PURE CONSCIOUSNESS AND "COGNITIVE ALTERNATION": A STUDY IN THE PSYCHOLOGY OF MYSTICISM

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ABSTRACT

Contextual theories of language and experience have been introduced in religious studies at the end of the 1970's to undermine the thesis of a common core in mystical experiences. Those theories were used, a few decades ago, to question the "objective" character of the modern scientific methodology.

A polarity of views has resulted from their introduction in the study of mysticism: on one side the proponents of the existence of a common core of mystical experiences (or at least in the category of experience generally known as "introvertive"), and on the other, those who argue that all experiences are "contextual", thus necessarily colored by the traditional and cultural background of the experiencer.

A brief review of the essential arguments of W.T. Stace and S.T. Katz, who respectively embody those views, is presented. We will then examine how the most consequential attempts to extract intelligible models from the mystics' testimonies have been reflecting, to a large extent, the philosophical assessments of science. We will justify the approach of modern psychology in the general endeavor of erecting an integrated epistemological model of human awareness, since this approach is better positioned to respect both the subjective contribution of the subject and the revised concept of objectivity in empirical methodology.

We will discuss the psychological process known as "cognitive alternation" or "cognitive adaptiveness" and its role in the creative process, and examine how this process reveals the essential structural orientation of consciousness. This analysis will suggest that the experience of "contentless" or "pure" consciousness is the natural outcome of letting the mind proceed towards the upper limit of the "synthetic" or "integrative" mode of consciousness. Psychophysiological studies conducted on subjects practicing meditational techniques support that view, and have revealed that those techniques induce experiences that are formally or structurally alike. On that basis, we can assume a universal structure of the human cognitive processes, and thus show the inadequacy of the unrestricted version of the contextual view.

Précis

Les théories contextuelles du langage et de l'expérience ont été introduites dans le domaine des études religieuses à la fin des années 70, remettant en question le point de vue d'un noyau commun d'expérience aux diverses traditions mystiques. Ces théories furent utilisées, il y a quelques décennies, pour remettre en cause le caractère "objectif" de la méthodologie scientifique moderne.

L'introduction de ces théories dans l'étude des expériences mystiques a généré une polarité dans l'expression des points de vue: d'un côté ceux qui soutiennent l'existence d'un noyau commun d'expérience (ou tout au moins pour la catégorie d'expériences généralement appelées "introverties"), et de l'autre, ceux qui affirment que toutes les expériences sont contextuelles, donc nécessairement colorées par la culture et la tradition de celui qui a vécu l'expérience.

Une brève revue des arguments majeurs de W.T. Stace et S.T. Katz, principaux défenseurs de ces points de vue, est présentée. Nous examinerons ensuite comment les tentatives les plus marquantes ayant pour but d'extraire des modèles intelligibles à partir des témoignages des mystiques ont reflété, dans une large mesure, les évaluations philosophiques de la science moderne. Nous justifierons l'approche de la psychologie moderne dans son effort pour ériger un modèle épistémologique intégré de la conscience humaine, étant donné qu'elle est mieux placée pour respecter à la fois la contribution subjective du connaissant et le concept revisé d'objectivité de la méthodologie empirique.

Nous discuterons du processus psychologique souvent désigné par l'appellation "alternance cognitive" et de son rôle dans la démarche créatrice, et examinerons comment ce processus révèle l'orientation structurelle majeure de la conscience. Cette analyse nous suggèrera que l'expérience de la conscience "pure" est l'aboutissement naturel du mouvement de l'esprit vers la limite supérieure du mode "synthétique" ou "intégrant" de la conscience. Des études psychophysiologiques effectuées sur des sujets pratiquant des techniques de méditation soutiennent ce point de vue, et révèlent que ces techniques induisent des expériences qui sont de nature et de structure similaires. Sur cette base, nous pouvons maintenir l'existence d'une structure universelle des processus cognitifs humains, et ainsi démontrer le caractère inadéquat de la version non-restreinte des théories contextuelles.

CONTENTS

INTRODUCTION

About twenty years after their introduction in discussions of philosophy of science, contextual theories have re-emerged, this time to fuel a scholarly debate in the study of mystical experience. These theories are used as a basis for attacks on the thesis that mystical experiences (or at least a category of them), independently of the traditional or cultural background, share a common core. The main defender of the contextualist cause has been Steven T. Katz, who claims that both the mystical experience, and the language used to describe that experience, can only be understood contextually.

In his attacks on the "perennialist" view, Katz especially targeted the work of W.T. Stace, since it offers the clearest and soundest account supporting the thesis of a common core. While Stace's approach to mystical experience is mainly phenomenological and psychological, Katz's argumentation is essentially philosophical.

The aim of this paper is first to provide a justification of the psychological approach in the study of mystical experience, and second, to show that the empirical study of human cognitive processes can reveal the essential structural orientation of consciousness. For this latter purpose, we will discuss the psychological process known as "cognitive alternation" or "cognitive adaptiveness", and examine its importance in regard to the human creative process and the "mechanics" of discovery and novelty. Its analysis will reveal, in a very satisfactory manner, that the type of mystical experiences generally classified as

"introvertive" have an intelligible epistemic structure common to all cultures and religions. This analysis will also point out that the experience of "contentless" or "pure" consciousness is the natural outcome of the process of "increasing hypoarousal", or de-exciting mind and body. Since non-dualistic awareness is said to be the experiential cognition of consciousness by itself (or self-referral state), we can assume that it constitutes a basic "ground" of knowing, as many mystics and philosophers did.

The modern philosopher and scientist Michael Polanyi came to that assumption by minutely analyzing the process of cognitive alternation with the purpose of achieving a unified epistemological model of the structure of human cognitive processes. We will review some main points of his model, and will see that his philosophical analysis--and synthesis--gives full support to psychologists like Hocking and Deikman who have maintained that the process of cognitive alternation is a basic phenomenal component of human psychic activity revealing that transcendence--from analytic, focal, to the most diffuse, subtle level of thought, then "pure" awareness--is the essential structural orientation of consciousness. In this context, we will argue that Stace was right in positing that a fourth major state of consciousness is reached by emptying the mind of all discursive thoughts and concepts.

From this discussion, conclusive remarks will be drawn to show the inadequacy of the unrestricted theory of contextual language and experience as formulated by Katz.

Prior to the main discussion of Chapter III, we will review the respective positions of Stace and Katz, and then examine the similarity of the philosophical

assessments between philosophers of religion and philosophers of science, and how the epistemological outcomes of all of them lead to a fuller understanding of the human cognitive capabilities.

Chapter I

THE RESPECTIVE APPROACHES OF STACE AND KATZ: A PRESENTATION

A) Stace's approach to mysticism

On the jacket of the first edition of W.T. Stace's major work *Mysticism and Philosophy* [1], the publishers wrote that "it is not too much to say that *Mysticism and Philosophy* will be recognized as a work of distinction and importance comparable to *The Varieties of Religious Experience* by William James".[2] Looking at it with a perspective of almost thirty years, there is certainly not much exaggeration in that prediction. His book is probably one of the few which have figured most often in the philosophical discussion of mysticism during that period, and in that regard, Stace can be acknowledged as one of the pioneers in that field. As noted by Christine Overall, "many subsequent scholars in the field have admitted some indebtedness to Stace's work, whether to his phenomenological classification of mystical experience, to his delineation of the major issues, or to the solutions he offers to the problems raised by mysticism".[3] It is generally

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[1] Walter T. Stace, *Mysticism and Philosophy*, London: Macmillan and Co., 1961.
[2] Quoted in Christine Overall, "Mysticism, phenomenalism and W.T. Stace", in *Transactions of the Charles S. Peirce Society*, vol. 18, no. 2, Spring 1982, p. 177.
[3] Ibid., p. 177.

recognized that the book is especially valuable "because it deals with the essential questions which concern mysticism".[1]

In his preface, Stace wrote that his "approach to philosophy is that of an empiricist and an analyst"[2]; this allegiance to empiricism can largely explain the prominent role of experience in his system. His approach to reveal the intelligibility of mystical experiences was through a careful analysis of the experiential datum. "All of philosophy", says Stace, "must take its start from experience--not some generalized, abstract experience, but individual experience: each person begins with his or her own experience."[3]

Since Stace considered that the mystics' descriptions of their experiences are usually a kind of mix of phenomenological characteristics intertwined with injected beliefs and concepts, he drew a distinction between an experience and its interpretation:

> It is a presupposition of our enquiry that it is important as well as possible to make a distinction between a mystical experience itself and the conceptual interpretations which may be put upon it.[4]

He then uses, in a famous passage, an example taken from sense experience to illustrate the inferential role of the mind, which implies that he accepts the possibility to make different judgements about what is phenomenologically the same experience:

> It is probably impossible . . . to isolate "pure" experience. Yet, although we may never be able to find sense experience completely free of any

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[1] John Findlay, "The logic of mysticism", in *Religious Studies* , vol. 2, p. 147.
[2] W.T. Stace, op. cit., p. 6.
[3] Taken from his *Theory of Knowledge and Existence*, quoted in C. Overall, op. cit., p. 179.
[4] Stace, *Mysticism and Philosophy,* p. 31.

> interpretation, it can hardly be doubted that a sensation is one thing and its conceptual interpretation is another thing. That is to say, they are distinguishable though not completely separable. There is a doubtless apocryphal but well-known anecdote about the American visitor in London who tried to shake hands with a waxwork policeman in the entrance of Madame Tussaud's. If such an incident ever occurred, it must have been because the visitor had a sense experience which he first wrongly interpreted as a live policeman and later interpreted correctly as a wax figure. If the sentence which I have just written is intelligible, it proves that an interpretation is distinguishable from an experience; for there could not otherwise be two interpretations of one experience. . . . It seems a safe position to say that there is an intelligible distinction between experience and interpretation, even if it be true that we can never come upon a quite uninterpreted experience. [1]

Stace makes it clear that he is aware of the difficulty in applying the same reasoning to mystical experiences, but he emphasizes the "vital importance" of this distinction if we are to isolate the cognitive and phenomenological components:

> We have to make a parallel distinction between mystical experience and its interpretation. But here too we cannot expect to make a clear separation. The difficulty of deciding what part of a mystic's descriptive account of his experience ought to be regarded as actually experienced and what part should be taken as his interpretation is indeed far greater than the corresponding difficulty in the case of sense experience. And yet it is of vital importance to our enquiry that the distinction should be admitted, should be grasped and held continually before our minds, and that we should make every possible attempt to apply it to our material as best we can, however difficult it may be to do so. [2]

This concept is fundamental in his approach to extract some common features in what he would consider to be of a more descriptive rather than interpretive value in the mystics' reports. He defines in the following way what he means by "interpretation": "I use the word 'interpretation' to mean anything which the conceptual intellect adds to the experience for the purpose of understanding it, whether what is added is only classificatory concepts, or a logical inference, or an

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[1] Ibid., pp. 31, 32.
[2] Ibid., p. 32.

explanatory hypothesis." [1] But what criteria will he use for deciding that certain parts of mystical reports are more descriptive and some other parts more interpretative? To solve that problem, he introduces the notion that there are different levels of interpretation of mystical experience, "just as there are of sense experience":

> If a man says, "I see a red colour", this is a low-level interpretation, since it involves nothing except simple classificatory concepts. But a physicist's wave theory of colours is a very high-level interpretation. Analogously, if a mystic speaks of the experience of "an undifferentiated distinctionless unity," this mere report or description using only classificatory words may be regarded as a low-level interpretation. But this is being more fussily precise than is usually necessary, since for all intents and purposes it is just a description. If a mystic says that he experiences a "mystical union with the Creator of the universe," this is a high-level interpretation since it includes far more intellectual addition than a mere descriptive report. It includes an assumption about the origin of the world and a belief in the existence of a personal God. [2]

Having made that distinction, he goes on to analyze "the problem of the universal core" and asks: "Is there any set of characteristics which is common to all mystical experiences, and distinguishes them from other kinds of experience, and thus constitutes their universal core?" [3] He provides us with a "preliminary sketch of the conclusions we shall reach", comprising a "central nucleus of typical cases which are typical because they all share an important set of common characteristics". And there will be "borderline cases", which are often considered to be "mystical experiences", "although none of them possess all the common characteristics of the nucleus, some of them possess some of these characteristics,

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[1] Ibid., p. 37.
[2] Ibid., p. 37.
[3] Ibid., p. 43.

others others." [1] In line with the views of many mystics [2], he excludes visions and voices from the class of mystical phenomena on the point that both are sensuous images; he also discounts the occasional phenomena listed as trances, raptures, and violent emotionalism. [3]

After some considerations about the use of language by the mystics, he introduces his twofold typology based on the distinction between what he calls "extrovertive" and "introvertive" types of experience. He recognizes that some authors already made a similar distinction:

> The two main types of experience, the extrovertive and the introvertive, have been distinguished by different writers under various names. The latter has been called the "inward way" or the "mysticism of introspection," which is Rudolf Otto's terminology and corresponds to what Miss Underhill calls "introversion". The other may be called "the outward way" or the way of extrospection. The essential difference between them is that the extrovertive experience looks outward through the senses, while the introvertive looks inward into the mind. Both culminate in the perception of an ultimate Unity--what Plotinus called the One--with which the perceiver realizes his own union or even identity. But the extrovertive mystic, using his physical senses, perceives the multiplicity of external material objects--the sea, the sky, the houses, the trees--mystically transfigured so that the One, or the Unity, shines through them. The introvertive mystic, on the contrary, seeks by deliberately shutting off the senses, by obliterating from consciousness the entire multiplicity of sensations, images, and thoughts, to plunge into the depths of his own ego. There, in that darkness and silence, he alleges that he perceives the One--and is united with it--not as a Unity seen through a multiplicity (as in the extrovertive experience), but as the wholly naked One devoid of any plurality whatever. [4]

As we will be more concerned, in the latter part of this paper, with the experience of "pure consciousness" (the introvertive type), let us review his main

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[1] Ibid., p. 46.
[2] He refers particularly to Eckhart, Ruysbroeck, St. John of the Cross, and a passage from the *Svetasvatara Upanisad*.
[3] W.T. Stace, op. cit., pp. 47-55.
[4] Ibid., pp. 61-62.

remarks about the experience. It is worth noting that "Stace's characterization of 'pure' consciousness includes its behavioural antecedents" [1]:

> Suppose that, after having got rid of all sensations, one should go on to exclude from consciousness all sensuous images, and then all abstract thoughts, reasoning processes, volitions, and other particular mental contents; what would there then be left of consciousness? There would be no mental content whatever but rather a complete emptiness, vacuum, void. One would suppose *a priori* that consciousness would then entirely lapse and one would fall asleep or become unconscious. But the introvertive mystics--thousands of them all over the world--unanimously assert that they have attained to this complete vacuum of particular mental contents, but that what then happens is quite different from a lapse into unconsciousness. On the contrary, what emerges is a state of *pure* consciousness--"pure" in the sense that it is not the consciousness *of* any empirical content. It has no content except itself.
>
> Since the experience has no content, it is often spoken of by the mystics as the Void or as nothingness; but also as the One, and as the Infinite. . . .
>
> The paradox is that there should be a positive experience which has no positive content--an experience which is both something and nothing. [2]

So the preliminary psychological process to be performed in order to allow the mind to merge in the underlying unity would be to eliminate all sensory and conceptual images, all relationships that would maintain an awareness of multiplicity. He goes on to quote the Mandukya Upaniśad, which treats the experience as a major state of consciousness like the three ordinary states of deep sleep (*prājña*), dreaming (*taijasa*) and waking (*vaiśvānara*); it is referred to as the "*turīya* " state, or the "fourth" state:

> The Fourth, say the wise . . . is not the knowledge of the senses, nor is it relative knowledge, nor yet inferential knowledge. Beyond the senses, beyond the understanding, beyond all expression, is the Fourth. It is pure unitary consciousness wherein awareness of the world and of multiplicity is

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[1] James R. Horne, "Pure mysticism and twofold typologies: The typology of myscicism--James to Katz", in *Scottish Journal of Religious Studies* , vol. 3, no. 1, 1982, p. 8.

[2] Stace, op. cit., pp. 85-86.

> completely obliterated. It is ineffable peace. It is the Supreme Good. It is One without a second. It is the Self. [1]

He uses the same procedure as he did with the extrovertive type of mysticism, namely to present first a statement from mystics of ancient times (which usually are more "compressed" and limited to "the bare bones of the experience" [2]), and then to introduce a more detailed perspective from a more recent author (with the purpose to try "to illuminate and supplement it [the old rendering] by the fuller psychological description of the same type of experience given by a contemporary mind" [3]). So then he gives the account of the nineteenth century man of letters J.A. Symonds, in which, he argues, we find the same basic psychological characters as in the statement from the Upaniśad. To further support his view, he includes statements from the medieval Catholic mystic Jan van Ruysbroeck, the German Dominican monk Eckhart, the Spanish mystic St. John of the Cross, from Plotinus "as representing the classical pagan world", from the two Sufi mystics (Islam) Al Ghazzali and Mahmud Shabistari, etc., and notes:

> It is the same process of emptying the mind of all empirical contents as we find with Eckhart, with the Upanishadic mystics, and indeed with all mystics who have been sufficiently intellectual to analyse their own mental processes. This ridding the mind of all particular images and thoughts is precisely that obliteration of all multiplicity of which the Mandukya Upanishad speaks. For the multiplicity referred to is nothing else but the manifold of sensations, images, and thoughts which usually flow through consciousness. [4]

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[1] Ibid., p. 88.

[2] Ibid., p. 90.

[3] Ibid., pp. 90-91. He mentioned previously, on p. 88, that "as usual with descriptions of mystical states given by people who lived long before the dawn of science and the modern interest in the details of psychology, the statements which we get in the Upanishads are abrupt and very short, . . .".

[4] Ibid., pp. 102-103.

B) Katz and the contextualist view

What will be called hereafter the "contextualist" view of mysticism is that approach which considers that mystical experience is conditioned by tradition and culture, and constructed by the subject's beliefs and concepts. This view is often also called "pluralistic" or "constructivistic" and was already explicitly articulated at the beginning of this century by Rufus M. Jones:

> There are no "pure experiences", i.e. no experiences which come wholly from *beyond* the person who has them. . . . The most refined mysticism, the most exalted spiritual experience is *partly* a product of the social and intellectual environment in which the personal life of the mystic has formed and matured. There are no experiences of any sort which are independent of preformed expectations or unaffected by the prevailing beliefs of the time. . . . Mystical experiences will be, perforce, saturated with the dominant ideas of the group to which the mystic belongs, and they will reflect the expectations of that group and that period.[1]

Although the thesis did not significantly capture the attention of scholars of mysticism for more than half a century, it has gained momentum over the last ten years mainly due to Steven J. Katz[2] vigorous attempts to restore its credibility. His work has been used here to discuss the contextualist account of mystical experience, since it offers the clearest statement of the argumentation that forms the foundation of that account.[3]

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[1] R.M. Jones, *Studies in Mystical Religion*, London: Macmillan, 1909, p xxxiv. As we will see in the next chapter, a similar contextual theory of experience was also presented at the end of the 1950's in regard to the scientific process of investigation

[2] Katz has presented his argumentation in two essays: "Language, epistemology, and mysticism", in S.T. Katz, ed., *Mysticism and Philosophical Analysis*, New York: Oxford University Press, 1978, pp. 22-74; and "The "conservative" character of mystical experience", in S.T. Katz, ed., *Mysticism and Religious Tradition*, New York: Oxford University Press, 1983, pp. 3-60.

[3] Other discussions of mystical experiences from a contextualist perspective can be found in: Bruce Garside, "Language and the interpretation of mystical experience", in *International Journal for the Philosophy of Religion*, vol. 3, 1972, pp 93-102;

Katz presents in the following way what he calls his "single epistemological assumption":

> *There are NO pure (i.e. unmediated) experiences.* Nether mystical experience nor more ordinary forms of experience give any indication, or any grounds for believing, that they are unmediated. That is to say, *all* experience is processed through, organized by, and makes itself available to us in extremely complex epistemological ways. The notion of unmediated experience seems, if not self-contradictory, at best empty. This epistemological fact seems to me to be true, because of the sorts of beings we are, even with regard to the experiences of those ultimate objects of concern with which mystics have intercourse, e.g. God, Being, nirvana, etc.[1] (Italics in original)

Katz occasionally expresses the view that the beliefs and concepts which a mystic has inherited from his culture and tradition play a causal role in determining the phenomenological content of experience:

> . . . the experience itself as well as the form in which it is reported is shaped by concepts which the mystic brings to, and which shape, his experience.[2] . . . The forms of consciousness which the mystic brings to experience set structured and limiting parameters on what the experience will be, i.e. on what will be experienced, and rule out in advance what is "inexperienceable" in the particular given, concrete, context.[3] . . . the entire life of the Jewish mystic is permeated from childhood up by images, concepts, symbols, ideological values, and ritual behaviour which there is no reason to believe he leaves behind in his experience. Rather, these images, beliefs, symbols, and rituals define, *in advance*, what the experience *he wants to have*, and which he then does have, will be like.[4] What I wish to show is only that there is a clear causal connection between the religious and social structure one brings to experience and the nature of one's actual religious experience.[5] . . . we conclude with the summary

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John Hick, "Mystical experience as cognition", in R. Woods, ed., *Understanding Mysticism*, Garden City, N.Y.: Doubleday and Co., 1980, ppj. 422-437; and Peter Moore, "Mystical experience, mystical doctrine, mystical technique", in S.T. Katz, ed., *Mysticism and Philosophical Analysis*, op. cit., pp. 101-131.

[1] S.T. Katz, "Language, epistemology, and mysticism", op. cit., p. 26.

[2] Ibid., p. 26.

[3] Ibid., pp. 26-27.

[4] Ibid., p. 33.

[5] Ibid., p. 40.

> generalization that the experience of mystics comes into being as the kind of experience it is as a necessary consequence of the linguistic-theological and social-historic circumstances which govern the mystical ascent. And these circumstances are grounded in specific ontological schemata which shape the configuration of the quest and its goal.[1]

Since there is a great variety of religious beliefs and symbols from one tradition to another, this view implies that the experiences of the mystics from different traditions will also vary greatly. So Katz expresses at the end of his paper that his "investigation suggests what it suggests--a wide variety of mystical experiences which are, at least in respect of some determinative aspects, culturally and ideologically grounded."[2] Since beliefs and expectations have such a decisive role in shaping the experience, then it is no surprise that he infers that the experiences will be different for each mystic within one tradition: "Care must also be taken to note that even the plurality of experience found in Hindu, Christian, Muslim, Jewish, Buddhist mystical traditions, etc., have to be broken down into smaller units."[3]

With reference to the work of Stace, he considers the distinction between experience and interpretation as being "simplistic"[4]: "In order to treat adequately the rich evidence presented by mystics, concentration solely on post-experiential reports and the use of a naive distinction--almost universally held by scholars--between 'raw experience' and interpretation, will not do."[5] He takes Stace's comment that "it is probably impossible . . . to isolate 'pure' experience" as a statement in concert with his own opinion that there is no such thing as unmediated

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[1] S.T. Katz, "The "conservative" character of mysticism", op. cit., p 43.
[2] S.T. Katz, "Language, epistemology, and mysticism", op. cit., p. 66.
[3] Ibid., p. 27
[4] Ibid., p. 31.
[5] Ibid., p. 30

experience. He accuses Stace of failing "to grasp clearly the force of this concern" on the basis that the sole discussion of the post-experiential data leaves behind a proper consideration of the "primary epistemological issues which the original recognition requires."[1]

He doubled the contextual theory of experience with a corresponding contextual theory of meaning, which, like the former, had been defended previously in regard to the scientific mode of inquiry (see next chapter):

> . . . what appear to be similar-sounding descriptions are not similar descriptions and do *not* indicate the same experience. They do not because language is itself contextual and words "mean" only in contexts. . . . What emerges clearly from this argument is the awareness that choosing descriptions of mystic experience *out of their total context* does *not* provide grounds for their intelligibility for it empties the chosen phrases, terms, and descriptions of definite meaning.[2] (Italics in original)

On that basis, he argues that "Stace . . . and the others who follow a similar procedure and arrive at similar results are here being misled by the surface grammar of the mystical reports they study."[3] He also speaks about "Stace's failure to appreciate the complexity of the nature of 'experience' with its linguistic . . . and conceptual contextuality"[4], and defends his strong reliance upon the literal use of language in the following terms:

> . . . if the mystic does not mean what he says and his words have *no* literal meaning whatsoever, then not only it is impossible to establish my pluralistic view, but it is also logically impossible to establish any view whatsoever. If none of the mystics' utterances carry any literal meaning then they cannot serve as the *data* for any position, not mine, and certainly not

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[1] Ibid., p. 28.
[2] Ibid., pp. 46-47.
[3] Ibid., p. 46.
[4] Ibid., p. 29.

the view that all mystical experiences are the same, or reducible to a small class of phenomenological categories.[1] (Italics in original)

[1] Ibid., p. 40.

Chapter II

PHILOSOPHY OF SCIENCE

vs

PHILOSOPHY OF RELIGION

The development in Western countries of a more global consciousness along with a process that has been called "secularization" has established a fertile ground for the inter-religious study of mystical experience. This transformation came about through the gradual ingestion over the past several centuries of the scientific paradigm, which has led the modern human being to free himself, to a great extent, from the dominance of religious belief and institutions. Right from its birth, modern science was kind of destined to investigate not only the outer physical world, but also the inner world of consciousness and psychic phenomena: "The true scientist must subject all things in heaven and under it to experiment" [1] wrote the Franciscan Roger Bacon, one of the fathers of the "scientific method". And since the Kingdom of Heaven is said to be within us . . .

It is not by chance that one of the few works that had the greatest influence in this century on the study of religious experience was written by a psychologist: William James' classic work *The Varieties of Religious Experience* [2] is permeated

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[1] Quoted in William Johnston, *Silent Music* , New York: Harper and Row, 1974, p. 45.

[2] His book "has continued to be in print since initially delivered as the Gifford lectures in 1902" (In Bernard Spilka, Ralph W. Hood, Jr., and Richard L. Gorsuch, *The Psychology of Religion--An Empirical Approach* , Englewood Cliffs, New Jersey: Prentice-Hall, 1985, p. 154.)

with the ingrained conviction that mystical experiences are intelligible in some ways. James applied the empirical approach to these experiences in the same way physicists or biologists apply it to the material world: with the implicit assumption that there is orderliness in nature. In his *Principles of Psychology* , he asserted his belief that we can progress towards a consistent view of the structure of human consciousness:

> Our general conclusion [is] that introspection is difficult and fallible; and that the difficulty is simply that of all observation of whatever kind. . . . The only safeguard is in the consensus of our farther knowledge about the thing in question, later views correcting earlier ones, until at last the harmony of a consistent system is reached. [1]

He did'nt set any formal rule in regard to judging what kinds of connections are plausible, probably because, as the preceeding quote implies, he was aware that in determining "agreement with observations", as Barbour would put it, "the assessment of evidence requires personal judgment". [2] He basically viewed science as a dynamic process, as a very human enterprise whose endeavor is to identify recurrent patterns in phenomena and experiences that are initially perceived as "chaotical". Commenting about the *presuppositions* of the scientific enterprise, Barbour wrote:

> More common today is the instrumentalist view that the idea of uniformity is a procedural maxim or policy for inquiry, a directive to search for regularities. It is said to be a useful methodological recommendation ("Look for recurrent pattern"), rather than an absolute metaphysical claim about reality ("Nature is always lawful"). We would reply, however, that it is not simply an arbitrary maxim; the policy it recommends is fruitful only because

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[1] Quoted in William Lyons, *The Disappearance of Introspection* . Cambridge, Mass.: The MIT Press, 1986, p. 17.

[2] Ian G. Barbour, *Issues in Science and Religion* . New York: Harper and Row, 1966, p. 179.

> the world is indeed orderly. Confidence in a procedural policy reflects tacit metaphysical assumptions. [1]

That basic "tacit metaphysical assumption" which led James in his inquiry is also the same axiom which is implicitly present in the various analyses of the great scholars of mysticism who came after him, such as Evelyn Underhill, Rudolf Otto, R.C. Zaehner, S. Radhakrishnan, Ninian Smart, and others. There are variations in their degree of "universal intent" [2], but they were all dedicated to extract intelligible models out of the seemingly chaotic sea of testimonies. For instance, in a classic statement in which she expressed her belief in an orderly structure of the conscious processes, Evelyn Underhill described mysticism as:

> . . . the name of that organic process which . . . is the art of [man's] establishing his conscious relation with the Absolute. The movement of the mystic consciousness towards this consummation, is not merely the sudden admission to an overwhelming vision of Truth: though such dazzling glimpses may from time to time be vouchsafed to the soul. It is rather an ordered movement towards ever higher levels of reality, ever closer identification with the Infinite. [3]

She argues very often in her book that mystical experiences have an "objective reality". For instance, she mentions that "It is one of the many indirect testimonies to the objective reality of mysticism that the stages of this road, the psychology of the spiritual ascent, as described to us by different schools of contemplatives, always present practically the same sequence of states." [4]

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[1] Ibid., pp. 181-182.

[2] We find in Ian Barbour (op. cit.), that "objectivity is not the absence of personal judgment but, as Polanyi puts it, the presence of *universal intent* . It is commitment to universality and rationality, not an attempt at impersonal detachment, which prevents such decisions from being purely subjective." (p. 181)

[3] Evelyn Underhill, *Mysticism: A Study in the Nature of Man's Spiritual Consciousness* . New York: Dutton, 1910; New American Library, 1974, pp. 81-82.

[4] Ibid., pp. 91-92.

Thus the classical studies of mysticism have been broadly phenomenological, most of the authors assuming that if they wanted to identify the recurrent patterns of mystical experience, they had to strip the testimonies from their doctrinal content and theologically-tainted idiosyncrasies in order to leave the cognitive data as naked as possible. After William James, the ability of the scholars of mysticism to perform that exercise varied greatly, since practically none of them had that ideal blend of sound philosophical analysis coupled with a rigorous empirical approach.

The next scholar who succeeded in introducing a lasting paradigm in the study of mystical experience was not an empiricist acquainted with philosophical analysis but rather a philosopher acquainted with the methods of empirical research. Walter Terence Stace approached the study of mysticism with the conviction that there was a cognitive dimension in these experiences, assessing that the problem of the inaccessibility of mystical experiences is not unique to them (that it is, in fact, characteristic of all types of experience) [1]. If the privacy of mystical experience is indeed a serious methodological problem, the fact that it is universally possible or attainable gives a "public" character to the experience:

> There is a reason to believe that this claim of the mystics to the universal *possibility* of mystical experience is correct. And this means that mystical experience is potentially just as "public" as sense experience, since to say that an experience is public only means that a large number of private experiences are similar, or would be similar if the appropriate steps were taken. As has already been observed, all experiences are in themselves equally private, and the public world is a construction out of private experiences. [2]

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[1] Christine Overall, *Mysticism, Phenomenalism, and W.T. Stace* , op. cit., p. 184.

[2] W.T. Stace, *Mysticism and Philosophy* , op. cit., p. 139.

With a similar perspective, philosophers of science, after acknowledging the influence of the observer on the data, have reformulated the idea of objectivity in terms of *intersubjective testability* and *universality* : "If the goal of science is to understand nature, universality is based in part on the conviction that the same structure of nature is open to investigation by other scientists. Science is thus *personal but not private* ." [1]

In her analysis of Stace's earlier metaphysical and epistemological writings, Christine Overall outlines the following points:

> It should first be remarked that throughout his work Stace consistently avows an allegiance to empiricism. This emphasis upon empiricism signals the importance, in his system, of experience. In *The Theory of Knowledge and Existence* , his early study in epistemology, Stace defines "empirical" as "that which does not attempt to transcend the bounds of experience," and the term is opposed to "transcendental", meaning that which attempts to go beyond the bounds of experience. Stace regards epistemology as an empirical science, "on a par with biology," which takes the data of experience as its basic material, without inquiring how or why those data have arisen. Epistemology seeks to show how knowledge has been built up from the raw data. [2]

The data, or the "given", is a central concept in his phenomenalistic approach to understand the nature of experience. As noted by Overall, Stace's reliance on this concept and his strong emphasis on phenomenalism connect him with "the mainstream of Anglo-American philosophy in this century". [3] She adds:

> He is not to any degree an innovator, and his phenomenalism is derivative from the work of more original minds. But his studies are distinguished by his meticulous examination of the full significance of an epistemology and metaphysics predicated upon a phenomenalistic given. Thus Stace's concept of the given is ultimately interesting not so much for its own sake, but

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[1] Ian G. Barbour, op. cit., p. 183.
[2] Christine Overall, op. cit., p. 178.
[3] Ibid., p. 179.

> because of the use he makes of it, especially in analyzing mystical experiences. [1]

We will come back later to Stace's interpretation of the "given" when we will discuss the critique that Steven Katz made of that concept.

In a general work reviewing the historical development in the field of psychology of religion, Spilka, Hood and Gorsuch remarked that "while James had long ago provided criteria to define mysticism, these did not lead to operational measures facilitating empirical research. On the other hand, Stace's work did." [2] Following some early interest among psychologists at the beginning of the century, the subject of mysticism came to be put aside for more than fifty years to re-emerge as a central topic of concern in the seventies. The reason for that, as it would appear, is that they didn't have any interpretive and experiential models to identify possible recurrent patterns. As expressed by Boyer, Alexander, and Alexander: "Until recently, research psychologists avoided serious consideration of such exceptional inner experiences, largely because of the lack of a sufficiently comprehensive theoretical framework to interpret the significance of the reported experiences, the lack of an experimental paradigm to test the verity of the experiences, and the lack of a systematic subjective methodology to replicate the experiences." [3] The process of continuing to collect data became less relevant and interesting as the researchers could not evaluate them in the light of an appropriate

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[1] Ibid., p. 179.

[2] Bernard Spilka, Ralph W. Hood, Jr., and Richard L. Gorsuch, *The Psychology of Religion--An Empirical Approach* . Englewood Cliffs, New Jersey: Prentice-Hall, 1985, p. 176.

[3] R. Boyer, C. Alexander and V. Alexander, "Higher states of consciousness in the Vedic psychology of Maharishi Mahesh Yogi: A theoretical introduction and research review", in *Modern Science and Vedic Science* , vol. 1, no. 1, p. 90.

conceptual framework. As Barbour remarked: "The mere amassing of data or cataloguing of facts does not produce a scientific theory. But new concepts and abstract interpretive constructions do enable us to see coherent patterns of relationship among the data". [1]

In significantly pushing ahead the study of mysticism into the womb of empiricism, Stace's criteria had the consequent effect to expose it to the dialectical convulsions that shake the world of philosophy of science. By the middle of the sixties, a few influential works had appeared in the philosophy of science emphasizing the arbitrary character of scientific concepts and theories. The main exponents of that discourse were Thomas Kuhn and Paul Feyerabend [2], who make use of the contextual theory of meaning to argue that competing scientific theories are "incommensurable". [3] Feyerabend wrote, in words that are reminiscent of those used later on by Katz: ". . . the meaning of every term we use depends upon the theoretical context in which it occurs. Words do not 'mean' something in isolation; they obtain their meanings by being part of a theoretical system." [4] The

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[1] Ian G. Barbour, op. cit., p. 142.

[2] Thomas Kuhn, *The Structure of Scientific Revolutions* . Chicago: University of Chicago Press, 1962; Paul Feyerabend, "Explanation, Reduction, and Empiricism", in *Scientific Explanation, Space, and Time* , H. Feigl and G. Maxwell, eds., Minnesota Studies in the Philosophy of Science, vol. 3. Minneapolis: University of Minnesota Press, 1962, pp. 28-97.
The idea of contextuality in regard to experience was mainly defended by Norwood R. Hanson, *Patterns of Discovery* , Cambridge: Cambridge University Press, 1958.

[3] See Anthony N. Perovich, Jr., "Mysticism and the philosophy of science", in *Journal of Religion* , vol. 65, January 1985, pp. 66, 67.

[4] Quoted in Anthony N. Perovich, Jr., op. cit., p. 66. In the case of Kuhn, the use of the contextual theory of meaning is more implicit.

consequence is that comparisons between different theories and paradigms are impossible. As expressed by Perovich:

> If the meaning of a term is determined by the theoretical context in which it is employed, no terms figuring in different theoretical contexts can share their meaning; this undermining of any common ground for the two theories seems to make comparison of the claims of the different theories impossible, for the possibility of a common language requisite for carrying out such a comparison has been abandoned. [1]

Similarly, at the end of the fifties, Norwood Hanson [2] suggested that the process of measurement and collecting data is influenced by prior theories, thus setting the basis for a contextual theory of experience in the field of scientific inquiry. "Each stage of investigation presupposes many principles that for the moment are taken for granted. Thus all 'data' are, as Hanson puts it, already 'theory-laden', . . . and 'all properties are observer-dependent.'" [3]

Thus we see that the ideas and questions that were discussed in regard to the scientific methodology came to be considered in a very similar manner in philosophy of religion. As noted by Rottschaefer:

> Frederick Suppe has observed in the new afterword to his highly influential and authoritative assessment of contemporary philosophy of science that "to an overwhelming degree the history of epistemology (and metaphysics) is the history of the philosophy of science . . .". There is evidence, I believe, to support Suppe's claim. Indeed, a similar claim might be made about philosophy of religion. Modern and contemporary philosophy of religion has to a large extent reflected philosophical assessments of science. More specifically, modern Anglo-American philosophy of religion has been highly influenced by positivist and postpositivist interpretations of

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[1] Ibid., p. 67.
[2] Norwood R. Hanson, *Patterns of Discovery* , op. cit..
[3] Ian G. Barbour, op. cit., pp. 139, 285.

> knowledge, interpretations based ultimately on analyses of the scientific enterprise. [1]

It would be appropriate also to signal the reciprocal aspect of that phenomenon: an important number of scientists and thinkers from the field of science have been greatly influenced by perspectives issued from mysticism in their inquiry to understand reality. Many renowned physicists like Niels Bohr, Erwin Schrödinger, Werner Heisenberg, David Bohm, J. Robert Oppenheimer, and others, have acknowledged the important contribution of "models" and ideas taken from mysticism, especially Eastern [2]. When Erwin Schrödinger declared that our scientific view needed to be "amended, perhaps by a bit of blood transfusion from Eastern thought" [3], he was anticipating the reinstatement of consciousness as the prime factor in our epistemological models. The idea that empirical science and mysticism have necessarily to converge towards a single unified view of man and his world has gained more acceptance in the last two decades, and the two approaches are seen less as opposites and more as complementary. In the words of Fritjof Capra:

> I see science and mysticism as two complementary manifestations of the human mind; of its rational and intuitive faculties. The modern physicist experiences the world through an extreme specialization of the rational mind; the mystic through an extreme specialization of the intuitive mind. The two approaches are entirely different and involve far more than a certain view of the physical world. However, they are complementary, as we have learned to say in physics. Neither is comprehended in the other, but both of

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[1] William A. Rottschaefer, "Religious cognition as interpreted experience: An examination of Ian Barbour's comparison of the epistemic structures of science and religion", in *Zygon* , vol. 20, no. 3, September 1985, p. 265.

[2] See Fritjof Capra, *The Tao of Physics* . London: Fontana, 2nd ed., 1983, part I.

[3] Erwin Schrödinger, quoted in John Briggs, *Fire in the Crucible--The Alchemy of Creative Genius* . New York: St. Martin's Press, 1988, p. 122.

> them are necessary, supplementing one another for a fuller understanding of the world. [1]

Modern science and religion have never been so close to the goal of achieving a unified epistemological model of the structure of human cognitive processes. This is so because on the side of science came the recognition that knowledge is a process very intimately connected with the state of the knower, and on the side of religion came the recognition that mystical states of consciousness have an intelligible epistemic structure that can be investigated empirically.

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[1] Fritjof Capra, op. cit., p. 339.

Chapter III

THE HUMAN COGNITIVE PROCESS: CONSCIOUSNESS AND EPISTEMOLOGY

A) Contextualism, language, and cognition

As we have mentioned previously, one of the major outcomes suggested by the ideas of Kuhn and Feyerabend in regard to the contextuality of meaning was to make competing scientific theories "incommensurable". Katz used the same view in the context of mystical experience to argue that we can't compare the reports of mystics from different traditions. Many writers in philosophy of religion have maintained that the replies offered in the scientific milieu are relevant to the debate in philosophy of religion. For instance, Peter Byrne wrote that "the sort of reply made to Kuhn by defenders of realism in the philosophy of science is applicable to Katz's claim about mysticism." [1] He goes on to assert that "the meaning of concepts is surely not wholly determined by specific contexts of use and in any case contexts are not water-tight but overlapping" [2], and uses an example from physics to illustrate his point:

> Newton's definition of the concept of light will be different from that given by a contemporary physicist. But there will be some continuity of interest, intention and description which links their uses of this concept, sufficient for us to say they are talking about the same thing, even though their conceptions of it are not in all respects the same. [3]

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[1] Peter Byrne, "Mysticism, identity and realism: A debate reviewed", in *International Journal for Philosophy of Religion* , vol. 16, 1984, p. 243.
[2] Ibid., p. 243.
[3] Ibid., p. 243.

Moreover, philosophers of science soon realized that "this theory made impossible disagreement between those of different theoretical backgrounds" [1] In a discussion of Feyerabend's views on meaning, Dudley Shapere noted that "in order for two sentences to contradict one another (to be inconsistent with one another), one must be the denial of the other; and this is to say that what is denied by the one must be what the other asserts; and this in turn is to say that the theories must have some common meaning." [2]

The absurdities to which an unrestricted version of the theory was leading are also applicable in the context of its use in the discussion of religious experiences (this being said without implying a hostility to contextualism). Contextuality does not imply the absolute impossibility for two subjects to argue from two different paradigmatic understandings, or from two different cultural and/or traditional backgrounds.

The theoretical component of the study of mysticism, like that of science, is made of theories, models and "maps" whose discrete elements are concepts. The interventions, in discussions on scientific methodology, of philosophers like Kuhn and Feyerabend, have had the salutary effect of making the scientific community more aware that language is abstractive and selective, and that a concept is a schematic delineation which is removed from the immediacy of human experience. As expressed by Barbour:

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[1] Anthony N. Perovich, Jr., "Mysticism and the Philosophy of Science", in *Journal of Religion* , vol. 65, January 1985, p. 67.
[2] From his article "Meaning and Scientific Change"; quoted in A.N. Perovich, Jr., op.cit., p. 67.

> In previous centuries this symbolic character of scientific language was overlooked; science was assumed to provide a *literal description* of an objective world. Its concepts were thought of as exact and complete replicas of nature as it is in itself--a view we now call "naive realism." There was assumed to be a one-to-one isomorphic correspondence between every feature of a theory and a matching feature of the entity it reproduced or "mirrored." Today concepts are considered to be *symbols* that deal with only certain aspects of the phenomena in order to achieve particular and limited purposes. The contribution of man's mind in inventing concepts, and the role of imagination and creativity in the formation of new theories, are widely acknowledged. Concepts are not given to us ready-made by nature; they are terms in human symbol-systems. [1]

Whether we want to use language "referentially" to designate a state of an object or a state of consciousness which is perceived as "objective", the "referent" will always be represented only partially. The philosopher of science Cornelius Benjamin asserts:

> Every symbol aims to represent its referent, but no symbol is able to portray *all* of the features of the referent; hence, it is obliged to omit one or more of them. Given any symbol, therefore, one may infer the referent, since the symbol resembles it, but not all of the referent, since the symbol is an abstraction. . . .Since the human mind is incapable of grasping any event in all of its configurations, certain of its relations are more or less arbitrarily neglected and are not included in the resulting symbol. As a consequence, every symbol is abstract in its representations of nature; it loses some of nature and hence is not strictly adequate as a representative. [2]

The process of integrating the symbolic value of words and concepts must therefore rely strongly on the "awareness background" of the observer, on his more "synthetical" or "integrative" [3] modes of cognition, and not exclusively on the particulars (or more analytic, explicit modes of cognition). Writing about the

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[1] Ian G. Barbour, op. cit., p. 157.

[2] A. Cornelius Benjamin, from his *Introduction to the Philosophy of Science* , quoted in Ian G. Barbour, op. cit., p. 156.

[3] The word "integrative" is more commonly used nowadays in cognitive psychology. See Abner Shimony, "Is observation theory-laden? A problem in naturalistic epistemology.", in R.G. Colodny, ed., *Logic, Laws, and Life: Some philosophical Complications* . Pittsburgh: University of Pittsburgh Press, 1977, pp. 185-208.

epistemological theory offered by Michael Polanyi (which will be discussed with more details in section C of this chapter), John Apczynski mentioned that "the most general feature of Polanyi's position, pervading every facet of his theory, is that knowing is an achievement" [1] He goes on to summarize some of his insights on the constitutive elements of the structure of "tacit knowing", which posit that the mind derives a meaning out of the bunch of senses data by proceeding towards the more diffuse, less tangible layers of the "integrative" pole of awareness:

> The dynamic interaction between the explicit and subsidiary poses of knowledge can be specified by means of an analysis of the structure of tacit knowing. The functional structure refers to the recognition that the act of knowing involves a tacit integration (which is neither a deduction nor an explicit form of inference) whereby we attend from particulars toward a focal whole. The phenomenal aspect of tacit knowing points to the fact that the subsidiarily known particulars appear in a new form in the focal whole, ... The semantic aspect of tacit knowing specifies further that the meaning of the particulars is to be found in their joint coherence. And finally, the ontological aspect of tacit knowing implies that every act of knowing leads us beyond ourselves[2] to some aspect of reality. [3]

One of the happy consequences, in philosophy of science, of the discussions over contextualism engendered by Hanson, Feyerabend and others was to prompt a greater recognition of the importance of the subject's contribution in the process of knowing. One of Hanson's view was that the study of psychology is relevant to epistemology [4]. Shimony insists that "there should be a dialectic interplay between psychology and epistemology" [5], and we can sense from the

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[1] John V. Apczynski, "Mysticism and epistemology", in *Sciences Religieuses / Studies in Religion* , vol. 14, no. 2, 1985, p. 198.

[2] We can infer that the word "ourselves" here is probably restricted to the empirical "selves".

[3] Ibid., pp. 199-200.

[4] See in Abner Shimony, op. cit., p. 186.

[5] Ibid., p. 186.

numerous articles published on the subject in the last twenty years that the authors are more and more implicitly, if not explicitly, adopting that view.

There is one such case of reciprocal action that appears to me to be of a basic importance for our understanding of the knowing process and, indeed, of man as a knower. The principle from which Polanyi's epistemological model is issued is generally termed "cognitive alternation" or "cognitive adaptiveness" in the branch of psychology which is specifically concerned with the mechanisms of perception and cognition [1]. It refers to that feature of the human cognitive ability to perceive in both integrative (synthetic) and analytic modes; in the language inspired by Polanyi, we would say, as we have seen, that it is the process of "tacit integration . . . whereby we attend from particulars toward a focal whole". It is very interesting to note here that this distinction seems to be acknowledged "with various names and descriptions, by psychologists holding very different theories" [2]: this fact supports the argument that different theories may be partially incommensurable, but certainly not totally.

A good understanding of this psychological process will delineate the phenomenological basis through which, as I shall argue, we will justify the use of a model that can greatly increase the intelligibility of mystical experiences. It will confirm that we cannot use, like Katz did, any unrestricted version of both the contextual theories of meaning and experience. It will offer evidence that the language of mystics can only be conceptual, and therefore cannot be used literally, as Katz did also. And it will also justify the perspective that the previous beliefs of

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[1] Abner Shimony, op. cit., pp. 196-200.
[2] Ibid., p. 196.

the mystic do not reveal the structure of the category of "religious" experiences usually termed "contentless awareness" or "pure consciousness".

B) Psychology, mysticism, and the integrative and analytic modes of consciousness

The emphasis given to the experiential aspect in this presentation is very easy to justify: "mysticism" has first and above all to do with experience. Sallie B. King has expressed that concern as a reminder to contextualists:

> While it is necessary, in connection with mysticism, to discuss literature, institutions and persons, it must be remembered at all times that insofar as the subject of discussion is a mystical phenomenon, it always points beyond itself to mystical experience as such. The experiential element is not to be eliminated since it is the basis of all the other and related factors. Ninian Smart uses the term "mysticism" in reference to "the contemplative life and experience," and this indeed is the heart of the matter: "mysticism" primarily has to do with a life and an experience, and only secondarily with a body of literature, or a philosophy based on the experience. [1]

At this time of the history of human scientific enterprise, the approaches and methods of psychology are considered by many to be most appropriate for the study of mysticism, because they aim at investigating the nature of the mind. It is not an exaggeration to say that the studies published in the last fifteen years in journals such as the *Journal of Transpersonal Psychology* and the *Journal of Humanistic Psychology* have done more to raise the understanding of the nature of consciousness and mystical experiences in the North American academic milieu than all the papers produced by theologians and philosophers of mysticism in the same period. An empirically-trained mind free from the bias of reductionism,

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[1] Sallie B: King, "Two epistemological models for the interpretation of mysticism", in *Journal of the American Academy of Religion* , vol. LVI, no. 2, 1988, p. 258.

sympathetic to the cause of "mystics" [1], who is himself acquainted with meditation or some technique conducive to the experience of a more integrative, synthetic mode of awareness [2], seems to be in a good position to facilitate the extraction of intelligible patterns from those experiences. And, moreover, the language of modern psychology has a more universal appeal than the idiosyncratic dialects of theologians, although it is also culture-bound. As expressed by King: "Language that may possibly, however problematically, hold out some degree of hope for cross-cultural communication falls into two overlapping categories: psychological

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[1] We usually have a kind of reluctance to use the word "mystics" for some of our contemporaries, although, thanks to the extensive and systematic teaching of various meditation techniques, their number in the world is probably greater than ever. One of the reasons may be that we have attached some negative meaning to the word. As Stace wrote: "We may remark that the very word 'mysticism' is an unfortunate one. It suggests mist, and therefore foggy, confused, or vague thinking. It also suggests mystery and miraclemongering, and therefore hocus-pocus. It is also associated with religion, against which many academic philosophers are prejudiced. And some of these latter persons might be surprised to learn that, although many mystics have been theists, and others pantheists, there have also been mystics who were atheists. It would be better if we could use the words "enlightenment" or "illumination," which are commonly used in India for the same phenomenon. But it seems that for historical reasons we in the West must settle for "mysticism". All that we can do is to try gradually to overcome the prejudices which it tends to arouse." (*Mysticism and Philosophy* , op. cit., p. 15). William E. Hocking presented a plausible psychological factor to explain the historical source of the word: "In the historical origins of the word 'mystic', the thing signified was a certain *social* disconnection--the initiate unable to communicate his knowledge to the world, the world unable to make connections with the initiate. But the underlying fact is psychological: mystery is felt whenever there are two bodies of experience not in perfect communication, quite apart from the question whether the one or the other is inherently wonderful or weird. Mystery does not lie in either of those two bodies alone; it expresses the state of mind of one who *begins to see*, that is, who begins to see one experience in terms of another. It is thus the characteristic quality of any new idea, not wholly naturalized in the mind." ("Mysticism as seen through its psychology", in Richard Woods, ed., op. cit., pp. 231-232.)

[2] It seems indeed to be the case, now, with a majority of researchers on the cognitive processes of "altered" states of consciousness.

and phenomenological-descriptive. Such terms, especially the psychological, may already be excessively culture- and ideology-bound, but they are a clear improvement over religiously doctrinal terms for our purposes and can be used with an appropriately critical and skeptical attitude."[1] Another factor that supports the use of that approach is that the study of mystical experiences must not be disconnected from the study of the mind. In the words of Frits Staal:

> The study of mysticism is at least in part the study of certain specific aspects of the mind. Mysticism and mystical experience cannot be understood in isolation from the more general problem of the nature of the mind. Conversely, no theory of mind which cannot account for mystical experience can be adequate. [2]

One of the students of William James and Josiah Royce at Harvard, William Ernest Hocking, who became "one of America's foremost philosophers in the thirties and forties",[3] also developed a great interest in the study of mysticism. In an important article first published in *Mind* , in January 1912, he identified the relative advantages of psychology in the following way:

> Psychology looks first to the experience and its effects, more or less careless of its objects or lack of objects: sometimes it seems to intimate that the objects make no difference, the essence of religion being in the experience as subjective fact; but without falling into that gratuitous and damnable mistake, we may well believe that for finding the meaning of mysticism psychology has advantages. For where self-expression falters the

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[1] Sallie B. King, op. cit., p. 270.

[2] Frits Staal, *Exploring Mysticism* . Harmondsworth, G.B.: Penguin Books, 1975, p. 186. In the sixties, Louis Dupré argued: "Indeed, the exploration of the self as it extends beyond consciousness [probably meaning here *conscious awareness*] has been done outside the realm of philosophy proper. Whatever little scientific knowledge of it we possess, we owe to the psychological investigations of conscious behavior that could not be explained in terms of consciousness alone." (From his article "The mystical experience of the Self and its philosophical significance", in Richard Woods, ed., *Understanding Mysticism* , op. cit., p. 450.)

[3] Richard Woods, in Richard Woods, ed., *Understanding Mysticism* , op. cit., p. 11.

> signs of meaning may still be read in causes and effects. The thread of meaning, often lost to the mystic himself in his ecstatic moment, may at that very moment appear, so to speak, on the reverse of the cloth, as something accomplished in the active disposition of the subject. Self-interpretation has always been a weak point in mysticism: it has never done well to put its speculative foot forward: eloquent in psychology, it is a stammerer in metaphysics. [1]

More than fifty years before the idea became fashionable in discussions of philosophy of science, he supported the view that there should be a dialectic interplay between psychology and epistemology:

> In the purpose and motive of the mystic we have the point at which the metaphysical (and ethical) judgment of mysticism naturally joins the work of psychology and completes it. The bold intention of the mystic to establish some immediate conscious relation with the most Real, and his firm belief in his own experience as fulfilling his intention, make it necessary for psychology and epistemology to work closely together in interpreting that experience. A revision in the one must bring about a revision in the other. [2]

It seems that Hocking was the first to recognize the importance, in regard to our understanding of mystical experience, of the distinction between the analytic and integrative modes of consciousness, although that principle was "possibly first articulated by French researchers at the end of the nineteenth century." [3] He formulated what he called "the principle of alternation", which he stated in the following terms:

> Concrete living is a condition in which we pursue some total good under shapes and by means which are inadequate to it, and so partly false to it. We are from time to time obliged to reject what we have done, to withdraw our forward moving efforts, and revert to the Whole. This necessity is due not simply to the fact of error--which might conceivably be remedied on the

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[1] William Ernest Hocking, "The meaning of mysticism as seen through its psychology", in Richard Wooks, ed., op. cit., p. 223.
[2] Ibid., p. 224.
[3] Richard Woods, in Richard Woods, ed., op. cit., p. 12.

> spot by some moving compensation--but to the type of error: it involves not only our tools, but our empirical selves, the operators. [1]

By adopting this ontological perspective over some psychological observations, Hocking has derived an epistemological principle which can include within its scope not only the daily operations of human psychical activity, but also its higher manifestations, life creativity and innovation. He considered the process of "origination" to be an outcome, a by-product of the cognitive faculties operating, at least in some degree, in the integrative, synthetic mode of consciousness. There, the mind gets an "influx of new freedom":

> Alternation lies deep in the nature of things psychical as well as physiological: it is the fundamental method of growth, of the influx of new freedom; and I am inclined to regard the mystical experience as an incident in the attainment of a new psychical level, and one which in various forms and degrees is a manifoldly recurrent event in every person's life. . . . Mysticism, as an identifying of the subjective with the absolute-universal, might be described as an organic cultivation of reason--though not of the "reason which can (as yet) be reasoned": its fruit is an insight without reasons (without palpable roots in other insights), ... The vital function of mysticism is *origination* , the creation of novelty. [2]

In this, again, he is confirmed by a great number of observations and testimonies; one of them, which is quite well-known among those interested in the study of the creative process because of its detailed psychological descriptions, has been given by the French mathematician Henri Poincarré in his classic essay *Mathematical Creation* . There he explains how several determining ideas came to him "spontaneously", in a less-excited state of consciousness, in the "subliminal self" where "reigns what I should call liberty".[3] Very often he could experience that

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[1] W.E. Hocking, op. cit., pp. 233-234.
[2] William E. Hocking, op. cit., pp. 230, 233.
[3] Henri Poincarré, "Mathematical Creation", in Brewster Ghiselin, ed., *The Creative Process* , New York: New American Library, 1952, p. 42.

state when, after having fought with a problem, he would simply abandon it and relax. He speaks about "the feeling of absolute certitude accompanying the inspiration; in the cases cited this feeling was no deceiver, nor is it usually." [1] But there are exceptions, which occurred especially "in regard to ideas coming to me in the morning or evening in bed while in a semi-hypnagogic state." [2] He also mentions that there were cases when, in the excitation of work, he could be aware of the reciprocal play between the two modes of consciousness (i.e. integrative and analytic):

> It seems, in such cases, that one is present at his own unconscious work, made partially perceptible to the over-excited consciousness, yet without having changed its nature. Then we vaguely comprehend what distinguishes the two mechanisms or, if you wish, the working methods of the two egos. And the psychologic observations I have been able thus to make seem to me to confirm in their general outlines the views I have given. [3]

But, for most of us, as Ghiselin remarks in his very illuminating essay on the creative process, "we are not usually much aware of this less determinate part of our psychic life, for consciousness is dominated by system, to which we cling." [4]

The case of Albert Einstein is also quite well-known. His colleagues often reported his capacity to retain a broad perspective over a subject while dealing with

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[1] Ibid., p. 38.

[2] Ibid., p. 38.

[3] Ibid., p. 42.

[4] Brewster Ghiselin, "Introduction", in B. Ghiselin, ed., op. cit., p. 22. For other interesting presentations assessing the dynamical interplay between the integrative and analytic modes of consciousness in the process of creativity, see Jacques Hadamard, *Essay on the Psychology of Invention in the Mathematical Field*, Princeton, N.J.: Princeton University Press, 1945; W.I.B. Beveridge, *The Art of Scientific Investigation*, New York: W.W. Norton and Co., 1950; A. Ehrenzweig, "The undifferentiated matrix of artistic imagination", in W. Neusterberger and S. Axelrad, eds., *The Psychoanalytic Study of Society,* New York: International Universities Press, 1964, pp. 373-398; and John Briggs, *Fire in the Crucible--The Alchemy of Creative Genius*, New York: St. Martin's Press, 1988.

the details. In a letter to Jacques Hadamard, he referred to his ability to maintain diffused, free-floating ideas along with focalized attention:

> The words or the language, as they are written or spoken, do not seem to play any role in my mechanism of thought. The psychical entities which seem to serve as elements in thought are certain signs and more or less clear images which can be "voluntarily" reproduced and combined.
>
> There is, of course, a certain connection between those elements and relevant logical concepts. It is also clear that the desire to arrive finally at logically connected concepts is the emotional basis of this rather vague play with the above mentioned elements. *But taken from a psychological viewpoint, this combinatory play seems to be the essential feature in productive thought* --before there is any connection with logical construction in words or other kinds of signs which can be communicated to others. [1]
> (italics are mine)

In addition to attributing them a basic epistemological function, Einstein himself considered those experiences to be of a "mystical" nature:

> The most beautiful and most profound emotion we can experience is the sensation of the mystical. It is the source of all true science. He to whom this emotion is a stranger, who can no longer stand rapt in awe, is as good as dead. That deeply emotional conviction of a superior reasoning power, which is revealed in the incomprehensible universe, forms my idea of God.[2]

One experiential feature which is often reported by persons who can more easily render their synthetic cognitions an analytic language or in any discrete medium (i.e. those that we call "creative persons") is that in the integrative mode, the "knowledge" is "seen" or cognized in a capsule form, "all at once". For instance, Wolfgang A. Mozart reported, in a letter:

> All this fires my soul, and, provided I am not disturbed, my subject enlarges itself, becomes methodised and defined, and the whole, though it be long, stands almost complete and finished in my mind, so that I can

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[1] Albert Einstein, "Letter to Jacques Hadamard", in B. Ghiselin, op. cit., p. 43.

[2] Albert Einstein, quoted in Kenneth R. Pelletier and Charles Garfield, *Consciousness East and West*, New York: Harper Colophon Books, 1976, p. 120.

> survey it, like a fine picture or a beautiful statue, at a glance. Nor do I hear in my imagination the parts *successively* , but I hear them, as it were, all at once (*gleich alles zusammen*). What a delight this is I cannot tell! All this inventing, this producing, takes place in a pleasing lively dream. Still the actual hearing of the *tout ensemble* is after all the best. What has been thus produced I do not easily forget, and this is perhaps the best gift I have my Divine Maker to thank for. [1]

To "plunge" from the analytic mode towards deeper layers of the integrative, synthetic mode means going from differentiation towards indifferentiation, from discreteness to wholeness, from excited wave-pattern to "oceanic consciousness". And to alternate from one mode to the other is not a secondary or subordinate character of human cognitive process, but rather a basic feature inherent to the epistemological structure of consciousness. That process is spontaneously going on in our daily life, and we usually don't look at it as being "mystical" or "esoteric", probably because only a few of us have access to the extreme manifestation of the integrative mode (which is experienced when the mind completely transcends the faintest level of the analytic mode to be left in nondualistic awareness [2]). We often make use of the integrative mode when we need to infuse more fluidity to our mental processes in order to connect different particulars. In the words of Arthur J. Deikman:

> To take a very mundane example: trying to remember a forgotten name by a direct, conscious effort may yield nothing. In such a situation we typically remark, "It will come to me in a minute"--and it usually does. We stop struggling to remember and allow ourselves to be receptive. Only then does the name pop into awareness. Our shift in attitude--a change in strategy--permitted a latent function to be exercised. *Switching to the receptive mode*

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[1] Wolfgang Amadeus Mozart, "A letter", in B. Ghiselin, op. cit., p. 45.

[2] I will argue further on that the experience of "pure" consciousness is the integrative mode experienced in its extreme, "peak" value.

> *permits the operation of capacities that are nonfunctional in the action mode.* [1] (Italics in original)

Although, to my knowledge, he never explicitly referred to Hocking's work, Deikman, an American psychologist interested in mystical experiences, reformulated his insights with the modern terminology of cognitive psychology. He named the analytic mode the "action mode" and defined it as

> . . . a state organized to manipulate the environment. To carry out this purpose the striate muscle system is the dominant physiological agency. Base-line muscle tension is increased and the EEG usually features beta waves. Psychologically, we find focal attention, heightened boundary perception, object-based logic, and the dominance of formal characteristics over the sensory; shapes and meanings have a preference over colors and textures. [2]

He then goes on to define the integrative mode, which he calls the "receptive mode":

> In contrast, the receptive mode is a state whose purpose is receiving the environment, rather than manipulation. The sensory-perceptual system is usually the dominant agency rather than the muscle system. Base-line muscle tension tends to be decreased, compared to the tension found in the action mode, and the EEG tends to the slower frequencies of alpha and theta. Psychologically we find that attention is diffuse, boundary perception is decreased, paralogical thought processes are evident, and sensory qualities dominate over the formal. These functions are coordinated to maximize the intake of the environment. [3]

Like Hocking did in 1912, Deikman identifies the shift from the analytic, active mode to the integrative mode as the basic cognitive process responsible for creative intuition and origination:

> Typically, there is an initial stage of struggling with the problem. A sense of impasse develops and the struggle is given up. Sometime later, while completely occupied with a less important activity, or perhaps waking from

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[1] Arthur J. Deikman, "Bimodal consciousness and the mystic experience", in Richard Woods, ed., op. cit., p. 265.
[2] Ibid., p. 261.
[3] Ibid., p. 261.

> sleep, the answer suddenly appears. Often, it is in a symbolic or spatial form and needs to be worked over to make it coherent and applicable. In terms of the modal model, the process begins with the use of the action mode during the preliminary or preparatory stage. When progress is blocked, a shift takes place to the receptive mode. In that mode, our capacity for creative synthesis is able to function and the intuitive leap to a new configuration takes place. Then, we shift back to the action mode in order to integrate the new formulation with our previous knowledge and to communicate it to others. [1]

He brings the point that as we "develop" from childhood to adulthood, we proceed to function more and more in the analytic mode, and for reasons inherent to the nature of this cognitive process, plus the cultural bias, we have come to consider the diffused, not-so-well-known states of the integrative mode as abnormal:

> As growth proceeds the receptive mode is gradually dominated, if not submerged, by a natural and culturally enforced emphasis on striving activity and the action mode that serves it. The receptive mode tends, more and more, to be an interlude between increasingly longer periods of action-mode organization. One consequence of this bias is that we have come to regard the action mode as the normal one for adult life and to think of the unfamiliar receptive states as pathological. [2]

It is a fact that these states are most of the time being perceived as "threatening" in regard to a proper, responsible social behaviour. In his essay on creativity, Ghiselin has adequately identified and emphasized their role and importance in respect to origination. He pointed out that in its most intense manifestation, the experience has a mystical character, but without much explanation or analysis, he assumed that its persistence would affect performance negatively. He described the receptive or integrative mode as a state

> . . . in which nothing tends toward determination, nothing of a particular character seems to be implied, in which, therefore, all is still apparently free. It is alike for thinker and artist the offering of adventure, but adventure nameless and featureless, which shall be defined by something not even in

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[1] Ibid., pp. 265-266.
[2] Ibid., p. 262.

> the periphery of consciousness, but rather implicit in the whole spread of the subjective life. This state in no way involves or suggests irresolution. Paradoxically it often appears as an enhancement of certainty. It is as if the mind delivered from preoccupation with particulars were given into secure possession of its whole substance and activity. This yielding to the oceanic consciousness may be a distracting delight, which as Jacques Maritain has pointed out can divert the worker from formal achievement. In this extreme the experience verges upon the religious, but it is rarely so intense or so pure, and, when it is, it is not often so enduring a preoccupation as to constitute a real threat to performance. More often it defines itself as no more than a sense of self-surrender to an inward necessity inherent in something larger than the ego and taking precedence over the established order. [1]

His remark about the "pure" experience as being "not often so enduring a preoccupation as to constitute a real threat to performance" is indicative of our poor knowledge, at least in our Western cultures in general, of the "mechanisms" and "processes" that contribute to integrate harmoniously the two modes of awareness. But there is no doubt that without proper guidance, the more intense versions of the experience often generate a strong disrupting effect on the subject's "vision of reality". As noted by Pelletier and Garfield, "whether such experiences are validated or esteemed is largely dependent on the cultural context, but their effect on individual behavior is undisputed. Their ability to inspire is surpassed only by their ability to disrupt, for such an experience must be translated into terms that are comprehensible to the ego."[2] This explains why many authors emphasized the importance of staying well grounded and connected with the more active and analytical layers of life. These states, which "constitute the essence of religious, creative, and scientific inspiration",[3] can convey their greatest enrichment to all aspects of personal life when the subject can integrate their meaning in constructive

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[1] Brewster Ghiselin, op. cit., p. 14.
[2] K.R. Pelletier and C. Garfield, op. cit., p. 120.
[3] K.R. Pelletier and C. Garfield, op. cit., p. 121.

social activities. This fact was recognized by Carl Jung in respect to his own personal experiences, while acknowledging the meaningfulness of these states in regard to his "real" life:

> Particularly at this time, when I was working on the fantasies, I needed a point of support in "this world." . . . It was most essential for me to have a normal life in the real world as a counterpoise to that strange inner world. . . . No matter how deeply absorbed or how blown about I was, I always knew that everything I was experiencing was ultimately directed at this real life of mine. [1]

The degree to which a person will manifest the potentialities of those states seems to be proportional to the level of psychophysiological integration. It is widely acknowledged among modern psychologists and psychiatrists that a large portion of the population has developed, to different degree, what they call "neurotic tendencies"; overexposure to excitation and stress gradually inhibits the flow of "information" between the different levels of the personality, and therefore has a damaging effect on sensitivity. Marianne Frankenhaeuser of the University of Stockholm has noted the biological effects "of bombardment with too many, too strong or too frequent stimuli--as happens in the multi-media world of the modern city. One of the effects is that the nervous system adapts by gradually failing to respond" [2]:

> The physiological stress effects become less intense and feelings of aversion and discomfort fade. But so do feelings such as involvement, understanding, consideration and sympathy . . . the mechanism of habituation involves a blunting of emotions, a reduction of sensitivity and reactivity. [3]

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[1] Carl Jung, quoted in K.R. Pelletier and C. Garfield, op. cit., p. 122.

[2] David Hay, *Exploring Inner Space* , Harmondsworth, G.B.: Penguin Books, 1982, p. 198.

[3] Marianne Frankenhaeuser, quoted in David Hay, op. cit., p. 198.

Repeated hyperarousal of the nervous system does not seem therefore to be a factor conducive to fruitfull interchange between the integrative and analytic modes of awareness. Over-stimulation rather generates the tendency to function in one mode *or* the other, hampering a flow that otherwise could be easy if psychophysiological integration would be high enough. In the words of the psychiatrist Harold H. Bloomfield:

> An essential characteristic of creative thinking seems to be the mind's capacity to entertain free-floating ideas and reveries yet remain able to focus sharply on a particular idea if desired. The average middle-class neurotic tends to block the spontaneous flow of ideas by getting caught up solely in focused attention [analytic] or losing himself in unstructured thinking [integrative] out of which nothing tangible emerges. [1]

When the dichotomy between the two levels is total, or extreme, then the subject has developed the psychopathology termed "schizophrenia" by psychologists. [2] Through the process of habituation (also called "automatization") as described by Marianne Frankenhaeuser, the person gradually suppresses his inner world to accomodate unpleasant situations and stressful stimuli. The benign version of this process aims at setting a selective operation through which we increase our efficiency in the active, analytic mode.[3] But the more a person will have recourse to habituation or automatization to maintain a convenient façade and structure in her

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[1] Harold H. Bloomfield and Robert B. Kory, *Happiness* , New York: Simon and Schuster, 1976, pp. 143-144.

[2] See Kenneth Wapnick's article "Mysticism and schizophrenia", in Richard Woods, ed., op. cit., pp. 321-337.

[3] As noted by Arthur Deikman: "Studies in perception and developmental psychology indicate that we have exercised a significant selection process over the array of stimuli with which we are presented. For efficiency's sake, we have to pay attention to some things and not to others, and we automatize that selection process to such an extent that we cannot recover our perceptual and cognitive options." (In Richard Woods, ed., op. cit., p. 266)

social reality, the more the emotions--which pertain to the receptive, integrative mode--will become perturbed and entropic.[1] If nothing is done to infuse coherence in the integrative layers, the vicious circle will go on and the individual will gradually get caught in very stereotyped behavior patterns, loose his spontaneity and sensitivity, become emotionally blunt, etc. The disjunction between the empirical, analytic ego and the inner self can become so severe that eventually a major breakdown occurs, and, to use Lara Jefferson's expression in Wapnick's case study, the person must "die of her former self".[2]

The phenomenology of this well-known pathology shows how vital this alternating flow between the analytic and the integrative modes is. And what the "mystic" actually does is to consciously remove the filters of "habituation", to purposefully loosen the control mechanisms of "automatization" so that the freedom of unbounded awareness constantly refreshes the tight logic of focal attention.[3] And again, it is William Hocking who, eighty years ago, had the insight to identify the process of cognitive alternation as the basic phenomenal component of human

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[1] This process can be developed in a very large array of degrees, but it always follows the same pattern: in order to maintain a minimum of structure in her outer reality (analytic, active mode), the person builds up control mechanisms to not let her emotions emerge.

[2] In Kenneth Wapnick, op. cit., p. 334. In fact, when this point is reached, the breakdown can be seen as a "constructive process, wherein the individual attempts to correct the inadequacy of his functioning." (Ibid., p. 329). Gregory Bateson wrote, about "the *process* of schizophrenia and its purposeful quality": ". . . the mind contains, in some form, such wisdom that it can create that *attack* upon itself that will lead to a later resolution of the pathology." (Quoted in Wapnick, op. cit., p. 329; italics in original).

[3] We will see that this is precisely the purpose of meditational techniques: to bring the mind in the extreme value of the integrative mode, which is the state of pure consciousness, unbounded awareness beyond the subject-object dichotomy, and then make it focalize on the finite, discrete aspects of dynamic activity (i.e. a regular voluntary alternation of the two modes).

psychic activity responsible for what we have been calling "mystical" experiences in Western countries:

> Take the case of intellectual originality. One wishes to know the whole truth--some unknown truth. The best means to that end are--reason, and social reason; he who would originate must fill himself as full as possible of science, history, social motives, the whole world: but there comes a moment when these very things, his necessary means, become, as we said, his enemies--his poisons. This is the moment at which they become ***himself***. It is this self which must be withdrawn and reoriented; it must turn its back upon itself, and lose itself in the unknown whole. Every detail of psychical operation shows this method of action. Attention is a rapidly alternating current, perpetually withdrawn from its object and instantaneously replaced: but in the instant of withdrawal having recovered a better poise and a steadier termination, having wiped away the film of relativity with which self and object had begun to infect each other. The mystic only does consciously and totally that which we are all continually doing in the minuter movement of psychical life, that which we all resort to in fragmentary and instinctive manner. [1]

The growth towards enlightenment then can be interpreted as the process by which the individual, while refining to the extreme his "inner" synthetic cognition of the "whole", can harmoniously integrate it with his "outer" analytic mode of functioning. It is the knowledge of the whole that allows to "wipe away the film of relativity with which self and object had begun to infect each other". The integration of those seemingly opposite cognitive functions is not only a prerequisite for the personal unfoldment of full creative potential, but for health in general. As expressed by Kenneth Wapnick:

> The mystic's life may be seen as a recognition of the existence of the inner, personal experience, which though independent of, and even antagonistic to, the social reality, cannot be fully developed unless the individual also affirms his role in society. Beautiful and powerful feelings are not sufficient to improve one's functioning in the social world. What is needed is the integration of these inner experiences with the various social roles one adopts. The mystic provides the example of the method whereby the inner

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[1] W.E. Hocking, op. cit., p. 234.

> and outer may be joined; the schizophrenic, the tragic result when they are separated.[1]

C) The hierarchic structure of knowledge

One of the consequent outcomes of the previous description of the epistemic activity of cognitive processes is that knowledge is hierarchically ordered. Of course this point has been developed before (especially in the Vedantic model of consciousness), but for the Western scientific community to integrate it in its paradigm, we had to uncover "empirically" the discrete apparatus of its functioning. The concept of psychological structures, developed in the fifties, has enabled the cognitive psychologists to account for differentiation in mental processes. As defined by Rapaport and Gill:

> Structures are configurations of a slow rate of change . . . within which, between which, and by means of which mental processes take place. . . . Structures are hierarchically ordered. . . . This assumption . . . is significant because it is the foundation for the psycho-analytic propositions concerning differentiation (whether resulting in discrete structures which are then co-ordinated, or in the increased internal articulation of structures), and because it implies that the quality of a process depends upon the level of the structural hierarchy on which it takes place. [2]

And as it would be normal to expect after our analysis of the creative process, the integrative mode is being accorded a functional primacy. In analyzing the respective stands of two eminent cognitive psychologists who made their mark in research on the integrative and analytic modes, Abner Shimony wrote: "Without minimizing the

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[1] Kenneth Wapnick, op. cit., p. 337.

[2] Quoted in A.J. Deikman, "Deautomatization and the mystic experience", in Richard Woods, ed., op. cit., p. 248. See also U. Neisser, *Cognitive Psychology* , New York: Appleton-Century-Crofts, 1967, p. 85. For some interesting analysis on the hierarchical unfoldment of the human cognitive processes see: S. Arieti, *The Intra-psychic Self,* New York: Basic Books, 1967; and J. Loevinger, *Ego Development,* San Francisco: Jossey-Bass, 1976.

deep theoretical differences between Gibson and Bruner, one can say that they agree in ascribing functional and biological primacy to the integrative strategies; and I think that it is fair to make the same ascription to most other psychologists, even to the classical empiricists who maintain that sensations are constitutive of and temporally antecedent to integrated perceptions." [1]

On the basis of the "organizational qualities of states of consciousness" (*gestalt* or *system* properties), Charles Tart has very convincingly demonstrated that one of the most important qualities of knowledge is that it is "state-specific": "What you can know depends on the state of consciousness you are in".[2] And again, as to exemplify the adage that "there is nothing new under the sun", this theme is a recurrent one in the yogic and vedantic literature of India: "It is axiomatic in the yogic tradition that "knowledge is different in different states of consciousness" (Rig Veda). In other words, our level of consciousness completely determines how much of the truth we see of any given situation." [3] From his analysis of the psychological alternation between the empirical self and the "depth of self-consciousness", William Hocking has derived the same principle which he stated as the basic feature of the human knowing process:

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[1] Abner Shimony, "Is observation theory-laden? A problem in naturalistic epistemology", op. cit., pp. 196-197. For an argument from an evolutionary point of view in favor of this primacy, see his article "Perception from an evolutionary point of view", in *Journal of Philosophy* , vol. 68, 1971, pp. 571-583.

[2] Charles T. Tart, "Consciousness, altered states, and worlds of experience", in *Journal of Transpersonal Psychology* , vol. 18, no. 2, 1986, p. 169. For a more complete argumentation, see his article "Stages of consciousness and state-specific sciences", in *Science* , vol. 176, pp. 1203-1210.

[3] Alistair Shearer, *Effortless Being--The Yoga Sutras of Patanjali* , London: Wildwood House, 1982, p. 26.

> Thus, at the bottom of the psychological alternation there lies an epistemological principle, which deserves to be called the Principle of Alternation. It is the counterpart and corrective of the Principle of Relativity. *It is not knowledge that is relative, but the act of knowing* . It is my concrete historical nature which determines that at any moment I may see but one side of the shield; it is my knowledge of the whole which leads me, by an alternation of position, to repair the defect of my knowing. In all science we recognize the alternate use of categories which are singly imperfect, but mutually corrective. The concept of substance, whether in the form of atom, or of energy, or of soul, may be inadequate for knowledge, but is indispensable for knowing. [1] (Italics are mine)

The philosophical integration of this principle in a coherent epistemological model has been accomplished by a scientist, Michael Polanyi, who was professor of physical chemistry at the University of Manchester. An important and powerful feature of his work is that every philosophical point he brings is always backed by observations of the process of attention and data from cognitive psychology. This of course doesn't entail that his deductions are all necessarily right, but rather that his theory of knowledge is "empirically" based, in the sense that we gave to this word in Chapter I (i.e. not in the classical sense). It satisfies very elegantly Polanyi's own definition of "objectivity", which is not the absence of personal judgment, but the presence of *universal intent* . [2] His theory has a universal scope, in that it uncovered many aspects of the fundamental structure of the knowledge-acquisition process, and this independently of the cultural or religious (or what you will) background or "context". His model has been largely discussed in the last 25 years not only in the milieu of philosophers of science, but also in the context of philosophy of religion. This is highly significant in regard to our discussion of

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[1] William E. Hocking, op. cit., p. 234.

[2] Michael Polanyi, *Personal Knowledge* , Chicago: University of Chicago Press, 1962, pp. 64-65.

Chapter II, as it confirms the view that "modern and contemporary philosophy of religion has to a large extent reflected philosophical assessments of science." [1]

Polanyi's basic "finding" was that the integration of the numerous particulars from the explicit pole of knowledge (analytic) is being done sequentially by the mind in proceeding towards the subsidiary pole (integrative, synthetic). He acknowledged that his analysis of the knowing process is "closely linked" to the discovery of Gestalt psychology about the structure of awareness [2], and he briefly expressed his central thesis on the above process of integration in the following terms: "This shaping or integrating I hold to be the great and indispensable tacit power by which all knowledge is discovered and, once discovered, is held to be true." [3] The functional structure of tacit integration involves neither the process of deduction nor an explicit form of inference, and as such cannot be replaced by any explicit analytical procedure. [4] Polanyi insisted that this process is going on within the range, the spectrum of consciousness:

> If this analysis convinces us of the presence of two very different kinds of awareness in tacit knowing, it should also prevent us from identifying them with conscious and unconscious awareness. Focal awareness is, of course, always fully conscious, but subsidiary awareness, or from-awareness, can exist at any level of consciousness, ranging from the subliminal to the fully conscious. [5]
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> In subordinating the subsidiary to the focal, tacit knowing *is directed from the first to the second* . I call this the *functional* aspect of tacit knowing. Since this *functional* relation is set up between two kinds of

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[1] William A. Rottschaefer, op. cit., p. 265.

[2] Michael Polanyi, *The Tacit Dimension* , Garden City, N.Y.: Doubleday, Anchor Books, 1967, p. 6.

[3] Ibid., p. 6.

[4] See Michael Polanyi and Harry Prosch, *Meaning* , Chicago: University of Chicago Press, 1975, pp. 39-42.

[5] Ibid., p. 39.

> awareness, its directedness is necessarily conscious. . . . This vectorial quality of tacit knowing will prove important. [1]
>
> It is a mistake to identify subsidiary awareness with subconscious or preconscious awareness, or with the fringe of consciousness described by William James. The relation of clues to that which they indicate is a *logical relation* similar to that which a premise has to the inferences drawn from it, but with the important difference that tacit inferences drawn from clues are not explicit. They are informal, tacit. [2] (Italics in original)

A very significant feature of the structure of tacit knowing is that its ontological aspect implies that every act of knowing leads us beyond "ourself" towards less tangible manifestations of knowledge, but nevertheless more "real". In this way, the mind "breaks out" or "breaks through" [3] sequentially from particulars (analytic mode) towards the tacit ground of the "real". Being hierarchically ordered, reality unfolds from a unified whole towards more and more "concrete" layers of differenciation [4], but for the mind to integrate the meaning of various particulars, it must proceeds sequentially in the reversed direction:

> An aspect apprehended by the integration of elementary particulars thus becomes, in its turn, a clue to a more comprehensive entity, and so on. . . . as we move to a deeper, more comprehensive, understanding of a human being, we tend to pass from more tangible particulars to increasingly intangible entities: to entities which are (partly for this reason) more real: more real, that is, in terms of my definition of reality, as likely to show up in a wider range of indefinite future manifestations. [5]

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[1] Michael Polanyi, "The logic of tacit inference", in Marjorie Grene, ed., *Knowing and Being* , Chicago: University of Chicago Press, 1969, p. 141.

[2] Michael Polanyi, "The structure of consciousness", in Marjorie Grene, ed., op. cit., p. 212.

[3] Michael Polanyi, *Personal Knowledge* , Chicago: University of Chicago Press, 1962, Chapter 6, Section 13.

[4] It is very significant to note here that neurologists hold a similar hierarchic structure for the nervous system: ". . . the nervous system is arranged hierarchically. That is, the nervous system is built up of a number of physiological and anatomical levels each of which is controlled by the one above at increasing levels of generality." (Anthony Campbell, *Seven States of Consciousness* , New York: Harper and Row, Perennial Library, 1974, p. 38.)

[5] Michael Polanyi, "Tacit knowing: Its bearing on some problems of philosophy", in Marjorie Grene, ed., *Knowing and Being* , op. cit., p. 168.

> We have seen that by attending from the proximal [synthetically, subsidiarily known] to the distal [analytically, focally known], we cause a transformation in the appearance of both: they acquire an integrated appearance. A perceived object acquires constant size, colour and shape; observations incorporated in a theory are reduced to mere instances of it; the parts of a whole merge their isolated appearance into the appearance of the whole. This is the *phenomenal* accompaniment of tacit knowing, which tells us that we have a real coherent entity before us. At the same time it embodies the *ontological claim* of tacit knowing. The act of tacit knowing thus implies the claim that its result is an aspect of reality which, as such, may yet reveal its truth in an enexhaustible range of unknown and perhaps still unthinkable ways. [1]
>
> We make sense of experience by relying on clues of which we are often aware only as pointers to their hidden meaning; this meaning is an aspect of a reality which as such can yet reveal itself in an indeterminate range of future discoveries. This is, in fact, my definition of external reality: reality is something that attracts our attention by clues which harass and beguile our minds into getting ever closer to it, and which, since it owes this attractive power to its independent existence, can always manifest itself in still unexpected ways. If we have grasped a true and deep-seated aspect of reality, then its future manifestations will be unexpected confirmations of our present knowledge of it. [2]

Since this ontological aspect of tacit knowing points out to the existence of a basic coherent ground of the "real", a ground of "selfhood" (there is always continuity of awareness), how can we, in psychological language, relate this "intangible" ground to our formal, tangible, empirical self? We will now consider some interesting contributions on that question, contributions which might help modern theorists of psychology to clarify the status of the "knower" as a conscious "coherent entity".

D) The basic ground of consciousness and the state of the knower

The "ontological claim" of tacit knowing is embodied, as Polanyi stated, in the *phenomenal* accompaniment of tacit knowing: the cognitive process of

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[1] Michael Polanyi, "the logic of tacit inference", in Marjorie Grene, ed., op. cit., p. 141.

[2] Michael Polanyi, "The unaccountable element in science", in Marjorie Grene, ed., op. cit., pp. 119-120.

integrating the particulars in "breaking out" towards the more comprehensive levels of synthetic awareness implies that knowledge is hierarchically structured in consciousness, and that we must postulate the existence of the knower as an entity. This tacit orientation toward the ground of all knowing is the source of human intelligibility, and as such, constitutes the basic phenomenological aspect of this ontological dimension of the structure of consciousness.

As we know, the idea of the "knower as an entity", or of "human consciousness", has not been a very popular one among scientists, at least until recently. Polanyi has called the rejection of the existence of human consciousness one of the "absurdities imposed by the modern scientific outlook"[1]. He goes on to quote "three authoritative voices denying the existence of human consciousness" (namely Hebb, Kubie, and Lashley), and mentions that "it is not that these distinguished scientists really believe that consciousness does not exist. . . . But they feel obliged to deny the existence of consciousness, for it eludes explanation in term of science."[2]

This has been, through ages, the basic difficulty in our attempts to explain the nature of consciousness: it cannot be systematically explained in terms of anything else. The changing content of ordinary consciousness cannot adequately account for the permanent continuum which underlies these changing features. Plato expressed that peculiarity in an interrogation: "What is that which always is

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[1] Michael Polanyi and Harry Prosch, *Meaning*, op. cit., p. 25.
[2] Ibid., pp. 25-26.

and has no becoming and what is that which is always becoming and never is?"[1] The British philosopher G.E. Moore wrote (using a blue patch as his object of consciousness): "The moment we try to fix our attention upon consciousness and to see *what*, distinctly, it is, it seems to vanish: it seems as if we had before us a mere emptiness. When we try to introspect the sensation of blue, all we can see is the blue: the other element is as if it were diaphanous."[2] Consequently, in order to fit the idea of objectivity as understood at that time, the great majority of scientists had recourse to the theory of consciousness as an emergent property of matter. But soon the most eminent of them (especially from the fields of neurology and physics) raised the voice to assert the primacy of consciousness, all the more as some observations were pointing toward that hypothesis. The renowned British neurologist Sir John Eccles declared: "The program of the . . . materialists is . . . to reduce conscious experiences to the science of brain states and hence to physics. Thus everything would be reduced to properties of matter. Their efforts to deny or to ignore conscious experiences have collapsed because of its intrinsic absurdity."[3] On the basis of many observations made during his researches on the brain, the neurologist Roger W. Sperry has argued that consciousness works as a causal force operating at the upper levels of the neural system, transcending the details of

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[1] Quoted in Roland Fischer, "On creative, psychotic and ecstatic states", in John White, ed., *The Highest State of Consciousness*, Garden City, NY: Doubleday, 1972, p. 175.

[2] G.E. Moore, *Philosophical Studies*. London: Routledge and Kegan Paul, Ltd., 1922, p. 25.

[3] Sir John Eccles, quoted in Huston Smith, *Forgotten Truth*, New York: Harper Colophon Books, 1977, p. 65.

nervous impulse as the cell transcends its molecules or the organism its cells.[1] The eminent neurologist Wilder Penfield, from McGill University, stated: "To suppose that consciousness or the mind has localization is a failure to understand neurophysiology."[2]

One of the most important by-products of the experiments and discussions in quantum mechanics over the last fifty years has been the re-installment of the observer as the central and primary "component" of any scientific endeavour. The discovery of the basic role that human consciousness plays in quantum measurement has actually ushered the redefinition of the concept of objectivity in modern science. It has become consequently more common to hear, from reputed physicists, statements similar to the following: "The doctrine that the world is made up of objects whose existence is independent of human consciousness turns out to be in conflict with quantum mechanics and with facts established by experiment."[3] And often, we could hardly differentiate their statements from those of mystics. For instance, Max Planck says: "I regard consciousness as fundamental. I regard matter as derivative from consciousness."[4] The idea that consciousness must be included in models explaining the physical world is hardly a new one, but the fact that many eminent physicists are supporting it is symptomatic of the convergence of what we

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[1] R.W. Sperry, "An objective approach to subjective experience: Further explanation of a hypothesis", *Psychological Review*, vol. 77, 1970, pp. 585-590. Also: "In search of Psyche", in F.G.Worden, J.P. Swazey and G. Adelman, eds., *The Neurosciences: Path of Discovery*, Cambridge: MIT Press, 1975, pp. 425-434.

[2] Quoted in D. Orme-Johnson, "The cosmic Psyche", in *Modern Science and Vedic Science*, vol. 2, no. 2, p. 126.

[3] Bernard D'Espagnat, "The quantum theory and reality", in *Scientific American*, Nov. 1979, p. 158.

[4] Quoted in D. Orme-Johnson, "The cosmic Psyche", op. cit., p. 126.

used to call the "objective" and "subjective" ways of gaining knowledge. Here are quotations from two Nobel laureate physicists on that; first Eugene Wigner, from Princeton University: "Our inability to describe consciousness adequately, to give a satisfactory picture of it, is the greatest obstacle to our acquiring a rounded picture of the world."[1] And Brian D. Josephson, from Cambridge University, G.B.: "L'intégration de notre connaissance de l'expérience consciente peut conduire à des explications nouvelles et meilleures de certaines classes de phénomènes. En second lieu, les recherches de ce genre peuvent permettre la découverte de nouveaux types de phénomènes physiques."[2] Already at the beginning of the century, the respected German scientist Herman Weyl wrote: "We are concerned in seeing clearly that the datum of consciousness is the starting-point at which we must place ourselves if we are to understand the absolute meaning as well as the right to the supposition of reality. . . . 'Pure consciousness' is the seat of that which is philosophically a priori."[3]

Psychologists, on their side, were so concerned about attempting to apply the objective methodology of science to study the extremely subjective area of mental activity that they came to focus exclusively on measurable behavior. Behaviorism arose in response to the difficulty of using that methodology in the study of the mind.

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[1] Quoted in R.K. Wallace, *The Neurophysiology of Enlightenment*, Fairfield, Iowa: MIU Neuroscience Press, 1986, p. 21.

[2] Brian D. Josephson, "L'expérience de la conscience et sa place en physique", in France-Culture, ed., *Science et conscience: Les deux lectures de l'univers*, Paris: Stock, 1980, p. 31.

[3] Herman Weyl, *Space-Time-Matter*, transl. from the German by Henry L. Brose, New York: Dover Publications Inc., 1922, p. 5.

> The behaviorists treated self-reports of mental events as observable behavior, which, like any other behavior, could be studied without reference to the mind or any aspect of subjectivity at all. It came to be believed that behavior was controlled by environmental contingencies of reinforcement and could be completely understood in terms of such contingencies. The mind, if it existed at all, was considered to be a mere "epiphenomenon", neither fundamental in nature nor having a causal influence on the interaction between behavior and environment. [1]

The limits of that approach became soon very apparent[2], and by the end of the 1950's, many psychologists had renewed with the study of subjective elements such as creativity, attention, modes of awareness, etc. "The new generation of cognitive psychologists argued that important information about conscious processes could be inferred from objectively measurable physiological and behavioral events. Cognitive psychology has been primarily concerned with selective attention--that aspect of cognitive processing that selects information for further processing."[3] In addition to make further elaborations on the principle of cognitive alternation (or adaptiveness), which we have discussed in the previous section, they have disclosed many important features of human mental processes. "However, as some theorists have noted, there remains a major problem in this enterprise, namely that it is not known *who* processes and interprets information: Who is the knower?"[4] If features related to the empirical ego can be objectified, the characteristics of the "observing ego" were not to be located or "seized", since they are purely "subjective", remaining apart from the contents of consciousness: As Deikman remarked, "whatever we can notice or conceptualize is already an object of

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[1] D. Orme-Johnson, "The cosmic Psyche", op. cit., p. 117.
[2] Ibid.
[3] Ibid., p. 118.
[4] Ibid.; for further reflections on that problem, see A. Costall and A. Still, eds., *Cognitive Psychology in Question*, New York: St. Martin's Press, 1987.

awareness, not awareness itself, which seems to jump a step back when we experience an object. Unlike every other aspect of experience--thoughts, emotions, desires, and functions--the observing self can be known but not located, not 'seen'"[1] In the fear of jumping out of the realm of the "observable" features of awareness, psychologists have placed themselves in a situation in which they have no choice but to argue middle-age-style concepts like the *homunculus* ("little person" within). As Dennett remarked:

> For the British Empiricists, the internal representations were called ideas, sensations, impressions: more recently, psychologists have talked of hypotheses, maps, schemes, images, propositions, engrams, neural signals, even holograms and whole innate theories. . . [However] nothing is intrinsically a representation of anything; something is a representation only *for* or *to* someone; any representation or system of representations thus requires at least one *user* or *interpreter* of the representation who is external to it. Any such interpreter must have a variety of psychological or intentional traits; it must be capable of a variety of *comprehensions* and must have beliefs and goals (so it can *use* the representation to *inform* itself and thus assist itself in achieving its goals). Such an interpreter is then a sort of homunculus. Therefore, psychology *without* homunculi is impossible but psychology *with* homunculi is doomed to circularity or infinite regress, so psychology is impossible.[2]

Without a proper understanding of the nature of the knower, modern psychology will remain a discipline without a coherent theory, or, to use an expression from Thomas Kuhn, a "pre-paradigmatic" body of knowledge. As noted by the psychologist Arthur Deikman:

> Western psychotherapy has yet to confront this paradox. The infinite regression of awareness, like two mirrors placed face to face, has largely been a subject for philosophers rather than scientists. The psychiatric and psychological literature refers to the observing self as "the observing ego",

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[1] Arthur J. Deikman, *The Observing Self--Mysticism and Psychotherapy*, Boston: Beacon Press, 1982, p. 94.

[2] D.C. Dennett, quoted in D. Orme-Johnson, "The cosmic Psyche", op. cit., p. 118.

> but does not explore the special nature of that "ego" and its implications for our understanding of the self.[1]

Or by David Orme-Johnson:

> . . . psychology seems to be in a position of having to posit a homunculus as the knower, and then a second little person within the first little person as the knower within the first, and a third one within the second as the knower within the second, *ad infinitum*. Without knowledge of who the ultimate knower is, cognitive psychology will always be fundamentally incomplete.[2]

The distinction previously presented between the contents of consciousness and consciousness itself is not only argued by Deikman, but also by a growing number of his fellow psychologists.[3] This distinction is important mainly for two reasons: first, because it implies the existence of a subphenomenal dimension of the self, of a "ground of experience" beyond the changing stream of dichotomous awareness, and second because it connects modern psychology with the whole body of Upanisadic and Vedantic literature of India in which the distinction between consciousness in its simplest state (*cit*) and its content (*cintā* , the thinking process, also *manas* , the mind) is explicitly made and augued. This distinction can be considered as the phenomenological origin of the idea of transcendence, which is the essential structural orientation of consciousness.[4] The subjective experience of consciousness in its simplest, contentless state is often referred to as the *turīya*

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[1] Arthur J. Deikman, *The Observing Self--Mysticism and Psychotherapy*, op. cit., p. 94.

[2] D. Orme-Johnson, "The cosmic Psyche", op. cit., p. 118.

[3] See the numerous articles and books related to that topic written by authors such as Roger N. Walsh, John Welwood, Deane H. Shapiro, Daniel Goleman, G.F. Boals, Charles T. Tart, Gordon Globus, Ken Wilber, R J. Davidson, K.R. Pelletier, Edgar Wirt, John Rowan, Patricia Carrington, Michael J. Stark, Hayward M. Fox, K.S. Pope, J.L. Singer, D. Orme-Johnson, M. Dillbeck, and others.

[4] J.G. Arapura, "Transcendent Brahman or transcendent Void: Which is ultimately real?", in Alan M. Olson and Leroy S. Rouner, eds., *Transcendence and the Sacred*, Notre Dame, Indiana: University of Notre Dame Press, 1981, p. 86.

state, or the "fourth" state, to distinguish it from the three usual states of consciousness: *prājña* (sleep without dreams), *taijasa* (dream state) and *vaiśvānara* (wakefulness).

One of the clearest definition of the *turīya* state that we can find in the Upanisads is quoted by Stace, as we have seen, in his book *Mysticism and Philosophy*. Since it is at the same time condensed and meaningful, it is appropriate to have it quoted again in the present context:

> The Fourth, say the wise . . . is not the knowledge of the senses, nor is it relative knowledge, nor yet inferential knowledge. Beyond the senses, beyond the understanding, beyond all expression, is the Fourth. It is pure unitary consciousness wherein awareness of the world and of multiplicity is completely obliterated. It is ineffable peace. It is the Supreme Good. It is One without a second. It is the Self.[1]

From this definition we know that *turīya* (or "pure consciousness" in modern literature) is not experienced on the level of the active, discriminating mind, but rather that it transcends the thinking process. It is an experience resulting from the mind moving from the analytic, active mode of awareness towards deeper and deeper levels of the integrative, receptive mode, until the least excited state of mind is reached.[2] And as we have seen in Polanyi's analysis of tacit knowing, while moving from the particulars of analytic thinking towards the less tangible manifestations of "the tacit ground of the "real"", we do not step out of the range of consciousness. The expression "beyond understanding" from the definition of the Mandukya Upanisad should not be taken as meaning "beyond the spectrum of

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[1] From the Mandukya Upanisad, quoted in W.T. Stace, *Mysticism and Philosophy*, op. cit., p. 88.

[2] See Michael C. Washburn, "Observations relevant to a unified theory of meditation", in *J. of Transpersonal Psychology*, vol. 10, no. 1, 1978, especially pp. 46-50.

consciousness", but rather "beyond the scope of conceptual thought", while encompassing that recurrent idea of mystical literature that pure consciousness is to be reached by emptying the mind of all discursive thoughts and concepts. As expressed by Stace:

> No doubt we must be careful before we attribute to an ancient Indian hermit the distinctions of modern epistemology and psychology. But we find throughout all mystical literature, ancient and modern, that some such word as "understanding"--or what is here translated by that English word--or "intellect" or "intelligence" or sometimes "reason" is used to mean the faculty of thought as distinct from sensation; and we find throughout that literature that thought and understanding in this sense are excluded from the mystical consciousness. And I myself have not the least doubt that this is what is meant here by the phrase "beyond understanding". What is meant is precisely that this fourth state of consciousness is to be reached only by getting rid of concepts as well as sense perceptions and sensuous images.[1]

On this assertion, Stace is supported by quite a large number of testimonies coming from different eras and areas. The nondichotomous aspect of the experience of pure consciousness has been emphasized not only in the major Asian traditions, but also by most of the representatives of the Western mystical traditions. It is a recurrent theme in mystical literature that this experience is beyond the dual process of discursive thought: it is a state which transcends the subject-object dichotomy continually present when the mind is excited. St. Augustine, for instance, insisted on the importance of transcending the ever-changing pattern of the thinking process:

> Don't go outside yourself, return into yourself. The dwelling place of truth is in the inner man. And if you discover your own nature as subject to change, then go beyond that nature. But, remember that, when you thus go beyond it, it is the reasoning soul which you go beyond. Press on, therefore, toward the source from which the light of reason itself is kindled.[2]

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[1] W.T. Stace, *Mysticism and Philosophy,* op. cit., p. 89.

[2] Quoted in Wayne E. Oates, *Religious Dimensions of Personality,* New York: Association Press, 1957, p. 177.

In traditional Christian literature, the experience is often termed "ligature"[1], since the usual faculties of the reasoning mind have come to a stop, thus letting the "soul" experiencing its own essence. Instead of being aware of objects--whether thoughts, sensations, ideations, etc.--, consciousness becomes aware of itself, becomes "pure" undivided consciousness. In the words of St. John of the Cross: "The more the soul learns to abide in the spiritual, the more comes to a halt the operation of the faculties in particular acts, since the soul becomes more and more collected in one undivided and pure act."[2] It is the vigilant rest, the "*silentium mysticum* about which the Christian mystics love to talk"[3]: *Ego dormio et cor meum vigilat.*[4] Though the word "contemplation" was often used to designate various other mental states [5], most of the scholars of mysticism agree that it refers in a majority of cases to the experience of contentless awareness. As summed up by Ninian Smart: "In the contemplative state . . . discursive thought and mental images disappear. . . . If the contemplative experience is void of images, etc., it is also void of that sense of distinction between subject and object which characterizes everyday experience."[6]

The various cultural and traditional backgrounds of human history are of course reflected in the superficial differences found in the accounts of mystical

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[1] See A.J. Deikman, "Deautomatization and the mystic experience", op. cit., p. 243; Louis Dupré, "The mystical experience of the Self and its philosophical significance", op. cit., pp. 455-459; and A. Poulain, *Des grâces d'oraison,* Paris: Gabriel Beauchesne, 1922, 10th edition, pp. 186-208.

[2] Quoted in W.T. Stace, *Mysticism and Philosophy,* op. cit., p. 103.

[3] William Johnston, *The Mirror Mind*, San Francisco: Harper and Row, 1981, p. 77.

[4] Quoted in Evelyn Underhill, op. cit., p. 326.

[5] For an historical explanation of the word, see A. Poulain, op. cit., pp. 64-69.

[6] Quoted in Philip C. Almond, *Mystical Experience and Religious Doctrine,* Berlin: Mouton Publishers, 1982, p. 57.

literature. However, any student of mysticism whose attention is primarily on the phenomenological features of the experience rather than the doctrinal interpretations cannot but agree with Joseph Maréchal when he writes:

> A very delicate psychological problem is thus raised: the consensus of the testimonies we have educed is too unanimous to be rejected. It compels us to recognize the existence in certain subjects of a special psychological state, which generally results from a very close interior concentration, sustained by an intense affective movement, but which, on the other hand, no longer presents any trace of "discursiveness", spatial imagination, or reflex consciousness. [1]

There seems to be a general agreement among the new generation of cognitive psychologists interested in the study of consciousness that this experience of contentless awareness is basic to the development of an integrated model of human cognitive capabilities. In regard to the present state of investigation, Deikman noted that "the most important distinction would appear to be between an experience grounded in customary affect, sensation, and ideations, and an experience that is said to transcend such modalities." [2] In the context of our discussion, we have mentionned previously that this distinction between the contents of consciousness and consciousness itself is important because it implies the existence of a subphenomenal dimension of the self, of a "basic ground of awareness".[3] In the experience of pure consciousness or contentless awareness, as

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[1] Quoted in Arthur J. Deikman, "Deautomatization and the mystic experience", op. cit., p. 244.

[2] Arthur J. Deikman, "Deautomatization and the mystic experience", op. cit., p. 244.

[3] This expression is from the psychologist John Welwood from the University of California in Santa Barbara (see his article "Meditation and the unconscious: A new perspective", in *Journal of Transpersonal Psychology*, vol. 9, no. 1, 1977, pp. 1-26); for more elaborated discussions on this topic, see: Louis Dupré, "The mystical experience of the Self and its philosophical significance", op. cit.; W. Norris Clarke, "The natural roots of religious experience", In *Religious Studies*, vol. 17,

Steven Bernhardt and Franklin Merril-Wolff have both noted, "the subject comes into relation with its "object" through a relation of identity" [1]; to use the expression of an American neuro-biologist who presented a psychophysiological model of "higher" states of consciousness, it is a "state of pure self-reference without content" [2], in which the observer and observed are unified in a single cognitive act: "There is no world of the senses or of objects, no trace of sensory activity, no trace of mental activity. There is no trinity of thinker, thinking process and thought; doer, process of doing and action; experiencer, process of experiencing and object of experience. . . . Here the Self stands by Itself." [3] This last quotation is from Maharishi Mahesh Yogi, who specified somewhere else that pure consciousness is characterized by a "three-in-one-structure": "The awareness is open to itself, and therefore the awareness knows itself. Because the awareness knows itself it is the knower, it is the known, and it is the process of knowing. This is the state of pure

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pp. 511-523, especially section 4; S.H. Nasr, "Self-awareness and ultimate selfhood", in *Religious Studies,* vol. 13, 1977, pp. 319-325; James R. Horne, "Do mystics perceive themselves?", in *Religious Studies,* vol. 13, 1977, pp 327-333; Robert K.C. Forman, "Eckhart, *Gezucken,* and the ground of the soul", in *Studia Mystica,* vol. 11, 1988, pp.3-30; Roland Fischer, "Toward a neuroscience of self-experience and states of self-awareness and interpreting interpretations", in Benjamin B. Wolman and Montague Ullman, eds., *Handbook of States of Consciousness,* New York: Van Nostrand Reinhold Co., 1986, pp. 3-30.

[1] Robert K.C. Forman, op. cit., p. 20.

[2] Roland Fischer, "Toward a neuroscience of self-experience and states of self-awareness and interpreting interpretations", op. cit., p. 20; "Cartography of conscious states: Integration of East and West", in A. Arthur Sugerman and Ralph E. Tarter, eds., *Expanding Dimensions of Consciousness,* New York: Springer Publishing Co., 1978, p. 43; and "On creative, psychotic and ecstatic states", in John White, ed., *The Highest State of Consciousness,* Garden City, NY: Doubleday and Co., 1972, p. 191.

[3] Maharishi Mahesh Yogi, *On the Bhagavad-Gita,* Harmondsworth, G B.: Penguin Books, 1973, p. 394.

[consciousness], wide-awake in its own nature and completely self-referral." [1] On this character of self-reference, the psychologists Boyer, Alexander and Alexander wrote:

> Self-referral means that the Self is fully awake within itself. Self-referral does not involve the recursive thinking characteristic of the adult waking state in which the knower knows himself only indirectly through the active state of feeling, thinking, and perceiving. Rather, in the least excited, simplest state of the mind, transcendental consciousness, awareness is directly awake to itself as a silent, unified field of pure consciousness. [2]

The French theologian of mysticism Father A. Gardeil, a Dominican priest, has admirably expounded the non-intentional character of the self-referral state of consciousness, and has insisted that the knowledge of the soul ("âme") through itself is an experience available to every human being because it is inherent to the structure of human consciousness as "esprit" (spirit). In his work *La structure de l'âme et l'expérience mystique,* he wrote:

> De la fusion de la connaissance de l'âme par son acte avec l'actualisation, toute relative qu'elle soit, de la connaissance habituelle de l'âme par l'âme, résultera la perception actuelle et immédiate de l'âme par l'âme, la véritable conscience *de soi*. La raison foncière de la conscience de soi, comme telle, est au-dedans: c'est une question de structure de l'âme en tant qu'esprit, *Mens* : elle est d'ordre métaphysique.
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> Il n'y a donc rien d'intentionnel dans l'acte terminal de la conscience psychologique, par laquelle l'âme se connaît individuellement, *secundum quod habet esse in tali individuo, particulariter,* et se saisit elle-même, comme principe existant de ses actes et de sa vie. Un acte intentionel est un acte immanent, mais dont le terme intérieur, le concept, *intentio,* représente une réalité extérieure à laquelle il s'étend, moyennant cette valeur représentative. Le caractère intentionel n'a de raison d'être que si la réalité connue est extérieure au sujet connaissant, incapable donc d'entrer dans la connaissance autrement que par sa représentation. Or l'âme est innée à elle-même, et originellement saisie par elle-même, virtuellement et en droit,

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[1] Maharishi Mahesh Yogi, *Life Supported by Natural Law,* Washington, DC: Age of Enlightenment Press, 1986, p. 29.

[2] Robert W. Boyer, Charles N. Alexander and Victoria K. Alexander, op. cit., p. 93.

> grâce à sa connaissance habituelle d'elle-même. . . . Une telle connaissance n'a, en effet, qu'un nom : c'est une perception expérimentale. Encore ne faudrait-il pas l'imaginer sur le modèle de la perception expérimentale sensible, qui, si elle se reporte toute à l'objet sensible lui-même, immédiatement présent et contigu, sans aucun verbe intermédiaire, ne laisse pas de s'opérer par l'espèce impresse que le choc de l'objet extérieur a suscitée dans le sens. Il n'y a pas, nous l'avons dit, de *species* intentionnelle dans cette perception actuelle que l'âme a d'elle-même: il n'y a que le contact de l'âme avec l'âme. [1]

About the experiential cognition of consciousness by itself, Jacques Maritain, an "attentive reader of the Christian mystics" [2], said that it was "the typical case of natural mystical experience" [3] obtained when, by "reversing the ordinary course of mental activity, the soul empties itself absolutely of every specific operation and of all multiplicity, and knows negatively by means of the void and the annihilation of every act and of every object of thought coming from outside--the soul knows negatively--but nakedly, without veils--that metaphysical marvel, that absolute, that perfection of every act and of every perfection, which is *to exist*, which is the soul's own substantial existence." [4]

William James and William E. Hocking have probably been the first modern psychologists to argue a subphenomenal dimension of the self. By doing so, they established the link with the ancient and modern exponents of the Yogic and Vedantic traditions who cherish that differentiation between the "lower" and the "higher" self. Summing up Hocking's view on human selfhood from his book *The Meaning of Immortality in Human Experience*, Louis Dupré wrote:

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[1] A. Gardeil, *La structure de l'âme et l'expérience mystique*, vol. 2, Paris: J. Gabalda, 1927, pp. 117-118.
[2] Louis Dupré, op. cit., p. 459.
[3] Jacques Maritain, "The natural mystical experience and the void", in Richard Woods, ed., op. cit., p. 487.
[4] Ibid., pp. 488-489.

> He posits two "selves", the excursive self which is conscious of the world in which it lives, and the reflective self which transcends worldly flux and thereby enables the other self to become conscious. The reflective self is not subject to the lapses of the excursive one: steadfasly it maintains itself through the blackouts of consciousness and connects the intermittent stretches of consciousness. The body may be an indispensable instrument in this constant identification process, but it cannot provide its ultimate foundation since the body itself needs to be recognized as identical from one stretch to another. The self, then, surpasses the sum total of psychic phenomena. Indeed, the phenomena themselves remain unintelligible unless we accept a subphenomenal source from which they spring and which gives them their coherence. [1]

Similarly, with the background of Vedanta, Maharishi Mahesh Yogi expressed that principle in the following way:

> Self has two connotations: lower self and higher Self. The lower self is that aspect of the personality which deals only with the relative aspect of existence. It comprises the mind that thinks, the intellect that decides, the ego that experiences. This lower self functions only in the relative states of existence--waking, dreaming and deep sleep. . . . The higher Self is that aspect of the personality which never changes, absolute Being [pure consciousness], which is the very basis of the entire field of relativity, including the lower self. [2]

The experimental and theoretical developments related to the process of cognitive alternation, coupled with similar developments in the investigation of meditational techniques over the last twenty years, have led many psychologists to support that model of an undifferentiated basic ground of awareness, of an "observing self", from which the cognitive gaze is directed at the phenomenal world. John Welwood, for instance, wrote:

> This widest ground of experience appears to be pure, immediate presence before it becomes differentiated into any form of subject-object duality. . . . Split-second flashes of this basic ground, which Buddhists have also called "primordial awareness", "original mind", "no mind", are happening all the time, although one does not usually notice them. [3]

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[1] Louis Dupré, op. cit., p 450.

[2] Maharishi Mahesh Yogi, *On the Bhagavad-Gita,* op. cit., p. 339.

[3] John Welwood, op. cit., p. 17.

> The basic ground of open awareness, though beyond the span of focal attention (and in this sense "unconscious"), is not a mysterious psychic region, but is perfectly knowable, both in fleeting glimpses and in "sudden awakening". . . . The basic ground is present all the time. At any moment, especially if one develops more sensitivity to the process of consciousness through meditation, one may glimpse this ineffable, non-specifiable, omni-potential open awareness that underlies specific perceptions. The fundamental nature of awareness seems to have this open quality, this complete receptivity that becomes progressively faceted, shaped, articulated, elaborated, while remaining open and "empty". [1]

In his model of the tacit ground of knowing, Polanyi has insisted on the character of "unspecifiability of subsidiaries"[2] in the diffuse awareness of the more synthetic, integrative layers. As the content of the mind becomes more and more diffused in the process of "breaking out" toward the tacit ground, it consequently also becomes less and less "objectifiable". One of the reason for that, he mentionned, is the "sense deprivation which is *logically* necessary and in principle absolute".[3] Polanyi maintained that the ontological dimension of the structure of consciousness is concretely expressed in the functional aspect of tacit knowing. Since meaningfulness and integration are gained in "breaking out" toward the tacit ground of the real, tacit knowing is directed from the diffused, intangible pole of the subsidiarily known to the tangible particulars of focal awareness: ". . . in tacit knowing we always attend *from* the proximal [the subsidiarily known] *to* the distal term [the focally known]." [4] "This is the *phenomenal* accompaniment of tacit

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[1] Ibid., p. 21.

[2] M. Polanyi and H. Prosch, *Meaning*, op. cit., p. 39.

[3] Ibid.

[4] Michael Polanyi, "The logic of tacit inference", in Marjorie Grene, ed., op cit., p. 141. This "vectorial quality" has incited Polanyi to name the "functional relation" of the subsidiarily known to the focally known a "from-to relation"; he also speaks of the integrative, synthetic pole of consciousness as "from-awareness" (see M. Polanyi and H. Prosch, *Meaning*, op. cit., pp. 34, 38).

knowing", which "embodies the *ontological claim* of tacit knowing".[1] This functional directedness of the process of observation as revealing a basic ontological principle has been nicely expressed by the Russian philosopher Simon Frank:

> True, it is completely undeniable that the enigmatic sphere of inner being is also the point from which the cognitive gaze is directed at the objective world. In other words, the one who (or that which) is immediate self-being for himself (or itself) is also the one who (or that which) knows everything else--the one for whom (or that for which) objective being is revealed in knowing. This is not a coincidence of course, but an expression of a profound relation in being: the self-revelation of reality as total unity occurs in the sphere of immediate self-being, and this is evidently due to an inner kinship between total unity and immediate self-being. [2]

The notion of an "observing self" has received many interesting confirmations from remarks and observations of renowned neurosurgeons like Sir John C. Eccles, Wilder Penfield and Roger W. Sperry (to whom we have referred previously). Those observations tend to confirm that consciousness is not identical with the brain or the mind, but rather is that basic element which witnesses the changes occurring in brain and mind. The next quotation is from Prof. Penfield trying, in the course of a discussion, to put this into words.

> If that is the case, that two streams of consciousness are being appreciated, then there is something more than the awareness of conscious experience: there is something that is capable of appreciating two conscious streams simultaneously and judging their relations to each other. There is something more that we come here to consider and cannot even name! There is something more that is able to see, and reflect, and compare such simple things as two streams of awareness. I am not expressing that very well but I am sure you guess what I am driving at There is something more than just

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[1] Michael Polanyi, "The logic of tacit inference", in Marjorie Grene, ed., op. cit., p. 141.

[2] Simon L. Frank, *The Unknowable-- An Ontological Introduction to the Philosophy of Religion,* transl. by Boris Jakim, Athens, Ohio: Ohio University Press, 1983, p. 104.

> the stream of awareness. . . . There is something beyond the stream of conscious experience that we still are not either naming or identifying or understanding. [1]

Through the seventies and eighties, many psychologists interested in the cognitive structure of human awareness have developed a more appropriate terminology to sustain more precise concepts in that branch of enquiry. It is surely not by chance that most of those concepts have been derived from Indian philosophy. Here are, for instance, a few notions expressed by a leading researcher in the field of mystical states and psychotherapy:

> The most important fact about the observing self is that it is incapable of being objectified. The reader is invited to try to locate that self to establish its boundaries. The task is impossible; whatever we can notice or conceptualize is already an object of awareness, not awareness itself, which seems to jump a step back when we experience an object Unlike every other aspect of experience--thoughts, emotions, desires, and functions--the observing self can be known but not located, not "seen". . The observing self is not part of the object world formed by our thoughts and sensory perception because, literally, it has no limits, everything else does Thus, everyday consciousness contains a transcendent element that we seldom notice because that element is the very ground of our experience The word *transcendent* is justified because if subjective consciousness--the observing self--cannot itself be observed but remains forever apart from the contents of consciousness, it is likely to be of a different order from everything else. Its fundamentally different nature becomes evident when we realize that the observing self is featureless; it cannot be affected by the images it reflects. . . .
>
> Western science has ignored this transcendent element, assuming that the observer and the observed are phenomena of the same order. In contrast, the distinction between the observer and the observed is an important aspect of mysticism. It is emphasized in Vedanta and especially Sankhya philosophy, which distinguishes between Purusha, the Witness Soul, and Prakriti, all the phenomena of Nature. [2]

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[1] Wilder Penfield, in John C. Eccles, ed., *Brain and Conscious Experience*, New York: Springer-Verlag, 1966, p. 546.

[2] Arthur J. Deikman, *The Observing Self--Mysticism and Psychotherapy*, op cit , pp. 94, 95, 96. For more cases of similar views held by psychologists or neurologists, see, for instance: Richard de Mille, "The perfect mirror is invisible", in *Zygon*, vol. 11, no. 1, 1976, pp. 25-34; John Rowan, "The real Self and mystical experiences", in *Journal of Humanistic Psychology*, vol. 23, no 2, 1983,

The fourteenth century German mystic Meister Eckhart, considered by many as the greatest of Christian mystical philosophers [1], and who is particularly noted for his power of intellectual discrimination, has given remarkably clear characterizations of the experience of pure consciousness, which he often terms *"gezucken"* (rapture)[2]. Eckhart specifically asserted the absence of sensory content, as well as mental objects in that experience [3]: there, the soul, having eliminated the activities of her powers, arrives at her "essence", in her "ground" *(grunt)* [4]. In that "innmost part", that "silent middle", one rests in his own "being" or "essence" [5]: "When the soul comes to the nameless place, she takes her rest. There . . . she rests." [6] It is interesting to see that Eckhart's analysis of the "ground of the soul" bears great resemblance with Deikman's account on the "observing self" that we just presented, or with any investigation on the nature of

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pp. 9-27; H.M. Fox, "The expanding self: Healing and being whole", in *Journal of Humanistic Psychology,* vol. 25, no. 4, 1985, pp. 91-98; Donald M. Moss, "Transformation of self and world in Johannes Tauler's mysticism", in Ronald S. Valle and Rolf von Eckartsberg, eds., *The Metaphors of Consciousness,* New York. Plenum Press, pp. 337-357; Roland Fischer, op. cit.; Frances Vaughan, "Discovering transpersonal identity", in *Journal of Humanistic Psychology,* vol. 25, no. 3, 1985, pp. 13-38; K. Wilber, "Psychologia perennis: The spectrum of consciousness", in R. Walsh and F. Vaughan, eds., *Beyond Ego: Transpersonal Dimension in Psychology,* Los Angeles: Tarcher, 1980; John Welwook, op. cit.; Michael C. Dillbeck, "The Vedic psychology of the Bhagavad-Gita", and "Testing the Vedic psychology of the Bhagavad-Gita", in *Psychologia,* vol. 26, 1983, respectively pp. 62-72 and pp. 232-240; and Karl Jaspers, *Philosophy,* vol. I, New York: University of Chicago Press, 1956.

[1] See for instance John Findlay, "The logic of mysticism", in *Religious Studies,* vol. 2, p. 154, and W.T. Stace, *Mysticism and Philosophy,* op. cit., op. cit., p. 317.

[2] See Robert K.C. Forman, "Eckhart, *Gezucken,* and the ground of the soul", in *Studia Mystica,* vol. 11. 1988, pp. 3-30.

[3] Ibid , p. 10.

[4] Ibid., p. 14.

[5] Ibid., p. 15.

[6] Eckhart, ibid., p. 16.

the Self taken from the Upanisads or the Bhagavad-Gita [1] (this being said without supporting any particular judgmental claim about the pantheistic--or non-pantheistic--value of the Self: we only need here to consider the phenomenological claim related to the experience of contentless awareness which transcends the subject-object duality of our "normal" empirical self.[2]). Eckhart's perspectives are in fact so similar to the Indian views that the two have often been compared.[3] And from all evidence, he knew nothing about Indian psychology and philosophy. It is probably normal that even in very different space-time settings, experiences which have fundamental elements in common may lead to the expression of similar structural models of the cognitive capabilities of human awareness. After all, every

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[1] It is also very similar to many recent epistemological models or analyses presented by some scholars of mysticism. See for instance. R.L. Franklin, "A science of pure consciousness", in *Religious Studies,* vol 19, 1983, pp. 185-204; S.H. Nasr, "Self-awareness and ultimate selfhood", op.cit.; W. Norris Clarke, "The natural roots of religious experience", op. cit.; Sallie B. King, "Two epistemological models for the interpretation of mysticism", op. cit.; James R. Horne, "Do mystics perceive themselves?", op. cit.; and James E. Huchingson, "Science and the self", in *Zygon,* vol. 10, no. 4, 1975, pp. 419-430.

[2] Moreover, if expressions like "pure Self", "transcendental Self", "higher Self", etc. would sound inappropriate to someone committed to an absolute version of the apophatic path--like an Hinayana Buddhist, for instance--, they could be replaced, without altering the basic experiential significance of this cognitive structure, by expressions like "ground", "void", "no-mind" state, etc. As Sallie B. King has showned, "even though a given tradition may deny, as Indian Buddhism does, that there is anything in any sense whatsoever that is either the basis or the source of the individual's being, that tradition in its mystical dimension still points towards an existential grounding of the individual. This, then, can serve as a cross-culturally valid component of mystical experience: an experience that leaves one existentially grounded." (see her article: "Two epistemological models for the interpretation of mysticism", op. cit., especially pp. 273-275). For a few more interesting perspectives on that point, see Frances Vaughan, "Discovering transpersonal identity", op. cit., pp. 34-35, and A.J. Deikman, *The Observing Self--Mysticism and Psychotherapy,* op. cit., pp. 141-142.

[3] Among the most interesting are: Rudolf Otto, *Mysticism East and West,* New York: Meridian Books, 1957; and D.T. Suzuki, *Mysticism Christian and Buddhist,* New York: Harper and Bros., 1957.

human nervous system is subject to some basic universal laws governing the cognitive processes of each state of consciousness (excepting some cases of serious neural pathologies). A Hindu in the dreaming state of consciousness is basically going through the same cognitive pattern as a Christian in the same state, independently of the content of the dream. If there is such a thing as a fourth major state of consciousness, chances are that we can identify some universal cognitive features, plus many neurophysiological correlates, which are specific to that state. [1]

E) Meditational techniques and the physiology

One of the most important factor pleading for the case of a universal structure of human cognitive processes is the fact that there exists a high degree of similarity between the techniques conducive to the experience of pure consciousness. Stace's analysis of his twofold typology of mystical experiences as "extrovertive" and "introvertive" led him to the insight that there are, roughly, corresponding observable behaviours in reaching these experiences. The "extrovertive" type are those that he called "spontaneous" because they usually "come to men unsought, without any effort on their part, and often quite unexpectedly" [2]; the "introvertive" type of experiences, on the other hand, are "acquired", since they "have been preceded by deliberate exercises, disciplines, or

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[1] Since the 1950's, we know that each of the three ordinary states of consciousness has its own specific neurophysiological correlates. See: E. Aserinsky and N. Kleitman, "Regularly occurring periods of eye motility and concomitant phenomena during sleep", in *Science,* vol. 118, 1953, pp. 273-274; N. Kleitman, *Sleep and Wakefulness,* Chicago: University of Chicago Press, 1963; and E. Hartmann, *The Biology of Dreaming,* Springfield, Ill.: Charles C. Thomas Publishers, 1967.

[2] W.T. Stace, *Mysticism and Philosophy,* op. cit., p. 60.

techniques, which have sometimes involved long periods of sustained effort." [1] He adds then that "there are special techniques of introversion--which differ only slightly and superficially in different cultures." [2] Further on, he wrote:

> Methods and techniques for attaining it [pure consciousness] had apparently been discovered and worked out in great detail in India before the age of the Upanishads. They constitute the various practices and kinds of Yoga. . . . Among Western mystics these methods of "stopping thought"--that is, excluding sensations, images, conceptual thinking, etc.--have also not been basically different from Oriental models. [3]

This similitude among the methodologies used to experience the contentless state is crucial in the development of our analysis because it reveals the common observable ground on which we can conduct empirical researches. Before going further on this, it might be appropriate to mention that on this point of similarities between methodologies, Stace has received very substantial confirmations from recent phenomenological and psychological analysis of the various contemplative and meditational practices. For instance, after having analyzed many meditational techniques from various traditions, the psychologist Robert Ornstein concluded that one primary effect of these exercises "is the state of emptiness, the nonresponsiveness to the external world evoked in the central nervous system by the continuous subroutine called up by the exercise, regardless of what the specific input is or what sensory modality is employed. Since we, the bushmen, the Eskimos, the monks of Tibet, the Zen masters, the yoga adepts, and the dervishes all evolved with the same nervous system, it is not so surprising that general

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[1] Ibid.
[2] Ibid.
[3] Ibid., p. 87.

similarities in techniques should have evolved." [1] On the same topic, Alistair Shearer wrote:

> All the great religions have used the techniques of *yoga* to lead the mind inwards to that silence which is the heart of the religious life. Each tradition has developed its own variations on the theme of our text [on the "ways of stilling the mind and reaching the silence within"]. . . . Performed in the context of different faiths, they may differ in expression, but in essence they are one. [2]

He then goes on to reflect on some historical considerations, and mentions that:

> All the contemplative practices of the Catholic, Eastern Orthodox and Protestant churches have their roots in the teachings of the desert Fathers of Egypt and Syria. These doctrines were translated into Latin by John Cassian in the fifth century and are the starting point for all subsequent development of what Christianity calls "ascetic theology", the spiritual discipline of prayer and contemplation." [3]

Insisting on the "undenominational" character of *yoga* as psychophysiological techniques aiming at "purifying the nervous system so that it can reflect a greater degree of consciousness", Shearer then expresses that its methods are making use of the close relationship between mind and body to enliven consciousness:

> Whether we choose to practice *yoga,* and interpret its benefits within the framework of a conventional set of religious beliefs, is up to us. Some

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[1] Robert E. Ornstein, *The Psychology of Consciousness,* 2nd ed., New York: Hartcourt Brace Jovanovich Inc., 1977, pp. 172-173. For more accounts from a psychological perspective on that point, see: Michael C. Washburn, "Observations relevant to a unified theory of meditation", in *Journal of Transpersonal Psychology,* vol. 10, no. 1, 1978, pp. 45-65; Arthur J. Deikman, "Deautomatization and the mystic experience", op. cit.; and his book *The Observing Self--Mysticism and Psychotherapy,* op. cit., especially pp. 135-152.

[2] Alistair Shearer, op. cit., p. 18. For a few more interesting accounts from a religious perspective, see: Daniel J. O'Hanlon, "Integration of spiritual practices: A Western Christian looks East", in *Journal of Transpersonal Psychology,* vol. 13, no. 2, 1981, pp. 91-112; David Hay, "Asking questions about religious experience", in *Religion,* vol. 18, 1988, pp. 217-229; and William Johnston, *Silent Music,* op. cit..

[3] Ibid., p. 18.

> people do; some don't. *Yoga* itself is neutral. It is a catalyst that allows us to grow in whichever direction is natural and life-supporting. Its methods work on the physical seat of consciousness, the nervous system and, as far as *yoga* is concerned, a Hindu nervous system is no different from an Islamic or agnostic one. Each obeys the same laws that govern the operations of mind and body. Whoever practices *yoga* will be enlivened in his or her own way. [1]

The great importance of the physiological processes in shaping the state and quality of our individual awareness and of its growth towards enlightenment has been expressed in a vivid way by Aurobindo Ghose in his *Synthesis of Yoga* : "The body is the key, the body the secret both of bondage and of release, of animal weakness and of divine power, of the obscuration of the mind and soul and of their illumination, of subjection to pain and limitation and of self-mastery, of death and of immortality".[2] In most of the Western cultures, the dichotomy between mind and body was so strongly imprinted in mentalities that it persisted even after the dawn of the scientific age. Descartes himself, after having spent considerable time developing mechanical models for human functioning, concluded that the mind and body were completely separate. This generalized paradigm might provide an explanation to why the Christian religious orthodoxies were usually suspicious of mystics advocating the practice of some form of psychophysiological technique to enter the contemplative state. Surprisingly, it is only by the middle of the 20th century that researchers in neurophysiology began to bridge this mind-body gap. Just to show the extent to which science can have a salutary effect on our churches' leaders [3], here is a declaration from Pope Paul VI to an audience of neurologists, in

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[1] Ibid.

[2] Aurobindo Ghose, *The Synthesis of Yoga,* Pondicherry: Sri Aurobindo Ashram Press, 1951, p. 507.

[3] Without denying that through the churches' moral and ethical influence, the reciprocal is also true.

the context of an inaugural address to the Study Week of the Pontificia Academia Scientiarum, in September 1964:

> But who does not see the close connection between the cerebral mechanisms, as they appear from the results of experimentation, and the higher processes which concern the strictly spiritual activity of the soul? Your labors are valued by Us, as you see, because of the domain in which they are pursued, because of their close affinities with that which is of supreme interest to a spiritual power such as Ours--the domain of the moral and religious activities of man. . . . The Church does not fear the progress of science. She undertakes willingly a dialogue with the created world and applauds the wonderful discoveries that scientists are making in that world. Every true scientist is for her a friend, and no branch of learning is shunned by her. . . . The Church follows this progress with close attention, as she does also the spiritual expressions which accompany the scientific effort. These expressions have varied according to time and place, and their evolution is for the Church an object of great interest. [1]

Equally indicative of that paradigm shift among religious thinkers is the fact that the 1985 *Prize for Progress in Religion* of the Templeton Foundation[2] was awarded to Sir Alister Hardy, the founding director of the Religious Experience Research Unit at Manchester College, Oxford. Throughout his career as a scientist, he advocated the use of scientific methods to study man's spiritual experiences. [3]

The body being the most concrete aspect of the human personality, it is of course the level at which the apparatus of modern science can the most easily extract data. The principle that mental and physical events occur side by side has been called the "psychophysiological principle", and has served as the basic premise for the study fo the neurophysiological correlates of every state of consciousness,

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[1] Pope Paul VI, in J.C. Eccles, ed., *Brain and Conscious Experience,* op. cit., p. XX.

[2] Founded and funded by John M. Templeton, U.S. Presbyterian layman.

[3] *Time* , "Blithe spirit--A scientist wins an award", March 11, 1985, p. 88.

including the fourth, *"turiya"* [1] It has been formulated in the following manner by Elmer Green and his associates: "Every change in the physiological state is accompanied by an appropriate change in the mental-emotional state, and conversely, every change in the mental-emotional state, conscious or unconscious, is accompanied by an appropriate change in the physiological state." [2]

The abundance of scientific researches, over the last twenty years, to evaluate the physiological and biochemical changes occurring during the practice of meditational techniques[3], is indicative of that desire to gain a better appreciation of what we are used to call "mystical" experiences. The results of those researches are very consistent with the usual descriptive terminology used by "mystics", ancient and modern: rest, tranquility, silence, quietness, noiselessness, stillness, calm, peacefulness, motionless, serenety, no breath[4], etc , but at the same time alertness, clarity, wakefulness, expanded awareness, transparency, limpidity, lucidity, lightness, etc. The state is marked by very low levels of arousal and metabolic rate,

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[1] See R.K. Wallace, H. Benson and A.F. Wilson, "A wakeful hypometabolic physiologic state", in *American Journal of Physiology,* vol. 221, no 3, 1971, pp. 795-799; R. K. Wallace and H. Benson, "The physiology of meditation", *Scientific American,* vol. 226, no. 2, pp. 84-90; for a more elaborated bibliography, see: R.K. Wallace, J.B. Fagan and D.S. Pasco, "Vedic physiology", in *Modern Science and Vedic Science,* vol. 2, no. 1, 1988, pp. 3-59.

[2] E. Green, A. Green, and E.D. Walters, "Voluntary control of internal states: Psychological and physiological", in *Journal of Transpersonal Psychology,* vol. 2, no. 1, 1970, p. 3.

[3] Most of those researches have been conducted on meditators practicing the well-known "Transcendental Meditation" technique, since they constitute uniformly trained subjects available almost everywhere in great numbers (according to the organization responsible for the teaching of that technique, there were more than 3 million TM-practitioners in the world in 1988). That technique produces consistent and significant physiological changes which are observable even on beginners (see Christian Tourenne, *Vers une science de la conscience,* op cit , p. 56-57)

[4] It is interesting to note that one of the meaning of *nirvana* is "without breath" (Alistair Shearer, op. cit., p. 36).

compatible with wakefulness. It has been termed by Wallace et al. "wakeful hypometabolic state" [1] and by Gellhorn and Kiely a "state of trophotropic dominance compatible with full awareness" [2] Roland Fischer, who speaks of meditational techniques as "the path of increasing hypoarousal", wrote:

> Zazen, the dharna and dhyan states, as well as the Christian Prayer of Simplicity, are all states of increasingly restful inner alertness. Trophotropic arousal and in the initial phase EEG synchronization, an increase in alpha-rhythm amplitude and decrease in frequency, are characteristic features of meditative states, including TM or transcendental meditation, a standardized, transcultural, contemporary variety of mantra-meditation. [3]

In using as a parallel the third law of thermodynamics, some physicists have described meditation as "a methodology for the conscious exploration of a very low "mental temperature"" [4]. Laurence Domash, for instance, "suggests by analogy to physical systems that when the "mental temperature" or internal noise level reaches its lowest level of excitation a phase transition to a distinct and more highly ordered state occurs within the nervous system." [5] In the same line of thought, Brian D. Josephson considers pure consciousness to be a state in which the excitation of consciousness is at its lowest level. He describes it as a state in which consciousness is in exclusive interaction with itself:

> C'est un fait bien connu que parmi les systèmes physiques, certains peuvent être entièrement décrits (en les rapportant à tel ou tel point de vue particulier) d'une façon simple. Ainsi en est-il, notamment, de l'état fondamental de l'hélium liquide ou d'un cristal parfait de chlorure de sodium à une

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[1] R.K. Wallace, H. Benson and A.F. Wilson, op. cit , p. 795.

[2] E. Gellhorn and W.F. Kiely, "Mystical states of consciousness: Neurophysiology and clinical aspects" in *Journal of Nervous and Mental Disease*, vol. 154, p. 399.

[3] Roland Fischer, "Toward a neuroscience of self-experience and states of self-awareness and interpreting interpretations", op. cit., pp. 19-20.

[4] R.K. Wallace, *The Neurophysiology of Enlightenment*, op. cit., p. 22.

[5] Ibid.

> température donnée. Les cas de ce genre contrastent avec la situation qui caractérise les substances chimiquement impures ou les systèmes désordonnés. S'agissant de l'expérience consciente nous affirmons qu'il y règne la même situation, c'est-à-dire qu'il existe des états de conscience spécifiables par des voies simples. Ce genre d'état comprend ce que nous pourrions appeler des idées ou émotions "pures". Le plus fondamental de tous est celui que l'on qualifie de pure conscience ou *samadhi*. Il n'a pas d'autre contenu identifiable que d'être conscient. On peut le comprendre sur un plan théorique en le décrivant comme suit. La pure conscience est un état limite de la conscience, hors de toute atteinte ou trouble extérieur; en d'autre termes, il s'agit du phénomène de la conscience en interaction exclusive avec elle-même. [1]

The neurophysiological correlates of low metabolic rate, significant decrease in oxygen consumption with no change in respiratory quotient, breath suspension,[2] etc. associated with meditation largely confirm these observations and the general model we have been defending in the last two sections. It is also very coherent with the psychological observations contained in Patanjali's [3] definition of *yoga*, which

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[1] Brian D. Josephson, "L'expérience de la conscience et sa place en physique", op.cit., p. 34.

[2] See: P. Gallois, "Modifications neurophysiologiques et respiratoires lors de la pratique des techniques de relaxation", in *L'Encéphale*, vol. 10, 1984, pp. 139-144; D. Garnier, A. Cazabat, P. Thébault, P. Gauge, "Etude expérimentale de la ventilation pulmonaire pendant la technique de Méditation Transcendentale Applications en médecine préventive", in *Est Medecine*, vol. 4, no. 76, 1984, p 867; J. Allison, "Respiratory changes during Transcendental Meditation", in *Lancet 1*, no. 7651, 1970, pp. 833-834; J.T. Farrow and J.R. Herbert, "Breath suspension during the Transcendental Meditation technique", in *Psychosomatic Medecine*, vol. 44, no. 2, 1982, pp. 133-153; and N Wolkove, H. Kreisman, D. Darragh, C. Cohen and H. Frank, "Effect of Transcendental Meditation on breathing and respiratory control", in *Journal of Applied Physiology: Respiratory, Environmental and Exercise Physiology*, vol. 56, no. 3, 1984, pp. 607-612 This last research, conducted at McGill University, confirmed the previous findings of both a significant decline of minute ventilation and the observation of periods of respiratory suspension in TM practitioners.

[3] In his book *Exploring Mysticism*, Frits Staal has appropriately remarked that "the religions of India provide the materials which one day may show that religion can be studied as a branch of psychology--a psychology, of course, which is an integrated science of the mind, the soul and the spirit, not just a discipline that confines itself to experimentation with a small selection of mental phenomena. I know that critics of Indian religion will readily adopt such an evaluation. But the same approach can be applied to the study of all religions That India should

he succintly layed out in the second verse of his *Yoga Sutras*. About this verse, I.K. Taimni wrote:

> This is one of the most important and well-known *Sutras* of this treatise not because it deals with some important principle or technique of practical value but because it defines with the help of only four words the essential nature of *Yoga*. There are certain concepts in every science which are of a basic nature and which must be understood aright if the student is to get a satisfactory grasp of the subject as a whole. [1]

That verse reads as follow:

> YOGAŚ CITTA-VṚTTI-NIRODHAḤ [2]

It has been translated respectively in the following ways by Taimni, Deshpande, and Shearer:

> Yoga is the inhibition (suppression) of the modifications of the mind. [3]

> Yoga is that state of being in which the ideational choice-making movement of the mind slows down and comes to a stop [4]

> Yoga is the settling of the mind into silence. [5]

It is again the same recurrent idea that a specific major state of consciousness is reached by emptying the mind of all discursive thoughts, concepts, modifications,

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provide such materials more easily is due to a variety of circumstances: for example, the free and unhampered development of religion, and the importance of mental approaches (e.g. meditation) in the area of religion." (Op. cit., p. 182)

[1] I.K. Taimni, *The Science of Yoga*, Wheaton, Illinois: Theosophical Publ. House, Quest Books, 1981, p. 7. Similarly, Despande remarked that the first four *Sutras* "give us the very quintessence of Yoga." (P.Y. Deshpande, *The Authentic Yoga--Patanjali's Yoga Sutras*, London: Rider, 1978, p. 19). Alistair Shearer also corroborates this point: "The first four *sutras* of Chapter 1 contain Patanjali's entire message in a nutshell. *yoga* is the settling of the mind into silence, and only when the mind is silent can we realize our true nature, the effortless Being of the Self. The remaining one hundred and ninety *sutras* are an expansion of this brief introductory statement." (Op.cit., p. 21).

[2] I.K. Taimni, op. cit., p. 7.

[3] Ibid.

[4] P.Y. Deshpande, op. cit., p. 19.

[5] A. Shearer, op. cit., p. 49.

etc., so that the mind, "in this experience, is itself what it perceives",[1] as Stace expressed. The structural orientation of consciousness that is suggested by Patanjali is coherent with both analysis of Stace and Polanyi.

With the perspective that we have gained with this model, we can now suggest, in regard to our previous discussion about the status of the knower and the problem of infinite regression in modern psychology, that the self-referral character of the experience of pure consciousness provides us with a very enlightening solution, since in the least excited state of the mind, awareness is directly awake to itself as a silent field in which knower, known, and process of knowing are unified. The third verse of Patanjali's *Yoga Sutras* specifically asserts that when the mind has calmed down to its least excitation state, the knower gets established in his own self:

TADĀ DRAṢṬUH SVARŪPE AVASTHĀNAM [2]

Thus, the experiential cognition of consciousness by itself can be said to be a very basic epistemic "activity" which reveals the ontological ground of the structure of knowing. It is the "integrative" experience *par excellence*, or cognitive capability in its extreme synthetic mode. As expressed by Orme-Johnson:

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[1] W.T. Stace, *Mysticism and Philosophy,* op. cit., p. 109.

[2] P.Y. Deshpande has translated that verse in the following way: "Then [when the movement of the mind comes to a stop] the seer gets established in his existential identity." (Op. cit., p. 19). It is interesting again to consider Frits Staal's comment on the psychological relevance of the distinction between the empirical self and the pure self: "One feature of Indian thought in particular corroborates the hypothesis that religion may be studied as a branch of psychology, namely, the identification of the absolute *brahman* with the "self" *(atman)* Though it is emphasized again and again that this self is not the empirical self *(jivatman)* of our daily experience, it can undoubtedly be regarded as a psychological notion, albeit in a psychology which is suitably deepened and enlarged." (Op. cit., p. 183).

> The knower as the self-referral state of pure consciousness solves the problem of infinite regression of interpretive homunculi because, being self-referral, it does not have to "regress" outside of itself to know itself. It is the knower of itself as well as the knower of all events, both subjective and objective, which in ordinary waking-state consciousness are perceived as external to itself. . . . The self-referral state of consciousness is described by the adjective "pure" because it is the unqualified, completely general state of consciousness. Any mental event is a qualification of the generality of pure consciousness into some specific state. [1]

Finally, it might be appropriate here to bring a point which has been emphasized by many authors, concerning the fact that pure consciousness is not the final goal of enlightenment, but a "milepost . . . along the path to that goal".[2] Shearer expressed that this state has to be integrated with other states of consciousness:

> This experience of the mind's dissolving into the Self is not the same as Enlightenment. Enlightenment is the state when this unbounded awareness is maintained at all times, during the states of waking, dreaming and sleeping, no matter what the body and mind are doing. Just as it takes time for the mind to experience clearly the process of becoming boundless, it takes time to integrate this expansion into everyday life so that it is never lost. Enlightenment comes from the alternation of the completely settled mind and ordinary activity. [3]

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[1] D. Orme-Johnson, "The cosmic Psyche", op. cit., pp. 120-121.

[2] Robert K.C. Forman, op. cit., p. 24. See also: Evelyn Underhill, op. cit., p. 324; Daniel Goleman, "Meditation as meta-therapy: Hypotheses toward a proposed fifth state of consciousness", in *Journal of Transpersonal Psychology*, vol. 3, 1971, pp. 18-19; Aurobindo Ghose, *The Synthesis of Yoga*, op. cit., p. 389; Maharishi Mahesh Yogi, *On the Bhagavad-Gita*, op. cit., pp. 312-316; and W.T. Stace, *Mysticism and Philosophy*, op.cit., p. 61.

[3] Alistair Shearer, op. cit , p. 22.

CONCLUSION

From our analysis of the structural orientation of the human cognitive apparatus and its psychological features relevant to the study of mystical experiences, we are now in a position to draw a certain number of conclusive remarks on the contextualist views of Katz.

a) First, Steven Katz's claim that "there is no substantive evidence that there is any pure consciousness *per se* achieved" [1] is not supported by the psychologically- and phenomenologically-descriptive accounts of experiences which *pointedly avoid* asserting the presence of an intentional object Even in cultures which are remote in time and space from ours, there have been numerous mystics who, while using their tradition-shaped and belief-tainted symbols and concepts, have been linguistically very careful to distinguish the contentless wakeful state of awareness from content-filled states of waking and dreaming. And they were usually even more careful to distinguish it from such phenomena as visions and auditions which obviously are conditioned by culture and tradition.[2] As Evelyn Underhill wrote, "the mystics are all but unanimous in their refusal to attribute importance to any kind of visionary experience. The natural timidity and

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[1] Steven T. Katz, "Language, epistemology, and mysticism", op cit., p. 57.
[2] On this point, Philip Almond wrote: "For, in mystical states which are generated as a result of following a particular tradition of meditation and which are prior to the attainment of the contentless state, incorporated interpretation will play a crucial role. That is to say, these prior states will be content-filled states, the content being partly determined by the paradigmatic cultural and religious symbols incorporated into these states." (Op. cit., p. 176).

stern self-criticism with which they approach auditions is here greatly increased· and this, if taken to heart, might well give pause to their more extreme enemies and defenders." [1] Polanyi's analysis of the process of cognitive alternation has clearly showed that as the mind "breaks out' towards the subsidiary pole of synthetic awareness, the "objective" content of the mind becomes less and less specifiable Our psychological model of the structural orientation of consciousness strongly supports the view that pure consciousness is cognitive capability in its extreme synthetic mode, and, as we have seen, is very coherent with the main scholarly interpretations of the "contemplative" or "introvertive" type of mystical experiences Their intelligibility is greatly increased if we make the distinction between the content of consciousness and consciousness itself. In his excellent work *Mystical Experience and Religious Doctrine,*[2] Philip Almond wrote:

> The contemplative path . . . appears to support . . . that in some traditions the various content-filled states of mystical experience may be transcended and the "pure" state attained. And the inner logic of the contemplative path suggests too that this latter state is a limiting one. That is to say, while it is always possible to pass beyond a content-filled state to a less content-filled state, the contentless state is, as it were, the upper limit of the meditative process. In other words, meditational techniques, of their nature, conduce towards the realization of the state of contentlessness [3]

The "binocular structure of human knowledge",[4] as revealed by the epistemic activity of the process of cognitive alternation, shows evidence that the

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[1] E. Underhill, op cit., pp. 279-280.

[2] Of which Steven Katz said that it "is an informed and clear exposition and critique of the main scholarly interpretations of mysticism, notably of the relationship between experience and interpretation, that have been offered in the last twenty-five years " ("Review article--Recent work on mysticism", in *History of Religion,* vol. 25, no 1, 1985, p. 77).

[3] Philip Almond, op. cit , p. 178

[4] The expression is from James E Huchingson ("Science and the self", op. cit., p. 429).

contentless state (or the "upper limit" of synthetic mode) has an experiential character which is common to all races and cultures, thus eliminating any possible justification of an unrestricted contextual theory of experience. As Philip Almond remarked:

> The occurrence of contentless experience provides therefore a counter-balance to the somewhat deterministic view of model five [contextualist] that *all* mystical experience is totally dependent on its context. It suggests rather that there are mystical experiences which, by virtue of their contentlessness, are identical irrespective of the cultural milieu in which they occur. In so far as we are speaking of contentless mystical experiences, there is a unanimity and a universality which transcends the cultural context in which they occur. [1]

b) In the beginning of Chapter II, we have briefly considered Stace's idea of "empiricism", especially in regard to epistemology. His phenomenalistic approach towards understanding the nature of experience is based on the central concept of the "given", of which Katz makes the following critique:

> . . . the "given" is appropriated through acts which shape it into forms which we can make intelligible to ourselves given our conceptual constitution, and which structure it in order to respond to the specific contextual needs and mechanisms of consciousness of the receiver This description of the epistemic activity, even the epistemic activity involved in mystical experience, of course requires what in the Kantian idiom, though not in Kant's own manner, would be called a "transcendental deduction", i.e. an argument which reveals *both* conditions of knowing in general as well as the grounds of its own operation and which is thematized according to specific possibilities--and this seems both appropriate and necessary, though its structure cannot even be outlined here [2]

The important point here is that there is absolutely no need to outline an *a priori* ontological framework of knowing to secure a *sufficient* degree of efficiency in the methodology of modern science. Stace's approach to human experience, as

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[1] Philip C. Almond, op. cit , p. 176.
[2] Steven T. Katz, "Language, epistemology, and mysticism", op. cit , p. 59

exposed in the first two chapters of his book *Mysticism and Philosophy,* is first of all phenomenological and psychological: whatever we may think about his subsequent philosophical discussions on the Self, immortality, etc. does not invalidate the substance of his argumentation on the psychological process of transcendence as defined previously. Within the "given" itself, according to Stace, "there are no distinctions between veridical and non-veridical, illusory and non-illusory. These epistemic concepts are classifications of the given made by the mind." [1] The "given" is that which we cannot go behind, "and which is therefore the necessary logical beginning of argument." [2] In his *Theory of Knowledge and Existence,* he wrote.

> The given can neither be explained nor disputed. It is *there*. And not even the most ingenious sophist can deny that it is there. He may dispute the existence of the world, or of the ego But he cannot dispute the existence of the sensation of red when he has that sensation. . . . The given is what is *certain* in knowledge, what cannot be disputed. And it is immediate, not the result of a logical process [3]

With that approach, he believed he could extract some intelligible universal pattern(s) revealing the epistemic structure of human awareness, with the inclusion of "mystical" states. His skillful investigation of self-experience as revealing "facts" is certainly satisfactory in regard to the redefinition of "objectivity" previously presented in this paper. In his enlightening article "Science and the self", James Hutchingson has remarked that "the genius of science has been its ability to combine methodologically the authorities of reason and brute fact, with brute fact in a highly

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[1] W.T. Stace, quoted in Christine Overall, "Mysticism, phenomenalism, and W.T. Stace", op. cit , p. 180.
[2] W.T. Stace, ibid.
[3] W.T Stace, ibid.

refined sense emerging as the ultimate arbiter of truth through empirical verification procedures." [1] Without having to profess a total obedience to the views of the "logical empiricists" or "positivists", someone can acknowledge, with Rottschaefer, that "there is a set of theory-free [vs. theory-laden] concepts which constitute an *epistemic* given. That is to say, they are a starting point in the order of knowledge. They are, to use an Aristotelean distinction, first in the order of knowledge though not in the order of being As such, they represent the first cognitive results of the interaction of the human perceiving organism with its environment." [2]

Furthermore, our review of Hocking's and Polanyi's analysis of the epistemic activity of human awareness has showed that even without any philosophical assumptions concerning the nature of the "ground" of knowing, the mere technicalities of the human cognitive processes inform us that we can infer a sufficient degree of universality in the structure of the ordinary knowledge framework. "For granting the biological stability of the human species, we can assume in mature, healthy humans a similarity of physiological and psychological structures and functions, including perceptual and cognitive systems." [3] This is confirmed, to a great extent, by the fact that each major state of consciousness has its corresponding psychophysiological correlates.

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[1] James E. Huchingson, "Science and the self", op. cit., p. 422.
[2] William A. Rottschaefer, op. cit., p. 275.
[3] Ibid.

c) In Katz's view, the thesis of the common core essentially rests on the differentiation made between experience and interpretation, which he qualified as "simplistic" [1].

Polanyi's analysis of the process of cognitive alternation has indicated that, while the particulars of the analytic mode are specifiable, the mental content becomes more and more "logically unspecifiable" [2] as the mind proceeds towards the synthetic pole of awareness. Mystical experiences are not from the realm of linear, analytic thinking; religious, theological and philosophical concepts and beliefs are. Evelyn Underhill was right when she mentioned that "the mind must employ some device of the kind if its transcendental perceptions--wholly unrelated as they are to the phenomena with which intellect is able to deal--are even to be grasped by the surface consciousness. . . . The nature of this [symbolic] garment will be largely conditioned by his [the mystic's] temperament . . . and also by his theological education and environment." [3] This gives justification to the scholars of mysticism who, like Stace, Smart and others, consider that certain parts of the mystics' testimonies are more descriptive than others. The psychological analysis of the process of cognitive alternation are very convincingly supporting that view. As Rottschaefer has remarked: "It [cognitive adaptiveness] demonstrates our ability to bring large interpretative elements to bear on our experiences at one time and at

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[1] Steven T. Katz, "Language, epistemology, and mysticism", p. 31.
[2] Michael Polanyi, *Personal Knowledge*, op cit., p. 56. See also: M. Polanyi and H. Prosch, *Meaning*, op. cit., p. 39.
[3] Evelyn Underhill, quoted in Philip Almond, op. cit., pp. 149-150.

other times to pare down the use on interpretative elements and let the experiential input be determinative of our claims." [1]

This last discussion points out a very significant aspect in the methodology of the study of mystical experiences: that the phenomenological and psychological approach is far more reliable than the purely philosophical approach. Throughout his analysis, Katz's "strong evidences" that mystical experiences are all different are drawn from comparisons of doctrine.[2] And a comparison of doctrine, as Sallie King observed, "does not clarify for us anything about the experiences themselves." [3] The point is not that there cannot be any similarity between the two, but rather that the mystics' reports are not all phenomenological descriptions [4] This attitude of Katz is an indication of a strong reductionist bias towards mystical experience. As King expressed:

> Both Stace and Katz recognize the similarity or "fit" between the report a mystic gives of his/her mystical experience and the doctrinal language of the religious tradition to which s/he belongs Whereas Stace points to this fit and declares that the report is an interpretation of the experience in the language culturally available to the mystic, Katz points to the same fit and declares the experience an interpretation of the culturally available tradition Katz thereby negates the validity of mystical experience as a *sui generis* phenomenon. [5]

This might give a hint to why Katz did not propose any epistemological model to inform us about how his view is to be understood

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[1] William A. Rottschaefer, op cit., p. 270.
[2] See Sallie B. King, op cit , pp 260-263.
[3] Ibid., p. 260.
[4] See, on that point, the very careful discussion of Ninian Smart in his article "Interpretation and mystical experience", in *Religious Studies*, vol. 1, 1965, pp. 75-87.
[5] Sallie B.King, op cit., p 260

d) A corollary implication of the previous discussion (point c) is that primary mystical sources cannot be read literally, as Katz did. Concepts are symbols which deal with only certain aspects of the phenomena, and this is especially true for the non-relational experiences of the synthetic pole of awareness. The character of non-specifiability of non-dualistic experiences implies that the language is highly metaphorical.

We will certainly, over the next decade, get a much better understanding of the way analytic consciousness inspects non-dichotomous, synthetic awareness, and how descriptive reports are being framed and issued The future of mysticism appears to be brighter than ever because there is, on the side of scholars and scientists, the growing recognition that mysticism is concerned with very fundamental laws, and, above all, because of the unprecendented phenomenon of millions of people--and hundreds of thousand more every year--integrating the practice of meditational techniques in their daily life.The recognition of the practical value of those techniques came because of the large diffusion of the scientific researches assessing their benefits for human life.

By unifying the subjective and the objective approaches to gaining knowledge, the goal of achieving a unified epistemological model of the structure of human cognitive processes appears to be more attainable than ever

> Religious inquiry is more than a simple reliance upon the sanctions of self-experience. It is the attempt to locate the self in its cosmic matrix and there to discover that truth is found in the coincidence of the real and important The only adequate approach to such holistic understanding is one that takes seriously both knowledge of the self as object and the self as subject.

Confrontations arise and result in the denial of the whole self when we forget either religious or scientific concerns. [1]

[1] James E. Huchingson, op. cit., p. 428.

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