, etc. When it does, we tend to notice the "ususual" immediately. Thus, James writes: "If we read 'no more' we expect presently to come upon a 'than'; if we read 'however' at the outset of a sentence it is a 'yet,' a 'still,' or a 'nevertheless,' that we expect . . . . this foreboding of the coming grammatical scheme combined with each successive uttered word is so practically accurate that a reader incapable of understanding four

ideas in the book he is reading aloud, can nevertheless read it with the most delicately modulated expression of intelligence" (I, 254).

Until now, we have spoken little of the "focal domain", or of attention, which characterizes its primary, distinguishing feature. So that comprehensiveness may be achieved, let us succinctly turn our attention to the role that the focal domain plays in James's structural theory of consciousness.

Attention: The Epicenter of the Focal Domain

Although everyone agrees that, while awake, we are usually attending to something, James takes to task those who regard the "topic" of our attentive acts as being what our state of consciousness is "about". James's "re-discovery" of the margin of consciousness and its transitive fringes does not destroy the importance of attention in our mental lives, but it does dispute its primacy as the sole conveyor of meaning and meaningfulness in experience. If James's insight into the margin of consciousness is that it is an equal partner in the total, felt significance of every conscious state, his insight into the focus of consciousness lies in alerting us to its active and selective nature. The gestalt of "figure/ground" relations in which our experiences are presented as spatio-temporal, organic wholes or unities, is created, ordered and organized out of the interest that "selective attention" confers upon the essential chaos of the world.

> Millions of items of the outward order are present to my senses which never properly enter into my experience. Why? Because they have no interest for me. My experience is what I agree to attend to. Only those items which I notice shape my mind - without selective interest, experience is an utter chaos. Interest alone

> gives accent and emphasis, light and shade, background and foreground - intelligible perspective, in a word. (I, 402)

All information undergoes extensive processing by the nervous system. Neurophysiological mechanisms perform numerous and varied transformations on the incoming data such that context, meaning and past experience are inextricably involved in the interpretation of that data. How this process is made possible is a study that we will pursue later, but for the moment it is sufficient to point out that attention plays a major part in the initial selection of which data is to be the thematic center about which all other co-present data is to be focused.

Each of us has a first-hand "knowledge by acquaintance"[13] with the experience of "paying attention" or "being attentive": "Everyone knows what attention is. It is the taking possession by the mind, in clear and vivid form, of one out of what seem several simultaneously possible objects or trains of thought. Focalization, concentration, of consciousness are of its essence. It implies withdrawal from some things in order to deal effectively with other . . . (I, 403-4). But "attention", like "inattention", admits of degrees or grades, so that at one extreme we have the "dispersed" attention which may perhaps guide our habitual and automatized performative behavior, and at the other, the "concentrated" attention of the devoted thinker or artist, single-mindedly absorbed in his cognitive or creative meditation.[14] It is for this reason that I prefer the term "focal domain" over "attention"; the "focal domain" has implications that are wider than the term "attention" conveys and allows us to speak of the property of focalization of mental activity

without necessarily implying the total commitment of involved attention that we often presume it must entail.

The implications of James's thesis of "selective attention" may be extrapolated from such revealing passages as the following: "The mind is at every stage a theatre of simultaneous possibilities . . . Out of what is in itself an undistinguishable, swarming continuum, devoid of distinction or emphasis, our senses make for us, by attending to this motion and ignoring that, a world full of contrasts, of sharp accents, of abrupt changes, of picturesque light and shade" (I, 288 & 284-5). James's purpose in the early part of his chapter, "Attention", is to foster the functional thesis that it is the "perpetual presence of selective attention" which discriminates and selects from the "million of items of the outward order" those items which, because they are of interest to us, determine what our experiences, and thus our reality, shall be: "My experience is what I agree to attend to". Only those items which I notice shape my mind - without selective interest, experience is an utter chaos" (I, 402). Without such selectivity, "the consciousness of every creature would be a gray chaotic indiscriminativeness . . . " (I, 403).

Within the last few decades, a revitalized interest in the nature and capacity of attention has again entered the arena of orthodox, experimental psychology. Since the 1950's, for example, hundreds of studies have been conducted which make use of the "shadowing" technique introduced by pioneers like E. Colin Cherry and Donald Broadbent. Although the variations are numerous, the essential methodology behind the "shadowing" technique has remained the same. A subject might, for instance, be given two aural messages to listen to simultaneously, (which

tend to be rather long and detailed narrations or speeches), each message being a recording that is heard through a right and left earphone, respectively. The subject is directed to "shadow" the message that he is hearing, in let us say, his right ear. "Shadowing" the message means repeating verbatim and without error what is being said as it is being said. If the subject is not instructed otherwise, i.e., beforehand, all of his attention will be given over to the message being heard in his right ear. Afterwards, when queried about the content of the message given to him in his left ear, the same results invariably appears: the effort to listen to and shadow the right ear message is so demanding that the subject can provide virtually no information about the message directed into his left ear. In fact, if the message given to the left ear is begun after the subject starts shadowing the right ear message, often the subject cannot say whether the left ear voice is that of a man or woman or whether the address was in English or some language. If the subject is told to shadow the right ear message but to also pay attention to the left ear message, what results is that the subject cannot accomplish both tasks simultaneously (which is easily demonstrated by observing the verbatim accuracy of the shadowed message and subsequently asking questions about the content of both the right and left ear messages.) Many things are suggested by these experiments, among them the possibility that our capacity for attending is, what might be called, "one-channel limited", meaning that attempting to listen to both auditory channels simultaneously seems to involve a switching of attention, (a thesis that James essentially held about attention). What has not been discussed by the psychologists conducting and interpreting these shadow

experiments is that not only do they suggest the limited capacity feature of attention, but also that what is not being attended to at any moment, but is heard, constitutes the marginal content, and because this marginal content is too dim and vague to be comprehended as sounds, words, sentences, etc., of the English language, it is, a fortiori, incapable of being communicated. But the subjects are very aware of the existence of these marginal components. The marginal components of consciousness, and especially the transitive "parts", as James argues, are essential to the integrity of the organization and comprehension of consciousness. The fact that attention normally cannot apparently be split into two simultaneous tasks, does not vitiate the role played by marginal consciousness; it is the feelings of tendency, signs of direction, anticipatory glimpses, and other transitive fringes that permits comprehension of sentential meaning.

We saw earlier how James charged empiricists with the wholesale neglect, dismissal and ultimately, ontological denial of transitive feelings. Now his protests against British empiricism are aimed at knocking down the view of Man as being little more than " . . . absolutely passive clay, upon which 'experience' rains down" (I, 403). We do not blindly copy and record the entire sensorial array that impinges upon us. If we did, confusion would rain down upon us and chaos reign over us. As Richard Stevens aptly puts it, James's thesis entails that:

> Physical objects, posited as a means of organizing the flow of data in a coherent manner, are situated within a horizon or backdrop of a gradually expanding world of interest we call reality. The formation of this sphere of a coordinated and structured universe is the final product of an elaborate process of selective interpretation of the passively pre-given elements of the stream of consciousness. All the data of

> consciousness are interpreted and structured according to the criteria of our pragmatic interests.[15]

The incessant activity of attending to what interests us produces an organized stream of content, without which all that would be known would be a teeming, buzzing confusion of uninterpreted, sensory data. If such a confusion of sensory data by itself and without selective attention were to determine our experience of the world, then, James argues, as a result of empiricism's view, " . . . all sentient things ought, at this rate, to end by assuming an identical mental constitution - for 'experience', the sole shaper, is a constant fact, and the order of its terms must end by being exactly reflected by the passive mirror which we call the sentient organism." (I, 403)

James's hyperbole arises out of his determination to exorcise from empiricist dogma the thesis that, as Charlene Siegfried puts it, "simple sensations [are] the primary data or building blocks out of which complicated objects are constructed."[16] Experience is not synthetically constructed out of "simple sensations" that are "compounded" automatically by "laws of association" into more complex or higher ideas:

> The associationists say the mind is constituted by a multiplicity of distinct 'ideas' <u>associated</u> into a unity. There is, they say, an idea of <u>a</u>, and also an idea of <u>b</u>. Therefore, they say, there is an idea of <u>a + b</u>, of <u>a</u> and <u>b</u> together. Which is like saying that the mathematical square of <u>a</u> plus that of <u>b</u> is equal to the square of <u>a + b</u>, a palpable untruth . . . . In short, the two separate ideas can never by any logic be made to figure as one and the same thing as the 'associated' idea. (I, 160-1)

What we experience <u>all at once</u> are "original sensible totals" that are both discriminated from the teeming multiplicity of sensory data by

selective attention, and united with other totals: "Experience, from the very first, presents us with concreted objects, vaguely continuous with the rest of the world which envelops them in space and time, and is potentially divisible into inward elements and parts" (I, 487). It is the intrinsic structure of consciousness itself that determines what spatio-temporal experiences we shall come to call our reality, and that structurization is only possible given the selective and discriminatory nature of attention.

Although critical of associationism as a structural theory attempting to account for the manifested phenomenology of experience, James, nevertheless, makes liberal use throughout Principles of the so-called "laws of association", thus paving the way for potential confusion. James does not object to those psychological principles of mental organization or "elementary laws of association" which explains the tendency for certain data of immediate consciousness, memory or habitual behavior to be temporally and thematically related to other data by way of "contiguity", "resemblance", or "succession". What James opposes is the attempt by British empiricism to account for the progressive accumulation and sophistication of experience by the mere compiling or building up of sensations that automatically, blindly and mechanically summate into complex perceptions by the mind's unconscious application of laws of association. James maintains that the empiricists have not produced a single shred of evidence to support their contention that given a helter-skelter world of sensory phenomena, certain features are passively "soaked up" by the mind and transformed into coherent, organized perceptions.

His thesis is, simply put, that a passive mind cannot a coherent world make. But James does not think that the active and dynamic structure of consciousness therefore implies either a Kantian transcendentalism or the thesis that every engagement between one's awareness and the available sensory data is necessarily a deliberate and voluntary effort of attention. There are times when we do attend to things which are of little or no intrinsic interest to us because in one way or another we are "compelled" to do so. James delineates several "varieties" of attention, one of which he calls "passive, immediate sensorial attention"; it is characterized as being that kind of attention in which the mind is "passive, reflex, non-voluntary, [and] effortless" (I, 416). When something is unusually loud, offensive, startling, unexpected, disproportionate, etc., we do not "bestow" attention upon the object, rather the object "draws it from us". In these instances, James writes, "the object has the initiative, not the mind" (I, 449).

Interestingly, Wolfgang Kohler, the Gestalt psychologist, has criticized James for maintaining that the " . . . original sensory experience is uniformly continuous, and that all cuts and boundaries are later introduced into the field for pragmatic reasons."[17] According to the program of Gestalt psychology, "in most visual fields the contents of particular areas 'belong together' as circumscribed units from which their surroundings are excluded. James did not admit that this organization of the field is a sensory fact."[18] But Kohler's criticism seems unjust. Gerald Myers, arguing that, in fact, "James adumbrated Gestalt psychology" points to James's transparent statement that " . . . we see that in the time-world and the space-world alike that first known things are not

elements, but combinations, not separate units, but wholes already formed. The condition of <u>being</u> of the wholes may be the elements; but the condition of our <u>knowing</u> the elements is our already having felt the wholes as wholes" (I, 622).[19] Indeed, earlier in volume I, James had already written that "our original sensible totals are, on the one hand, subdivided by discriminitive attention, and, on the other, united with other totals . . . Experience, from the very first, presents us with concreted objects, vaguely continuous with the rest of the world which envelops them in space and time, and is potentially divisible into inward elements and parts" (I, 487).

SECTION TWO: THE ONTOLOGICAL STATUS OF "FIELDS"

Some philosophers have interpreted James as maintaining that the field structurization is formally invariant for virtually all states, modalities and species of consciousness. It is not always clear whether such formal invariancy is intended as an empirical claim or an <u>a priori</u> one. In the latter case, the claim amounts to the analytic assertion that the thematic/apprehensive totality of every conscious experience must have a co-present "center" and "periphery" because that is what the concept of a "psychic field" entails. The notion of a conscious state being either <u>exclusively</u> focal or marginal thus becomes impossible in the same way as a foreground existing without a concomitant background (and, vice versa) is conceptually unthinkable. Thus, <u>ex hypothesis</u>, a conscious experience which is apprehended as being exclusively focal or marginal is impossible.

The psychic field, however, is neither equivalent in meaning nor identical in constitution with either the psychological field or the

phenomenological field. It has been argued, for example, that unconscious mentation must exist in order for consciousness to be possible.[20] The basis for this claim is often a matter of co-existence "by definition" in the same way in which "day" may be said to necessarily imply the concept of its converse, "night". But the phenomenological field refers only to that content of which it is appropriate to say that we are aware at any given moment. As an empirical hypothesis, the claim of formal invariancy predicates (or predicts) that every phenomenological experience of which we are (by definition) conscious, will reveal, upon reflection or introspection, the same structurization in which the given field of content/awareness will be differentiable into a focal/marginal schemata. Representative of such affirmations of structural invariancy, whether empirical or a priori, are the following:

(1) Johannes Linchoten - " . . . the relation of theme and field [focus and margin] is formally invariant in regard to all its concrete transformations. In other words, the relation of theme and field, taken in itself, is always the same, regardless of the subject in which this consideration of 'theme-field' is introduced."[21]

(2) Richard Stevens - " . . . the structure of focus and fringe within any sensible impression is already a vague preliminary spatial ordering. The 'there' of a given focus is comprehensible only in relation to the vaguer 'theres' of the dimly perceived contents within the fringe background."[22]

(3) C. O. Evans - "The effect attention has on consciousness is to polarize it into an object of attention and unprojected consciousness . . . . When one object of attention is replaced by another . . . the elements in consciousness change but the structure is still the same."[23]

(4) Aron Gurwitsch - "The field-theory of consciousness which is here submitted is meant as a strictly formal theory of organization. We are going to disclose organizational structures which are formally invariant, that is, independent of any specification of content. Hence, they are exhibited by a field of consciousness, whatever its specific contents."[24] (Although Gurwitsch "enriches" the Jamesian field by introducing a precising concept, which he argues represents a third domain that he calls the "thematic field", the structural integrity of the focal/marginal field is unaffected by this modification.)

(5) Andrew Reek - "No matter how discrete an image or datum of consciousness may be it possesses an overtone, halo or fringe. The fringe relates the data to other data, linking one part of consciousness to other parts. It is 'the vague consciousness that surrounds the image, of the sphere to which it is intended to apply. It is tantamount to the intentional structure of consciousness." [25]

James's sensitivity to altered experience states, e.g., "hypnotic", "secondary or subliminal"[26], and "drug-induced" consciousness, prevent him from asserting dogmatically that a structural account of consciousness must reveal the primordial or eternally immutable schemata of psychic organization. James is an empiricist. The enormous detail in which he describes altered states of consciousness in Principles is almost entirely devoid of theoretical conclusions. He examines the experimental research of Bernheim, Pitres, Janet, et al, as a reporter, not as a theoretician. In a later work, James enlarges on the open-minded, empirical posture that he embraced in Principles:

> Our normal waking consciousness is but one special type of consciousness, while all about it parted from it by the filmiest of screens there lie potential forms of consciousness entirely different . . .
>
> No account of the universe in its totality can be final which leaves these other forms of consciousness quite disregarded. How to regard them is the question . . . . At any rate, they forbid our premature closing of accounts with reality.[27]

If James did wish to suggest that the structure of consciousness is formally invariant, he clearly intended his claim to be empirical, and as such, subject to the possibility of future revision. Before we briefly examine several types of conscious states, including several states or species of altered awareness, with respect to their conformity to the focal/marginal model, we must first consider the problem of how we are to

empirically determine the structural status of any given state. As we shall see, unfortunately, there are at present no available criteria, tests or procedures that will allow us to say with any confidence that specific states do or do not conform to the Jamesian model.

Communicability

The influential psychologist, E. G. Boring, writes representatively, that "attention is reportability . . . Whatever conscious content can be easily reported is focal and available to introspection. What cannot be reported at all is unconscious."[28] John Watson, the father of behaviorism, argued essentially the same thesis, substituting "verbalizability" for "reportability"[29] This thesis, which equates "that which we are conscious of" with "that which can be reported" (or verbalized), has curried much favor. (I prefer and shall use the more general term, "communicability", advanced by James G. Miller, since the content of conscious states may present itself to the experiencer without being overtly manifested through verbalization.)

Insofar as the "communicability thesis" is meant to serve as a pragmatic criterion enabling us to distinguish, for any given state of consciousness, the focus of attention from the remaining totality of content, it serves a valuable, phenomenological function. But if the intention of the thesis is to relegate all of the unfocalized content to either an Unconscious mentality or to neurophysiology so that the co-presence of a <u>conscious</u> marginal domain is disposed of, then it is a seriously deficient claim. It is the nature of peripheral content to be, in general, uncommunicable, just as it is in the nature of a perceptual

gestalt for the supportive background to be significantly recessed in order to attain clarity and detail of the foreground (or "figure"); as the background is an essential part of the total composition of one's perceptual gestalt, so also do we experience far more than we are able to communicate or remember. To hold that "what cannot be communicated, is not", as we have seen, is a claim that James severely chastised empiricism for maintaining. That thesis entails the unacceptable consequence that infants, severely mentally retarded persons, and animals, for example, being incapable of communicating their conscious experiences especially through means of language, therefore have none to communicate. Indeed, if communicability were a necessary condition for the presence of mental content, then we would have to conclude that either we are capable of remembering and communicating the focal object of every experienced state of consciousness, or that not every experience has a memorial, focal object, since there innumerable occasions in which no such focal object is identifiable or recallable. Yet, we know that we have been quite conscious. We are compelled to reject the communicability thesis as inadequate and to admit the possibility of non-focalized, conscious states.[30]

Hypnosis as an Investigative Technique

Might it be possible to uncover our marginal content, not through "ordinary" memorial efforts, but by special means, e.g., memory-stimulating drugs like scopolamine or sodium pentothal[31], or through hypnosis? The literature on experimental hypnosis (as well as "post-hypnotic suggestion") dealing with phenomena induced during the hypnotic

"trance" or state helps to affirm the thesis that the communicability criterion is an insufficient test for determining the dimensions of the conscious field. For example, if the hypnotist suggests to his subject that he will have no memory of any experiences, thoughts, feelings or actions, upon "awakening" from the hypnotic state, the subject does, in fact, usually recall nothing, including often the knowledge that he has been hypnotized or that any time has elapsed since his last "conscious" remembrance. Yet, as James notes, " . . . in a succeeding trance they will often remember the events of a past one" (I, 682). Or the hypnotist may, by means of a verbal or demonstrative signal, allow the subject " . . . to recall everything that went on since he was first hypnotized. At the account the subject's expression usually will reveal a dawning awareness of the forgotten events."[32] Before awakening his subject, the hypnotist may instruct him to remember virtually <u>every detail</u> of the experience, and remarkably, the evidence supports the claim that the subject is able to recall these past events, thoughts, feelings, etc., with a clarity, vivacity and attention to detail that far exceeds the same subject's normal capability to perform similar tasks in ordinary, waking consciousness.[33]

What are we to make of this? If reportability is taken as either a positive indicator of focal awareness, or a necessary criterion for the existence of <u>any</u> level of awareness, then if instructed to remember nothing of the complex psychic and behavioral experiences that took place during the hypnotic state, we must conclude that the subject upon awakening had actually been <u>unconscious</u> while in the hypnotic state and so could recall nothing because he was, like a person in a coma, not in

a suitable mental condition to recall. Yet, the same subject, if instructed to remember everything that occurred, will tend to do so, and so, by the communicability criterion, must have been in a virtually continuous state of attentiveness during the hypnotic state. Yet, how can we say of the same subject that he was unconscious if ordered to be so and super-conscious if instructed otherwise, when the content experienced can be either recalled or forgotten at the will of the hypnotist? What is recallable post-hypnotically is a separate and independent matter from what one is aware of during the hypnosis. Similarly, whether our ordinary experiences are recallable or not is a separate and independent matter from what is, in fact, phenomenologically experienced as being marginal for a given state of consciousness. Hypnosis, which was a subject of considerable interest to James, can not help us in framing criteria by which to determine the extent of marginal awareness present in the non-hypnotic states of normal, waking consciousness, since whatever data it produces is from a greatly altered "species" of consciousness or vigilance: "apparently with no will of his own, he [the hypnotized subject] sees, feels, smells, and tastes in accordance with the suggestions in apparent contradiction to the stimuli that impinge upon him."[34] The subject may respond to stimuli that has no existential referent, (a roomful of people is "seen" when the subject is by himself), or is "invented", (one's arm becomes immovable, paralytic or anesthetized), or is a distortion of conventional reality, (a rose is suggested to smell like manure, or vice versa).[35] The subject is able to override and overturn years of psychoneurological conditioning and training so that his reality-schema is instantly re-framed. In addition,

the subject is also able to recall details of his pre-hypnotic self-history that may have remained unknown, unavailable, and perhaps inaccessible, (i.e., "repressed" in the Freudian sense), to his previous normal, waking self. Details of past events may include remembering feelings, sensations or thoughts that were of little functional, importance at the time of the original experience. This capacity for surfacing mental events long forgotten suggests that what is being presently experienced may be far more extensive than what we are normally aware of, communicate or remember. We seem to be capable of psychic observation and retention that far exceeds our ordinary phenomenological perception and recall, so that it is not presumptuous to assume that, for every state of consciousness, our marginal awareness surpasses our ordinary communicative and memorial capabilities. Yet, as to the specific content of any given state of ordinary, waking consciousness, as it is phenomenologically experienced, hypnosis seems to shed no additional light.

James's Critique of Introspection

James relies heavily upon his own introspective observations for the rich detail with which he describes the penumbral feelings and relations of the transitive and marginal. Indeed, if anyone's reports ever provided evidential grounds for the respectability of introspection as an investigative method, it was James observing James. We cannot here enter into the merits and shortcomings of introspection as a methodology <u>per se</u>, but we can observe that although James employs it as an empirical technique for investigating consciousness, he also projects a strong case

for dismissing introspection on purely theoretical grounds, thereby anticipating the later objections of behaviorists like Ryle. In what has been called James's "psychological version of Heisenberg's indeterminacy principle",[36] James begins his discussion on introspecting the transitive parts of the stream by warning us that there is a practical and strategic problem: "If they [transitive parts] are but flights to a conclusion, stopping them to look at them before the conclusion is reached is really annihilating them. Whilst if we wait till the conclusion be reached, it so exceeds them in vigor and stability that it quite eclipses and swallows them up in its glare" (I, 243-44). Perhaps, one begins to think, there is a way to diminish the glare of eclipsing conclusions, but as James continues it becomes evident that he no longer sees the problem as a practical issue that my be overcome:

> Let anyone try to cut a thought across in the middle and get a look at its section, and he will see how difficult the introspective observation of the transitive tracts is. The rush of thought is so headlong that it almost always brings us up at the conclusion before we can arrest it. Or if our purpose is nimble enough and we do arrest it, it ceases forthwith to be itself. (I, 244, underlining mine)

With his own nimbleness of purpose, James adroitly shifts the focus of the problem away from the inherent fragility of the transitive parts towards the unavoidable interference of the observer obscuring or altering that which is being observed. James then illustrates this enigma with two striking examples:

> As a snowflake crystal caught in the warm hand is no longer a crystal but a drop, so, instead of catching the feeling of relation moving to its term, we find we have caught some substantive thing, usually the last word we were pronouncing, statically taken, and with its function, tendency, and particular meaning in the sentence quite

> evaporated. The attempt at introspective analysis in these cases is in fact like seizing a spinning top to catch its motion, or trying to turn up the gas quickly enough to see how the darkness looks. (I, 244)

The problem at hand is rather like that of the man who hunted for his lost keys in an area where he knew he had not lost them only because that area was lit, while the area where he had in fact lost them, was not. The man is looking in the wrong place simply because "the light is better there", but the introspectionist cannot find his "lost" relations, tendencies, and dim and vague content, not because the "location" is wrong, but because the very act of looking creates a shift towards focal attention which effectively destroys or alters the delicate, marginal object of his search. The problem is theoretical, not merely practical. Ultimately, however, we must like James, fall back upon some sort of introspective/retrospective process in reflecting on and examining our conscious states.

Conscious States with Focal Thematization

Having seen the empirical difficulty of establishing with confidence the content of our conscious states, let us ask whether it is possible to experience what amounts to "wholly marginal" states of consciousness? As James observed, reflection upon ordinary and common experience suggests that there are many occasions in everyday life when we become absorbed in certain kinds of mental states that seem to have no thematic object as a centralized focus. These states feel more like nebulous and diffuse mental "moods" than like cognitive acts that point or refer to a determinate object of which it is appropriate to say, upon retrospection

or reflection, "I was thinking (perceiving, feeling, etc.) 'X', of 'X', or about 'X'." Such ordinary and familiar non-cognitive states often occur during periods of mental fatigue. Whether the "bifurcated" field is structurally intact or not cannot be decisively determined; however, insofar as the capacity to recall and communicate an experience offers a pragmatic criterion for distinguishing the focalized theme from the remaining totality of apprehended content, there do seem to be numerous occasions when a just-past mental state fails to satisfy this popular test.

Familiar examples of "diffused" awareness in which non-focalized states of consciousness may be common, even daily occurrences, are the "pre-" and "post-" sleep twilight states known as "hypnagogia" and "hypnopompia". These states signal the fact that loss of "waking" or ordinary consciousness is gradually preceding the onset of sleep, and that resumption of waking consciousness is gradually supplanting sleep, respectively. During both types of states, arousing the person suddenly may enable him to recall the images, ideas and feelings just previously experienced. We often speak of the fragmentary and disoriented nature of the recalled experience as being indicative of "semi-consciousness", thereby indicating our conceptual willingness to allow for partially, eclipsed consciousness rather than maintaining a strict "all or none" thesis about "being conscious". What shall we conclude about the field structure of these states? Or, of the consciousness associated with the "going under" and "coming out of" states preceding and following general anesthesia? Here too, one might argue persuasively that these psychic states are characterized by non-focalization, i.e., by the absence of a

centralizing or thematizing mental object. Similarly, a vast "psychedelic" literature suggests that "intoxication" by mind-altering substances may also produce altered states of consciousness which do not readily conform to bi-level structurization.

But there are other, "ordinary" conscious states that seem to exhibit the same non-focalization as the aforementioned "twilight" experiences. Consider, for example, the mental state described by William Hamilton:

> Something similar, indeed, to the rapid oblivion of our sleeping consciousness, happens to us occasionally when awake. When our mind is not intently occupied with any subject, or more frequently when fatigued, a thought suggests itself. We turn it lazily over and fix our eyes in vacancy; interrupted by the questions what we are thinking of, we attempt to answer, but the thought is gone; we cannot recall it, and say that we are thinking of nothing.[37]

The mind entertains no discrete, distinguishable theme or object. Whatever was "just thought" has vanished so swiftly and unceremoniously that no retrospection of its content, focal or otherwise, seems possible. James details a state of consciousness that is strikingly similar to Hamilton's. Of this "confused, dazed, scatter-brained state", James tells us that:

> The eyes are fixed on vacancy, the sounds of the world melt into confused unity, the attention is dispersed so that the whole body is felt, as it were, at once, and the foreground of consciousness is filled, if by anything, by a sort of solemn sense of surrender to the empty passing of time . . . . Every moment we expect the spell to break, for we know no reason why it should continue. But it does continue, pulse after pulse, and we float with it, until - also without reason that we can discover - an energy is given, something - we know not what - enables us to gather ourselves together, we wink our eyes, we shake our heads, the background-ideas become effective, and the wheel of life goes round again . . . . This curious state of inhibition can for

> a few moments be produced at will by fixing the eyes on vacancy. Some persons can voluntarily empty their minds and 'think of nothing'. . . . Fatigue, monotonous mechanical occupations that end by being automatically carried on, tends to produce it in me. It is not sleep; and yet when aroused from such a state, a person will often hardly be able to say what he has been thinking about. (I, 404)

This constellation of successive mental states has no distinct center in which focalization of thematic objects may be cognized. One's self awareness of this protracted duration is characterized by a generalized diffusion of content in thematic disarray, rather than by an organized field in which focalized and non-focalized content is co-presently experienced. Since I can personally claim warm acquaintanceship with this curious state, and since I believe that my conscious states are not unlike those of others, I take the liberty of assuming that others are conversant with this kind of state as well. Referring to my own experience of such states, it seems that when I am so absorbed and drawn into these woozy depths of mental interiority, the immersion into some non-descript revery is so total and the momentary disappearance of the distinction between self and non-self so complete, that if I am queried a moment later - "What were you thinking about? A penny for your thoughts?", - like Hamilton and James, I do not know what to say, nor quite where to start, since the foreground of my consciousness, if indeed there was one, had been "filled" only with that "solemn sense of surrender to the empty passing of time". Whatever the phenomenological structure of this drifting, cloud-spun state, no memorial, identifying trace of its contents remains with which to retrospectively evaluate and categorize it.

Thematically Focalized States of Consciousness

Is it also possible to have states of consciousness that are so focalized upon a singular, unwavering object or theme, that the normal complement of co-present marginal awareness is temporarily obliterated? In the ordinary experience of normal, waking consciousness, although one may be so deeply absorbed in a cogitative progression of thought as to lose track of time or to be oblivious to what normally serve as distractions, the transitive parts of the stream connecting and directing ratiocinative processes may, nonetheless, be co-presently operative. According to James, every definite thought is suffused with fringes and haloes of relations that are felt as furthering or hindering the progress of our thinking; consequently, every genuinely cognitive thought is accompanied, or rather, made possible, possible, through the co-presence of transitive parts of the stream. Only a focalized theme that is statically fixated, i.e., "suspended motionlessly before the mind", so to speak, could be a candidate for a wholly focalized, non-transitive state of consciousness.

If this unipolar field is possible, states of consciousness that transcend the ordinary, such as those claimed by yogic, zen and other meditative practitioners, may exemplify non-marginal focalization, but these states are beyond the experiential ken of most persons. They exist, if at all, as exotic curiosities.

Philip Kapleau, a contemporary, occidental, "zen master", in speaking of the practice of seated meditation known as "zazen", tells us that:

> In the broad sense zazen embraces more than just correct sitting. To enter fully into every action with total attention and clear awareness is no less zazen. The prescription for

> accomplishing this was given by the Buddha himself in an early Sutra: 'In what is seen there must be just the seen; in what is heard there must be just the heard; in what is sensed (as smell,taste or touch) there must be just what is sensed; in what is thought there must be just the thought'[38]

The "zen mind-set", it would seem, can only be achieved by a total commitment to being attentive and being only attentive: "For the ordinary man, whose mind is a checkerboard of crisscrossing reflections, opinions, and prejudices, bare attention is virtually impossible . . . Zazen that leads to Self-realization is neither idle reverie nor vacant inaction."[39] One must be careful apparently, not to confuse idle reverie or the inactivity accompanying the vacant-eyed staring of non-focalized consciousness, with the highly directed and focalized attention of meditation. "Mental drifting" is involuntary and passive; "meditation" is voluntary, active and characterized by a "one-pointedness" of cognitive dedication whose singular mental object may presumably endure in attention without oscillation for a span of duration that far exceeds the normal span of ordinary acts of attention.

George Mandler, commenting on the extensive review of various meditation techniques and practices by fellow psychologist, Robert Ornstein, writes: " . . . in reading Ornstein's description of these methods, a recurrent theme may be discerned. The achievement of the special kinds of conscious states that are claimed to occur seem to depend, without exception, on the unique attempt to stop the flow of ordinary consciousness - to concentrate on the frame, to hold it fixed in the focus of consciousness."[40] In Principles, James agrees with Shadworth Hodgson that "not to have a succession of feelings is not to be conscious at all . . . . The chain of consciousness is a sequence of differents" (I,

230). James postulates being "sensibly continuous" (I, 255) as one of the five principal characters of thought.[41] While apparently allowing that some states of awareness might not have a thematic focus, he argues against the claim that a mental state can have only a focalized theme: "No one can possibly attend continuously to an object that does not change" (I, 225). Unwavering mental fixation on an unchanging object is impossible; the belief that one is steadfastly retaining mental one-pointedness on an unchanging object, according to James, is only a self-illusion: " . . . it is not an identical object in the psychological sense, but a succession of mutually related objects forming an identical topic only, upon which the attention is fixed" (I, 420-1).

It does not follow, of course, that because a state of consciousness may be held "frozen" before the mind, so to speak, much as a single frame of motion picture celluloid may be held before a magnifying lens and projected motionlessly on a screen, that the state is a focal state; it may be a total, "frozen" state of focal and marginal composition. The content may be "mixed", as it were. But, from the descriptions given by those who have apparently achieved "one-pointedness" of mind, one gets the distinct impression that these states are focal images. What is important here, however, is not so much the content-complex of such a state, as the fact that what is implied is a channeling of awareness whose intensity is such that focalization of attention is the determining characteristic that discriminates and distinguishes this kind of state from any other.

We have seen that if we assume that every state of consciousness is a field having a focal and a marginal domain of co-presence psychic data, then we run into seemingly unresolvable problems as to how to

differentiate the "highlighted" components of a temporary state from the more "recessed" components, nor do we, at least at present, have any practical means by which to determine the totality of content that is experienced during a given state of consciousness. There are several reasons for this: first, what constitutes a specific state of consciousness in the sense of being able to distinguish one state from its successor or predecessor is largely a matter of linguistic fiat. Somewhat arbitrarily, we call one experiential block of content a state of this or a state of that according to its primary modality or attentive theme that dominates the mind's focus. Secondly, the subordinated components of conscious states, while active in bringing about the transitions from one topic to the next, are usually too dimly felt to be taken notice of.[42] This dimness and vagueness cannot be lessened or eradicated, except by bringing the remoter components of each state into focal awareness. But the act of focalizing what was marginal destroys it original nature, producing in its stead a different state. Examining our mental states is not analogous to examining physical specimens under a microscope where heightened resolution is obtained by increasing the optical strength of our lenses, and such additional magnification does not (seem to) affect the disposition of the organisms, at least in any appreciable way. Attempting to obtain greater clarity and distinctness by bringing marginal feelings and transitive fringes into focalized awareness through introspection, significantly alters the original constitution and organization of the formerly dim and vague penumbra of co-present mental data. If one were to merely follow the lead of psychology, one would indeed have the impression, as James did, that psychologists regard the

attentive component of consciousness as either all that is worthy of study, or worse, as all that there is to study.

We have also seen that both in ordinary and extraordinary (altered) states of consciousness, cases arise that call the field concept in question. Determinations as to whether those states have both a focal and marginal composition are presently unanswerable, although future experiments and research techniques do not preclude the possibility of eventually discovering a means of accessing the entire, temporary field.

NOTES

CHAPTER II: THE THEMATIC STRUCTURE OF CONSCIOUSNESS

[1]John McDermott writes that: "James unequivocally states that there exists a corresponding feeling for each of the relations at work in the flow of the stream of consciousness through the various substantive states . . . consciousness does not leap from one 'substantive' state to another, but rather, is always in 'felt' continuity by virtue of the experiencing of 'transitive' relationships . . . given its generalized implications, the whole of James leans on the legitimacy of this specific contention about relations as experienced." [McDermott, p. xxx] Although we speak of this transitiveness as the "transitive parts" of the stream, we must not be misled, as Aron Gurwitsch points out, in thinking that therefore mental states are " . . . self-sufficient, distinct, atomistic entities, discrete and isolated from each other, as Hume holds them to be. On the contrary, every mental state contains a pointing beyond itself to the past, the future, to other mental states so as to be experienced as linked to its neighbors." [Aron Gurwitsch, "James's Theory of the 'Transitive Parts' of the Stream of Consciousness", Studies in Phenomenology and Psychology, edited by Aron Gurwitsch, (Evanston: 1966).]

[2]This "chain of thinking" or "thoughts" is what allows us to have "conceptions" for James. James defines "conception" as "the function by which we thus identify a numerically distinct and permanent subject of discourse" (I, 461) Andrew Reek comments that "Consciousness selects parts of the flux, slices up the continuous stream according to its purposes, and fixes these pieces in static forms. Concepts are such pieces selected from the flux, enabling the originating consciousness to move more effectively or swiftly from one part of experience to other parts its intends or desires. Hence attention is the key to the formation of concepts, as purposiveness constitutes the essence of mind." [Reek, An Introduction to William James: An Essay and Selected Texts, p. 31.]

That any thought, image, perceptions, etc., can be held before the mind "indefinitely" and "without changing" conflicts with James's characteristic of consciousness that the mind is always changing. A "conception", then, is a substantive conclusion can be re-entertained as often as one likes without conspicuously changing its thematic character, i.e., the "same" idea, grammatical or intentional object of thought, or topic.

[3] Linchoten, p. 293.

[4]In saying that a "state of consciousness" is primarily cognitive", I mean that the focal theme of a particular, given state is cognitively directed or oriented towards a central mental datum. "Surrounding" it, of course, is the periphery of feelings, sensations, perceptions, etc., so that the transitive is always included in the state's margin, and the margin would

seem to always be present, to some extent, regardless of the degree of focal intensity of the state's theme. Yet, because, for example, when we are thinking, we are primarily concerned with our thought and its content, we may speak of this state of consciousness as being primarily cognitive in nature.

[5]Edwin Holt, in discussing James's life long struggle to come to terms with the intrinsic nature of consciousness, elaborates on the relationship between Descartes, and James's conflict: "Descartes had divided all things into res extensa, the physical and res cogitans, the mental; that is, into matter and mind. And within res cogitans two elements had come to be distinguished: one, an active thinker or soul; and, two, the substance of the soul's ideas and thoughts, that is consciousness." Thus, while James outrightly rejected the "soul", Holt remarks, "he continued to tolerate the other component of res cogitans - consciousness." [Edwin B. Holt, "William James as Psychologist", Commemoration of William James: 1842-1942, various authors, (New York: Columbia University Press, 1942), p. 37]

Cartesianism also renders an "Unconscious mind" unthinkable, or at least unnecessary, according to Henri Ey: "The negation of the unconscious is implied by 'any psychology of consciousness' which accepts the Cartesian idealist postulate of a complete transparency of the object in its being known. Traditional, academic psychology has been grounded upon this theme of the perfect unintelligibility, the absolute equivalence of the object and its cognition. Its fundamental thesis asserts that consciousness and psyche are synonymous and thus that a phenomenon is either unconscious and physical or conscious and psychical." [Ey, p. 304]

[6]G. D. Marshall, "Attention and Will", The Philosophical Review, vol. 10 (1970), p. 23.

[7]Ibid, p. 23.

[8]Ibid, p. 23.

[9]Ulric Neisser writes:

> In my view, the cognitive structures crucial for vision are the anticipatory schemata that prepare the perceiver to accept certain kinds of information rather than others and thus control the activity of looking . . . . At each moment the perceiver is constructing anticipations of certain kinds of information, that enable him to accept it as it becomes available. Often he must actively explore the optic array to make it available, by moving his eyes or his head or his body. These explorations are directed by the anticipatory schemata, which are plans for perceptual action as well as readinesses for particular kinds of optical structures . . . . The listener continuously develops more or less specific readinesses (anticipations) for what will come next, based on

> information he has already picked up. These anticipations - which themselves must be formulated in terms of temporal patterns, not of isolated moments - govern what he will pick up next, and in turn are modified by it. Without them, he would hear only a blooming, buzzing confusion. [Neisser, pp. 20-22, & 27.]

[10]Talks to Teachers on Psychology; and to Students on some of Life's Ideals, (New York: W. W. Norton & Co., 1899), pp. 29-30.

[11]Ibid, pp. 30 & 70. As we see, his later work incorporates ideas about the "extra-" or "ultra-" margin which are not explicitly brought out in Principles. W. L. Northridge quotes James from his chapter on the psychologist Myers, in James's Studies and Memories as writing: "I cannot but think that the most important step forward that has occurred in psychology since I have been in psychology, since I have been a student of that science is the discovery, first made in 1886, that in certain subjects at least, there is not only the consciousness of the ordinary field with its usual centre and margin but an addition thereto in the shape of a set of memories, thoughts and feelings which are extra-marginal and outside of the primary consciousness altogether, but yet must be classed as conscious facts of some sort able to reveal their presence by unmistakable signs." [W. L. Northridge, Modern Theories of the Unconscious, (New York: E. P. Dutton & Co., 1924), p. 32, underlining mine.]

Indeed, James later writes in A Pluralistic Universe (1909) that: "My present field of consciousness is **centre surrounded by a fringe** that shades insensibly into a subconscious more. I use three separate terms here to describe this fact; but I might as well use three hundred, for the fact is all shades and no boundaries. Which part of it properly is in my consciousness, which out? . . . . What we conceptually identify ourselves with and say we are thinking of at any time is the centre; but our full self is the whole field, with all those indefinitely radiating subconscious possibilities . . . " [From "The Continuity of Experience", reprinted in McDermott, p. 296, bold type mine.]

James is speaking here, of course, about "secondary consciousness" which he investigated and reported on at length in Principles. It is a fascinating area of discussion, which has been revived in a new form in recent times as a result of the surgical studies on epileptics done by R. E. Myers and R. W. Sperry, in which the corpus callosum of the brain is severed, an operation known as "cerebral commisurrotomy". It raises some very fundamental and extremely difficult questions concerning the assumed unity of self that we commonly believe resides in a "single mind". A very stimulating discussion of the egological problems involved may be found in Thomas Nagel's "Brain Bisection and Unity of Consciousness", Synthese, vol. 22, 1970-71, pp.387-413. Although Nagel concludes that the concept of a "single" mind may not be appropriate to account for the behavior exhibited when the corpus callosum is severed, Sperry wrote in 1964, that in his opinion, "everything we have seen so far indicates that the surgery has left each of these people with two separate minds, that is, with two separate spheres of consciousness." [Quoted in Joseph E. Bogen's article, "The Other Side of the Brain: An Appositional Mind", The Nature of Human Consciousness: A Book of Readings, edited by Robert Ornstein, (San

Francisco: W. H. Freeman & Co., 1968), p. 117; another excellent discussion of the experimental and theoretical aspects of the effects of cerebral commisurrotomy may be found in M. S. Gazzaniga, The Bisected Brain, (New York: Appleton, 1970). (Also see infra, endnote [26].]

Both James's influence on psychologists of his day including Hugo Munsterberg, Morton Prince, Joseph Jastrow, Pierre Janet, Theodore Ribot, and Bernard Hart, and the importance of "secondary consciousness" and the techniques then available for investigating special altered states of mind are well presented in the anthology Subconscious Phenomena, edited by the above authors, (Boston: The Gorham Press, 1910) and Morton Prince's The Unconscious: The Fundamentals of Human Personality Normal and Abnormal, (New York: Arno Press, reprint of 1910 edition).

[12]Talks to Teachers..., p. 66.

[13]Amongst the many topics that are frequently discussed when one considers Principles is his distinction between "knowledge-about" and "knowledge by acquaintance". In as much as I do not find this distinction of especial importance for our discussion, I shall consign what little I have to say about it to a footnote. James writes that: "There are two kinds of knowledge broadly and practically distinguishable: we may call them respectively knowledge by acquaintance and knowledge-about . . . . in general, the less we analyze a thing, and the fewer of its relations we perceive, the less we know about it and the more our familiarity with it is of the acquaintance-type" (I, 221). What is interesting about the distinction is what James adds a few pages later: "If we consider the cognitive function of different states of mind, we may feel assured that the difference between those that are mere 'acquaintance,' and those that are 'knowledge-about' is reducible almost entirely to the absence or presence of psychic fringes or overtones. Knowledge about a thing is knowledge of its relations. Acquaintance with it is limitation to the bare impression which it makes. Of most of its relations we are only aware in the penumbral nascent way of a 'fringe' of unarticulated affinities about it" (I, 259). The difference between the two types of knowledge, then, seems to be relative and a matter of degree, not kind. Meeting someone for the first time only presents us with knowledge by acquaintance. It is only when, as Richard Stevens puts it, we get to know him, i.e., become aware of "his background, his character, or what he does in life, in short to situate him in a context" so that we begin to have "the first tentative exploration of the fringes surrounding a sensible total" that we cross the line of tenuous demarcation and begin to have "knowledge-about" that person (or situation, experience, etc.) [Richard Stevens, James and Husserl: The Foundations of Meaning, (The Hague: Matinus Nijhoff, 1974), p. 32].

[14]Regarding the extent and range of the focal domain, Henri Ey writes: "Attention is constituted only as a thematic field which implies a hierarchy of levels . . . . The 'degrees' of attention which we have in view when we consider the phenomena of conscious being are not simple 'quanta' of a single function, but are rather a hierarchy of forms, from involuntary functions to free and creative acts, which are organized

according to the existential categories of the experience in progress." Ey, p. 20.

James writes: "The question of the 'span' of consciousness has often been asked and answered - sometimes a priori, sometimes by experiment . . . . The number of things we may attend to is altogether indefinite, **depending on the power of the individual intellect, on the form of the apprehension, and on what the things are.** When apprehended conceptually as a connected system, their number may be very large. But however numerous the things, they can only be known in a single pulse of consciousness for which they form one complex 'object,' so that properly speaking there is before the mind at no time a plurality of ideas, properly so called . . . If, then, by the original question, how many ideas or things can we attend to at once, be meant how many entirely disconnected systems or processes of conception can go on simultaneously, the answer is, not easily more than one, unless the processes are very habitual; but then two, or even three, without very much oscillation of the attention." (I, 405 & 409, bold characters mine)

James's point is that how information is perceived, thought, etc., determines how many "things" can be attended to simultaneously, without one's attention oscillating between attended-to objects. This view is still generally sustained in modern, experimental psychology. The same idea carries over to memory, i.e., if information is memorized as a "connected system", what can be remembered is far greater than if one memorizes randomly (and it is memory, of course, that is the conventional test for determining what is in one's span of attention). As Robert Ornstein writes: "The same amount of information or 'mental content' can, stored differently, subtend different storage sizes depending upon the way in which it was 'chunked' and laid down . . . . Everyday examples of this abound. When trying to memorize a set of digits we try to induce a coding scheme. Ask anyone to remember the sequence 149217761968 read off quickly. He won't do it well. Then tell him that you are going to read off, in order, the year Columbus discovered America, the year the Declaration of Independence was signed, and this year. Then read the numbers off. Your friend will do better." [Robert Ornstein, On the Experience of Time, (New York: Penguin Books, 1969), p. 42.]

[15]Stevens, p. 24.

[16]Charlene Haddock Siegfried, Chaos and Context: A Study in William James, (Athens: Ohio University Press, 1978), p. 10.

[17]Wolfgang Kohler, Gestalt Psychology: An Introduction to New Concepts in Modern Psychology, (New York: Mentor Books, 1959), p. 80. Reprint of 1947 edition published by Liveright Publishing Co.

[18]Ibid, pp. 80-81.

[19]Gerald E. Myers, "William James on Time Perception", Philosophy of Science, vol. 38, Spring, 1971, p. 359.

[20]" . . . when we examine the Unconscious, it is in this sense that many psychologists have identified consciousness with psychical being, consciousness with self, without being aware that the analysis of the 'conscious state' implies the existence of the Unconscious for the reason that no reflection of consciousness upon its object is possible without some relation to the unconscious strata, from which it emerges . . . " Ey, p. 10.

[21]Linchoten, p. 162.

[22]Stevens, p. 50.

[23]C. O. Evans, The Subject of Consciousness, (London: Allen & Unwin, 1970), p. 106.

[24]Aron Gurwitsch, The Field of Consciousness, (Pittsburg: Duquesne University Press, 1946), p. 10. Aron Gurwitsch makes a structural distinction between the "margin" and the "thematic field". The margin " . . . includes data which, though co-present with, have no relevancy to, the theme [that which engrosses the mind of the experiencing subject, i.e., the "focus of attention], while the thematic field is defined as " . . . the totality of those data, co-present with the theme, which are experienced as materially relevant or pertinent to the theme and form a background or horizon out of which the theme emerges as the center." The Field of Consciousness, p. 4.

I have a number of problems with Gurwitsch's "enrichment" of the Jamesian field, most prominently that the "thematic field" seems to be presented as an epistemic schemata of available knowledge that is actually co-present with the given theme, rather than being only dispositionally available. In other words, Gurwitsch describes the thematic field as if the fullness of our epistemic schemata, which serves as a background or horizon for the theme is actually present in consciousness in its totality whenever we think or reflect on a particular topic. Unless I seriously misinterpret his meaning, this fecundity of co-present data far exceeds what I believe most of would and do discover when we introspect our cognitive states. Gurwitsch's examples are all of the cogitative sort and the question of whether the thematic field is also operative for other states of consciousness whose primary modality is not cogitative, is left unanswered. But regardless of whether my reading is correct or not, I do not find the distinction especially helpful insofar as the problem of determining the structure of consciousness is concerned, since experience does not seem to reveal such a trifurcatory discrimination of conscious content.

[25]Reek, An Introduction to William James, p. 30.

[26]James's fascination with the experimental work of his day in both the fields of hypnosis and secondary consciousness is evinced by the numerous

places and amount of space devoted to these subjects. The phenomenon of "secondary consciousness", also variously called "splitting of consciousness" (by Freud), "sub-", "submerged-", "under-" and "subliminal-consciousness" was heavily studied in James's era since it, along with hypnosis, were some of the earliest available means for contacting and demonstrating the existence of Unconscious mind.

In "abnormal" personalities, in addition to the "primary" consciousness (all those experiences of which we are aware as constituting what we mean by "normal, waking consciousness" and which we identify with our known "self"), there seems to exist, in some people, a secondary consciousness that is capable of reacting to both the primary consciousness and the external environment, but of which the primary consciousness is unaware. Morton Prince explains it this way:" A subconscious personality is a condition where complexes of subconscious processes have been constellated into a personal system, manifesting a secondary system of self-consciousness endowed with volition, intelligence, etc. Such a subconscious personality is capable of communicating with the experimenter and describing its own mental processes. It can, after repression of the primary personality, become the sole personality for the time being, and then remember its previous subconscious life, as we all remember our past conscious life." [Prince, The Unconscious, p. 303.] Prince's method of "abstraction", (which as near as I can determine is similar to Janet's method of "distraction", that James talks about in Principles), is an investigative technique that when administered to such individuals is capable of revealing this submerged consciousness. The technique may take the form of whispering, for example, a set of (often contradictory) instructions in one ear of the subject whose primary consciousness acts in ways that show it to be totally oblivious to those instructions. "Automatic-writing" was another favorite investigative technique of James and his colleagues.

James reports in great detail his own studies on this phenomenon as well as those of Janet, Binet, Bernheim and Pitres. For the sake of clarity, I shall cite part of one case study taken from the work of Janet, using a favorite subject of his called "Lucie", whom James describes as follows: "In her [hypnotic] trance he covered her lap with cards, each bearing a number. He then told her that on waking she should not see any card whose number was a multiple of three. This is the ordinary so-called 'post-hypnotic suggestion,' now well known, and for which Lucie was a well-adapted subject. Accordingly, when she was awakened and asked about the paper on her lap, she counted and said she saw those only whose number was not a multiple of 3. To the 12, 18, 9, etc., she was blind. But the hand, when the sub-conscious self was interrogated by the usual method of engrossing the upper self [the method of distraction] in another conversation, wrote [automatic-writing] that the only cards in Lucie's lap were those numbered 12, 18, 9, etc., and on being asked to pick up all the cards which were there, picked up these and let the other lie" (I, 206-7). How is this possible, James asks, unless the " . . . submerged consciousness was of course seeing them, or the hand could not have written as it did" (I, 206). James concludes that: "It must be admitted, therefore, that in certain persons, at least, the total possible consciousness may be split into parts which coexist but mutually ignore each other, and share the objects of knowledge between them. More remarkable still, they are complementary. Give an object to one of the consciousness, and by that fact you remove it from the other or others"

(I, 206). [James's fascinating discussion and case studies are primarily to be found in vol. I, pp. 202-212, 227-229, 375-400, 682-3, and vol. II, the chapter entitled "Hypnotism".]

It was not until Freud challenged the "splitting of consciousness" or "secondary consciousness" of James (and most psychologists of his era) that the influence of the theory of the "subconscious" began to dwindle, and was soon replaced by the theory of the "Unconscious". In his papers between 1912 and 1915, Freud used this same data as evidence to support his theory of the Unconscious. [See "The Unconscious" and "A Note on the Unconscious in Psychoanalysis" in Sigmund Freud, General Psychological Theory: Papers of Metapsychology, edited by Philip Rieff, (New York: Collier Books, 1963).] All of this is important, not only because it comes down to fundamental questions about how many "selves" or perhaps "minds" a physical body may coextensively entertain, and the more recent work involving cerebral commissurotomies, i.e., the separating of the hemispheral corpus callosum (see supra, endnote [11]), but because a comprehensive theory of the structure of consciousness must ultimately have to account for phenomena such as "secondary consciousness".

Although James heard Freud lecture in 1909 at Clark University, he wrote that he could "make nothing of Freud's dream theories and he found the symbolism "a most dangerous method". [Craig Eisendrath, The Unifying Moment: The Psychological Philosophy of William James and Alfred North Whitehead, (Cambridge: Harvard University Press, 1971), p. 15.] Eisendrath contends that "one feels in the whole of James's literature a creeping fear of the unconscious . . . and a corresponding effort to claim for consciousness the whole of psychic life." [Eisendrath, p. 15] Some scholars have challenged this view, perhaps most recently, Professor Gerald Myers in his William James, arguing that James had no place for the sexuality and the symbolism of Freud's theories, but that he did not deny the Unconscious as such. I am of the opinion that at least insofar as Principles is concerned, there is a definite tendency to interpret all experiences and phenomena that today we would perhaps categorize as being part of the Unconscious, as either being neurophysiological, part of marginal consciousness, secondary consciousness, or simply a matter of forgetfulness. The data is open to diverse interpretation, and I suspect had James lived to see Freud's theories more firmly established he would have recognized the intelligibility and necessity for postulating an Unconscious mind. One finds his later writings to be far more charitable to the prospects of an Unconscious than is evidenced in Principles. I have undertaken to compile a list of reasons and justifications that have historically been urged for the existence of the Unconscious. While they should perhaps be accomodated more properly in an Appendix, I include them here because we have already seen and shall yet see many examples of phenomena that James consigns to some form, level or dimension of consciousness or neurology that could as readily, and perhaps more satisfactorily, be consigned to Unconscious mentation. I do not pretend that this list is exhaustive, but it does manifest a large variety of data that, in one way or another, we shall have occasion to discuss with respect to James's theory of the structure of consciousness. I have organized them into classes although the classification is arbitrary and many of the arguments overlap classes:

(I) Argument from Perception

(a) Argument from petite perceptions: Some sensory data are too "petite" to be perceived alone (like the sound of a single wave in the ocean). Therefore, prior to the experience of perceiving such sensory data, the sensory data themselves must "integrate" , "summate" or "self-compound" unconsciously, that is, combine their several intensities or energies in order to effect a perception that is above the threshold of consciousness.

(b) Argument from subliminal perceptions: It is known that we respond to sensory data to which we are exposed too rapidly or the data itself is too faint to reach the threshold of consciousness (as, for example, hidden "messages" in advertising secreted in motion picture or videotape footage). Since we tend to behave in ways that demonstrate that the "message" has been perceived, we must have perceived it unconsciously.

(c) Argument from veridical perceptions: We are constantly making correct inferences regarding depth of field, size, time, color, spatial organization, etc., although we do not perceive enough data to consciously make an accurate judgment. Thus, there must be unconscious judgments that "pre-interpret" the data before entering consciousness (as when we see an object from one two-dimensional perspective and yet know it to be, in fact, a three-dimensional object.)

(d) Argument from immediately cognized symbols: When we read, for example, we do not have to sound out each letter in a word in order to understand the meaning of the word, but rather, we see the entire word at a glance, and indeed, whole phrases and sentences, and in fact often know what words are to follow. The "putting-together" or combining of the various letters, words and phrases must be done unconsciously as a kind of "pre-processing" before entering consciousness.

(II) Arguments from Altered and Paranormal States

(e) Argument from the existence of dreams: Since dreams do not occur while awake, but only during sleep when we are not conscious, dreams themselves must be the activity of the Unconscious mind and their "content" must be unconscious content.

(f) Argument from dream recall: Since we are sometimes able to recall our dreams when awake, but we know that we had been asleep and unconscious when we dreamt them, the ability to recall those dreams must issue from the Unconscious mind.

(g) Argument from nocturnal dream-creativity: Many noteworthy discoveries and ideas have occurred to people in their dreams. Thus the Unconscious mind must be thinking even while the conscious mind is dormant.

(h) Argument from intuition: Sometimes we have an "instinctual" adverse or favorable reaction to a person, situation, etc., that we cannot consciously (rationally) understand. Often these intuitions prove to be

correct. There must be an Unconscious mind that "sees beneath the surface" and assesses the "reality" of the situation and the "sincerity" of the person sparking the instinctual reaction.

(l) Argument from hypnosis and hypnotic forgetfulness: A subject under hypnosis can be told to forget everything that he experienced during the hypnotic state. Since the subject upon "awakening" remembers nothing and may doubt that anything has in fact taken place, the experiences while under hypnosis must have been in and through the Unconscious.

(j) Argument from post-hypnotic suggestion: While under hypnosis, a subject may be given instructions to perform a specific activity at a specific time, or upon a specific cue at some future date when they have resumed consciousness. At the appointed time, or when the appropriate cue is given, the subject carries out the hypnotic order, often making inane excuses for his unseemly behavior. The command to execute the activity and the internal time-clock that counts the minutes and hours until the appointed time must reside in the Unconscious.

(k) Argument from special recall techniques: Many perceptions, feelings, thoughts, etc., that a person did not think that he had observed at all, are capable of being recalled through the use of special recall techniques of psychotherapy, hypnosis and certain drugs. Thus, those perceptions, feelings, thoughts, etc., must have existed unconsciously.

(III) Arguments from Covert Intelligence

(l) Argument from automatic performance: In order to learn how to do or perform a complex, motor skill or task, much deliberate attention and effort is required. But once learned, virtually no attention is often required for its performance, and indeed, one may direct one's attention to other secondary tasks. There must be an Unconscious mind which directs and supervises the performance while the conscious mind is directed elsewhere.

(m) Argument from covert, teleological behavior: We sometimes embark on courses of action that we had not intended to, or given prior thought to. Yet they often prove to be highly advantageous or successful. There must be an Unconscious mind that makes the correct choice for us, knowing better than our conscious mind what is good for us.

(n) Argument from reasoning: The so-called "laws of logic and mathematics" are intuitively apprehended as universally true, yet we can find no absolute, conscious justification for believing them to be true. The truth of these laws must be apprehended unconsciously and then derivatively acknowledged by consciousness.

(IV) Arguments from the Nature of Consciousness

(o) Argument from latent memory: Within the field of a temporary state of consciousness, only a limited amount of mental content can exist. But since we do remember events, thoughts, feeling, perceptions, etc., not in our immediate consciousness, they must lie dormant in our Unconscious mind.

(p) Argument from associative memory: When we are in certain environments, or receive certain stimuli, long forgotten memories are suddenly associated in our conscious mind. They must have existed dormant in the Unconscious.

(q) Argument from association of ideas: Often when we think about something, other ideas that are associated with it spring up. While consciousness may serve as a catalyst for bringing up the various ideas, "flagging them, the ideas themselves must be connected and related in the Unconscious prior to emerging in consciousness.

(V) A Priori Arguments

(r) Argument from necessary opposites: The very concept of "consciousness" makes sense only if there is another, opposite mentality that is "unconscious". Things are what they are only through the existence of their opposites.

(s) Argument from the continuity of consciousness: Each night we go to sleep, and in the morning when we awaken, we pick up the "thread" of conscious life from the day before. There must be an Unconscious mind that holds and retains all our conscious experiences while we sleep.

(t) Argument from personal identity: Not only is there continuity and unity of consciousness, but also "self-unity" or "identity". All my mental experiences are recognized as belonging to "me", and as being "mine". There must be an Unconscious mind which keeps all my experiences "bound together" when they are not in my consciousness.

(VI) Arguments from Psychopathology

(u) Argument from clinical evidence: In daily life, the trained psychologist observes slips of the tongue and pen, mannerisms and tics, symptoms of illness (neurotic and psychosomatic) and dream-content that have no apparent conscious meaning or explanation. Unconscious mind explains why they occur as they do.

(v) Argument from co-consciousness: In some people, within their singular body, several separate consciousnesses or "selves" may co-exist. Since only one self is generally manifested at any one time, or known to the primary self, the other selves must continue to exist in the Unconscious.

(VII) Arguments from Suppressed and Repressed Mental Contents

(W) Argument from emotional error: Sometimes we think we feel one way about a person, only to discover later that we feel, and have felt, quite differently than we had supposed. Our true feelings must have been suppressed in our Unconscious.

(x) Argument from repression: After a period of psychoanalysis (or similar therapy), we often (a) discover concealed feelings, motives, desires, intentions, etc., about contemporary and long-ago events and persons of which we were totally unaware consciously, and (b) long-

forgotten memories arise of which we had no conscious knowledge. Yet these "memories" have largely determined our behavior patterns. They must have been repressed in an active, Unconscious mind.

[27]William James, The Varieties of Religious Experience, (New York: Collier Books, 1961), p. 106.

[28]Edwin G. Boring, The Physical Dimensions of Consciousness, (New York: Century Press, 1927), p. 200. According to James G. Miller, Boring later wrote: "Consciousness is attention; attention is selective; consciousness is selective. Attention and consciousness are almost synonymous, and selection is the fundamental principle of both." Miller, p. 32.

W. B. Pillsbury, the respected early 20th century psychologist, wrote in his book on attention, "the . . . last theory which we must consider is represented by Kohn, and is to the effect that attention and consciousness are identical. This is not far different from the conclusion that we have reached, in so far as it must be admitted that attention is involved in all consciousness, and degree of attention and degree of consciousness amount to the same thing." [W. B. Pillsbury, Attention, (New York: The MacMillan Co, 1908), pp. 32-33, underlining mine.]

This attitude has been the prevalent one throughout the modern history of the psychology of mind. C. O. Evans says of James's contemporary, psychologist James Ward and his Psychological Principles, published in 1918, that "essentially what he maintains is that attention and consciousness are identical. That is to say we cannot be aware of anything without giving it some attention, and this for the simple reason that to be aware of it is to attend to it. This means that as far as Ward is concerned, it would be meaningless for one to say that he was aware of something but hadn't given it any attention. The most he could say is that he was aware of it, although he hadn't given it much attention." [C. O. Evans, The Subject of Consciousness, (London: Allen & Unwin Ltd., 1970), p. 73.]

[29]James Miller reports John Watson as writing: "In the place of the Freudian unconscious the behaviorist substitutes the unverbalized. He has a contrasting term, too - the verbalized." Miller comments that: "Here he was maintaining that the only sense in which it is significant to use the adjective conscious is to describe that which is overtly communicated or, as he limited the statement, verbalized." [Miller, p. 269. Also, see John B. Watson, "The Myth of the Unconscious", Harpers, 155, 1927, and J. B. Watson, "The Unconscious of the Behaviorist", The Unconscious: A Symposium, various authors, (New York; Knopf, 1929) for elaboration on Watson's behavioristic espousal of the "verbalized" as the only meaningful description of what being conscious amounts to, and his rejection of unverbalized and introspective states.]

[30]C. D. Broad, for example, had suggested, rather tentatively, at one point, that: " . . . it might be possible to mark off conscious experiences from all other mental events by means of some more hypothetical references to introspective discrimination. Might we not say

that every conscious experience of mine is one that I should have succeeded in discriminating if I had introspected carefully enough while it was happening or immediately afterwards? . . . . It is therefore plausible to take it as a sufficient description, if not as a definition, of a 'conscious experience' of mine." [C. D. Broad, The Mind and its Place in Nature, (New York: 1925), pp. 290-291.] But clearly this "hypothetical" method is of little help. Since the only way I can know that I could have succeeded in discriminating while it was happening or immediately afterwards is by attending retrospectively, I am open to the charge of "creating" or "altering" an alleged, past marginal object; it cannot be assumed that even if I am now focally aware of a datum, that that datum must have been marginally present prior to this moment. There is no way of actually determining whether, in fact, we could have succeeded in discriminating a datum, unless, in fact, we do so.

[31]James Miller tells us that ". . . patients under such anesthetics as scopolamine make communications which they cannot remember a little later. This circumstance also occurs to a high degree . . . in cases of dissociation like Janet's Irene [secondary consciousness] and of abnormalities of memory following upon blows on the head. In all these cases the criterion of communicability as evidence of unconsciousness [in the sense of being 'unavailable to awareness'] conflicts with the criterion of memory, and whether one, the other, or both are 'true' tests is a hard problem." Miller, p. 275.

[32]Martin T. Orne & A. Gordon Hammer, "Hypnosis", Encyclopedia Britannica, 15th edition, 1980, vol. 9, p. 134, underlining mine.

[33]Morton Prince, who was quite familiar with using hypnosis as an investigative technique writes: "When, in a state of abstraction or hypnosis, the ideas of this fringe of attention are recalled, as often is easily done, they are remembered as very definite, real, conscious elements, and the memory of them is as vivid as that of most thoughts. That these marginal ideas are not 'vivid' at the time of their occurrence means simply that they are not in such dynamic relations with the whole content of consciousness as to be the focus of awareness or attention." Prince, The Unconscious, p. 342.

According to Henri Ellenberger, the historian of psychiatry, hypnosis from 1784, when it was first discovered, to 1880, provided the first and only means of access to the "Unconscious mind". Affirming Prince's observations, Ellenberger writes: "Not less remarkable is the increased capacity of the memory; the hypnotized person may remember old and seemingly forgotten incidents of his childhood and describe happenings during artificial or spontaneous somnambulism or during intoxication. This hyperamnesia extends to things that had apparently remained unnoticed by the subject." [Henri Ellenberger, The Discovery of the Unconscious: The History and Evolution of Dynamic Psychiatry, (New York: Basic Books, 1970), p. 12 & 13.]

Although hypnosis is often colloquially referred to as a kind of "sleep", exactly the opposite is true: "Indeed, unless a specific suggestion is made to the contrary, a person under hypnosis may be

unusually wide awake, in the sense that his powers of perception may be abnormally acute. But since such a person is not in a state of normal-waking-consciousness, perhaps the best description of hypnosis is 'a state of altered consciousness.'" [Denys Kelsey and Joan Grant, "Recognition of Reincarnation and the Supra-Physical Body", Consciousness and Reality: The Human Pivot Point, edited by Charles Muses and Arthur M. Young, (New York: Outerbridge and Lazard, 1972), p. 60.]

[34]Orne & Hammer, p. 134.

[35]There is little doubt that a hypnotized subject can do some very amazing things. I have discovered this in my own experience. "Once the hypnotic trance is achieved", writes Ernest Hilgard, "it is relatively easy to produce hallucinations, contractures, anaesthesias, and other evidences of unconscious responses to the verbal communications of the hypnotist." [Ernest R. Hilgard, Unconscious Processes and Man's Rationality, (University of Illinois Graduate School-50th Anniversary Lectures Series, 1958), p. 16]

[36]Stevens, p. 33.

[37]William Hamilton, Metaphysics and Logic, (Stuttgart-Bad Cannstatt: Friedrich Froman Verlag, 1970), vol. 1, p. 238. Reprint of 1861 edition published by William Blackwood & Sons.

[38]Philip Kapleau, "Zen Meditation", The Nature of Human Consciousness: A Book of Readings, edited by Robert Ornstein, (San Francisco: W. H. Freeman & Co., 1968), pp. 237-8.

[39]Ibid, p. 240.

[40]Mandler, p. 61. Mandler also suggests that " . . . the 'object of the single focus' must be no more than a frame of consciousness; in fact, it is restricted by the very limits that the limited capacity mechanism has been shown to exhibit . . . . The observations that Ornstein and many others have reported suggest that it is possible to stop the flow of consciousness to keep a single frame of consciousness in focus for extended periods of time. However, such an experience should be a very different form of consciousness; the normal form is flow." Mandler, p. 61.

[41]James's "five characters in thought" are:
1) Every thought tends to be part of a personal consciousness.
2) Within each personal consciousness thought is always changing.
3) Within each personal consciousness thought is sensibly continuous.
4) It always appears to deal with objects independent of itself.

5) It is interested in some parts of these objects to the exclusion of others, and welcomes or rejects - chooses from among them, in a word - all the while." (I, 225)

In his "Briefer Course", published two years after the original, two volume Principles, James eliminated character # 4 from his list. I am not certain as to the reason for the deletion. [William James, Psychology: The Briefer Course, edited by Gordon Allport, (New York: Harper and Row, 1968), p. 19. This is a reprint of the 1892 edition published by Henry Holt & Co.]

[42] The claim that consciousness organizes and presents itself as a field of focal and marginal contents is a quite distinct claim from maintaining that everything that is in one's potential, observable field, particularly perceptual data is, at some level, somehow observed or noticed, and lies dormant, but permanent, in memory. I think it is easy to confuse or, rather conflate, both claims into one and the same. The assumption that consciousness is a field entails that more is experienced or felt than is customarily accounted for by either linguistic habits or psychological experiments. James did not support the view that, therefore, everything that is within one's potential, perceptual field is taken in; in fact, his theory of selective attention is meant to imply that everything cannot be taken in, but only, for whatever reason, is in some way of interest to us.

Contemporary, experimental psychology is yet rather divided on the question of what gets into consciousness and what does not. Ulric Neisser sums up much of the current opinions on this subject in the following excerpt from his Cognition and Reality: "Treisman's theory is a particularly good example of the linear information processing model . . . The perceiver is regarded as a passive conduit for information, who happens to have a bottleneck early in his processing sequence. Most of the theories that have been put forward as alternatives to Treisman's share the same assumption; they simply locate the bottleneck at a different point. Deutsch and Deutsch, for example, rejected the filter concept and assumed that everything is fully processed whether it is attended or not. On their hypotheses, selection occurs only at the stage of memory and attention. Subjects in selective listening studies [i.e., shadowing experiments] actually perceive both voices, but forget the unattended so rapidly that it has little effect on their behavior or experience . . . . It seems to me that hypotheses like those of Treisman or Deutsch and Deutsch are unnecessary. When perception is treated as something we do rather than as something thrust upon us, no internal mechanisms of selection are required at all. The listener follows a message by picking up the information that specifies it as a separate event, and the information that specifies its content and meaning. The more information he finds available (contextual, spatial, etc.), the easier this task becomes. Organisms are active: they do some things and leave other undone. To pick one apple from a tree you need not filter out all the others; you just don't pick them. A theory of apple picking would have much to explain . . . but it would not have to specify a mechanism to keep unwanted apples out of your mouth." [Neisser, pp. 84-85.]

The notion of a "filter", then, makes no sense for Neisser: "There is no mechanism, process, or system that functions to reject these stimuli such that they would be perceived if it were to fail. The perceiver simply does not pick them up, because he is not equipped to do so . . . . Selection is a positive process, not a negative one." [Ibid, pp.

78-79.] What is interesting to note is that Neisser, earlier in his career, postulated that unattended messages are analyzed by "pre-attentive processes" which perform analyses on simple, physical data, or perhaps one's own name, a thesis similar to James's "expectant attention" and marginal anticipations pre-selecting what data shall be drawn into the attentive manifold and what shall not. According to Underwood, "preattentive processes" presumably explain how it is, for example, that " . . . we may walk down the street without bumping into a tree, and although we may not remember noticing the tree it must have been seen to be avoided. Regular features of the environment, which fit into our conception of the world, do not need to be focused upon in order for us to operate in the environment, When the unexpected appears, attention is summoned and the input is processed at the level of awareness." [Underwood, p. 224.] James regards such automatized behavior as the work of marginal awareness, and perhaps, at least in certain circumstances, secondary consciousness.

The business of determining what gets into consciousness and what does not is not an easy one. An experiment by Lund of Sweden demonstrates that "there is no sharp dividing line between what is perceptible and what is not perceptible . . . . The picture of a car is projected on a screen, but so dimly that the subject cannot see it. Ask him what he sees and he is completely baffled; the screen is formless. Now a street scene is superimposed upon the picture of the car, so that the car fits naturally in the street. Now, lo and behold, the subject sees the car as part of this total picture! What was subthreshold has become suprathreshold in this appropriate context. As a control, a living room scene is superimposed on the car. There is space for the car in the middle of the rug, just as there was space for it in the street. Now, however, the car remains invisible." Hilgard, p. 10.

CHAPTER III: THE TEMPORAL STRUCTURE OF CONSCIOUSNESS

The Specious Present

James concludes his chapter on "The Perception of Time" by summarizing his central thesis:

> . . . we are constantly conscious of a certain duration - the specious present - varying in length from a few seconds to probably not more than a minute, and that this duration (with its content perceived as having one part earlier and the other part later) is the original intuition of time. Longer times are conceived by adding, shorter ones by dividing, portions of this vaguely bounded unit, and are habitually thought by us symbolically. (I, 642, underlining mine)[1]

While James's "specious present" is meant to account for our "feeling" or "intuition" of time-perception or time-as-passing, it seems to me that the greater significance of the concept of the specious present lies in its being that interval or span of duration in which "earlier and later" or "before and after" phases of content are experienced as co-present,[2] that is to say, as the definitional parameters of that "fullness" of content/awareness which is what we mean by a state of consciousness being a "conscious experience". The phenomenological meaning of the specious present is that it is for consciousness the temporal unit (durational span) which apprehends the given (thematic content) as a "sensible total" (a state of conscious "fullness"). It is this apprehension that defines or determines the "psychic meaning" of the total field, i.e., the subjective and dynamic understanding of the thematic field of data. The specious present delimits the range of the

field of awareness by defining the temporal parameters in which a total, temporary constellation of co-present content/awareness is experienced. Whatever content can be apprehended as being within that duration-block constitutes the temporary field of one's present state of consciousness.[3]

Although James does not introduce the term, "specious present", nor give a formal account of it until near the end of volume 1 in "The Perception of Time" chapter, its operative structure plays a vital role in both his psycho-physical thesis and the field-concept that is intrinsic to his theory of cognition developed ostensibly in "The Stream of Thought" and "Conception" chapters. James borrows the term from one E. R. Clay, as a means of accounting for the fact that if the "present" refers, as we commonly suppose, to a constantly changing, temporal instant that cleaves what is no longer (the past) from what is yet to be (the future), then it is, (after the fashion of Zeno), an "instant" that is ever further divisible into infinitely smaller subdivisions of instants. Yet, this concept of the "present" or "now" obviously cannot be the stuff of which experiences are made. Experience cannot be a dimensionless "entity" in the manner of a Euclidean point; experience, the stuff of "lived" consciousness, can never be "filled" with only instantaneous moments. What, in fact, we do experience are organic wholes, sensible totals that are "stuffed full" with fields of changing phenomena.

James describes the specious present as follows:

> . . . the practically cognized present is no knife-edge, but a saddle-back, with a certain breadth of its own on which we sit perched, and from which we look in two directions into time. The unit of composition of our perception of time is a duration, with a bow and a stern, as it were - a rearward- and a forward-looking end. It is only as parts of this duration-block that the relation of succession of one end or the other is

> perceived. We do not first feel one end and then feel the other after it, and from the perception of the succession infer an interval of time between, but we seem to feel the interval of time as a whole, with its two ends embedded in it. The experience is from the outset a synthetic datum, not a simple one; and to sensible perception its elements are inseparable, although attention looking back may easily decompose the experience, and distinguish its beginning from its end. (I 609-10)

The "specious present", or the "practically cognized present", then, is a duration-block or span of duration in which the relation of succession of one end to the other is experienced as an organizational whole, a co-present diversity-in-unity. Within this context, the focal/marginal field of experience is seen as an extended temporal horizon that reveals content in definite relations of "before" and "after" one another such that awareness can discriminate an "earlier than - later than" ordering of content. The "mystery" of the specious present lies in the fact that what is "objectively" given as "one-after-the-other" is subjectively experienced <u>now</u> as being both "side-by-side" and "all-at-once".

Consider the following example of a libational toast at dinner: "Ladies and gentlemen, let us drink a toast to Her Majesty the Queen." Kenneth Denhigh notes that "during the performance, which takes about ten seconds, it would be misleading to say that one has a sequence of oral perceptions; on the contrary visual and oral perceptions fuse into one experience."[4] Here, the specious present refers not merely to the fact that successive content is being unitively cognized in an ordered relation of "earlier and later than", but also to the fact that sense-data of different sense-organs are also discriminable within that temporal

ordering. The data of sensory content is cognized as occurring "side by side", rather than as "one after the other": "I do not first hear 'Ladies and . . . ', and then stop hearing that and start hearing 'gentlemen . . . ' The earlier perception lingers a while, merging into its successors and fading only gradually. I am in a way still vaguely 'hearing' "ladies and gentlemen" when he gets to 'Her Majesty . . . ' - it has not yet become something which, like a remark heard over soup, now needs an act of recall for me to bring it to mind again."[5]

How, then is "vaguely hearing" to be understood when we say that we are "<u>still</u> 'vaguely hearing' phrase-X", while we are co-presently "'really hearing' phrase-Y"? 'Really hearing' is understood as a literal instance of what we mean by "really" or "genuinely" perceiving. But "vaguely hearing" is not literal; nor is it quite metaphorical in the sense in which, for example, "he 'heard' his heart 'sigh with love' when he first saw Cecile" can be said to be metaphorical. What we seem to mean by "vaguely hearing" is that we are retaining "phrase-X" in some non-perceptual, but obviously <u>mental</u> way, much as, James points out, the retention of an "after-image" of a visual perception is distinctly mental. How can we account for the fact that successive moments in one's immediate experience are apprehended not merely successively, but <u>processionally</u>, i.e., as a continuous parade of virtually uninterrupted, successive events. For in order to hear that one bar of music comes after another, both bars must be heard together. And, without such an earlier and later concomitance of successive data, music would be impossible, as indeed would "experiencing" anything. Perceiving an event requires "the knowing

of things together" as James says, i.e., an act or pulse of subjective, dynamic and synthetic unity.

James's solution is to postulate a structural feature of consciousness in which an organizing constant, the specious present, is continually operative. The span of duration of one's specious present is the psychic constant that determines our capacity for meaningful experience, regardless of whether it is, for example, apprehended as being primarily a perceptual state, or comprehended as being a cognitive one. "This amount of duration," James tells us:

> is pictured fairly steadily in each passing instant of consciousness by virtue of some fairly constant feature in the brain-process to which consciousness is tied. This feature of the brain-process, whatever it be, must be the cause of our perceiving the fact of time at all. The duration thus steadily perceived is hardly more than the 'specious present' . . . . Its content is in a constant flux, events dawning into its forward end as fast as they fade out of its rearward one, and each of them changing its time-coefficient from 'not yet,' or 'not quite yet,' to 'just gone' or 'gone,' as it passes by. Meanwhile, the specious present, the intuited duration, stands permanent, like the rainbow on the waterfall, with its own quality unchanged by the events that stream through it. (I, 630)

Whatever content falls within that temporal span is "grasped" as co-present such that the "earlier" content, that which is now "just-past", is co-present with the "later" content; but, whatever content falls outside of that relatively constant, durational span, is not grasped as co-present with the earlier content of the previous specious present, but must be remembered by an act of active recall, in order for us to experience its successive connectedness to a previous specious present.

There are several difficulties immediately evident. First, except perhaps at times during acts of deliberate memory, in which we intentionally pull our thinking back to a more distant time in order to recall a former, "remote" experience, being conscious does not feel to itself like a succession of "knotted" experiences, each with its own "earlier" and "later" phases that are tied end to end like a string of unbroken memories. "Immediate experiencing" does not feel like a procession of memorial sequences. The inescapable, phenomenological fact about being conscious is that experience is continuous, immediate and whole; it is only, as James remarks, in the reflective attitude that we analytically break down that continuity into earlier and later segments of a "single" specious present, Thought, state of consciousness, conscious event, or whatever name we choose to call "experiencing" by. James's insight into the temporality of consciousness is that each now-experience must be structurally thought of as having its own lived history - a "co-present succession" of temporally antecedent and subsequent content-phases. Not that consciousness necessarily feels as such, but rather that accounting for how it does phenomenologically feel necessitates presupposing a psychically experienced unity composed of temporally successive phases or states. Accounting for consciousness in this manner is complicated by the fact that there are no felt divisions or breaks within each "separate" experience; the very notion of separate and discrete experiences with their own internal time-segments necessitates presupposing that each total experience stand in an ordered relationship of temporal succession with a predecessor and successor. However, James's concept of the specious present does not theorize as to how such

integrations might occur in consciousness, but only that they do occur. Without some manner of accounting for this continual process, we are left with saying that the felt connectedness of our present experience to our immediate, prior experience is "remembered", which necessitates that the connectedness of that prior experience to its predecessor be remembered as well, so that each now-experience must remember its predecessor retrogressively in order to feel present continuity. But no such remembering qua active memory seems to take place in our ordinary experiencing.

But before we can put forth any descriptive or explanatory thesis about the logical conditions by which the structurization of consciousness might be governed, certain problems of meaning and investigative protocol must be examined first.

Upon reviewing the historical literature addressing the concept of the specious present,[6] it becomes apparent that there is no clearly defined method or procedure by which we can measure the upper and lower limits of its presumed range, nor is it clear whether that range is governed by parameters that are wholly temporal, wholly thematic, or an admixture of both. Our inability to make a conclusive determination is a result of the nature of the specious present itself, rather than merely a procedural problem in the design and construction of experimental programs. We are not quite sure of exactly what it is that we want the specious present to account for. Although the specious present is intended to refer to that span of duration in which the total field is apprehended as a unitive experience, it is, in fact, experimentally interpreted (by James and others), as primarily a measurement of our span

of attention, i.e., the amount of time that a constellation of "objects" can be immediately focused upon, recalled and communicated without significant error. Although we desire to measure the fullness (totality) of each temporary field, the nature of experiencing is such that decisive measurement is impossible in the absence of a decisive concept or convention as to what shall demarcate and distinguish one whole of experience from another.

Since every "now", James maintains, is "the feeling of a separate bit of time" (I, 611), the number of bits that can be apprehended clearly and at once depends upon the size and grouping of the bits. To substantiate his thesis, (one which modern, experimental psychology has essentially embraced as well), James details a series of auditory experiments performed by Wundt and Dietze in which they sought to determine the "maximal extent of our immediate distinct consciousness for successive impressions" (I, 612). Wundt's experiments yielded the total time in which "twelve impressions could be distinguished clearly as a united cluster, provided they were caught in a certain rhythm by the mind, and succeeded each other at intervals not smaller than 0.3 and not larger than 0.5 of a second" (I, 612), while Dietze found that intervals of separateness from 0.3 to 0.18 seconds were the most favorable for "remembering as a whole", and depending on how the data was chunked into sub-groups, up to forty strokes might be remembered together. Dietze's figures, James says, puts the specious present at around 12 seconds (I, 612). However, James notes, the experimental work of others puts the span of duration at " . . . 5 or 6 to 12 seconds, and perhaps more" (I, 613). Indeed, in the opening quotation of this chapter, James

maintained that the specious present might be up to a minute in duration. Given a possible variance of 100% or more, as James's figures indicate, a certain degree of healthy skepticism is naturally incurred. It is not merely the accuracy of the results by different researchers that is called into question, but the procedures themselves by which such results are obtained, Allowing that some experimental procedures will be more precise and their results more accurate than others, the question remains, however, as to what they are measurements of.

According to James, they are measurements of the "maximum filled duration of which we can be both distinctly and immediately aware" and which " . . . may be roughly taken to stand for the most important part of . . . the specious present" (I, 613). But James adds, "the specious present has, in addition, a vaguely vanishing backward and forward fringe; but its nucleus is probably the dozen seconds or less that have just elapsed" (I, 613, underlining mine). It seems, then, that there is both the practical specious present which is ostensibly one's span of attention, and the real specious present which has both a retrospective and prospective fringe. But the specious present was earlier described as that temporal " . . . saddleback, with a certain breadth of its own on which we sit perched, and from which we look in two directions into time" (I, 609). What is "in addition" to the nucleus, is not optional, but essential: it is what makes the total field an experiential whole, a succession of phases unitively apprehended as movement, passage or change. James, Wundt, Dietze, and others have confounded the "limited organization of the focus of attention that can be immediately remembered or retained" with the "total organization of mental content that is co-presently

experienced." The so-called "nucleus" of about 12 seconds is merely the focus of attention; James has significantly departed from his original concept of the specious present. The experiments that he describes in such detail have little to do with his original concept of the specious present. And at best, they define parameters of attention in a laboratory setting in that (a) only one perceptual sense is involved, e.g., hearing, and (b) the subjects were predisposed to being attentive, i.e., their environment was "artificial" and they were goal-directed. The results of these experiments show that the "maximal duration" of the subjects was dependent upon their capacity to remember, and what was "distinctly" determined was ostensibly their focus of attention.

"Maximal" and "Minimal" Specious Presents

The specious present qua that duration in which an experiential whole is apprehended, can strictly speaking, have no minimal or maximal apprehension, it seems to me. Either content is apprehended, in which case it is psychically meaningful and ordered-in-successiveness, or it is not. The parameters of apprehendability may fluctuate, and in that sense the specious present may have a minima and maxima, but apprehension must always be a completely fulfilled, mental act.

Referring to the above mentioned experiments of Wundt and Dietze, James asks: "If these are the maximum, what, then is the minimum amount of duration which we can distinctly feel?" (I, 613) But, insofar as we understand the significance of the specious present to lie in its being the felt span of duration in which two phases of experience are unitively apprehended, then what can it significantly mean for the specious present

to have a minimal or maximal span of duration? In order to determine the minimal duration, James cites experiments of Exner which rely upon our visual acuity. But it is not clear as to what has been determined by Exner's experiments, that is, whether what has been measured, under laboratory conditions, is the shortest, temporal interval in which we are capable of visually distinguishing between rapidly successive, visual stimuli, or the unitive apprehension of a perceptual act. The former describes our capacity to make perceptual judgments, the latter our capacity to hold a series or sequence of events together as a total experience.[7]

The specious present is that duration in which we experience temporal and thematic organization of mental content. It is what is apprehendable in a unitive pulse of consciousness, so that any amount of 'chunked' data or any duration less than that which is unitively apprehended, underfills the capacity necessary for a unified, mental whole and, ex hypothesi, cannot be a specious present. Similarly, any chunked data or duration that is greater than one's specious present, overfills (or "overflows") one's total capacity for apprehending as a meaningful unity. Regardless of whether the specious present is a mutable "constant" that may be altered by conditions of alertness, fatigue, drugs, age, etc., insofar as it refers to unitive apprehension, it can have no minima or maxima. With respect to cognition, if thoughts or sentences are too long or too difficult, our "duration-block capacity", i.e., the amount of data that can "fit" into a given temporal span, is unable to comprehend the objective meaning of the sentences or thoughts. We must go over them again, if we can, or break them down into assimilatable portions of lesser

syntactic length, semantic meaning, or, in general, noetic complexity. Apprehension that falls short of this capacity, on the other hand, "prehends", we might say, but does not "grasp and hold together" the succession of phases necessary for cognitive comprehension.[8] Consequently, there is no full or complete experience, but rather what we might call a "primitive cognizance" (or "prehension") that may be characterized as a dim, vague, hesitant, inarticulate and incommunicative sensing of data. Because experience has taught us to expect certain grammatical forms and inferential conclusions, we learn to anticipate sentential terminations that are verbally unexpressed so that we can often mentally fill in the missing gaps, and so complete or fulfill locutions that would otherwise be unintelligible. As an illustration of this capacity of mind to complete its own specious present capacities so as to provide "wholes of meaning", I have asked, on occasion, students in my philosophy classes to listen attentively as I sing the following: :"Yankee Doodle went to town, riding on a pony, he stuck a feather in his hat and . . . " Virtually without exception, those students who are familiar with the ditty, when questioned as to what they experienced, respond that they mentally completed the sentence with " . . . called it macaroni." Of this sort of "anticipatory intention", James believes, "one may admit that a good third of our psychic life consists in these rapid premonitory perspective views of schemes of thought not yet articulate" (I, 253).

Although James does in fact speak of the specious present as the "intuited duration" that "stands permanent . . . with its own quality unchanged by the events that stream through it" (I, 630), James also, we have seen, distinguishes between the "nucleus" of the specious present,

which has a "maximum distinct intuition" of about 12 seconds (I, 630) and a "maximum vague intuition" which is "probably not more than that of a minute or so" (I, 630), although in a footnote, he indicates that it may endure for considerably longer. It seems to me that he may be confusing what we would call the "short-term memory buffer" with the specious present.[9]

The Phenomenological Present

Typically, the specious present is regarded as a limited duration in which, as one Jamesian scholar puts it, we are " . . . simultaneously aware of its beginning and end . . . . [Since] without a simultaneous awareness of beginning and end, we are left with a mere sequence of perceptions that does not amount to a perception of sequence."[10] Simultaneity, then, must occur if we are to be aware of our "experience of succession" and not merely have a "succession of experiences".

While this point is correct in as much as both "ends" of the durational content-block and their temporal order must be co-experienced, to refer to the "awareness" of the temporal relation that "earlier" and "later" phases stand in as being one of "simultaneity" may be misleading. When we say that "earlier" and "later" are "co-experienced", we mean that they are <u>experienced as co-present</u>, our intention being to infer a single <u>unitive</u> awareness. In speaking of marginal and focal content as being "co-experienced", we do <u>not</u> mean that there are <u>two separate and distinct centers of awareness</u> concurrently being apprehended by a single personality or ego. What we do mean is that if we were to introspect (theoretically) we could distinguish different feelings, sensations, etc.,

as being concurrent within a single, unitive center of integrated consciousness. Strictly speaking, unless, perhaps, we are dealing with certain psychological aberrations, e.g., multiple personalities, dual or secondary consciousness, patients of cerebral commissurotomy, etc., we presume that only one, unitive center of consciousness is presently operative for any given individual. The totality of content of which that person is presently aware comprises a single, unitive, experiential whole. To say that we are simultaneously aware of "earlier" and "later" phases may connote that there are two separate structures of awareness occurring at the same instant, when in fact there is only one unitive awareness of "two phases in relation to one another". Being a "simultaneous awareness", in this sense, would seem to require a third or "additional awareness" in order to be unitively aware of the two separate but contemporaneous awarenesses. "Earlier" and "later" phases are co-present in that "what the present is" may be described as "that duration-block or temporal span in which we are unitively aware of temporally successive phases of content such that the intrinsic connectedness of the earlier to the later phases is apprehended."

Habits of speech give rise to habits of thinking.[11] We have become accustomed to thinking of the "present" or "now" as being a "punctiform instant" - the durationless meeting place of the non-existent past (which "is" no longer) and the non-existent future (which is "yet to be"). The specious in "specious present" is not specious at all. The "psychological", "conscious", "mental", "perceived", "psychic", "durable", "sensible", or "felt" present are far better synonyms for this span of duration.[12] James suggested the "sensible" present when he introduced the

sub-chapter heading, "The Sensible Present has Duration", but apparently abandoned its use for unspecified reasons. Only if the "present" is defined in terms of consciousness can we speak of its dynamic "psychic", "inner" or "subjective" meaning in addition to whatever objective meaning "now" may have.

Advantages of "Phenomenological Present"

By defining the "present" phenomenologically, we may be better able to avoid certain entrapments of linguistic habit. Consider, for example, Paul Fraisse's sentence, which though grammatically acceptable, posits a usage of the "present" that is psychologically odd: "The present is the century in which I live as much as the hour now passing." As C. K. K. Mundle points out, "when we speak of the 'present century' we are not using 'present' to refer to a duration of a 100 years. Surely, 'the present century' means 'the century which overlaps with the present.'"[13] If the "present" is defined phenomenologically, that is, in terms of the duration of a "total experience" or "experiential whole", the non-literal character of sentences like that of Fraisse are more easily clarified. Although there may be variances between the span of duration of one person's specious present and another's, the difference would seem to be only a matter of seconds at most, so that in no ordinary instance would it be experientially meaningful to speak of the "present" as enduring for a century, or a month, or even an hour. In saying that "we live in the 'present' century", we mean only that we live in this century, and not in a past century, or a future century. But "present", in this context, does not mean "right now!", just as when I say that "I will come to your house

presently", I do not mean "right now!", but "soon" or "before too long". The specious present, as the temporal and thematic bearer of apprehended meaning, provides us with a strictly theoretical measurement of what the "present" means by defining "now" not as a punctiform instant, but as that span of duration in which a totality of thematic content is unitively apprehended as a meaningful whole of experience.

The phenomenological definition eliminates temporal definitions or equivalences that are functionally arbitrary. An example of this kind of functional arbitrariness is the program advocated by J. J. C. Smart in which "now" is made arbitrarily synonymous with "simultaneous with this utterance". Smart believes that among the advantages obtained by this definition is the rejection of " . . . the notion that even in past ages when there were perhaps no sentient beings there was nevertheless a moment which was distinguishable as 'the present' or 'now'".[14] Even if we believe that Smart is correct on this point, we stand to lose more than we stand to gain by his definition of "now". "Uttering" is not synonymous with "acts of apprehensions"; yet, it is as a "unified mental act" that the "present moment" is given significance in and for consciousness. Otherwise, "now" loses all connectedness to phenomenological experience.

Different utterances take widely different amounts of time to execute. If the duration of utterances is continually changing from one utterance or the next, so that some are very short and others very long, then to equate the duration of "now" with utterances either entails a concept of a "standard utterance" whose duration is fixed by fiat, average syntactical length or some other "language behavior" measurement, or it allows "now" to be so widely fluctuating from one moment to the next, and

from one speaker to the next, that no approximate standard of duration or experiential unity is possible, and is, therefore, functionally arbitrary. This is not to say that the "phenomenological present" may not also have some variations in duration. In fact, some variation is probable. But the point is that "utterances" are only one type of mental act, (or behavior resulting from or coincident with a mental act), and are not necessarily indicative of what is experienced as a whole.

Consider the following utterance: "The 'now' duration of the sum total of all the mental content that I am immediately aware of may be expressed as the amount of time that is required for me to utter an English sentence, whether it is simple or complex, whether it contains many or few dependent or independent clauses, and regardless of whether I speak in a slow, drawn out manner, or with such celerity and alacrity that each word, nay, each syllable comes so trippingly off the tongue that they invariably fall upon each other's heels, or for that matter, whether I am even paying attention to what I am saying, since I may, after all, be rather mindlessly reciting a memorized speech in an automatic manner, while my attention may indeed be focused elsewhere than on the memorial effort itself." The "nowness" of that utterance is significantly longer than the nowness of the following utterance: "What is in my present state of consciousness is this sentence"; "now" for Ernest Hemingway on Smart's view would be prodigiously briefer than "now" for James Joyce (or William James[15]). "Uttering" and "apprehending" are two wholly different concepts, the former indicating nothing about one's capacity for experiencing with unity, the latter implying a unitive comprehension of meaning. On Smart's view "now" changes with virtually every utterance,

while on the Jamesian or phenomenological view, "now" is a span of duration that retains relative constancy within each individual and for the human species as a whole. There is no absurdity in assuming that young children and adults who either do not or cannot "utter", do have "now-experiences", i.e., specious present acts, just as "uttering adults" have. On the contrary, to assume that they do not proposes absurdity.

Rejecting what he calls the "punctiform point assumption" of the "present", Mundle points out that the spatial locus, "here", has no similar, punctiform constraints.[16] "Here" specifies no standardized, spatial dimensions of preciseness at all; its parameters may be micro- or macro-cosmic as circumstances and contexts merit, (just as analogously, affixing the pronoun, "I", to oneself does not delimit one's being to either a punctiform "soul" or a static entity, but refers rather to progressively evolving horizons of experience that are centered in a unique, singular identity of self-reflective unity and continuity.) But unlike "here", the relative locus of the "present" can be phenomenologically determined, at least, in principle. Yet, affixing that relative locus does not quite mean, as A. J. Ayer has said of the "present" that " . . . all that is required of whatever serves as the standard is that it should not be so long as to exceed the span of a single act of attention or so short that it cannot be attended to."[17] "Attention" is but the 'nucleus" of the phenomenological present. The apprehension of the specious present may be centered on a focal object, but the totality of the entire co-present field also makes its "unseen" contribution felt, so that, strictly speaking, the "present" refers not

to the span of one's attention, but to the span of one's total field of unified experience.

Is the Specious Present "Mechanistic"?

Proposing that within the durational mantle of the specious present, we are aware of prospective, anticipatory glimpses of whither our thought is going and what is to be experienced more fully a moment or so hence, James writes:

> . . . all our concrete states of mind are representations of objects with some amount of complexity. Part of the complexity is the echo of the object just past and in a less [sic] degree, perhaps, the foretaste of those just to arrive. Objects fade out of consciousness slowly. If the present thought is of A B C D E F G, and the one after that of B C D E F G H, and the one after that of C D E F G H I - the lingerings of the past dropping successively away, and the incomings of the future making up the loss. These lingerings of old objects, these incoming of new, are the germs of memory and expectation, the retrospective and the prospective sense of time. They give that continuity to consciousness without which it could not be called a stream, (I, 606-7)

How are we to understand this? Does James mean that our apprehension of mental content is such that through a series of successive thoughts or states, "parts" of entire, past experiences literally repeat themselves? Does a mental datum continue to endure and be apprehended through successive, temporal fields?

James does seem to suggest that each mental datum of a present thought or state begins its phenomenological life sensed as a dawning, prospective awareness, then as an "object" of focal awareness, until nearing its end, it recedes into dim, retrospective awareness - a temporal progression that appears "mechanistically" fixed and determinate. This

interpretation implies that each datum of the total field "streams through" its felt span of duration in a fixed order of sequential temporality and intensity so that its apprehended longevity and its ordered relation to other data is ineluctably determined; a datum that once admitted into the portals of consciousness must run its course with inalterable sequentiality.

James's psycho-physical thesis maintains that: "As the total neurosis changes, so does the total psychosis change. But as the changes of neurosis are never absolutely discontinuous, so must the successive psychoses shade gradually in each other, although their rate of change may be much faster at one moment than at the next" (I, 243). Neurologically, James hypothesizes that:

> . . . some tracts are waning in tension, some waxing, whilst others actively discharge. The states of tension have as positive an influence as any in determining the total condition, and deciding what the psychosis shall be . . . . no state of the brain can be supposed instantly to die away. If a new state comes, the inertia of the old state will still be there and modify the result accordingly. (I, 242 & 235)

The excitation of neural impulses or processes endures through what appears to be essentially a three-stage life cycle in which there is (1) ascendancy (waxing), (2) maximal intensity, and (3) descendancy (waning). Consequently, the psychic equivalent of each neural tract's excitation in the brain's psychic counterpart, consciousness, follows a similar course, with each datum progressing through a corresponding three-stage life cycle: (1) pre-focal or "not-quite-yet" (prospectively marginal), (2) focal or "right-now" (focus of attention), and (3) post-focal or "just-past" (retrospectively marginal).

In order to help us see the counterfactual consequences of this interpretation, let us represent the apprehension of successive states of consciousness in the following way: the right-hand side of our schematic illustration will represent the prospective aspect of the specious present, the left-hand side will represent the retrospective. Each span of duration will be given an equal, arbitrary interval of 3.0 seconds, during which time the total field is unitively apprehended. Thus, the first unitive apprehension, D(1), lasting for 3.0 seconds, will apprehend the total contents of a field of consciousness whose data is represented by A B C D E. Using the following abbreviations, we can represent spatially each datum's relational and temporal "position" in the total field-configuration: (O.M.) signifies the dimmest and vaguest data in the "outer" or remote margin of awareness, i.e., the "extra-" or "ultra-margin"; (Marg.) signifies less dim and vague marginal data, and (Att.) signifies data within the focus of attention. The total content of the field would then be arranged schematically in the following way:

"A"	"B"	"C"	"D"	"E"
(O.M.)	(Marg.)	(Att.)	(Marg.)	(O.M.)

[Duration, D(1) = 3.0 seconds]

The entire duration-block is the present "now-experience" with "C" being cognized as the "focal center". At and during D(2), (below) waxing neural process "F" gives rise to concomitant psychic datum, "F", such that a new datum dawns over the limen of consciousness. "A", a retrospective datum, which had been but dimly and vaguely felt earlier, drops below the

limen, so that the conscious field in its new configuration is apprehended, as represented below:

"B"	"C"	"D"	"E"	"F"
(O.M.)	(Marg.)	(Att.)	(Marg.)	(O.M.)

[Duration, D(2) = 3.0 seconds]

At and during D(3), "B" drops away, and "G" enters prospectively, as each datum again "shifts", so that we now have:

"C"	"D"	"E"	"F"	"G"
(O.M.)	(Marg.)	(Att.)	(Marg.)	(O.M.)

[Duration, D(3) = 3.0 seconds]

And so on and so forth. This, I believe, also schematically parallels the neurological structure of cognitive thoughts described earlier in "The Stream of Thought" chapter:

> Each point of the horizontal line stands for some brain-tract or process. The height of the curve above the line stands for the intensity of the process. All the processes are present, in the intensities shown by the curve. But those before the latter's apex were more intense a moment hence. If I recite a, b, c, d, e, f, g, at the moment of uttering d, neither a, b, c, nor e, f, g, are out of my consciousness altogether, but both, after their respective fashions 'mix their dim lights' with the stronger one of the d,

> because their neuroses are both awake in some degree. (I, 257)[18]

Both structurizations, under the present schematic interpretation, may be interpreted to imply a mechanistic view of consciousness that is counterfactual since it is patently false that every marginal datum must, in fact, become a focal datum a moment or two hence. Consider the following illustration: let us suppose that you are thinking about a difficult, complex philosophical problem (like explicating the operation of the specious present!) Your thoughts are intently focused on the complexity of the problem as you self-absorbedly pass through the kitchen on route to your backyard patio. Let us further suppose that, unbeknownst to you, your wife (or husband) has made a pot of aromatic soup that is presently simmering on the stove. Given the degree of your concentration and the short amount of time that it takes to walk through the kitchen, (assuming it to be a small kitchen, as in my house), it is questionable whether you would become even faintly aware of the soups' aroma. Since that, however, is not the point at issue, let us suppose, for the sake of argument, that you do become dimly and vaguely aware of the aroma. Nonetheless, the sensing is so marginal that if your wife (or husband) were to ask you shortly thereafter, on the patio, of what you think of the aroma, you would likely respond by asking her (him) what aroma she (he) was referring to. But, according to the mechanistic interpretation under consideration, even though you are no longer in the kitchen, and are in fact outdoors, the soup-aroma datum will have, nonetheless, advanced from marginal to focal awareness, since its neural excitation will have increased or waxed, so that, paradoxically, being on the patio, the aroma of the soup <u>is now stronger</u> than it was when you were briefly in the

kitchen a few moments ago - so strong, indeed, that it is now apprehended as the focus of your attention! Furthermore, since it is now the nucleus of your awareness, it would seem that it must retain its focal position, by James's reckoning, for 6 to 12 seconds before it can begin to fade from awareness.

James does allow for the "rate of change" of psychoses to be "much faster at one moment than at the next" (I, 243), so that the duration of a datum may fluctuate. Each datum may present itself in temporal variance rather than retaining a fixed term of duration throughout its "life". But this addendum does not detract from the primary problem, namely, that James would seem to be advocating that each datum must endure through a fixed, sequential progression of "prospective" to "focal" to "retrospective" apprehension.

While it is true that a marginal datum may become a focal datum, it is simply not true that everything marginal will become focal, just as it is not true that a focal datum must pass out of consciousness slowly. By way of illustration, let us suppose that you are making a pot of soup and that you are quite "caught up" in its preparation. Your complex conscious field consists of "feeling-the-onion" that you are presently slicing at the same time as "seeing-your-hand-slicing-the onion" at the same time as "feeling-your-eyes-stinging-and-tearing" at the same time as "thinking-about" what other ingredients must yet be added to the soup. These are the constituents of awareness in your total field of consciousness. Suddenly, the telephone rings. With one hand you continue slicing, with the other you answer the call, and with great surprise and delight you hear the voice of a very dear, but long silent friend. What

now happens to your "soup-making" field of consciousness? Very likely it will be instantly supplanted by the far more exciting "your-old-friend-on-the-phone" state of consciousness. If anything does marginally remain of your soup-making consciousness, it must surely be the stinging and tearing of your eyes, for the fumes of onions cause physical irritation that one cannot summarily dismiss. But as for the rest of your consciousness, there is very likely no gradual and methodical transition from "focus" to "margin" to "outer margin" to oblivion. Your consciousness has simply been instantly supplanted by a wholly new conscious state with its own, very different sensational, emotional and cognitive data-complex.

In addition, we can, if we wish, always bring the same datum (or, strictly speaking, the same "topic") back again, without that datum first having to "queue up" behind other, more neurally active data, before it can re-enter the "center" of consciousness. Attending to something intently, i.e., concentrating, entails being able to reinstate the object of one's attention repeatedly without having to first wait for other marginal content to become focal. Yet, the mechanistic interpretation suggests that a mental datum must "run its course" through consciousness, for a certain, fixed span of duration. As we saw in the hypothetical case in which we quickly passed through the kitchen, it is very unlikely that the dim awareness that we had of the soup while in the kitchen will become a vivid awareness once having fled the kitchen. There is no reason to suppose that our dim, olfactory awareness continues to endure as focal, marginal, or anything else for 12 or more seconds, the duration that a datum on this interpretation must "live" through.

Finally, if a mental datum survives in awareness for an extended duration, it cannot survive as the "same" datum as it was earlier. On this view, each datum makes reappearances through successive states of consciousness, retaining its constitutive nature and merely altering its "visibility" to awareness. But as Paul Fraisse points out:

> When I perceive the 'tick-tock' of the clock, I do not perceive first "tick-tock', then immediately 'tock-tick', and so forth. What would become of a waltz rhythm if I perceived first a strong beat followed by two weak ones, then two weak beats followed by a strong beat, and finally one unit of weak beat - strong- weak beat![19]

If a mental datum "overlaps" onto its successor enduring as a "copy" of itself and as the earliest part of the new field's content-complex, then that datum should have to repeat itself in awareness. And since each mental datum is experienced in its dawning, discharging, and dying stages, there would be at least three successive specious presents in which that datum would be apprehended. The "doubling-up effect" would be tripled, contrary to ordinary experience. Seldom do we have "multiple iterations" of mental content in normal, everyday experience.

James's Theory of Psycho-Physical Correspondence

James's psycho-physical theory, of which we have already spoken, postulates two hypotheses about brain neurology to account for "time-perception", i.e., our awareness of time-as-passing or intervals of time passed, and our co-present and unitive apprehension of successive event-phases: (1) brain-processes overlap one another cumulatively so that "the fainter ones are the dying phases of processes which but shortly previous were active in a maximal degree" (I, 635), and (2) " . . . the brain-

processes of various events must be active simultaneously, and in varying strengths, for a time-perception to be possible." (I, 632, ft. nt.) Because what we experience are organic wholes, "sensible totals" of changing phenomena, James believes that events that are objectively successive can be experienced as subjectively simultaneous provided that their underlying neural tracts and brain-processes wax and wane at a "rate of speed" that is consonant with the experiencer's capacity to apprehend the data as a psychic whole. Increase or decrease the rate of change, and the apprehension of the world changes accordingly. If the "decaying" neural impulses change at a faster rate than "normal", the experiencer may not be able to apprehend the peripheral contents of consciousness and a feeling of disruption or discontinuity in the flow of experience may result. Decrease the rate of change so that the processes are slowed down, and consciousness is experienced as "smoother", more transitional than normal with the marginal contents being more vivid and intense.

James's psycho-physical thesis, here patterned after Fechner's "psycho-physical parallelism", is intended perhaps, not as a metaphysical, but as a methodological dualism designed to demonstrate the empirical correspondence between brain and mind as well as the fact that although psychology is dependent upon, it is not a corollary of physiology. The parallelist relationship commits James to maintaining that "every sensation corresponds to some cerebral action . . . [such that] to every brain-modification, however small, must correspond a change of equal amount of feeling [in that] which the brain subserves" (I, 233, underlining mine). But this tit-for-tat equilibrium that brain and mind must simultaneously and enduringly keep pace with one another is the basis

for a fundamental source of error.[20] According to James's hypothesis, neural impulses do not die suddenly, but only gradually does their energy dissipate. Corresponding to this gradual decrease, the content of consciousness also fades away gradually, as we have seen above. What should result, if the primary modality is perceptual, for example, is that we should have very faint after-images of all our perceptions. Of course, such is not, in fact, our usual experience. If I now look out my window, I see a marvelous panorama of mountains, green patches among brown and white specks that I know to be houses, and lots of blue sky; and now, if I suddenly close my eyes (which I am doing) . . . the entire panoramic vista instantly disappears, regardless of what may or may not be lingering on neurologically. We rarely have after-images, and then only under special conditions. But James patterns his theory of perception, cognition and the specious present after an erroneous thesis of psycho-physical parallelism that we always have some form of mental after-image. The "summation" of stimuli in the nervous system is, according to James, the fundamental law governing the cumulation of neural excitations, and correspondingly, the temporal and thematic constitution of psychic states. Every stimulus, James postulates, "leaves some latent activity behind it which only gradually passes away." (I, 63) But because this neural hypothesis that postulates at least three phases successively in the life-cycle of each mental datum does not accord with ordinary experiences, it is dubious that this parallel relationship of "equality" holds between brain-processes and psychic events. Yet James writes as if the correspondence were an empirical fact:

> Psychological proof [of the phenomena of 'summation of stimuli'] is afforded by those 'after-images' which we perceive when a sensorial

> stimulus is gone. We may read off peculiarities in an after-image, left by an object on the eye, which we failed to note in the original. We may 'hark back' and take in the meaning of a sound several seconds after it is ceased . . . . With the feeling of the present thing there must at all times mingle the fading echo of all those other things which the previous few seconds have supplied. (I, 635, underlining mine)

While it is true that we have a short-term memory buffer which often allows us to comprehend information after it has been seen, heard, etc., James's explanation of this kind of experience is unacceptable for the reasons that we have discussed. It is these after-images that James believes "compensates" in the self-reflective act for what direct introspection obliterates. The claim that this "general law" of summation, expounded as early as Chapter III, "General Conditions of Brain-activity", is indicative of what occurs between mind and brain, seems to be an argumentum ad ignorantium: "We know so little of the intimate nature of the brain's activity that even where a sensation monotonously endures, we cannot say that the earlier moments of it do not leaving fading processes behind which coexist with those of the present" (I, 636). If neural-processes do in fact always "overlap" and thereby summate, then since the alleged result of such summation, namely, after-images or "lingering awarenesses", does not occur except rarely in consciousness, we hold James's relationship of equal correspondence suspect. This is not to say that there may not be a correspondence, but it cannot be as James conceived it. Content/awareness does not overlap, blend, merge, 'mix their dim lights', or summate in consciousness. Such summation as may occur is pre-conscious (or, infra-conscious) and thus

given to consciousness, but it is not revealed in consciousness and, therefore, is not part of our ordinary, phenomenological experience.

If I look at a painting twice as long at one time than at another, my perception of it is not twice as intense, nor need it feel that the amount of time spent gazing corresponds to the actual or objective time. Various psychological factors such as the mood that I am in, whether bored or interested, degree of alertness or fatigue, etc., will contribute to the overall feeling of my sense of elapsed time. Insofar as what determines how much or how little time passes, this is a psychological and physiological problem that need not concern us here. Our problem is the meta-psychological or trans-phenomenological one of how any time-passage is made experientially possible at all.

An Interpretation of Esse Est Sentiri

Although the "specious present" is the span of duration in which a whole of apprehended content is unitively experienced with dynamic, subjective meaningfulness, in theory, we determine the duration of that temporal interval in terms of the amount of objective or "clock" time necessary for two successive phases of a mental event to be apprehended as co-present.

What we wish to measure is the duration in which the content-complex of what I am calling an "experience" proper, is unitively apprehended. For there is no "experience" (in this sense of the term) until unity between objectively ordered, successive data is achieved. "Experience" refers to the unity of content in consciousness as it is apprehended; that content, (the "given"), which is the temporal and thematic totality

of the field, is under normal conditions, infra-consciously (sub-experientially) organized as a unitive whole which is successive to, but continuous with, preceding fields.[21]

What is the significance of that mental act for consciousness? That "act" in which an amount of duration transpires such that successive data is apprehended as co-present means that the subject (experiencing agent) is not merely sensing or vaguely intuiting, which we have seen, is an "incomplete apprehension", an "underfilling of the durational capacity of the specious present; rather, the subject is "experiencing" or "having an experience" of a complete, unified apprehension of the total, temporal and thematic field. Just as James maintains that no one ever has a pure sensation, so we may say, no one ever has a pure perception either. Given the nature of the psychic field, we are always aware of a complex constellation of data from diverse modalities. Even at those moments when we "stare blankly into space", we very likely still have some minimal awareness of our body as an entity in space, of interoceptive sensations, etc., These awarenesses being pre-reflective, are not distinguished and identified; nonetheless, all this "peripheral" content is "synthesized" into the psychic meaning of the total experience, (which we shall go into in Chapter III.) There is no experiencing of one phase in succession. Experiencing is always an apprehension of successive data, so that there is always a "before and after" relation that is unitively apprehended as a succession of "earlier and later" phases in succession. We experience, i.e., apprehend the organized unity of mental data, only when that mental data is given as temporally ordered in succession. Prior to both phases of the succession relation being apprehended as co-present, there is no

experiencing of the mental data; at most, there is only an uninterpreted, primitive cognizance of the data of a single phase; if only one phase is sensed, no experiencing occurs. Perhaps this "one-phase" sensing is what takes place in the anesthetic, hypnagogic and hypnopompic states that we discussed in the previous chapter, i.e., the process of apprehending successive data as co-present is disrupted or breaks down. The speed of the processing in normal, waking consciousness is so rapid, that seldom do we feel only primitive cognizances. "Experience", in this sense, entails that on an infra-conscious level the "earlier than - later than" relationship is synthesized into a unitive apprehension that reveals itself in consciousness as the psychic meaning of the total, given field, Raw sensing or primitive cognizance conveys no meaning in consciousness until it stands in an ordered relationship to other, successive data, or as Paul Fraisse says, "we perceive succession only because, within certain limits, a 'unified mental act' is possible"[22]

I think that it is a conceptual error to interpret James's doctrine of esse est sentiri, (i.e., "to be is to be sensed", i.e., felt or experienced), to mean either that the totality of co-present content is simultaneously experienced in a durationless instant, or as we have seen in the "mechanistic" interpretation, as that data which repetitively "reappears" through successive specious present acts. What is co-presently experienced as a unitive apprehension is the psychic meaning of the "totality of the content of the field". The "specious present" names the span of duration necessary for every total field to be unitively apprehended as a state of consciousness" that conveys psychic meaning, i.e., an experience.

"Psychic meaning" should not be construed as a synonym for "cognitive" meaning (just as "mental content" should not be construed as synonymous with "conscious content"). The psychic meaning of the apprehended field is an experienced unity, not an "idea of unity". It may, therefore, be extremely complex and have numerous time-parts, but regardless of its complexity, we do not feel tens or scores of "tiny awarenesses" melting, blending, integrating or overlapping into one collective conscious feeling; what we feel as the psychic meaning of a unitive experience is a collective awareness.[23] It may be that " . . . the essence of feeling is to be felt, and as a psychic existent feels, so it must be" (I, 163), but this does not, indeed we have seen, cannot mean that the entire penumbra of dim and vague co-existent content is discriminatable, as identifiable, albeit nameless, awarenesses. There is no such constellation of coexistent awarenesses; there is only the psychic significance of that content-constellation as it appears in consciousness, i.e., as the psychic meaning of that temporal section of the experiential stream.

NOTES

CHAPTER III: THE TEMPORAL STRUCTURE OF CONSCIOUSNESS

[1]An historical note: In a letter to his brother, Robertson, dated 1887, James writes, "I published a paper on 'The Perception of Time' . . . Much of it is mere compilation; but the core of the thing is a view I have nowhere seen, that our intuited time is only a few seconds long, and it is a genuine sensation, due to a nerve process which I try to adumbrate hypothetically . . . " [Ralph Barton Perry, The Thought and Character of William James, (Boston: Little, Brown & Co., 1935), vol. 2, pp. 84-84.] Perry informs us that " . . . though others had preceded James in his general conception, he claimed originality for fixing the amount of temporal duration directly intuited, and for developing (characteristically) a neural hypothesis to account for it." Perry, p. 87.

Since it is beyond the scope of our present inquiry to examine the specious present specifically as a primitive and fundamental unit of our time-sense, i.e., as a sensation, I can here only recommend Gerald E. Myers' rebuttal of that thesis in "William James on Time Perception", and more recently, in Professor Myers' chapter on "The Specious Present" in his William James, in which he argues that he is " . . . not suggesting that the passage or flow of time is actually an experiential datum; my objection throughout has been that time is not something intuitable, but rather a measure of processes than [sic] cannot in itself be measured. Time is not a sensation and can have no flow to be intuited." Myers, p. 153.

Mandler maintains that "generally . . . the experience of duration (in consciousness) is a construction drawing on immediately pressing factors (such as attentiveness) but primarily on our stored long-term memory. Duration is constructed, first in momentary consciousness, and second in the retrieval of events and codes that are recalled during the 'construction' of a past interval. The contents of consciousness thus determines the experience of duration. Restricting these contents shortens duration; expanding them by, for example, increasing the complexity of an experience, lengthens duration. Vigilance, which increases expectancy of some event, will lengthen duration; Ornstein uses the example of the 'watched pot'. On the other hand, condensing some experience into a very brief code ('I made breakfast') condenses the duration." [Mandler, p. 59] James writes: "In general, a time filled with varied and interesting experiences seems short in passing, but long as we look back. On the other hand, a tract of time empty of experiences seems long in passing, but in retrospect short . . ." (I, 624)

Ornstein maintains that "if we approach the experience of duration as a cognitive process, we might consider a theory along the lines of Fraisse, Guyau and Frankenhaeuser. In all these cases, with more 'images' (the word Guyau actually uses), 'changes', or more 'mental content' the experience of duration is lengthened. This approach, then, would hold that the amount of information registered in consciousness would determine

the duration experience of a particular interval. This would be a variety of short-term storage theory, an 'input register' which would monitor and measure the information input and be the basis for the experience of duration." [Ornstein, p. 38]

Framing his own theory along cybernetic lines, Ornstein holds that: "If we think to human memory and time, we will try to relate the experience of duration of a given interval to the size of the storage space for that interval in general information-processing terms. In the storage of a given interval, either increasing the number of stored events or the complexity of those events will increase the size of the storage, and as storage size increases the experience of duration lengthens. We now have a metaphor to guide research similar but more explicit than Frankenhauser's 'mental content'". [Ornstein, p. 41, underlining mine].

[2]In general, I think that there is a consensus as to the psycho-philosophical definition of the "specious present", although what it means or amounts to, phenomenologically, i.e., to and for the experiencing entity, is certainly interpretable. Some characterizations of it are, for example:

(1) "The least temporal interval such that two modifications of experience, separated by that interval, may nevertheless seem to the subject to be co-present in his consciousness." A Dictionary of Philosophy, edited by Anthony Flew, (New York: St. Martin's Press, 1979), p. 310.

(2) "The psychological or felt present is a spread of duration embraced within the mind's momentary experience. Contrasts with the physical present which is an ideal limit or boundary between the past and the future." Dictionary of Philosophy, edited by Dagobert D. Runes, (Totowa, Littlefield, Adams & Co., 1965), p. 269.

(3) "William James used the term 'specious present' to refer to that span of real duration which we are able to grasp in a single act of awareness, although such a duration always contains also part of the future and part of the past." Dictionary of Philosophy and Religion: Eastern and Western Thought, edited by W. L. Reese, (New Jersey: Humanities Press, 1980), p. 455.

(4) "What, properly and strictly speaking, should be called the present is an ideal limit-phase of conterminousness of the set of retentions and that of protentions, either set not only converging to that limit-phase, but each member of either set also intrinsically referring to it." Gurwitsch, "James's Theory of the "transitive Parts" of the Stream", p. 304.

I have argued, following James, that the "specious present" retains a relative constancy for the individual and, within certain parameters, for the human species as a whole. Yet, this view is not universally held. Paul Fraisse, for example, believes that: "The fact that we are thus able to perceive several successive elements does not mean, however, that we can regard the perceived present as corresponding to a fixed capacity or to a standard duration of appreciation. From this point of view, the metaphor suggested by Pieron of a certain amount of water held in the palm of the hand, and the example given by James of the constant apprehension of the same number of letters may be misleading. The duration of the perceived present, like the richness of its contents, depends on the

possibilities for the organization of successive elements into one unit. It is primarily determined by the direction of our attention." [Fraisse, p. 88.] Fraisse, I believe, has missed the point. James would certainly agree that the organization of the content, with respect to its size, complexity, and grouping are very significant in the apprehension of the content. But these elements are distinct from the span of duration or the temporal interval in which this organization occurs. If the content is too rich in complexity, or disunited in its organization, then what takes place, it seems to me, is a succession of specious presents enabling us to grasp the disparate content as separate acts of apprehension. I am not arguing that the span of duration is inflexible and invariably fixed, but only that there is a certain quantum of time that generally holds as applicable for each individual.

[3]Timothy Sprigge, I believe, is correct in maintaining that: "The real unit is the total momentary phase of consciousness which an organism is living through at a given moment. This phase or act of consciousness is normally of some quite elaborate complex, e.g., of me sitting in a certain place with a stool a little bit in front of me, thinking and writing about consciousness and with rather aching feet from a walk taken this morning with my daughter and feeling somewhat irritated at the noise my children are making outside. This complex of which I am conscious has elements in certain relations to one another. It is inappropriate to speak of these as part of a phase of consciousness, though these are all that could be meant by speaking of its parts. The point could be put thus: one only performs one mental act at a time, though the object of that act may be very complex. But may one not desire peace and believe that one will get war, both at the same time? I answer: One apprehends the complex of peace as desirable and war as likely" [Sprigge, pp. 122-3]

[4]Kenneth G. Denhigh, Three Concepts of Time, (Berlin, Heidelberg & New York: Springer-Verlag, 1981), p. 156.

[5]Ibid, p. 156.

[6]Much has been written, both for and against, the intelligibility and utility of the specious present. While I cannot claim to have read everything on the subject, what I have read convinces me that though incredibly difficult to explicate, it is a useful and meaningful concept. Among some of the more interesting, useful and influential discussions of the specious present of which I am aware are the following: C. D. Broad's version as presented in Scientific Thought and Examination of McTaggart's Philosophy, Vol. II, Part I, pp. 281-288; William Pepperell Montague's "calculus" approach in his chapter, "A Theory of Time-Perception", The Ways of Things, (New York: Prentice-Hall, Inc., 1940), pp. 363ff; Gilbert Plumer's "The Myth of the Specious Present" in Mind; C. W. K. Mundle's "How Specious is the 'Specious Present'?, Mind, vol. 63, 1954); J. D. Mabbott's "Our Direct Experience of Time", Mind, April, 1951; H. J. Paton's In Defense of Reason, (London: Hutchinson's University Library,

1951); Edmund Husserl's The Phenomenology of Internal-Time Consciousness, trans. by James Churchill, (Bloomington & London: Indiana University Press, 1966), and, Gerald Myer's chapter "The Specious Present", William James.

[7]James Miller, addressing the historical perspective of studies on consciousness writes: "The original experiments measuring the range of attention dealt with thresholds of sensory apprehension rather than true attention. Hamilton in the last century found, for instance, that if one estimates at a glance the number of several marbles thrown on the floor, no more than six or seven can be consistently counted correctly after one rapid viewing. He thought that the largest number that can be recalled correctly is the span of attention. It is now generally recognized that this is the span of visual apprehension of number and has no more relation to attention than has any other sense act." Unconsciousness, p. 165.

[8]A familiar example of a "prehension" or "primitive cognizance" I believe, occurs in what we might call the "what did you say?" phenomenon. Who has not had the experience of asking someone to repeat what they just said because you were unable to make out the meaning of the person's utterance; yet, before the other person can repeat his utterance (or often simultaneously with the repeated utterance), "the light goes on" and we understand the words just spoken a moment earlier. It often occurs when one is distracted or focused elsewhere as the utterance is spoken, and the uninterpreted utterance or primitive cognizance has not yet been synthesized into a new specious present, or unitive apprehension.

[9]Unquestionably, humans have the capacity to remember short items or breif information for a short period of time before forgetting that data. Unless rehearsed, for example, a phone number heard once will not easily be remembered, a list of names repeated once will only be partially recalled a few moments later, etc. It is appropriate to speak of a "buffer zone" that holds these items in short-term memory, a buffer which, if not reinforced, soon is used to absorb new data. The interesting question about short-term memory, it seems to me, is whether information is lost because of the passage of time itself (if not rehearsed or otherwise reinforced), or whether it is due to the interference of new data competing for the available, storage space in the short term buffer. It is not easy to determine which is the case. Yet short-term memory is not synonymous with the specious present, since the former only refers to either one's span of immediate attention or one's ability to recall or recognize perceptual and conceptual items without error. The specious present, on the other hand, refers to that span of duration in which we are able to seize an objectively past "experience" and retain it in unity (and continuity) as a single, mental act with a current "experience".

[10] Myers, William James, pp. 145-6.

[11]Although we have spoken of this in Chapter I, it bears repeating because of its importance. James was indeed one of the earliest psychologist/philosophers to see the impact that language and language development has on our cognitive processes. Throughout Principles, one finds constant allusions to this precarious and deceptive relationship, e.g., "empiricist writers are very fond of emphasizing one great set of delusions which language inflicts on the mind. Whenever we have made a word, they say, to denote a certain group of phenomena, we are prone to suppose a substantive entity existing beyond the phenomena, of which the word shall be the name. But the lack of a word quite as often leads to the directly opposite error. We are then prone to suppose that no entity can be there; and so we overlook phenomena . . ." (I, 195)

[12]The many different names for the "specious present" reflect not only the perspectives and biases of different thinkers, it seems to me, but also the uncertainty with which we view this elusive concept. Whitrow prefers the "mental present" in his A Natural History of Time, and as Fraisse mentions, the psychologist Stern introduced the "psychic present" in 1897, and Koffka, the gestaltist, preferred the "actually present". (Fraisse, himself, prefers the "psychological" or "perceived" present.) The reasons for my choice of the "phenomenological present" should be apparent from the discussion. [See Fraisse, The Psychology of Time, translated by Jennifer Leith, (Westport: Greenwood Press, 1963), p. 85.]

[13]C. W. K. Mundle, "How Specious is the Specious Present?", Mind, vol. 63, 1954, p. 45.

[14]J. J. C. Smart, Philosophy and Scientific Realism, (New York: The Humanities Press, 1965), p. 132.

[15]James's sentences are at times forbiddingly long. So long, and complex, in fact, that I frequently find myself unable to comprehend his meaning on the first reading. It is not that my span of attention is not sufficient to take in the length and complexity of the sentence, but rather that the span of duration of my specious present is not sufficient to retain the earlier phases with the later phases or parts of the sentence. In speaking of "sentences", it seems to me, terms such as "phrases" and "parts" of comprehended meaning are appropriate since sentences are structurally distinguishable into grammatical components, and the strain of their complexity is often alleviated, or ought to be, by the addition of punctuation marks placed at critical junctures.

Even, James, however, master of the English language that he is, sometimes overwhelms us with semantical intricacy that perhaps runs afoul of common, linguistic decency; one "mouthful" that I find particularly unforgettable lies embedded in his first chapter on the "Functions of the Brain". Here he writes, in speaking of instinct, automatic behavior and its relationship to higher, evolutionary development: "And those fishes which, like our cunners and sculpins, are no sooner thrown back from the hook into the water, than they automatically seize the hook again, would soon expiate the degradation of their intelligence by the extinction of

their type, did not their exaggerated fecundity atone for their imprudence." (I, 22)

[16]C. W. K. Mundle, "Time Consciousness", The Encyclopedia of Philosophy, (New York: MacMillan Publishing Co., & The Free Press, 1967), vol. 8, p. 137.

[17]A. J. Ayer, The Origins of Pragmatism: Studies in the Philosophy of Charles Saunders Pierce and William James, (San Francisco: Freeman, Cooper & Co., 1968), p. 238.

[18]In his "Breifer Course", James modifies his diagram and wording as follows:

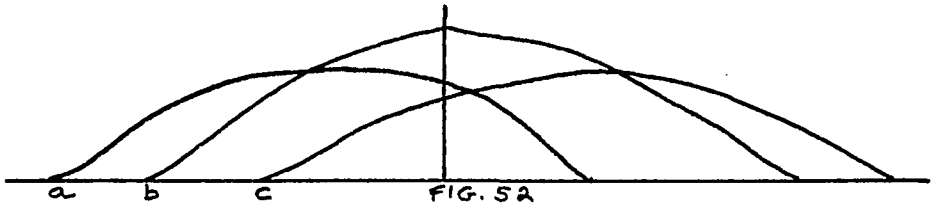


FIG. 52

Let the horizontal in Fig. 52 be the line of time, and let the three curves beginning at a, b, and c respectively stand for the neural processes correlated with the thoughts of those three letters. Each process occupies a certain time during which its intensity waxes, culminates, and wanes. The process for a has not yet died out, the process for c has already begun, when that for b is culminating. At the time-instant represented by the vertical line all three processes are present, in the intensities shown by the curve. Those before c's apex were more intense a moment ago; those after it will be more intense a moment hence. If I recite a, b, c, then, at the moment of uttering b, neither a nor c is out of my consciousness altogether, but both, after their respective fashions, 'mix their dim lights' with the stronger b, because their processes are both awake in some degree." Briefer Course, pp. 33-34.

[19]Fraisse, p. 84.

[20]I am indebted to Professor Charles Landesman for pointing out to me, during my prospectus examination, that there is no logical reason for thinking that the intensity of a neural process must correspond in equal measure to the intensity of a psychic process. As Professor Landesman remarked, it is quite possible that, for example, a lesser degree of excitation in the neural tract might cause a greater degree of psychic awareness or feeling, or vice versa. The assumption that the psycho-physical correspondence is one of "equality" or "identical reciprocation" is based on, or is an analogue of, our understanding of the transference of energy in physical systems, but there is no substantive evidence to demonstrate that this is, in fact, what occurs in psycho-physical systems.

Similarly, it is an open question as to whether a greater intensity or degree of awareness in consciousness causes an equal degree of excitation in its corresponding neural tract or process.

Recent studies, however, suggest the possibility of establishing more closely the correspondences between neural intensities and mental events: "Utilizing PET scans and radioactively tagged substances, neuroscientists are now capable of displaying in vivid color differences in brain cell metabolism that occur in response to different kinds of brain work. A volunteer subject inhales a radioactively tagged gas such as oxygen, or is given an injection of DG [radioactive deoxyglucose]. When the radioactively tagged substance enters the brain, it is measured by detectors arranged in rings around the skull. The radioactivity varies directly with the work being done by different brain areas. Based on the level of radioactivity in different brain segments, the computer constructs a colored-coded map that allows neuroscientists to functionally dissect their way through the human brain and discover what the different areas are doing during such activities as analyzing tonal rythems or words, or responding to flashing lights." [Richard M. Restak, The Mind, New York: Bantam Books, 1988), p. 265, underlining mine.] In a similar experiment, a subject is told to do some arithmetical caluclations in his head. Hooked up to detectors in a similar fashion as above, the PET scan reveals part of the parietal cortex as active, by being lit on the display screen. A different part of the parietal area is displayed as lit when he is asked to imagine himself walking near his home; yet, if asked to visualize his living room, and its contents, for example, the middle part of the midfrontal cortex bcomes active, and lights the display screen representing that area of the brain. [Restak, p. 266] While these experiments are do not yet discern the corresponding intensities involved in mental tasks or events, they do suggest that the techniques for establishing such correspondences via radioactively tagged substances and computers, may be realized in the not too distant future.

[21]The transformations on mental content that take place in consciousness must actually occur out of consciousness, that is, out of awareness. Obviously, if there is any kind of psycho-physical correspondence, which we assume to be the case, transformations take place neurologically as well as psychologically. One can imagine how the neurological transformations may be described and explained within the framework of biochemistry and electrophysics. The expression of the correspondence relationship on the mental side, however, is not easily imaginable. Equally as difficult to imagine or express is how and what it means for transformations to take place mentally, but not consciously, since we do not witness the processes of modification and transformation on mental content, but are only aware of the results or products of these changes. This problem took its most formidable and dynamic turn with the advent of Freud's theories of the Unconscious, although the postulation of an Unconscious mind or unconscious processes of mentation goes back hundreds of years and perhaps as early as the ancient Greeks.

I am reluctant to call these processes and transformations "subconscious" or "unconscious" because of the numerous connotations that those terms represent. This is why I prefer to speak of them taking place "infra-consciously", and "pre-experientially". I do not believe that the changes are only neurophysiological, but that there is a genuine meaning

and reality to speaking of processes of mind that are not within the purview of awareness, yet are part of the total alterations of conscious mind.

[22]Fraisse, p. 24.

[23]Here, again, we are faced with the problem of trying to make our language fit our experience. It must be remembered, for normal, waking consciousness at least, that all there is, is ongoing, uninterrupted experience. But, for analytical purposes, we speak of consciousness as having "phases" that stand in certain relations to each other. Timothy Sprigge says: "Two mental acts occurring at one time could not (so it seems to me) be the mental acts of one consciousness. The problem of what links different experiences into one bundle, insofar as it concerns simultaneous experiences, is answered by recognizing that there are no such bundles. There is a single experience which is the experience of a complex - of a bundle of elements in certain definite relations, if you like. This complex, incidentally, has, in all normal cases, a temporal dimension. It is <u>of</u> things happening or of things changing from one state to another." [Sprigge, p. 123.] But even Sprigge cannot escape the entrapments of language, denying in one breath that there are such bundles of content or experience, and answering in the next that each experiential complex is "a <u>bundle of elements</u> in certain relations" that change "from <u>state</u> to another".

CHAPTER IV: THEMATIC SYNTHESIZATION

"Thematic synthesization" is the name I have chosen to call the structural processes that I am postulating as underlying and organizing all transformations of mental content such that every total, temporary state of consciousness or experience is partially modified, determined and conditioned by not only its immediate predecessor, but by the entire, self-historical series of one's prior experiences as well. As a result, the continuity and unity of consciousness is enduringly experienced. Thematic synthesization maintains that each total, mental state, appropriates its temporal and thematic data or information, (its "noesis", "noetic kernel" or "noetic essence") to its successor as the dynamic, psychic meaning (the "noema", "noemic kernel" or "noemic essence") of its predecessor which is assimilated into the new noesis of the successor.

The interpretation that I am advocating here, namely, that the predecessor's informational-load is "taken up" by the successor so that the successor is pre-experientially modified by that data, is suggested in a passage of Principles in which James uses a Kantian metaphor to pictorialize his theory of the "Self".

> As Kant says, it is as if elastic balls were to have not only motion but knowledge of it, and a first ball were to transmit both its motion and its consciousness to a second, which took both up into its consciousness and passed them to a third, until the last ball held all that the other balls had held, and realized it as its own. It is this trick which the nascent thought has of immediately taking up the expiring thought and 'adopting' it, which is the foundation of the appropriation of most of the remoter constituents of the self. (I, 339-340)

Given the processional nature of consciousness, if each succeeding, total mental state or experience (the "successor") has been partially determined, modified and conditioned by its immediately prior, total mental state (the "predecessor") and that predecessor's manifested character (the way it feels) and constitution (the way it is exists, i.e., the focal/marginal composition) has itself been partially modified, determined and conditioned by its predecessor, and so on retrogressively, then the character and the constitution of each present state of consciousness is an experience which has been partially modified, determined and conditioned, in effect, by the totality of one's entire, prior, experiential self-history. Thus, each total, present, mental state, (and, neurologically one suspects, each total, neural organization of brain-processes), exists not solely for itself, but as a modifier of its succeeding experience, so that one's ongoing, psychic self-history reflects, "compressed", "condensed" and "compacted", the noetic and noemic progression of every, past total state. No new moment of consciousness is born unparented. Each now-experience reflects an ancestry whose genealogy goes back at least to our natal day.

What endures to be "carried forward" from one specious present to the next is that noemic kernel of dynamic, subjective meaning that translates and transfers the essential thematic (noetic) significance of one's present experience unto its successor. Since each present experience owes something of its present character and constitution to its predecessor, and that predecessor has itself been conditioned by its predecessor, and so on and so forth, retrogressively, each "now-experience" is a unique, non-replicatable state of consciousness that is what it is and feels as

it feels, not because of its immediate perceptual, cognitive, affective, etc., content alone, but, to some unknowable extent, because of all that has experientially happened to that person throughout the entirety of his mental life.

This thesis maintains that each total field, cognized as an "experience" (in the sense maintained in Chapter II), becomes a complex, synthetic, temporal-thematic datum that is given over to its successor as a partial constituent of its successor's total field of awareness. But a "thematic datum" is not given to its successor in the manner of an "ordinary" immediate mental datum, (like an immediate sensation or perception.) The thematic datum of a just-past experience is given over to its successor as a "compressed" noesis of that just-past experience that together with the immediate, mental data is condensed into a new specious present, a synthetic, dynamic whole of psychic meaning that constitutes the phenomenological present which is apprehended as the "fullness" of the new experience. The just-past experience "survives" as a partial determinant of how the present experience is to be constituted in consciousness. As an experience unto itself, of course, it is no longer extant, surviving only as the modification of subjective meaning that its successor bears. The result of this ongoing process is that throughout the course of a lifetime, a sui generis mental life, a self, is evolved and continually re-defined as the "compacted" totality of one's entire, experiential self-history.

I would like to tentatively suggest that the noesis of just-past experiences may provide the "before" phase of the successor's specious present. As new, immediate mental data enters the psychic field, a

synthesis takes place infra-consciously such that the just-past is given as the "before" phase, and the immediate mental data is given as the "after" phase in a relation of succession that is apprehended as a unified specious present, or "experience" in our sense. This new experience will itself soon become a just-past, or just-apprehended experience with its subjective significance compressed into a thematic datum that will make up its successor's "before" phase. Because other immediate mental data is concomitantly innervating the nervous system, what is given as simultaneous, i.e., apprehended as "all-at-once", may be processed as successive, i.e., side-by-side; the just-past noesis and the immediate mental data entering awareness as an ordered succession of "earlier" and "later" data cognized in a span of duration that is felt as an experiential whole. As new, immediate data enters the infra-structural, psychic "manifold", it is conditioned or modified by the just-past, so that the totality of data that is apprehended in awareness as the "experiential given" is a unique integration of both temporally simultaneous and successive data, an "earlier" and a "later" complex cognized in unity. The noema of the just-apprehended gives a "definition" to the "later", immediate mental data that brands it as belonging to the same experiencing agent because its conscious realization is a self-historical progression of continuous noetic and noemic essences. The process of thematic synthesization, whose final product in awareness cannot be known beforehand, is actually the collective name for several, functional sub-processes which serve to compress the noetic-noemic history of one's past experience into one's present experience, "condensation", which names the process by which a just-past noesis of experience is

infra-consciously synthesized with immediate mental data into a present, total field that is unitively apprehended, and "compaction", which names the process by which the previously condensed noetic and noemic kernels of the totality of past experiences are incorporated, through the processes of continual compression and condensation, into the ongoing, compacted, experiential density of one's psychic, self-history. Structurally, compression precedes condensation which precedes compaction, but epistemologically, the three processes must be considered as concomitant since the flux of experience is continuous.

The "Processes" of Thematic Synthesization

Let us try to symbolize the changes in consciousness in the following way: Let us suppose that you are now having a typical, complex experience composed of several, mental modalities, e.g., cognitive, perceptual, kinesthetic, etc., What is phenomenologically given, i.e., the totality of data that is currently experienced in your temporal-thematic field, we shall represent with the capital letter, "L", so that, we may say what you are presently experiencing is unitively apprehended as "L". In a few moments, "L", as a fully apprehended, experiential unity will be replaced by its experiential successor, "M", which will itself be a fully apprehended experiential unity of similar intrinsic complexity. What we wish to know is what takes place, to employ a Jamesian metaphor, that enabled "M' to become the "legal heir" (successor) to the constituents of "L".

Our thesis suggests that every total experience is apprehended as an ordered relation of successiveness between earlier and later phases of

mental content. The before phase of "M" is the compressed temporal and thematic content of "L", while the later phase is probably comprised of immediate mental content of perception, sensation, etc., that, while perhaps objectively simultaneous with "L's" noesis, is not apprehended until it is integrated into the ordered relation of successiveness with "L's" noesis. This immediate mental content need not be causally, thematically or conceptually related to "L's" noesis, or to previous experience "L". But a "succession of feelings", as James recognized, is not the same as a "feeling of succession". The feeling of succession is what needs to be accounted for; it is what characterizes the unity and continuity of experiences that makes up the enduring self. It is this feeling of succession that must be achieved prior to awareness, i.e., in the mental infra-structure. What is given to and in awareness, what is apprehended as the successive experience "M", is a synthesis of dynamic meaning in which the subjective meaning of "L's" noesis, i.e., "L's" noema, is condensed and integrated into the total field of "M's" noesis as a "before" that temporally precedes an "after" of immediate mental content, i.e., as a temporally ordered succession whose unity as an apprehended, thematic field is organized into a total experience.

The process of translating mental data or content, outside of awareness and in the intra-structure of consciousness, into dynamic, subjective meaning we have called compression: if the noema of "L's" noesis is compressed as "l", and the noema of the immediate mental data is compressed as "A" (alpha), then the integration of "l" and "A" into a co-present, dynamic and subjective meaning, we shall call the condensation of experience "M" and shall represent that noema as (l&A), where "&"

represents the synthesizing process of condensing a just-past noema and an immediate noema. In the birth of "M", as an apprehended experience, "L" has been compacted into the ongoing, historical density of personal consciousness. (l&A) is apprehended as a unitive datum, albeit a complex, thematic field with a temporal duration that feels as a span encompassing a moment past with the now-moment. Shortly, experience "M" will be replaced by a new experience, "N". The thematic content of "M" is compressed into a noesis, "m", with its temporal relation to prior experience "L" part of its total informational-load, so that "m" is a compression of both temporal and thematic data. As "M" is being experienced during the span of its felt duration, new, immediate mental data is innervating the nervous system and, concomitantly, the mental infra-structure to create what we might call a "pre-experiential field"; it is condensed along with the noesis of "M", i.e., "m", into a relation of succession (m&B) which will be apprehended momentarily as "N". Thus, when "M" dies, "N" immediately takes its place in awareness, as a fully realized experience. The process is ongoing and essentially uninterrupted: neurological and psychic data is compressed into a temporal-thematic noesis; one noesis standing in a successive relationship to another noesis such that the infra-structure translates this co-present mental field into an integrated, dynamic and subjective meaning as a result of the process of condensation; and the assimilation of wholes of experiential unity, total experiences, into the evolving, self-historical density of a personal consciousness is the result of the process of compaction - the three processes postulated as ordering and organizing the flux of lived experience that is here called thematic synthesization.

The reader may wonder how mental content that is presently apart of one's total, phenomenological field can simultaneously be undergoing transformation infra-consciously. To this, I have no answer, except to say that we do seem to have epistemic structures that pre-assemble data before it enters awareness, and having once entered awareness does not necessarily imply that the neurological impulses which underlie consciousness are not continuing to be operative. James, we saw, hypothesized that each neural current cannot be supposed to instantly die away, and I believe, that the neurophysiological evidence is in James's corner. If we may analogize to a computer for the moment, merely because certain contents are visible on the screen does not mean that computational operations are not simultaneously possible and occurring. (You may, for example, edit one file, while printing another.) When we speak of what is given as mental, we do not mean this as synonymous with the phenomenological given. I do not think that we need posit "gaps" in consciousness in order to account for this dual role that psychic data plays as both the apprehended and the data undergoing transformation for a succeeding apprehension. Of course, if there are such short gaps in consciousness, being a gap in awareness, not content, ex hypothesi they could not be apprehended. The point that I wish to make is that cognition or apprehension, as the awareness of an organizational whole, emerges in awareness as a pre-interpreted unity of successive phases of content, howsoever that content may actually exist in the infra-structure. We experience movement, passage and change in our fields of consciousness because experiencing is a feeling of succession and such a feeling implies that what is mentally given stands in an ordered temporal relation of

successiveness. When we listen to music or to speech, we apprehend the meaning of complex totalities, fluxes of specious presents that achieve their rhythm, flow, continuity, unity and dynamic, subjective meanings precisely because what is given is already pre-interpreted with respect to a temporal order of "earlier and later", and a thematic organization of "before and after".

It may also be objected that the apprehension of each complex condensation of successive noemas requires an additional mental act, namely, an act that apprehends the whole synthesized complex, thereby implying the possibility of an infinite regress in order to apprehend the whole, present experience. But it must also be remembered that prior to the condensation of successive noemas of earlier and later data, there is no apprehension at all; immediate mental data that slips into awareness unintegrated is what I have posited as a "primitive cognizance", a muddled, vague, uninterpreted sensing that awaits a new condensation of a noetic-noemic complex to be grasped as cognitively intelligible. Only one act of apprehension takes place, and it occurs when both phases of the potential experience are co-presently apprehended. The apprehension of the before and after relation temporally orders and thematically organizes the total given so that a "full" experience is presented to consciousness for the first time. Prior to this synthesizing act, the existent data have no organizational unity in and for consciousness. Consciousness is "dumb" until its content becomes interpreted, i.e., apprehended in experiential unity. We must be careful not to think of this process of experiencing as being static, as if the foregoing represented several conscious <u>acts</u>, each of which is a kind of "sub-experience". If we do so,

we will again become victimized by the fallacy of repetition which maintains incorrectly that instead of one experience occurring, each "part" or phase of the total experience is re-felt or remembered as the next phase takes place in order for the whole to be apprehended.

From James's day to the present, critics of the logical consistency and empirical determinability of the specious present, have tended to assume that the "earlier" phase of a succeeding specious present must in part coincide (i.e., "overlap") with the "later" phase of the preceding experience, such that there is a repetitive overlapping of felt experience, which as we have seen in Chapter II, is contrary to ordinary experience. One's specious present fields do not overlap in the sense that a given datum continues to exist, and reappear through successive apprehensions; rather, each specious present field, as we have seen, appropriates to its successor its dynamic, subjective meaning which is assimilated into its successor as a phase of succession that becomes unitively apprehended as a new specious present field upon the integration of a later phase of immediate, mental data.

The synthesized unity that comprises the intrinsically ordered succession of phases of which an apprehended experience is constituted, is a complex datum, as we have seen above. Within each new successor the experiential meaning of the just-apprehended is retained as the earlier phase of the relation of succession in which the successor, contributing new data, apprehends the synthesized unity of both temporal phases as an organization of content and awareness in a unitary awareness.

Synthesization is not Summation

It may be objected the principle of thematic synthesization sounds suspiciously like the thesis of "self-compounding of mental states" that James vehemently attacks, particularly in "The Mind-Stuff Theory" chapter of Principles. There he takes to task the thesis that " . . . our mental states are composite in structure, made up of smaller states conjoined." (I, 145) "Associationists", "Hegelizers", "Monists" and "Spiritualists" are chastised for urging the "blending" or "psychic synthesis of feeling-states".

> The mind-stuff theory, in short, is unintelligible. Atoms of feeling cannot compose higher feelings, any more than atoms of matter can compose physical things! . . . Nothing is but the everlasting atoms. When grouped in a certain way, we name them this 'thing' or that; but the thing we name has no existence outside of our mind. So of the state of mind which are supposed to be compound because they know many different things together. (I, 162)

But this "mind-dust" theory which holds that complex states of consciousness are integrated, summated or compounded from elementary states is not what thematic synthesization asserts or implies. Thematic synthesization refers to the synthesizing process through which present, total mind states are continually being modified, i.e., partially determined and conditioned by prior, self-historical mental states. There is absolutely nothing simple about any mental (or brain) state and the fact that it "compresses", "condenses" and "compacts" itself within its successor has nothing to do with the idea of simple or elementary ideas summating into more complex or higher ideas. James's protest is largely directed against the thesis that sensations are the simple building blocks

out of which complex perceptions are constructed. But the building blocks of thematic synthesization are the entire, complex, experiential fields which constitute any given state of consciousness and which condition the character and constitution of how its immediate successor will feel in consciousness. "Synthesization", as the operative process whereby apprehended unity and continuity of experiences are achieved, cannot be expressed as a mere summation, addition or union of either algebraic or logical relations. The actual relation is a complex integration of psychic meanings whose practical modification of successive states is prognosticatively indeterminable.

The "Dual Determinacy" of Mental States

What, therefore, endures through successive specious presents is not the reconstitution of an experience "X" qua "X", but "X" as a modified constituent of its successor, "Y". Experience "X", as it was "lived" in its original constitution is no longer experienceable because "X" now exists only insofar as "Y" has been conditioned by "X". What we see here, then, is a feature of synthesization which we may call "dual determinacy". Dual determinacy entails that each specious present act plays a dual role with respect to the determinacy of future mental experiences. One's previous experience (predecessor) is retained or preserved as a modification of its immediate successor such that what was just experienced, being "carried over" into its successor, now acts as a partial determinant in shaping or conditioning how the succeeding experience "feels". This process of "carrying over", is, I believe, the so-called "overlapping" of states that constitutes the suffusive,

supportive, and directive function of the stream. But each dual determinant in its former constitution as a lived experience, was itself previously conditioned by its own past predecessor. And since consciousness is continually "expanding" with ever new experiences, every apprehended given is first conditioned by its prior experience, and then serves to condition its own succeeding experience.

Self-Historical Density

Thematic synthesization, as a continual process that conditions and modifies each successive, transient pulse of experiential unity, theoretically "defines" the person that each of us has uniquely become. Each person's uniqueness can be approximately defined in terms of relatively stable and consistent behavioral tendencies, dispositions, capacities and epistemic structures of available knowledge, in the form of beliefs, habits, values, tastes, sensibilities, readinesses, etc. The cumulative totality and entirety of all my past mental experiences is compacted in each present thought and action, so that the resultant, finite center of unity of who I am reflects my personal, psychic self-history. The past is present, condensed and compacted. If it were somehow possible to extrapolate and read any given mental state of my present self, my entire, past self-history of mental experiences could be unpacked. It is this self-historical density that strongly contributes to the phenomenological conviction that personal experience is a continuous and unified stream identified with a unique, enduring self. Indeed, as we shall discuss in greater detail shortly, James implicitly

embraces thematic synthesization in his thesis of the non-duplication of mental/physical states. Thus, James writes:

> Experience is remoulding us every moment, and our mental reaction on every given thing is really a resultant of our experience of the whole world up to that date. The analogies of brain-physiology must again be appealed to to corroborate our view . . . . Every brain-state is partly determined by the nature of this entire past succession. Alter the latter in any part, and the brain-state must be somewhat different. Each present brain-state is a record in which the eye of Omniscience might read all the foregone history of its owner. (I, 234, underlining mine)

Self-historical density entails that as more and more experiences are compressed, condensed and compacted into each momentary now-experience, the present lived moment becomes more thematically enriched, "denser", filled with ever greater, thematically creative possibilities. Our experiential self is being continually enlarged and enriched with ever wider, epistemic possibilities. Self-historical density through the operative processes of thematic synthesization entails that everything that has ever been experienced is "inspissated" (compressed, condensed and compacted) into present consciousness as the latest modification in a continual procession of modifications that, speaking picturesquely, color, contour and texturize both how and what we presently perceive, think and feel.

The thesis implies that every datum that has ever crossed the footlights of consciousness has been taken up into some mental experience, and that every mental experience since (and, perhaps before) our natal day is still, in this sense, a part of our present consciousness. Continually modified by each successive phase of our entire, past self-history, the practical identity of any datum is theoretically unidentifiable, yet its

presence serves in an indeterminable way to condition all of our future experience.

Thematic Synthesization in Principles

Although James says, " . . . we never doubt that our feelings reveal the same world, with the same sensible qualities and the same sensible things occupying it" (I, 232), we are, nevertheless, aware that experiences which were once eagerly sought after, may later be regarded as nothing more than a waste of one's precious time. Ambitions, beliefs, ideals, even persons, that once we would have defended with our very lives, are often deemed upon future re-examination as trifling, foolish, or unworthy of self-sacrificing devotion. As James puts it, "the friends we used to care the world for are shrunken to shadows; the women, once so divine, the stars, the woods, and the waters, how now so dull and common . . . " (I, 233) The phenomenological fact is that "what was bright and exciting becomes weary, flat and unprofitable" (I, 232). Thematic synthesization provides a structural explanation of how such a radical change of opinion or perspective is made psychologically possible. It enables us to account for the fact that "what was unreal has grown real, and what was exciting is insipid" (I, 223). Thematic synthesization provides a structural explanation for why it is that, as James frames it:

> Every thought we have of a given fact is, strictly speaking, unique, and only bears a resemblance of kind with our other thoughts of the same fact. When the identical fact recurs, we must think of it in a fresh manner, see it under a somewhat different angle, apprehend it in different relations from those in which it last appeared. And the thought of it-in-those-relations, a thought suffused with the consciousness of all that dim context. Often we are ourselves struck at the strange differences

> in our successive view of the same thing. We wonder how we ever could have opined as we did last month about a certain matter. We have outgrown the possibility of that state, we know not how. (I, 233)

Each present state "contains within" and "carries forward" the inspissated self-history of each person's entire mental life that the "eye of Omniscience" alone might decipher. To such a hallowed Intelligence, the minutest details of one's entire past would be easily decipherable. James is warranted in his assumption that present experience is partly determined by our entire past succession of experiences by his thesis of the "non-identical recurrence of mental and physical states" which hypothesizes that " . . . no state [psychical or somatic] once gone can recur and be identical with what it was before" (I, 230). Thus, James believes that:

> Every sensation corresponds to some cerebral action. For an identical sensation to recur it would have to occur the second time in an unmodified brain. But as this, strictly speaking, is a physiological impossibility, so is an unmodified feeling an impossibility; for to every brain-modification, however small, must correspond a change of equal amount in the feeling which the brain subserves. (I, 232-33)

What "recurs" says James, in only "resemblance", the same "object" or "referent" so that, for example, "we hear the same note over and over again; we see the same quality of green, or smell the same objective perfume, or experience the same species of pain" (I, 231). If a "simple sensation" cannot identically recur, how much more impossible for a complex experience to identically recur. Every total mental state would have to suppress and ignore all intervening experiences that have occurred between the time of the original experience and the present one in order

to actually re-experience identically. "The sameness of things", James writes, "is what we are concerned to ascertain; and any sensation that assures us of that will probably be considered in a rough way to be the same with each other" (I, 231). The feeling or experience of sameness is only the feeling or experience of sufficient likeness or resemblance. What I experience on one occasion may feel the same as on another occasion, yet they can never be the same feeling in fact. We are incapable of distinguishing between experiences that have similar referents. The capacity for discrimination depends on certain conditions prevailing:

> Where the difference between successive sensations is but slight, the transition between them must be made as immediate as possible, and both must be compared in memory, in order to get the best results. One cannot judge accurately of the difference between two similar wines, whilst the second is still in one's mouth. So of sounds, warmths, etc. - we must get the dying phases of both sensations of the pair we are comparing. Where, however, the difference is strong, this condition is immaterial, and we can then compare a sensation actually felt with another carried in memory only. The longer the interval of time between the sensations, the more uncertain is their discrimination. (I, 496)

The doctrine of esse est sentiri, "to be is to be felt" is not the same as the "pragmatic" dictum, "to be different, one must feel a difference". As Bertrand Russell effectively makes the point:
" . . . there must be among sense-data differences so slight as to be imperceptible; the fact that sense-data are immediately given does not mean that their differences also must be immediately given (though they may be) . . . . It is unconsciously assumed, as a premiss for a reduction ad absurdum of the analytic view, that, if A and B are immediate data, and

A differs from B, then the fact that they differ must also be an immediate datum."[1] We may feel different states or experiences, without being aware of them as different.

Why is it that I cannot be in the same mental (or brain) state twice such that when, for example, I hear a song at one time and then hear it again at a later time, I am not hearing the same song at both times identically? Given the thesis of thematic synthesization, the answer is that I cannot reclaim the same total mental state because, continually evolving, I am not the same finite center of experiential unity as I was before, since the synthesized totality of all my prior experiences have changed how and what I perceive, confront and relate to. Each of my past experiences contributes something of itself to its successor.

Consider for a moment the possibility of a Being for whom thematic synthesization does not occur. For such a Being, exact duplication of mental states is possible, since each present mental state is, ex hypothesi, unmodified by its own past. In a sense, at each moment this Being is being born anew since each and every mental state is functionally insulated form its immediate predecessor.

The "memory" of what we have just experienced significantly determines how we respond to the world henceforth. We steal a sip of coffee from our mother's cup when we are young, and find the taste bitter and disagreeable; the "memory" of that experience becomes part of our natural response to the sight, smell and thought of coffee for many years afterwards. It is not that we have to actively remember the experience of having tasted the coffee to have our response to that original experience be a part of our attitude and behavior; our immediate, "gut"

response to that which we both like and dislike is as much a part of who we are as anything else. If memory proper were required, we would be spending much, perhaps most, of our waking hours in virtually unbroken states of memory, trying to recall how we feel about this and that. Instead, we develop dispositional attitudes and habitual behavior that often stays with us indefinitely, unless other events occur to alter the response of our first impressions.

For James, what is not identically reproducible is the total state of the brain primarily, but given the methodological, psycho-physical parallelism of Principles, the total state of the mind must be non-reproducible as well. Comparing the total brain-state to the "sea", James notes that although" parts" or "points" of the a state may recur identically, just as a wave-crest may very likely recur at the same point in space, "... what can hardly come twice is an identical combination of wave-forms all with their crests and hollows reoccupying identical places. For such a total combination as this is the analogue of the brain-state to which our actual consciousness at any moment is due" (I, 235).

Thematic Synthesization and Interrupted Continuity

I would like to suggest that thematic synthesization, as the process by which data is appropriated to and assimilated in, refers to processes that are not only not conscious processes, but that these processes are also operative through at least some, (if not all), "unconscious" or "altered" mental states.

Upon awakening from sleep, for example, after a few moments of psychical re-adjustment, the life-thread of one's existence prior to going

to sleep resumes in a manner consistent with the claim that a certain level of mental continuity has been essentially uninterrupted. There are indications, first of all, that while "ordinary consciousness" has shut down, a certain level of external perception in one's immediate environment still goes on during sleep so that, for instance, we cover ourselves with blankets when the room chills and toss the blankets off when the room is too warm. And internal perception takes place in the form of dreaming, which seems to me to be prima facie evidence of continuing mental vigilance at some level of awareness that often addresses concerns, fears, stress issues, and desires normally operative (whether suppressed or entertained) during wakeful consciousness. Even though the content of our dreams and perceptions during sleep are frequently unremembered upon awakening, more often than not, we know that we had been dreaming in our sleep, i.e., that mental activity continued although normal, waking consciousness was not attending to the psychic content. The process of thematic synthesization, I would like to suggest, also continues through sleep so that thinking, feeling, perceiving, etc., continues, bridging the gap between normal waking consciousness and the states of sleep and dream-vigilance; problems get worked on during sleep, and worries and anxieties may fill our minds once again as we awaken, but often with a new perspective. Just as our bodily functions slow down during sleep, so do the modifying processes of synthesization, since the field of stimuli in sleep is much less rich and busy. Upon awakening, the number of complex, mental events that have intervened between the previous evening and the present morning are relatively few compared with the rate, number and complexity of mental events that are apprehended while we are

awake. But the postulation of ongoing thematic synthesization of mental content at a different level of psychic vigilance allows us to account for the preservation of thoughts and feelings of our pre-sleep life, as well as the modification of our responses to our thoughts and feelings. That finite center of unity that we call our "self" endures from day to day, knowing the world both in the same old way and in a slightly different way from day to day. Since consciousness has not been active (or even present) during sleep, memory of intervening mental states during sleep, is not easily retained. But, the fact that on occasion we are able to suddenly recall parts of last night's dream, and often after being awake for several hours, suggests that the thematic synthesization of mental events is an ongoing process even at different levels of mental vigilance.

James's Theory of Self-Appropriation and Transmission of Ownership

We have seen that the principle of thematic synthesization is implied by James with respect to accounting for the changes of attitudes, perspectives and perceptions of the world in general as we get older, mature and increase our available fund of experiences. Perhaps the closest James comes to actually formulating an explicit thesis like thematic synthesization is in "The Consciousness of Self" chapter, with respect to his theory of Self and Personal Identity. While it is impossible, given the inherent restraints on content and subject matter of this dissertation, to delve into his theory with any critical depth, a brief examination is essential if we are to demonstrate how the principle of thematic synthesization is entailed by his account of how an enduring sense of Self is possible.

For James, feeling one's "connectedness" to those experiences that each of us holds to be uniquely our own, seems to require specific acts of memory in which we summon forth and introspect an historically earlier "past section of the stream". This reflective act which makes a "judgment", not about the morality, but about the ownership of the memorial content, James calls, the 'present Judging Thought", or sometimes simply the "Thought"; it is " . . . what collects, - 'owns' some of the past facts which it surveys, and disowns the rest, - and so makes a unity that is actualized and anchored . . . " (I, 338) The connecting or relational factor which holds together past experiences, is the ability to experience the properties of "warmth and intimacy". Past sections of the stream are "appropriated" by the present, judging Thought as being "of the same blood", if they give rise to these properties in present, reflective consciousness so that the present Self adopts these memories as authentically its own:

> Remembrance is like direct feeling; its object is suffused with a warmth and intimacy to which no object of mere conception ever attains. This quality of warmth and intimacy and immediacy is what [a person's] present thought also possesses for itself. So sure as this present is me, is mine, it says, so sure is anything else that comes with the same warmth and intimacy and immediacy; me and mine . . . whatever past feelings appear with those qualities must be admitted to receive the greeting of the present mental state, to be owned by it, and accepted as belonging together with it in a common self. (I, 239)

This "community of self", bonded through warmth, intimacy and immediacy, James tells us, is what time-gaps cannot "break in twain", thereby connecting the present "me and mine" with past me's and mine

(I, 239). Conversely, then, those memories that lack these determining properties are rejected from belonging to one's own self-historical past.

Employing an original metaphor, James draws an analogy between the attributes of "warmth and intimacy" as the hallmark of psychic ownership and the "herd-mark" made by a branding iron to establish bovine ownership:

> Them we shall imagine with the animal warmth upon them, to them may possibly cling the aroma, the echo of the thinking taken in the act. And by a natural consequence, we shall assimilate them to each other and to the warm and intimate self we now feel within us as we think, and separate them as a collection from whatever selves have not this mark, much as out of a herd of cattle let loose for the winter on some wide western prairie the owner picks out and sorts together when the time for the round-up comes in the spring, all the beasts on which he finds his own particular brand.
>
> The various members of the collection thus set apart are felt to belong with each other whenever they are thought at all. The animal warmth, etc. is their herd-mark, the brand from which they can never more escape. (I, 333-34)

The "judging Thought" collects, identifies and claims only those past experiences, revived as memories, that enter consciousness "pre-branded", i.e., as bearing the herd-mark of warmth, intimacy and immediacy (I, 239).

At length, James vigorously argues against the necessity, utility and intelligibility of theories urging a permanently enduring, super-psychic Agent as the onlooking collector and organizer of one's self-historical experiences, especially the quasi-theological concept of a "substantive Soul" and Kant's "transcendental Ego". Having abandoned the conceptual security of positing an extra-conscious, active agent, James is challenged to account for the existence of a finite center of conscious unity by means of the phenomenological stream alone. Continuing from where Hume left off, James grounds the totality of individual experiences in nothing

but and neither more nor less than the "real, present, onlooking, remembering, 'judging thought' or identifying 'section' of the stream". (I, 338). The judging thought as the "owner" or "herdsman" of what has been and is now, however, is itself only another mental beast, a member of the experiential herd, yet, " . . . the essence of the matter to common-sense is that past thoughts never were wild cattle, they were always owned. The Thought does not capture them, but as soon as it comes into existence it finds them already its own" (I, 338). How this is possible, without requiring a "substantial identity with a former owner", James explains by what we might call his theory of "self-appropriation and transmission of ownership":

> For how would it be if the Thought, the present judging Thought, instead of being in any way substantially or transcendentally identical with the former owner of the past self, merely inherited his 'title,' and thus stood as his legal representative now? It would then, if its birth coincided exactly with the death of another owner, find the past self already its own as soon as it found it at all, and the past self would never be wild, but always owned, by a title that never lapsed. We can imagine a long succession of herdsmen coming rapidly into possession of these same cattle by transmission of an original title by bequest. May not the 'title' of a collective self be passed from one Thought to another in some analogous way? (I, 339, underlining mine)

So confident is James that something like this does occur that he calls this transmission of ownership a "patent fact of consciousness" (I, 339). What actually occurs, James speculates, must be something like the following:

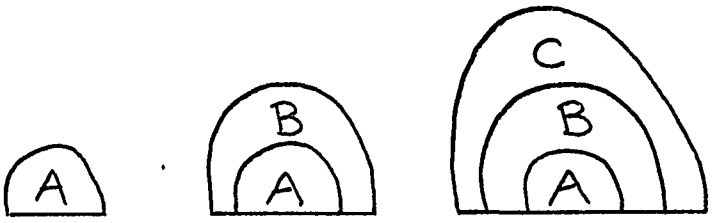
> Each pulse of cognitive consciousness, each Thought, dies away and is replaced by another. The other [successor], amongst the things it knows, knows its own predecessor, and finding it 'warm,' in the way we have described, greets it, saying: 'Thou art mine, and part of the same self

> with me.' Each later Thought [successor], knowing and including thus the Thoughts which went before [predecessor], is the final receptacle - and appropriating them is the final owner - of all that they contain and own . . . (I, 339, underlining mine)

James's picture of the mind gives rise to a strange anthropomorphism of mental states which obviously raises questions regarding interpretation and translatability of his thesis into more conventional philosophical concepts. But, if we can for the present work within his framework, James is maintaining that each present experience endures for a certain duration, then imperceptibly gives way to a succeeding experience. To say, as James does, that " . . . each Thought is thus born an owner, and dies owned, transmitting whatever it realized as its Self to its own later proprietor" (I, 339), suggests that the moment an experience flees awareness, its thematic and temporal essence is simultaneously "adopted by" and synthesized into its successor. Thus, James concludes, "who owns the last self owns the self before the last, for what possesses the possessor possesses the possessed" (I, 340), which is essentially what thematic synthesization claims as well.

"Knowing" and "Adoption"

An interesting, textual confirmation of a Jamesian thesis similar to thematic synthesization is offered by the following illustration which James provides in order to demonstrate concretely how acts of self-appropriation occur:



> . . . let A, B, and C stand for three successive thoughts, each with its object inside of it. If B's object be A, and C's object be B; then A, B, and C would stand for three pulses in a consciousness of personal identity. Each pulse would be something different from the others; But B would know and adopt A, and C would know and adopt A and B. Three successive states of the same brain, on which each experience in passing leaves its mark . . . (I, 342)

The drawing is reminiscent of the drawing of his previous chapter, "The Stream of Thought", in which "represented by a curve, the neurosis underlying consciousness" is schematized (I, 257). Here, however, it is the "psychosis" of the total mental state that is being schematically represented, each capital letter standing for a successive Thought "with its [thematic] object inside of it." Given that James has maintained that "Each later Thought, knowing and including thus the Thoughts which went before, is the final receptacle - and appropriating them is the final owner - of all that they contain and own" (I, 339), it would seem that an "appropriation" *is that totality of content/awareness of a just-apprehended Thought* which is "assimilated", i.e., "known and adopted", by its successor. The "totality of content/awareness" is what we mean by the apprehended, subjective meaning of an experience. If B's object <u>is</u> A, and C's object is <u>B</u>, the inclusion or possession of one object by another is what is meant by "adopting" or "appropriating" an object. State of consciousness B knows and adopts not only its "pure content", but also A's object or content, and A's temporal position or relative order with respect to itself and its predecessor, so that what is inherited is A's

noetic and noemic essence. And C knows and adopts both A and B. What C might have been "by itself" is unknowable, but what it is, in fact, is conditioned by the noetic and noemic essence of B, which has itself been conditioned by the noetic and noemic essence of A.

A, B, and C stand for "successive Thoughts" or "pulses in a consciousness of personal identity" such that when the term of duration in which they are presently apprehended is expired, each succeeding Thought is adopted by its immediate successor, not as a "part" of its successor's total object, but as a noetic-noemic modification of it. For unless we interpret James in this manner, we face a glaring inconsistency: James's theory of the Self is contingent upon the "birth" of each state of consciousness coinciding "exactly with the death of another owner" (I, 339), i.e., a succeeding state of consciousness, such that the former is appropriated to and adopted by the latter; but if the former state is marginally co-experienced along with the more focal and newer state, as some interpretations of the specious present posit, then the former state is still present, and has not, a fortiori, died concomitantly with the latter state's birth. However, if what is meant is that the former state qualifies or conditions the character and constitution of its successor so that its continuing existence is only as a transformation of the overall, modified character and constitution of the successor, the death of the former coincides with the birth of the latter, then the inconsistency is eliminated. Also, for B to know and adopt A, and C to know and adopt A and B, must mean that the knowledge or information that is revealed to awareness is passed on to state B in the sense of assisting in determining B's idiosyncratic character, and so on for each succeeding

state. Ordinary, everyday experiences of normal, waking consciousness reveals that we do not literally accumulate the information of past states onto the present state so that for every conscious moment the sum total of our entire past is laid out before consciousness as a vast horizon of immediately disclosed, architectonically stacked layers of knowledge; rather, each present experience knows its immediate predecessor in that the psychic meaning of the predecessor is carried forward through the modified constitution of the successor. James maintains that "A thing cannot appropriate itself: it is itself; and still less can it disown itself" (I, 340). If by "itself" James means the apprehended, subjective meaning of the specious present, then "what" each succeeding pulse of consciousness appropriates to its successor as its own earliest phase is the psychic meaning of the preceding specious present's apprehension, along with whatever additional, pre-interpreted data enter the sensory or ideational manifold. This "totality" constitutes the initial appropriation or adoption which, however, cannot be an apprehended pulse of unitive experience until a successive "after" phase stands in an ordered relation to this "before" phase.

Thematic Synthesization and the Specious Present

James maintains that as each "word" of a phrase is spoken (and heard), that word attains a focal dominance in consciousness. As other words succeed it, and sequentially attain their focal dominance, each word gone by retains marginally its relative semantical and syntactical position, so that the meaning of the entire sentence is apprehended at once. But since the first part of the sentence is past, and no act of

active memory seems to be involved in understanding the meaning of the entire sentence (usually), we are led to the opinion that the earlier words of the sentence appropriate their informational-load to the succeeding words so that the entire sentence, composed of earlier and later phrases can be held before the mind as a short-term memory which is apprehended as a unitive, cognitive experience. Some critics, as we have seen, have argued that, among other difficulties, the concept of the specious present entails a repetition of states such that, for example, as J. D. Mabbott maintains, if there is a brief sound that is experienced as part of one specious present, then three seconds later (arbitrarily) "I shall experience it again as part of the [next] specious present. Every brief sound I hear I shall hear not once but repeatedly. Nothing in my direct experience confirms this repetition."[2] Mabbott is certainly correct in denying that such a repetition normally takes place. Rather, our experience is such that, as Paul Fraisse describes it, " . . . my present always consist of a whole clause, not the end of one clause followed by a bit of the next clause with a continuous glide that would make the whole sentence unintelligible. If we make an objective inventory at any given moment of the contents of the present, we will see it is not composed exactly of the last elements presented."[3] I believe, however, that the specious present can be interpreted so as to avoid obligatory repetition of mental content which is detrimental, if not fatal, to its acceptance as a concept descriptive of the mind's operation.

Mabbott's criticism results from interpreting the concept of the specious present such that the content of one specious present is literally co-present and alongside of the content of its succeeding

specious present, in a fashion similar to the "mechanistic" interpretation that we examined in the previous chapter. But what proceeds with inevitability is not the mechanical, temporal procession of data, but the effective influence of the preceding conscious moment on the present conscious moment. Thus, it is not surprising that we do not hear the latter part of the just-spoken phrase "repeated" as we now hear the first part of a new phrase: the just-spoken phrase is no longer a self-existent datum in consciousness. It exists now only insofar as it has conditioned its successor. Mabbott's error, it seems to me, lies in interpreting the specious present as mechanistic, that is, in presuming that this former datum is still the same datum as it was a moment earlier, only less vividly so. But, insofar as our awareness of it as a discrete datum is concerned, it is non-existent, since it is no longer discriminated as a distinct, particularized datum. Its "living actuality" has changed from immediate conscious datum to partial determinant of the contextual totality by which the entire phrase is apprehended.

The "Temporal Ordering" of Experiences

In addition to effecting the thematic content of our mental states, thematic synthesization also effects the temporal ordering of our experiences. Not only is the content of our experiences thematically preserved in the continual process of synthesization, but that same content is also temporally preserved with respect to its relative time-position amongst earlier and later experiences. Thus, every mental state reflects in its successor not only its thematic essence, but its temporal essence as well.

We tend to remember our past experiences in self-historical "event-clusters" such that these memories are recalled within a relational matrix of "earlier or later than" or "before and after" one another. Yet, how these clusters are recalled at different times in our lives may change radically. As we know from everyday experience, events from our more distant past are generally less susceptible to memorial recall than events of more recent vintage. Psychologically, the passage of time itself tends to reduce the accessibility and ease by which recall of prior events takes place, as well as the accuracy and detail with which those memories are remembered with respect to their original, sequential order of occurrence, and the amount and vivacity of event-clusters that are associated with the initial memorial act. Why this should be the case may be seen with respect to the transformations of successive experiences. The informational-load that is originally appropriated to its immediate successor and continues to be modified through successive appropriations becomes progressively more densely compacted, so that, as a general principle of psychic economy, the greater the number of experiences intervening between the original experience and one's present experience, the less easily and readily will it be for that remote experience to be clearly and distinctly recalled.

In reflecting upon experiences of fairly recent origin, the events recalled tend to be revived in memory as occupying relatively, pre-determined temporal "positions" much as, in an analogous way, reflecting upon a changing panorama viewed while driving, tends to automatically recall and associate certain physical landmarks, e.g., towns, terrain, houses and buildings, streets, etc., as being temporally "before" or

"after" (or spatially, "in back" or "in front" of) one another. James, commenting in a footnote on the similarity between our manner of time-perception and space-perception, notes that "we construct the miles just as we construct the years. Travelling in the cars makes a succession of different fields of view pass before our eyes. When those that have passed from present sight revive in memory, they maintain their mutual order because their contents overlap." (I, 631, underlining mine) Although we must consciously and actively connect various temporal episodes so as to construct the "larger" picture of the sequential ordering of our memories, this capacity suggests that there is a pre-given, presentational order of earlier and later events in memory that permits the enlarged construction to be made at all. Those experiences of our more remote and distant past that are remembered, tend to be recalled with longer temporal gaps between specific occurrences. Yet, they do tend to be remembered within the context of some "former self" or self-historical epoch characteristic of a certain period or phase in our life. The fact is, however, that whether our memories are recent or remote, vivid or diffuse, finely-detailed or broadly-stroked, some assignment of their relative, temporal position tends to affix itself to our recollections. Indeed, if in recalling past experiences, all we could remember was the "pure content" of the experience alone, without its relative date of original occurrence or ordered placement in the totality of our individual self-histories, we might well question the authenticity of those memories as being genuinely our own. Similarly, James writes:

> If we could revive the past event without any associates, we should exclude the possibility of memory, and simply dream that we were undergoing the experience as if for the first time. Wherever, in fact, the recalled event does appear

> without a definite setting, it is hard to distinguish it from a mere creation of fancy. (I, 658)

At times, of course, everyone has had memories that suspend without these temporal anchors. These are amongst those memories whose self-historical legitimacy and reality, or "warmth and intimacy", we hold suspect.

Neurophysiology and Thematic Synthesization

James states unambiguously that the enduringness of memories is to be attributed to neurophysiological features of the brain. The retention of experiences so as to form more or less permanent memories is seen as a physiological process in which neural "paths" are "etched", so to speak, into the brain. Memorial acts excite and "reawaken" the stored neural energy of those well-etched paths so that:

> When the recollection is of the 'ready' sort, the resuscitation takes place the instant the occasion arises; when it is slow, resuscitation comes after delay. But be the recall prompt or slow, the condition which makes it possible at all is neither more nor less than the brain-paths which associate the experience with the occasion and cue of the recall. (I, 654-55)

This might at first be construed as an explicit denial of our thesis that the thematic and temporal content of our experiences "survive" as modified retentions within the self-historical density of ongoing consciousness. After all, James asserts that "The <u>retention</u> of [a past event] . . . is not a mysterious storing up of an 'idea' in an unconscious state. It is not a fact of the mental order at all. It is a purely physiological phenomenon, a morphological feature, the presence of these 'paths', namely in the finest recesses of the brain's tissue" (I, 655).[4]

Yet, the reconciliation becomes apparent as James continues: "The recall or recollection, on the other hand, is a psycho-physical phenomenon, with both a bodily and a mental side. The bodily side is the functional excitement of the tracts and paths in question; the mental side is the conscious vision of the past occurrence, and the belief that we experienced it before" (I, 655). James is not denying the self-historical density of ongoing consciousness; he is merely consigning the record-keeping as a neurophysiological fact to the "total brain state" in which the compacted data, given the proper stimulus, becomes an active memory directed by "habit-worn paths of association". Although our interest here is to explicate the structural conditions which make possible phenomenological experience, we are not assuming a separate mental (and ghostly) entity to which thematic synthesization applies; there can be no doubt that there is a neurophysiological network responsible for the phenomenological production that consciousness experiences. Also, we should not think of the self-historical density of thematic and temporal essences as existing in an "Unconscious", that is, as part of a topographical substratum that preserves past experiences in furtive, subterranean archives, just as we should not suppose that the totality of our memories exist in our brain tissue as pictorial mini-copies of external reality. All indications point to the storage of mental data by some kind of encoding of neurally transmitted data in an internal language of representation that upon re-excitement by the appropriate stimulus is transformed into a mental presentation. The exact nature of the encoding, how the translations and transformations take place, and what the specific

relationship between the physical and the mental is, however, remains both an experimental and a philosophical puzzle yet to be unravelled.

Focal and Marginal Influence in Thematic Synthesization

The process of thematic synthesization allows us to be aware of the wholeness of experience. The extended or phenomenological present characteristic of the specious present is a result of the organizing processes of compression, condensation and compaction within thematic synthesization. As Craig Eisendrath says, regarding our experience of the world:

> The final product of togetherness [synthesization] in the mind is not just so many bits of information, sensations, or even objects, but a single fact, however, loosely structured, which James calls the 'total object of thought.' This is the plenary load of experience as one integrated moment. As such a unit, it is not just a symbol for collectivity, but a qualitatively different fact . . . . The unity which is achieved is thus not a conjunction but synthesis.[5]

It may be that the greater the focalization of content in one's awareness, the more likely for that focal data to serve as a primary determinant or modifier in the apprehension of the successor's experience. Consequently, the greater its "power" or capacity to "set" as a more permanent retention that may be withdrawn from the self-historical density at a future time and actively recalled into memory. Conversely, just as the focal object of our attention tends to have the greater efficacy as a conditioner of its successor, so the unfocalized data of the margin tends to have appreciably less influence, and is, therefore, less easily recalled.

The story that I have tried to relate is a speculative one as to how the mind is able to put together successive moments of experience into a structured ordering of events that conveys the universal feelings of continuity, unity and self-identity of a personal consciousness. The test of thematic synthesization, it seems to me, is its applicability to actual experience, whether it conforms to what we find when we reflect on the variety of our experiences. Our lives are usually integrated such that enduringness of self is the continual and steadfast feeling that each of us knows and experiences, and experience reveals a single, unified center of self-historical continuity. What I have attempted to portray in the preceding chapters is how the concepts of the specious present, focal/marginal fields, and thematic synthesization allow us to account for many experiences unified within each personal consciousness. Sometimes, of course, there is felt discontinuity in our lives, and there are special persons whose lives demonstrate diverse and complex personalities with seemingly independent consciousnesses and amnesiac interruptions of a sustained self. The existence of such persons complicates the problem of attempting to account for human experience with any simple, structural model of integration. But before we can explain the exceptional, it may be prudent to first account for the unexceptional, the ordinary and everyday. That is what has been attempted here. Seldom, if ever, are we aware of the processes which give rise to the end products manifested in consciousness, but it is precisely those processes which require justification. Such justification must be attempted at all levels of meaning, neurophysiological, psycho-physical, behavioral, functional, psychological, phenomenological, and mental (structural).

NOTES

CHAPTER IV: THEMATIC SYNTHESIZATION

[1]Bertrand Russell, Our Knowledge of the External World, (New York: Mentor Books, 1956), p. 115. Reprint of 1929 edition published by W. W. Norton.

[2]Mabbott, p. 31.

[3]Fraisse, p. 84.

[4]Bruce Wilshire contends that " . . . James expands the meaning of 'mental' to include patently physiological states. Thus he asserts that not only do causally conditioning physiological states precede and accompany mental states (whatever they might be), but that they also follow them as their consequences. And any such caused or consequential motor phenomena which indicate directedness toward an end or goal he chooses to call mental." Bruce Wilshire, William James and Phenomenology: A Study of 'The Principles of Psychology', (Bloomington & London: Indiana University Press, 1968), p. 21.

[5]Eisendrath, p. 42.

A RETROSPECTIVE

Our task, from the beginning, has been to inquire into the nature of those formal conditions of structurization by and through which the phenomenology of human consciousness is made possible. As we have seen, ultimately, a satisfactory structural theory of consciousness must be capable of accounting for not only the immense complexity and diversity of events that human consciousness experiences in normal, waking consciousness, but also the radical phenomena of those altered states that some persons experience both spontaneously and through the benefaction of mind-altering compounds. It must ultimately also account for both the feeling and the fact that each human consciousness unfolds its own particular and selective drama in a stable ego-identity subsumed under the categories of continuity, unity and self-identity. This dissertation has discussed, for the most part, only a narrow range of the total, possible phenomenology that humans are capable of experiencing, but our confinement to examining the structure of "ordinary" consciousness has been unavoidable. The larger project, at this point, would have been overwhelming in scope, detail and sheer length. In working towards such a consistent, speculative account of the structure of consciousness, I have advanced an interpretation of William James's thematic and temporal theory of consciousness as I believe it is adumbrated in Principles, that in its broad outline, I think is productive and fundamentally correct.

Retrospective of Chapter II

James's insight into the structure of consciousness, as discussed in Chapter I lies in his formalization of the structural parameters of thematicity. Elaborating the thesis that there are constantly changing "fields" of apprehended content, James develops a dual model of structurization: the narrower "substantive/transitive" and the wider "focal/marginal" schemata. Both descriptive constructions point up the phenomenological character of lived experience, namely, that every total, temporary state of consciousness is "epistemically thick", i.e., filled with diverse, complex data of various mental modalities that are co-presently apprehended as an experiential unity of thematic organization. The apprehension of these complex fields is felt with the immediacy characteristic of a "fundamental datum" and as such, often precludes further analyzability into its specific, constituent makeup. Our knowledge of the transitive and marginal components is seldom obtained from direct introspection of our experience; rather, it is often the result of cognitive assumptions made about the physical, external world that are found to be either logically or empirically necessary if we are to account for spatio-temporal continuities. For example, although I know that I have not retained continual awareness of my seated posture over the past few hours, my attention being now drawn to the position of my body, I feel confident that <u>I must have been</u> sitting at my desk all the while since had I been lying down, or anywhere other than at my desk, I <u>could not</u> have been at work on this essay. Lying down would have prohibited me from seeing the CRT monitor, standing up would have made using the keyboard so awkward that I would have surely become aware of unusual

kinesthetic feedback, and being elsewhere altogether would have made typing physically impossible for obvious reasons. Further, sitting at my desk when writing is my customary and usual behavior so that any other posture or position, being both unusual and uncharacteristic of my personal habits, would have immediately drawn my attention to the oddness of the situation. Thus, memory and knowledge of past behavior and personal habits, failure to become aware of unusual stimuli, and the physical necessity of being seated at this location in order to be in the correct spatial alignment to manipulate all the components of a computer system together, all conduce, in the absence of evidence to the contrary, to the belief that I have been seated for some time even though specific awareness of my physical disposition has not been a part of my conspicuous, continuous consciousness. John Wild says: " . . . it is simply not true that every genuine mode of consciousness is clear and distinct, and that all vague and peripheral awareness is to be reduced to the unconscious . . . Every distinct object of perception is surrounded by vague fringes, to use James's term, and many objects and attitudes, of which we are dimly aware, are permanently condemned to these fringes by other dominant interests. But though certain feelings are only dimly felt, this does not mean that they are unconscious, merely had but not felt at all."[1] Positing their existence as part of my total fields of consciousness is rather a necessary deduction or assumption.

There is no available criteria, procedure or methodology by which the total, thematic composition of our successive fields may be determined. Thematic obscurity is inherent in the intrinsic structure of conscious fields of focal and marginal data. Introspection qua intense, focal self-observation that attempts to achieve a higher resolution of

detail and clarity on the unfocused marginal data, tends to replace or alter the original, marginal content with new data rather than enhancing the resolution of the original data. Hypnosis and certain drugs may be of limited usefulness in recapturing past marginal data where ordinary, memorial effort fails, but without independent means to verify the information retrieved, we cannot be certain that focused attention is not significantly altering the marginal data, rather than merely remembering and reporting it. Regardless, such exceptional means of data retrieval is of questionable value in establishing the thematic constituents of our ordinary, everyday fields of consciousness. Other efforts, such as employing criteria of communicability (reportability or verbalizability), misleadingly substitute the rememberable, recognizable and nameable components of focal experience for the complex totality of co-present data, which being unrememberable, unrecognizable and unnameable, is a fortiori unexpressible.

The possibility that one may plausibly claim the existence of states of consciousness that seem to be either wholly marginal. i.e., have no apparent thematic focus, or are wholly focalized, i.e., without marginal suffusions, was shown to be moot, since without criteria allowing us to make specific determinations we are unable to probe beyond these state's a facie appearances. The field-concept of consciousness may be metapsychological insofar as it does not seem amenable to empirical verification or falsification; accordingly, its explanatory cash value must be determined with respect to its specific performance as part of the overall, structural design of a meta-phenomenological theory of human

consciousness. This is what I have attempted to provide in Chapter II and III.

Retrospective of Chapter III

The temporal organization of experience is structured through the formatting of mental data that James called the "specious present". In examining this original concept of Principles, I have interpreted it in terms of the significance that it has as the temporally organizing structure by which apprehended content becomes experientially meaningful, that is, as the psychic process whereby spans of duration of earlier-than and later-than phases of content are experienced as co-present for a whole or total state or act of consciousness. I have argued that the specious present names that temporal "fullness" of content/awareness which is what we mean by a total state of consciousness or a genuine conscious experience. This apprehension of the total content determines the dynamic, subjective meaning of each phenomenological given and as posited in Chapter IV, it is this dynamic, subjective meaning, rather than the thematic content of experience per se that is appropriated from one state of consciousness to the next. The specious present is a limiting structure in that it regulates the thematic complexity and density of the field by determining the temporal parameters in which a total, temporary constellation of co-present content/awareness is experienced. Whatever content can be apprehended as being within that duration constitutes the temporary field of one's present state of consciousness. The phenomenological meaning of the specious present, then, is that it is for

consciousness the temporal unity (durational span) which apprehends the given (thematic content) as a sensible total (a state of conscious "fullness"). How it is structurally possible for consciousness to experience these "organic wholes of sensible totals" that are "stuffed full" of changing phenomena, is largely the question that the latter part of Chapter III and all of Chapter IV has been concerned with answering.

The relationship of the field-concept to the specious present concept may be said to be the following: the specious present as a relatively, non-volatile constant, that is, as a fairly stable structure, temporally orders the thematic content of experience, our focal/marginal fields, in determinate relations of earlier-than and later-than. Data objectively given as one-after-the-other is subjectively experienced as being both side-by-side and all-at-once. Furthermore, successive moments of experience are apprehended not merely successively, but processionally, i.e., as a continuous parading of uninterrupted, sequential events. The perceiving of sequential data as both successive and concomitant is not, we have seen, a matter of literal perception; rather, the temporal-thematic content of experience is a uniquely mental or subjective apprehension that is manifested in awareness and carried forth to its successor as unitive pulses of psychic meaningfulness conveying noetic and noemic import. The specious present, then, is the psychic constant that determines our capacity for meaningful experience and every experience is a co-present succession of temporally antecedent and subsequent content-phases.

As we found no practical means by which to effectively determine the marginal constituents of our total fields, similarly, we could find no viable method or procedure by which to determine the upper and lower

limits of the specious present's durational range, nor whether that range is governed by parameters that are wholly temporal, wholly thematic, or an admixture of both. This inability to make a conclusive determination is inherent in the structure of consciousness itself, rather than being a flaw in the design of our experimental procedures: simply put, we have no way of determining what constitutes one whole experience, or what distinguishes one complete or total state of consciousness from another. What we have instead, as James saw, is a separation of mental events by arbitrary and artificial delineations, grouping our successive moments of consciousness in accordance with the primary modality that best describes our temporary focus of attention. We saw that James and others had found it necessary to distinguish a practical specious present from the bona fide or real specious present, the former being a duration whose effective span is identical with the "focus of attention", while the latter is the full, experiential girth of a total temporal and thematic field that the term, "specious present", was intended to convey. Although the real specious present as a precising concept seems empirically flawed, it yet serves to offer the metapsychological ideal of framing the theoretic boundaries that define the total field as an experiential whole, i.e., as a succession of earlier and later phases unitively apprehended as movement, passage or change. Theoretically, the specious present, as the temporal and thematic bearer of apprehended meaning, provides us with an idealized yardstick of what the "present" means by defining "now" as that span of duration in which the totality of thematic content is unitively apprehended as a meaningful whole.

We have seen that the idea of a minimal or maximal apprehension of data is neither enlightening nor wholly intelligible. Either content is

apprehended, in which case it is ordered-in-succession and psychically meaningful, or it is not. "Apprehension" is always a completely fulfilled, mental act. Duration-blocks that are either too long or too short to productively fill the cognitional capacity of one's specious present parameters yield muddled, incomplete quasi-experiences, or what we have called, "primitive cognizances", dim, vague, hesitant, inarticulate and incommunicable sensings of data.

I have also urged that the concept of the specious present might be better represented as the "phenomenological present" in order to safeguard against the misleading idea that when we say that we are simultaneously aware of earlier and later phases of content, we do not mean that there are two separate structures or centers of awareness occurring at the same time; there is only one unitive awareness of two phases in a relation of succession to one another. In emphasizing the idea that the "present" is psychologically meaningful only as a phenomenological present, I have criticized that thesis that holds that the duration of the present may be either equated with or tied to the longevity of linguistic expressions, or other manifestations of behavior, as suggested by J. J. C. Smart and philosophers of a physicalist and behaviorist persuasion. "Uttering" and "apprehending" are wholly different things, the former being only a limited aspect of our capacity for experiencing; the act of uttering cannot be made synonymous with experiencing.

James's insight into the temporality of consciousness is that each now-experience has its own lived history and must be structurally conceived as being a co-present succession of temporally antecedent and subsequent content-phases. Accounting for how consciousness phenomenologically feels necessitates presupposing an experiential unity

composed of temporally successive phases. Yet James has portrayed the operative mechanism of the specious present so as to strongly suggest an interpretation that, if adopted, threatens to fatally undermine the credibility of his entire structural program. I have referred to this interpretation as the "mechanistic" view of the specious present. Its adoption entails the necessity of mental constituents routinely progressing and recurring through successive states of consciousness. It is grounded in James's thesis of psycho-physical correspondence, which I have tried to show to be flawed precisely because of the counterfactual consequences that its adoption entails. We have interpreted James as espousing the thesis that the appropriation and assimilation of thematic data from one state of consciousness to its successor is achieved infra-consciously and pre-experientially, so that successive data is given to consciousness, albeit the processes are themselves not revealed in consciousness. Thus, developing an interpretation of James's famous dictum esse est sentiri, I have suggested that the total mental data of each field is appropriated to and assimilated by its immediate successor through a complex, synthesizing process, as a noesis of thematic import and a noema of dynamic, subjective meaning. "Experiencing" presupposes that on an infra-structural level of consciousness a "before and after" succession of content-phases is integrated as an ordered and organized relationship that is apprehended as the dynamic, subjective meaning of the total, given field. There is no apprehension in consciousness until the noemic interpretation of thematic data is synthesized into the temporal stream.

Retrospective of Chapter IV

The difficulties encountered in our interpretation of the Jamesian field and specious present have led us to speculate on the operative, structural mechanism of mind that we have called "thematic synthesization". This thesis proposes that what endures and is carried forward from one mental moment to the next is that "kernel" of experiential knowledge and meaning which retains the temporal-thematic significance of the just-apprehended experience. Each total, mental field of successive content-phases becomes a psychic datum of noetic and noemic significance that is given over to its successor as the compressed given of the just-apprehended. This noetic-noemic synthesis is apprehended as the earliest phase of the new experiential field. I have proposed that the succession and integration of the earlier and later phases be condensed into a unified field in order for an apprehension of the synthesization of both phases to be experienced as a totality that is temporally ordered and thematically organized. What results is a "fullness" of experience in and for consciousness. Prior to synthesization, there is no organizational unity in consciousness; consciousness is "dumb" until and unless the content becomes interpreted, i.e., apprehended in unity. As a result of this ongoing synthesization, it may be said that for each of us, the past is always present; who I am now reflects the cumulative totality and entirety of all my prior, self-historical experiences. This thesis, it seems to me, allows us to account for our enduring feeling of personal continuity and unity during periods of ongoing wakefulness as well as for the long-term continuity and unity of self given the natural interruptions in consciousness that sleep interposes.

Thematic synthesization is suggested and implied by various statements and illustrations in Principles, and I have urged, must be embraced in order for James's thesis of the "self-appropriation and transmission of ownership" of mental states to be plausible and intelligible.

NOTES

A RETROSPECTIVE

[1]John Wild, The Radical Empiricism of William James, (New York: Doubleday & Co., 1969), p. 26.

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