A PSYCHO-SOCIAL PHENOMENOLOGICAL METHODOLOGY FOR CONDUCTING OPERATIONAL, ONTOLOGICALLY NEUTRAL RESEARCH INTO RELIGIOUS AND ALTERED STATE EXPERIENCES[*]

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I.   INTRODUCTION

After nearly a half century of misrepresentation and neglect, the human potential for experiencing radically altered states of consciousness (ASCs) is coming into its own as a subject of scientific study.   This is significant for the psychology of religion as ASCs are often, though not always, given religious meaning. However, despite recent documentation of the prevalence of ASCs (previously unsuspected in industrialised Western societies), and despite major advances in studying them,   this subject is still weakly developed (Bourguignon, 1973; Deikman, 1969, 1982; Fischer, 1980; Goodman, 1972; Grof, 1976; Haraldsson, 1985; Hay & Morisy, 1978; Hutch, 1984; Irwin, 1985; Macleod-Morgan, 1985; Maslow, 1962; Masters & Houston, 1966; Nelson, 1988, 1989; Pekala & Levine, 1981-82, 1982-83; Rosegrant, 1976; Tart 1972, 1975; Thomas & Cooper, 1980).   Weaknesses in the study of ASCs are due in part to the infusion of unwarranted philosophical assumptions into ASC studies: psychological and anthropological studies remain largely reductive, while religious studies protect the concept of "the sacred" (Howell, 1989a, 1989b, 1991; MacDaniel, 1989; Van der Leeuw, 1963).   Weaknesses in ASC studies are also due in part to their channelisation within the classic disciplines, restricting research initiatives (Howell, 1989a). Thus, despite widespread acknowledgment of the crucial role of culture and social position in shaping altered state experiences, psychological studies have not moved out of the laboratory to identifiable socio-cultural contexts in which this role could be studied. Nor

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have anthropologists or scholars in religious studies made use of appropriate psychological tools for field studies of ASCs (Howell, 1989a, Nelson, 1990).

What is needed to go beyond the present limitations in consciousness studies and the psychology of religion, we argue, is a new program of ASC research that moves into natural learning environments, and in particular, into identifiable institutional locations, where 'ontologically neutral' investigations can be made into relationships amongst personality, behavioural, cultural, social, pedagogical and physiological factors relevant to ASCs. Further, what is needed is an operational definition of these experiences which is inclusive of their phenomenological component, thereby creating an operational definition of 'experiential states' as psycho/social/phenomenological clusters. This would enable the researcher to wed empirical sociological, psychological and cultural data with phenomenological data in the study of consciousness. The first step in studies within this program would be to compile, as it were, natural histories of the ways people learn to access "other ways of knowing" by documenting the concepts and tools presented to students and comparing them to student's actual learning strategies and associated experiences or lack thereof. In addition, students' learning progress would then be followed over time and examined in relation to personality patterns and change therein, as well as in relation to social position. The analysis could then be extended to evaluate the role of altered state experiences in people's motivations for converting to and participating in religious groups, processes previously understood exclusively in terms of psychological and social processes (Howell, 1989a; Nelson, 1990).

Given this kind of data on ASCs from identifiable social settings, together with data available from survey research and clinical files, it should be possible to improve existing formulations concerning the technology and cartography of mystical and altered state experiences (Nelson, 1990). When research across a range of cultural contexts is available, it will be possible to construct a genuinely empirical cross-cultural psychology of non-ordinary states of consciousness, including the eventual development of a pedagogy of ASCs. This would, in effect, create a new subfield of psychological anthropology and contribute to the development of the transpersonal approach to the psychology of religion.

This paper begins by developing arguments concerning the need for a new program of ASC studies. Thereafter, methodological issues entailed in the new approaches will be discussed and experience in applying the methodology in the study of an Asian religious groups in Australia will be reviewed.

II.   AN OVERVIEW OF PAST SOCIAL SCIENCE APPROACHES TO RELIGIOUS AND ALTERED STATE EXPERIENCES

Studies of extraordinary religious experiences, and indeed of all religious experience, were marginalised in the early histories of the social sciences (anthropology, sociology and psychology) by the hegemonic growth of behaviourism. Thus, psychology forsook one of its primary founder's William James' (1936, 1967) interest in the "varieties of religious experience" and "radical empiricism" along with the method, introspection, that undergirded it. From this perspective the psychology of religion became the study of types of attitudes towards social involvement on the part of people with contrasting types of religious affiliations and other such analyses of externally observable behaviours. In sociology, Joachim Wach (1962), a pathbreaker in the sociology of religion, also explicitly rejected the inspiration of James, orienting the field towards the social forms through which the religious is commemorated and away from "personal religion" which he considered "an abstraction without reality" (p. 17). In anthropology the structural-functionalism of the first half of the century similarly focused upon externally observable and shared religious behaviours: myths, rites and ecclesiastical organisation. In all fields the element of personal experience sank beneath the attention given to culturally standardised behaviours in relation to "supernatural" objects.

Where religious experience did find a place in early anthropology was in the neo-Freudian researches of the American school, most notably in the trance studies of La Barre (1975 [1938]) Mead and Bateson (1942) and Belo (1960). But these studies did not concern themselves with what trance performers experienced; they were concerned with trance performances as culturally standardised types. The trance experience itself was cast as a

product of impaired personality, and as a mechanism for restoring normal functioning of the individual and social group. Following the psychoanalytic mode of analysis, other research actually cast ecstatic experiences as forms of psychopathology (Bell, 1985; Committee on Psychiatry and Religion, 1976; Devereux, 1980; Lewin 1961; Masson, 1980).

A consensus has since developed in anthropology against this equation of ecstatic states to mental illness (Lewis, 1971, pp. 178-199; see also Wapnick, 1969), with researchers retreating either to the position that ASCs in their ritual contexts are coping mechanisms for the unbalanced (e.g., Wallace, 1956, 1966), or abandoning psychiatric reductionism altogether in favour of a sociological one (e.g., Atkinson, 1987; Bourguignon and collaborators, 1973; Fry, 1976; Garbett, 1969; Laderman, 1987; Lewis, 1971, 1986). Others (Douglas, 1970; Geertz, 1973; Lambek, 1982; Myerhoff, 1974; Turner, 1967, 1969, 1974) have focused on the analysis of the symbols through which non-ordinary experience is communicated, leaving the psychology of the experience untouched. Some attention has been devoted by anthropologists to the physical mechanisms used to "trigger" ASCs in different cultural settings and an exemplary study of glossolalia by Goodman (1972) coupled study of externally observable triggers with subjective reports of states experienced. However, this literature neglects the *cognitive and affective* operations that likely serve, together with sensori-motor activity, as triggers to ASCs, and the comparative analysis of the range of mental states achieved using specific techniques.

In recent years a minority of psychologists have begun to study non-ordinary consciousness in less reductive terms, but this work has been limited, for the most part, to laboratory and clinical settings or to surveys of the population at large (Aaronson, 1967; Back & Bourque, 1970; Barabasz, Barabasz & Mullins, 1983; Haraldsson, 1985; Hay, 1979; Hay & Morisy, 1978; Honorton, 1974; Hood, 1977, 1978; Hood et al, 1979; Irwin, 1981; Laski, 1961; Macleod-Morgan, 1985; Nelson, 1989; Rosegrant, 1976; Tart, 1977; Terry & Honorton, 1976; Thomas & Cooper, 1978, 1980). Thus, with the exception of Hood's (1977, 1978, 1990) and Rosegrant's (1976) quasi-experimental attempts, the process of religiously construed ASC competence acquisition has not been studied in natural settings or over any significant time period.

Most of the laboratory work on ASCs has been conducted within the discipline of parapsychology. Tart, a prime mover in this discipline, has defined an ASC as a discrete state of consciousness (d-SoC) which differs radically from our ordinary waking d-SoC "such that the experient of the d-ASC (or perhaps an observer) can tell that different laws are functioning, that a new, overall pattern is superimposed on his experience" (Tart, 1975, p. 14). An ASC, then, is a psychological configuration which either leads to or is radically different in its percepts, cognitions and affective content such that reality itself appears to be different to the experient. This notion of the discreteness of ASCs brings us to Tart's concept of 'state specificity' (Tart, 1972): when attempts are made to communicate across states, the result is confusion because the very percepts and hence symbolic systems are embedded in different meaning structures.

Taking Tart's definition of ASCs, Krippner (1972) has listed some twenty different identifiable discrete states of consciousness, but these categories do not appear to have any clearly delineated operational definition other than their apparent radical departure from the normal, waking d-SoC. Pekala and Levine (1981-82; 1982-83) have taken Tart's systems model of consciousness further by quantitatively deriving a methodology for the study of consciousness and mapping a phenomenological structure of consciousness using empirical data from a series of factor analytic studies. They assert that their data confirm Tart's concept of consciousness as unfolding in relatively stable, quantum-like states definable in terms of the configurations of the psychological subsystems.

In addition, the use of Ganzfeld techniques by Honorton and others confirm the importance of changes in attention and arousal in the production and maintenance of ASCs (Barabasz, Barabasz & Mullins, 1983; Honorton, 1974; Terry & Honorton, 1976). Although there have been no serious laboratory studies which have attempted to induce religious and/or mystical experiences using these techniques, Hood (1977) and Rosegrant (1976) have attempted to induce mystical states (mystical ASC) through the use of structured nature settings. The experiments were designed to manipulate the psychological configuration of 'subsystems' for experients through the employment of induced stress incongruities. This work appears to further affirm Tart's notion of ASCs and their role in mystical encounters,

but the Hood and Rosegrant studies use unsatisfactory methods of defining the mystical experience and hence whether one is having one or not. In addition, they provide no clue as to what factors increase 'depth' or frequency of experience.

With the exception of Nelson's (1989b, 1990, 1992) psycho-phenomenological study and development of a three dimensional model of spontaneous præternatural experiences, none of the reports cited above reveals anything about the relationship of frequency of occurrence or class of experience type in relation to personality, behavioural, affective and cognitive factors. Further, those other studies do not provide any kind of system 'map' which might give us more clearly defined operational descriptions of either triggering mechanisms or phenomenological qualities and how they intersect. Nelson's psycho-phenomenological approach allows us to go well beyond the gathering of general data on the distribution of experiences in the average population by providing a model through which non-ordinary experiences can be operationalised and given more precise definition, while providing psychological insight into their structure and mechanism.

In the following section some of the philosophical and methodological difficulties with previous research are unpacked. This, naturally, leads to suggestions for a new program for the study of ASCs which aims to overcome the limitations of previous research and is developed in section IV. Section V will describe the way this kind of approach is being applied in a current anthropological and psychological study of religious conversion and experiences presently under way in Australia.

III.   AN ANALYSIS OF THE SHORTCOMINGS OF PREVIOUS APPROACHES TO THE STUDY OF RELIGIOUS EXPERIENCE.

The three fundamental problems underlying contemporary studies of religious experience are 1) the embedded dualism of the ubiquitous Cartesian assumption about mind and body implicit in the methodologies of the social sciences; 2) reductionism, in which the scientific approach has attempted to reduce conscious experience to neurophysiology or in which religions have attempted to reduce the material world to a projection of deity (e.g. Christianity) or of mind (e.g. Vajrayana Buddhism); and 3) the anecdotal quality of accounts

of intense religious experiences of key world-historical mystics and their followers upon which scholars depend for most of their knowledge of mystical states. This leaves little room for empirical investigation or analysis.

Taking the last point first, it is immediately evident that more empirical scientific investigation is required if a pragmatically useful 'picture' of religious experience is to be developed.   However, the problem in doing these more widely based empirical investigations, as argued by a number of scholars of religion, is that most of the methodologies used by social scientists are reductive and lose what is believed to be the essence quality of religion and religious experience by turning religion and its varieties of experience into something 'other'. This brings us to the second point above. There is, of course, a real danger of losing what is *sui generis* in religious experience through the application of social science method and theory, but this potential methodological hegemony also can operate in the other direction as well. If we whole heartedly adopt the religious perspective of those we study, we stand the chance of being left with a somewhat vacuous phenomenology which states the obvious to any religious 'insider', but provides nothing in the way of meaningful explanation in the context of the worldview of the investigative 'outsider'.   In addition, as indicated in the first point listed above, both 'insider' and 'outsider' are caught in a dualistic worldview which not only bifurcates the world into subject (mind, spirit) and object (body, things), but person and deity as well. As will be argued later in this paper, only a methodology which is ontologically neutral can provide the basis for meaningful research which is neither dualistic nor reductive, but still capable of providing explanations and theoretical models useful in social science research.

The Need for Empirically-Based Studies of Non-Historic Mystics and Visionaries

The content of mystical experiences we know today comes largely from the accounts of a few remarkable individuals identified as saints or masters of their traditions. Thus we have the autobiographies of St. Teresa of Avila and Paramhansa Yogananda (1969), the writings of St. John of the Cross (1916), for example, as well as some biographies and legendary accounts that contain descriptive material about mystical states such as the diaries

of Jefferies (Happold 1963). However, since we do not have data on the experiences of people across a range of levels of involvement and expertise in a single teaching situation, it has not been possible to form a reasonable hypothesis concerning the range of subjective experiences practitioners of a given religious system actually have nor to understand how these are related to teaching methods and levels of accomplishment.

In addition, researchers have been unable to ask how typical the range of ASC experiences found in a contemporary teaching community are of the paradigmatic experiences of the great masters in the core tradition of the group. One possibility overlooked in the literature is that the range of experience in a tradition is much more varied than is normally admitted in the perennial philosophy debates both by cultural determinists and universalists alike (Almond, 1982; Katz, 1978). It is also possible that many of the lesser experiences (leave alone the peak experiences) are actually quite similar from one tradition to another. Given the fact that none of the major teaching institutions is isolated from traditions other than the core tradition of the founder, it is not possible to use contemporary data to assess the uniformity of experience (or lack there of) that may once have existed in Hindu, Christian, Muslim or Buddhist mystical groups. Nonetheless, a range of empirical data from a contemporary group could well serve to alert participants in the perennial philosophy debate to the hazards of hasty generalisations from a few supposedly exemplary cases and also suggest formerly neglected areas of similarity.

Further, empirical studies of religious life and the development of religious experiences *in situ* may reveal the relationship between canonical versions of the learning process and the actual pragmatic unfoldment of the new worldview and any associated ASC experiences and competence. In other words, one could learn what relationships obtain between instruction and what students actually do. As yet it is not known whether students in various traditions actually follow closely the canonical guides or the instructions of their teachers. Bucknell (1986), for one, found a considerable discrepancy between standard conceptions of Theravada practice and what Thai monks customarily did. One might also ask whether ASCs emerge from practice like cakes baked following a recipe, or whether students discover willy nilly (despite the instructions given) what works for them - or is it

some combination of the two. Whatever the case, one would want to know whether the techniques that work have characteristics in common.

Another question which naturally arises, and can only be addressed empirically, is whether there are actually patterns in the process of worldview transition and ASC competence acquisition that hold across students in a given group or even across groups. Of equal importance to the issues of actual learning techniques (in instruction as compared to practice), are those concerning patterns of unfoldment of ASCs as subjectively experienced. Similarities in developmental patterns within a group would be expected as products of cultural shaping. However, there may be significant variations in developmental patterns and these would, if found, be interesting evidence against the absolute determination of spiritual experience by culture, such as suggested by Katz (1978).

Finally, empirical rather than historical studies are the only way to ascertain whether there is some kind of phenomenological patterning across related experiences for numbers of individuals. Both James (1936) and Stace (1960) believe this to be the case, but their theorising tended to be *post hoc* general summaries taken from historical documents of more famous accounts. Until methodically collected naturalistic data is available on ASCs and religious experiences there will be no way to ascertain whether the phenomenological characteristics given in historical accounts are neutral and accurate descriptions, or 'insider' claims which are distorted. Also, the characterisations of mystical experience given by James and Stace have been criticised for being too general and hence not really getting to the 'essence' of these experiences. An empirical approach should be able to provide the basis for enlarging the scope of these descriptions as well as filling in needed detail.

Ontological Neutralism, a Non-Epistemic Alternative to Dualistic, Reductive Social Science

Ontological neutrality is an attitude towards research and a methodological stance in which the investigators admit that they do not yet know what is 'ultimately' real. The Kantian (1929) 'thing-in-itself' or the final structure of matter, such as Bohm's (1980) 'super-implicate order', are considered beyond direct observation, and hence knowledge. What each knows is his/her individual moment-to-moment experience and the belief and trust in an operationally and pragmatically meaningful intersubjectivity (empirical reality).

This intersubjectivity then becomes the primary known reality as argued by James' (1967) in his notion of 'radical empiricism'. So, researchers working in an ontologically neutral manner operate by assuming an open view towards making any final ascriptions about existence because they realise that not all the 'data' necessary for such a determination are yet in - nor are they likely ever to be.

The primary difference between this non-epistemic approach to the description of altered state and religious experiences and previous anthropological and psychological methods of explicating these events is the obviation of the need to reduce states and experiences to an ontological 'other'. Typically, the 'others' to which these experiences are reduced are physical and/or social substrates (e.g., neurophysiology, social structure, culture). An ontologically neutral approach to research uses a methodology which does not 'point' to an epistemic source outside the phenomenon under consideration, and its practitioners constantly review their methodological assumptions in order to identify biases of ascription in their methodologies, their descriptions and in themselves. Thus, a researcher is never completely neutral, but nonetheless aspires to constantly make adjustments, based on regular and frequent assessments of contextualising forces and ontological assumptions, to the research effort. This on-going process is, in a sense, an extension of the the 'New Paradigm' approach described by Reason and Rowan (1981), but goes deeper, in that it constantly questions the researcher's fundamental ontological stance and hence the forces that determine theorising, understanding and the formation of meaning.

We would argue that the epistemic approach of most social scientific research is essentially dualistic (whether locating the source of a given experience - and hence knowledge - in the brain or social and cultural processes) *and leads to no meaningful explanation which works within the system studied.* These kinds of explanations are unsatisfactory because they must always refer to some meta-system for their cause and so, *ad infinitum,* to endless systems brought in to explain each level below. Each level is merely an explanatory metaphor for the next level down and any one of these metaphoric explications can be considered as the 'roost' of ontological ultimacy. The choice of level as 'final' cause

can only be made on the basis of the previous experiences of the individual researcher and the intellectual biases of the times.

Nowhere is the 'thing-in-itself' available to us directly. For example, the neurophysiological 'explanation' for seeing an object is a metaphysical interpretation of perceptual *experience* as arising from an interaction of 'energy' and 'things' (both hypothetical constructs) believed to exist 'outside' the central nervous system (CNS) (another hypothetical construct). The experience which accompanies and follows these 'events' is further metaphysically interpreted as being, in the materialist paradigm, an epiphenomenon arising from the object/brain interaction. That the CNS (as experiential metaphor) has some functional relationship with the experience of an 'event' is arguable, but the metaphysical error is to assume, based on the experiential confluence of sense modalities, that conscious experience is an *emergent* 'property' and thus caused by the brain. Of course, in the process of doing neurophysiological investigations on humans, Penfield and others have observed relationships between stimulation and ablation of various parts of the brain and concomitant changes in the reported experiences of his subjects (Kalat, 1988). However, there is no way possible to disconfound CNS as 'transducer' from CNS as 'source' from CNS as just another metaphorical layer of the experience (which is still only known to us as experience and not brain-in-itself).

To illustrate the point we can imagine a person from a Neolithic society, given a television, hacking it open in an attempt to find the 'little folk' within, not realising that the TV is merely a sophisticated transducer and decoder of a signal emanating from some entirely other source. More sophisticated hacking, would of course, like the work of neurophysiologists, find functional relationships between various components of the machine and the quality and kind of its 'experiential throughput'. It would be natural, but not necessarily philosophically correct, to assume that the pictures and sound are an emergent epiphenomenon of the TV's circuits.

As long as researchers insist on defining experience as sourced in an 'other', there will be no possibility of conducting non-reductive, or 'ontologically neutral', research into religious and altered state experiences. But we must beware that this problem applies to

approaches to the study of religious experience advocated by scholars such as that of Eliade (1959) as well. On the one hand, he, like many of his colleagues in the discipline of Religious Studies, declares that religion and religious experience are *sui generis,* while, on the other hand, all religious phenomena is, for Eliade, grounded in the vessel of the 'sacred'. This appears to be yet another final ontological 'foundation' to which phenomena can be referred by way of supposed explanation, and, of course, the fault here is similar to the situation seen in the neurophysiological reduction. Explanation is always made by signing away from the system being studied (in this case religious experience) to yet another set of referential axes. This, of course, requires yet another set of axes for *its* explanation leading to a *reductio ad absurdum.* This method of explanation, based on reference to ever-further-removed meta-systems, is no different than the Nineteenth Century habit of naturalists who 'explained' all complex animal behaviour by reference to 'instinct'.

There appears to be little pragmatically useful explanation or insight possible through the reductive approach outlined above when studying the source, mechanism and quality of ASCs and religious experience *qua* experience. The reductive method tends to generate rigid conceptual structures which give us no access to the living core of these episodes while looking everywhere but to the phenomena, itself, for explanation. Instead, we should be able to explore altered state experiences within the frame of reference offered in the experience itself. It is only the implicit materialist/causal beliefs embedded in the form of scientific methodology adopted by social science which prevents us from taking a different methodological and explanatory strategy.

Operational Psycho-Phenomenology - A Non-Epistemic Approach

Although operationism, as developed by Bridgman (1927) in physics and brought to psychology by Stevens (1935), has been associated with both logical positivism and materialistic reductionism, it is, in itself, non-epistemic and hence neutral by our definition. In other words, unlike the materialism implied in the causal and reductive structure of most experimental scientific research, the defining operations referred to in this methodology do *not* implicitly contain the logical positivist constraint, viz., the objectivism implied in being able to 'outwardly' sign meaningfully at some objective thing-in-itself.

In his review of operationism, Benjamin (1955) examines Bridgman's (1927) notion of operational science and first connects it to the tradition of empiricism which is broadly conceived as "the doctrine that experience is the sole source and the sole guarantee of knowledge" (p. 13). He differentiates this notion of experience from the intentional concept of the phenomenologists, opting instead for the historical view. From this perspective, experience is in opposition to the rationalist, intuitional, authoritarian and supernatural theological concepts of reality. This particular historical empirical view positively affirms, first, "what *is* contained within experience, and, second, (it is) a rejection of certain supposed sources, such as the *a priori,* intuition, and mystic revelation" (p. 13). Benjamin also asserts that pragmatism, although much more recent historically than empiricism, is the other major characteristic of operationism's empirical approach. The two most important attributes of pragmatism relevant to operationism are 1) its clarity of ideas and precision of concepts and 2) "the identification of truth with 'workability', or, in a broad sense, the definition of truth in terms of verificatory acts (experiences) rather than in terms of an absolute relation of 'correspondence' holding between ideas and facts" (p. 32 - our parenthetical addition).

Stevens (1935) succinctly summarises an operational definition as "the performance which we execute in order to make known a concept" (p. 323). In other words, the definition of any concept is to be found in the *concrete operations* through which knowledge of the 'thing' or 'state' is to be had. Benjamin (1955) criticises Stevens' definition because it fails to distinguish between those operations which are symbolic and those which are non-symbolic. Benjamin argues that only symbolic operations - those which 'produce' and give meaning to symbols - are cognitively significant, with the purely physical operations associated with behaviourism being unable to refer to one another. He then gives as an example, the denotative operational gesture of pointing to Smith and saying, "That's Smith," as the symbolic operation used to give meaning to the name Smith (Benjamin 1955, p. 96).

Concluding, Benjamin states:

> An operation may then be identified with any act which is performed with a view to the production of symbolic knowledge, or to its improvement in clarity, certainty, extent, or any other of the more specific ideals...All knowing is operational, and all operations are functionally determined by the kind of knowledge they are designed to produce (p. 119).

The ontological implications of his last sentence are quite clear. Although Benjamin would probably put himself in the camp of the logical positivists, his definition of operational knowledge and, hence, the 'facts' from which that knowledge derives, leaves the door open for the non-epistemic interpretation discussed earlier in this paper. For operationism to become available for the definition of altered state experiences without the need for a specific ontological grounding, we must allow that signing through verbal reports to 'private' (subjective) events leads to meaningful knowledge. This is possible provided we recognise that 1) all knowledge is, ultimately, mediated through verbal reports and 2) the observed is never separate from the observer - in other words, no clear and definite line of demarcation can be drawn between subject and object.

As in the case of the subject/object distinction, Richard Taylor (1983) argues that due to the mistaken adoption of the absolute bipolarism of 'either/or' logic we falsely drawn these absolute distinctions. Taking the situation of existence and non-existence, he asserts that this 'black or white' stance is not the way we actually experience the world. From his point of view there are no absolute borders which separate one thing from its non-existence, but rather everything is a gradual transition over time where no absolute demarcation from being to non-being or from non-being to being can be found. Using the issue of how we determine whether one is either alive or dead, he concludes:

> The point then is that the transition from life to death, like most natural transitions, is a gradual one, and that no *borderline* between the two exists. Borderlines can be invented, of course, but they cannot be found, for they are not there (p. 109).

In a similar manner it can be argued that we create borderlines as a conceptual convenience and they are operational in that they are methods of creating a symbolic bifurcation of two different *qualities* of experience which must be 'signed' at in different ways: subjective and objective experiences. As in our previous discussion we can assert that these experiential states do not necessarily take us to an existent thing-in-itself. Furthermore, both the 'subjective' and 'objective' categories of human experiencing only become knowledge at a linguistic/discursive level since both require codification and interpretation as signs before they are convertible from their experiential substrate into the currency of something known.

Although Stevens' more mechanical objectivist operationism requires that observer independence and public accessibility to the source of all 'signs' be maintained, it can be recognised as a logical absurdity in the case of either 'objective' or 'subjective' symbols when the foundation of all knowledge is recognised as made of the 'stuff' of experience (James, 1967). This impossibility of maintaining either separability of observer and observed or public accessibility to the data is also the case in atomic physics, but it still does not prevent physicists conducting useful operational scientific research in that domain.[1]

It was James (1967) who, after reviewing his years of research and teaching on the subject of consciousness, called for a return to experience (and experiential states) as the 'stuff' of which the world is made and for him the only proper locus of "reality."

> My thesis is that if we start with the supposition that there is only one primal stuff or material in the world, a stuff of which everything is composed, and if we call that stuff 'pure experience', then knowing can easily be explained as a particular sort of relation towards one another into which portions of pure experience may enter (p. 4).

James accounts for the apparent dichotomy that we all intuitively sense between 'inner' and 'outer', 'subject' and 'object', as being the result of the relationship between these qualities becoming part of this "pure experience" in which one of its "terms" becomes the subject or knower, and the other the object, or the known.[2] He believes that this model, built on experience as the ontological ground, is the final step in the expulsion of dualism which was left behind by the Kantian detachable soul and Descartes' notion of "extended" and "unextended" substances. Consciousness is no longer required as the 'place' for the 'unextended', nor is a separate 'outer' world required for the extended. In James' system they appear as a functional relationship.

> *Experience, I believe, has no such inner duplicity; and the separation of it into consciousness and content comes, not by way of subtraction, but by way of addition* - the addition, to a given concrete piece of it, of other sets of experiences, in connection with which severally its use or function may be of two different kinds...Just so, I maintain, does a given undivided portion of experience, taken in one context of associates, play the part of a knower, of a state of mind, of 'consciousness'; while in a different context the same undivided bit of experience plays the part of a thing known, of an objective 'content' (pp. 9-10).

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[1]It must be recalled that most 'entities' in sub-atomic particle research are hypothetical constructs which are 'deduced' from such things as bubble trails in liquid hydrogen.

[2]James argues that the experience of breathing creates the central locus around which we built the experiential concept of the 'I' which becomes the conglomerate of experiences referred to as 'my body' and 'my consciousness'.

Thus, it is possible to operationalise the phenomena of conscious experience by recognising that experience is not just *qualia,* but also provides the conditions and forces for the creation of yet other experiences. A quasi-division can therefore be made between 1) the *operational,* or the dynamic relational, generative aspect of the phenomena of experiential states,[3] and 2) the purely *phenomenological,* or qualitative, experiential outcomes or results of action, perception, etc. Of course, there is no absolute border between these two classes of 'contents' of consciousness, viz., a phenomenological 'result' can be part of an ensuing operational generative activity.   Wainwright (1975) encapsulates the workings of the operational dimension in both its 'external' and phenomenological aspects in his discussion of mystical experience:

> People who make visual (or auditory or tactual, etc.) observations can typically describe conditions under which others can obtain similar experiences. ("If you go into the room on the left, you will see the body." "If the telescope is trained on such and such a place at such and such a time, you will obtain a sighting of the moons of Jupiter.") Now the mystic can do something like this. He can prescribe a regimen, a mode of procedure, which is likely to lead to introvertive experiences. (These will include such things as postures and breathing techniques, moral behaviour, meditation, ascetic practices of one kind of another, and so on (p. 263).

The moral, meditative and ascetic practices include, of course, a major component of mind and thought control and hence are the operations required to get to the mystical state and they are part and parcel of the phenomenology of the state itself as well. *Thus, the position taken in this paper is that the combined phenomenological qualia and generative activity are inseparable from the experiential state itself.*

It is understood that phenomenological research usually regards itself as using a type of 'internal perception'. Following from the position taken by Merleau-Ponty (1964), we are asked to regard empirical and phenomenological methods as different but complementary and interdependent. Ashworth (1976) declares that the *leitmotif* of phenomenology is "Back to the things themselves," but in so declaring, he, along with many phenomenological researchers, fails to recognise that 'objects', 'states', etc. are not just presented to

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[3]The operational can include both 'external' (sensory-motor) and 'internal' (perceptual, affective and cognitive) processes as the mechanism of experience generation. In a more purely behaviourist paradigm, Homme (1964) has attempted to define covert or 'internal' operants as *coverants* and he then suggests that they are subject to the principals of instrumental conditioning as are ordinary, physical operants. Houston and Masters (1972) have conducted some *ad hoc* studies of methods of inducing 'religious-type' experiences in which they combine sensory-motor operations (a special swing that creates sensory-motor disorientation as well as an audio-visual display 'environment') and 'internal' imaging in order to produce the altered state.

consciousness as a received passivity. They are 'generated' and not 'received' into awareness. Taken in the context of the Jamesian notion of the 'stuff' of the universe being experience, there is no real need to pose phenomenology as a complementary investigative method to empiricism. They are one and the same but requiring a range of investigative procedures depending on where a researcher is working along the 'subject-object' continuum.

Psychologists Pekala and Levine (1981-82) argue that the neurophysiological approaches to the study of consciousness have not been very fruitful and that "a phenomenological or introspective approach may be the only means to adequately and comprehensively investigate the structure of conscious experience" (p. 31). In their initial study, Pekala and Levine isolate ten phenomenological dimensions in the development of a Phenomenology of Consciousness Questionnaire (PCQ): Internal dialogue; Awareness (self-awareness and state of awareness); Imagery (imagery amount and imagery vividness); Positive Affect; Volition; Altered Experience (meaning, perception, time and body image); Attention (attention direction and absorption); Negative Affect; Memory; Alertness. Using a retest procedure, they found the first nine of these factors reliable and stable and conclude that *retrospective introspection by means of a self-report questionnaire is a viable means of assessing subjective experience.* They further conclude that the use of the PCQ is a valid means of assessing intensity and pattern information about consciousness, thus fulfilling an important part of Tart's criteria for determining state of consciousness change. Pekala and Levine (1982-83) conclude:

> In spite of the difficulties involved in assessing internal experience, any methodology attempting to map phenomenological experience should be adequately reliable. The coefficients obtained from the five duplicate item-pairs demonstrated that subjects can be reasonably consistent at reporting the nature of their subjective experience. The other measure of reliability used, the difference score, indicated that the subjects were moderately accurate at responding to items of similar or identical content in the same general way, even in differing types of conditions. An average coefficient alpha of 0.74 for the nine dimensions of consciousness supports the above (p. 65).

Pekala and Levine, however, do not distinguish between the different possible functional roles that their dimensions of conscious experience may play in the generation and maintenance of different states of consciousness. In effect, there is no attempt to discriminate *qualia* from triggering functions as suggested herein. Nelson (1990), on the

other hand, has conducted an exploratory study using a related questionnaire technique to that of Pekala and Levine but with the addition of a differentiation between experiential dimensions which can be seen primarily as *qualia* and those which are more triggers or generative activities. To this he added a third, personality dimension, which he developed into a model of experiential states in which 'set', 'setting' and *qualia* are the cause and result of the experience and can be understood, without reference to any other meta-systems for explanation, as the experience/reality itself.

The resultant operational 'map' derived from collecting and analysing data in this way becomes more of an 'ontologically neutral' (non-epistemic) three dimensional description of altered state and religious experiences. The 'set' can be seen as the personality (behavioural, cognitive, affective 'style' or way of being-in-the-world), the 'setting' as the constellation of functions - deployment of attention, affect/arousal levels, cognitions, overt behaviours and influence of physical circumstances - which trigger the experience, and the qualitative outcome is the experience as it is known to reflexive conscious awareness (Sartre, 1972) in the process of becoming knowledge of 'self' and 'other'.

IV.   A NEW APPROACH TO RELIGIOUS EXPERIENCE *IN SITU*

Having cleared the ground of inappropriate and unjustifiable assumptions that derail the study of consciousness onto the study of its material or materialist substrates, and having constructed a model which focuses directly and non-reductively on the psychological processes involved in ASCs, we are in a position to carry the psychology of religion into the natural settings in which ASCs normally occur. We have seen that earlier anthropological studies of trance dances and shamanism were of limited value since they invoked frequently inappropriate models from abnormal psychology to interpret the phenomena of radical consciousness alteration (Belo, 1960; Devereux, 1980; LaBarre, 1975 [1938]; Mead & Bateson, 1942; Wallace, 1956, 1966). On the other hand, psychological studies of ASCs, which have gone beyond the presumption of mental illness, were conducted either through

survey techniques that filtered out socio-cultural factors by means of selective questioning or through laboratory studies conducted as though the social (if not cultural) contexts in which ASC competence was acquired were irrelevant (Barabasz, Barabasz & Mullins, 1983; Deikman, 1969; Haraldsson, 1985; Honorton, 1974; Hood, 1977, 1978; Hood, Hall, Watson & Biderman, 1979).

Nelson's (1990) psychological model, while developed around survey material, is nonetheless adaptable to use in natural settings, that is, in studies of altered state experiences that occur in identifiable institutional settings, where the experients' social locations as well as the cultural and social backgrounds in which the experiences occur are known. Identifying the components of experience as 'set', 'setting' and *qualia* provides multiple points of linkage between psychological and socio-cultural data without implying causal priority in one direction or the other and calling attention to previously unremarked functions of the social and cultural environments in which ASCs occur as generative mechanisms for those experiences. In other words, *religious organisations and the belief systems they propound can be seen as part of the technology of consciousness alteration.*

Looking first at the *qualia* of experience, it is commonplace in anthropology to examine the cultural contents of trance experiences (Aberle, 1966; Belo, 1960; Fry, 1976; Goodman, 1972; Graham, 1987; Jensen, 1974; Katz, 1982; Lambek, 1982; Mead & Bateson, 1942). Classically, however, the anthropologist is concerned to extract from reports of extraordinary experiences, as it were, a vocabulary list of symbols and then to track the social uses to which people put the reports, as though all that is of interest is how people communicate their everyday needs through reference to invisible or poetically reconstituted entities. For these classical exercises it is not so important whether one talks to the person who had the experience or to someone who heard another give such a report or even to someone who has only a general idea what people are thought likely to narrate after a dramatic lapse of "normal" consciousness. What is not commonly found in classical anthropological studies of the *qualia* of trance experiences, but we would argue is necessary for a solidly based psychology of consciousness, is to take pains to collect "first order

reports", and look at the range of variation in them.[4] A "first order report" as defined by Moore (1978) is one recorded directly from the person who has had the ASC as a record of a particular, individual experience, rather than a generalised description of several experiences.

The analysis of variation in the reports also must differ in the psycho-social phenomenological approach from classical symbolic analysis in anthropology. This method requires, first, a shift in focus or objective of analysis, from knowing what people in some culture *think* exists in supernatural realms, to what is *evidently possible* for people *to experience* in certain learning environments when they try to radically alter their perceptions by means the researcher identifies. Thus, operationally analysing the phenomenology of *particular experiences* is the goal. When this is done one is in a position to address empirically a whole new range of questions, such as: What do people in a certain religious organisation or branch of a religious order actually experience? What is the range of variation among types of experiences? Are there several identifiable types of experiences that people have, or is the range of variation so wide as to defy any typologising? If there are identifiable types, are these confined to the cultural repertoire of the group or are there unexpected *qualia*? If there are unexpected ones, are they found in other traditions or communities? Are they then explicable as borrowings or do they suggest universal constants of non-ordinary mental functioning?[5] How closely does the range of experiences actually found approximate the range of experiences people are taught to expect in their tradition, and do the experiences occur at the levels of recognised development (if such *are* recognised) anticipated in the teachings of that tradition?

If the researcher tags the reports collected to identify who produced them (that is, records socio-cultural data, such as their producers' group as well as time with and position in the group) s/he can go on to look for associations between phenomenological attributes of *qualia* and the socio-cultural as well as psychological and physiological features of 'set' and

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[4]Goodman (1972) is a noteworthy exception, presenting several "first order reports" of the subjective experience of glossalalia amongst Pentacostalists with descriptions of the backgrounds of those who reported the expereiences. She even reports a spontaneous (and unsought experience) of her own.

[5]Grof (1976, 1985) on the basis of his LSD research and clinical work with controlled breathing techiques suggests such universal patterns of consciousness.

'setting' out of which they emerged. This is analogous to the way the naturalist records the time and place in which an animal was sighted or the way an archaeologist notes the strata and location in that strata in which certain bones and shards were found.   Having thus tagged reports the researcher can then analyse them for evidence of psychological processes which may be common to a technique, level of experience, institutional complex or personality profile.   This procedure brings about a conjunction of phenomenological and positivist methodologies, but one that makes appropriate use of each to generate the fullest possible range of understandings without moving to an explanatory 'meta-level'.

Should associations be found between social and cultural aspects of 'set' and 'setting' on the one hand and *qualia* on the other, the researcher seeks to interpret these associations in terms of the generative potential for ASCs that may be found to inhere in the group's culture or social arrangements.   The way this strategy for interpretation contrasts to reductive strategies long familiar in anthropological studies of religious experience can be illustrated with reference to I.M. Lewis's (1971) well known analysis of trance among the pastoral Somali of Northeast Africa.   As in a range of other cases which Lewis analyses, he finds that the Somali people most likely to fall into trance are those who are the most socially disadvantaged in the community, namely, the women.   The trances seem to occur spontaneously to women, overpowering them and incapacitating them from performing their usual services for the family and their menfolk.   In order to bring them out of trance the husbands are obliged to listen to the demands of the possessing spirits and cater to them. Based on the similarity of social position of the trancers among the Somali to other trancers in his data file (all either women in patriarchical communities or members of lower socio-economic classes in stratified societies), Lewis explains the trances of the Somali women as attention-seeking and compensatory mechanisms.   In this reductive interpretation, the ASC experience is thus seen as, and considered to be fully accounted for by, a psychological need, the distribution of which is socially patterned by power relationships.   In the approach advocated here, in contrast, the researcher recognises the sense in which a common psychological complex is shaped by social pressures (here the oppression of women and the failure in some marriages of husbands to offer sufficient compensation to placate them

without extraordinary 'prodding'), yet also investigates the role of the socially patterned psychological stress as a trigger for an altered state of consciousness, without assuming that our knowledge of the social sources of the stress fully account for the content of the reported experience or determines its ontological status and meaning. With this orientation one is also likely to look for other features of the social, cultural, psychological and physiological environment which, together with physical or mental techniques may induce the trance. These are likely to be overlooked in the reductive approach.

The psycho-social phenomenological approach removes the presumption that the associated social (or cultural) conditions explain away the altered state experience as some kind of malfunction of a sick or devious mind. Rather, the social or cultural condition is seen as one of the mechanisms that contributes toward a state change, that the experient may regard as desirable or undesirable, but the researcher does not judge with reference to some preconceived understanding of what is 'really real'.

With this perspective one begins to consider, then, that both elements of the cultural and institutional setting of religious practices aimed at inducing dramatically altered states of consciousness *and* elements not so identified by the group may be contributory to occurrences of ASCs. Further, one seeks to evaluate whether, and if so in what way, a practice enjoined to facilitate religious experience is indeed regularly associated with the experiences people actually have. For example, enclosure within a religious community may be enjoined explicitly as a means of supporting the activity of contemplation. This may or may not be effective as intended. Further, it may be effective, but the way in which it is may not be fully understood by members of the community. The researcher would want to determine both whether enclosure is an efficacious feature of the 'setting' in which contemplation is undertaken, and, if so, in what way it is efficacious. Is it efficacious for the reasons practitioners give, or can one identify underlying mechanisms, such as the redeployment of attention, that could be set in action in other ways? One could similarly explore the contribution of chastity and other rules some religious communities use, avoiding the now common tendency to interpret them wholly as historically and socially determined moralisms. Here it is important not to abort the study by asking whether the rule (or other

institutional arrangement) actually helps people feel God's presence, since we cannot resolve the metaphysical issues involved. The productive strategy is to ask the question, is there evidence and reason to believe that the rule (or other institutional arrangement) facilitates movement into modes of perception that can be so interpreted?

It is appropriate at this juncture to stipulate that the analysis proposed is not suitable for all kinds of religious behaviour and that there remains enormous scope for the application of classic analyses of religious organisations in terms of the power, status, pecuniary and other mundane motivations that come into play in all sorts of institutions. This style of analysis advocated herein is a means of understanding religious experiences, not forms of organisation or types of belief systems.

Studying religious experience *in situ,* then, amplifies our understanding of the interactions amongst 'set', 'setting' and *qualia*. It opens up the possibility of supplementing psychological and physiological data on individual experients with data on features of the social and cultural contexts which may be important trigger mechanisms and which will help in the interpretation of *qualia*. Psychological studies of ASCs through surveys and laboratory monitoring deal with *competence* (the ability to experience an ASC) or the impact of competence on personality, not the *processes* of ASC competence *acquisition.* The latter can only be properly studied when the socio-cultural context in which the learning occurs is known and appreciated. That means, in the psycho-social phenomenological method of consciousness studies, psychological interviewing and testing proceed together with anthropological investigations into the institutional structures, processes and cultures that support learning. These are the procedures which can enable us to examine relationships between, on the one hand, traditions concerning possible ecstatic states and how to achieve them and, on the other hand, what students are taught and what works for them. Only when we become involved with the actual communities or organisations in which people seek and report to have religious experiences can we know how particular experiences may or may not be related to a given teaching or practice.

So far we have considered the value of extending Nelson's (1990) model into the field situation and adding socio-cultural data to the psychological, physiological and

consciousness operations data originally called for by the model. This amplifies our understanding of the conditions under which ASCs of various types are likely to arise. The psycho-social phenomenological approach to religious experience, however, also has other potential benefits, in so far as it enables us to explore the role of ASCs in group processes. Of particular interest is the issue of group commitment. Commitment to religious groups is normally explained in terms of a variety of social factors, varying, of course, with the types of groups under study. The standard range of sociological explorations includes satisfaction of dependency needs, intense social pressure from the religious group combined with isolation from competing outside social pressures, alienation from mass society, etc. (Barker, 1989; Robbins, 1988, pp. 60-69; Wilson, 1967). But these overlook the possibility that in groups cultivating ASCs the experiences themselves may offer a primary source of gratification comparable in power to any of the standard social or even biological need gratifications generally offered as explanations in anthropology and sociology.

This possibility is attested to by scattered descriptions of mystical states (Deren, 1953; Goodman, 1972; Katz, 1982; John of the Cross, 1916; Merritt, 1976; Tweedie, 1979; Yogananda, 1969), by the Hay (1979) and Hardy (1979) surveys and by the researches of Maslow (1968) on needs hierarchies. But unless one knows how common are "peak experiences" (Maslow, 1970) (and even minor altered state experiences interpreted as spiritually significant) in functioning religious groups, one cannot judge their significance as a motivation for commitment to those groups. Data is available on rates of præternatural and mystical experiences in the population at large (Haraldsson, 1985; Hay & Morisy, 1978; Macleod-Morgan, 1985; Nelson, 1988, 1989, Thomas & Cooper, 1980), so a numerical standard of comparison of group performance is available (although most studies reveal only the percentage of the population who have *ever* had a præternatural experience, not frequencies of occurrence). It would be desirable to improve upon rough numerical comparisons by intensive interviewing of participants in religious groups not only about the kinds of experiences they have had but about their significance as motivation for association with the group. In this regard, the possibility must be considered that *lack* of ASC competence, together with a desire to have them and belief that the group can facilitate this

goal are what motivate some group memberships, rather than satisfaction with the way of life as a support for high levels of ASC experience. It may well be that groups attract mostly beginners, and the competent move off into more solitary modes of life or back into ordinary society, leaving only a core of highly competent helpers or the teacher alone to deal with the majority of members.

V.   METHODOLOGY IN PRACTICE - A CURRENT STUDY

The operational psycho-social phenomenological method for studying religious experiences involving altered states of consciousness currently is being applied by the authors in the study of the Brahma Kumaris Raja Yoga organisation in Australia. A brief description of this project will help to illustrate the application of the methodology advocated.

Keeping in mind the goals of compiling records of altered state experiences in an identifiable natural setting, phenomenologically mapping the non-ordinary states discovered, and operationally explicating the mechanisms of consciousness alteration, the researchers took as their first task a field survey of religious groups to determine which actively taught procedures for cultivating altered state experiences. Selection of subjects for the project was further constrained by the interest of the authors in the role of Asian religions in Australia as agents for multi-culturalism and as alternative forms of spirituality in Western societies. The selection criteria thus included that the organisation must be mainly Asian in cultural origin and involve substantial numbers of Australians of European descent.

In the process of meeting with organisations and doing preliminary participant observations on them, the importance of an additional practical consideration became evident: the interest in and willingness of those religious communities to foster communications with the scientific world. For a number of reasons there has been a considerable reluctance on the part of religious organisations with contemplative or mystical aspirants to allow 'outsiders' to become sufficiently involved with them to conduct the sort of study proposed. The reasons include the 'bad press' scientific and journalistic investigators

have given such organisations in the past as well as traditions of esotericism and anti-intellectualism in some communities. Not all organisations which teach ASCs are closed to scientific study, however, and the programs organised by the Brahma Kumaris over the past decade to forge links with the wider community, including scientists, encouraged the research team to explore cooperation with them. The Brahma Kumaris organisation, founded in India in 1937, grows out of the Hindu tradition (Cf Babb, 1986, pp. 93-109). Since 1971 it has spread abroad to many Western and non-Western countries, including the United Kingdom, the United States and Australia where it attracts people of diverse ethnic backgrounds.

After a period of informal involvement with the Brahma Kumaris and discussions with members of the organisation, the researchers were generously offered the opportunity to develop the project in the BK community. An important element in the understanding upon which cooperation is based is the stance of ontological neutrality which relieves the researchers of the task (implicit in the classic reductive approaches) of 'explaining away' people's beliefs without committing the researchers to a partisan defence of a particular worldview.

The research team for the project consists of a psychologist and an anthropologist, who together cover the range of expertise required and also create a 'half-way' community between academe and the world of regular members of the religious organisation. This half-way community appears to be a necessary element in ontologically neutral research, as it provides both an element of fortification against the weight of habitual scientific 'rationalism' and an opportunity for what might be called 'social reality testing' as a check against losing comparative perspective.[6]

The research tasks are roughly divided according to discipline, but both researchers feel it is essential to be active participants in the community. Thus both have undertaken the basic course in meditation offered by the Brahma Kumaris and attend classes on meditation

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[6]The contrast here is not to "reality testing" as normally understood in psychotherapy, i.e., to some absolute material reality that is given in nature, but to the "reality" we are socialized to perceive as members of our culture. Regardless of its constructedness, it is is desirable to keep in touch with this "social reality" as it is the realm of common experience that links religious communities, academe and the broader lay community.

practice and worldview. From these experiences each researcher has first hand experience with the consciousness altering techniques taught and some knowledge of the metaphysical significance meditation acquires for regular practitioners. Whilst the researchers join in the meditation practice, their own experiences are not taken as data, despite arguments advanced by Staal (1975) and MacDonald, Cove, Laughlin and McManus (1989) to the effect that researchers should use themselves and their own mental processes as research tools. Such approaches place too strong a presumption upon technique as the efficacious element in consciousness alteration, prejudging its importance amongst the many elements of 'set' and 'setting' that are likely to come into play. One could expect that these dimensions of the model would be markedly different for regular members and participant observers. In any case, the project aims to study the *variety* of experiences found amongst the many different kinds of people within the organisation (new members and old hands, seniors and occasional participants, people who practice regularly and those who do not, men and women, and so on).

Participant observation is thus being used as a means of learning about teaching methods, cultural and social background factors and consciousness altering techniques. In order to learn about the significance of the various spiritual teachings and activities of the BKs to individual members and to find out how their inner lives unfold in the course of their practice, the participant observation method has to be supplemented with in-depth interviews with as broad a cross-section of the membership as possible. The interviews both explore the personal history of the members as they are relevant to their lives with the organisation and ask for detailed descriptions of specific experiences. A computerised questionnaire on ASC experiences designed to probe the circumstances surrounding the experience, intentional operations used, and changes in perceptions of body, time, self and world is also administered. The questions are directed towards eliciting descriptions of *perceptions* in the altered state, rather than the experients' *interpretations* of what they perceive. The Tellegen (1982) Differential Personality Questionnaire is used as well. Both the personality inventory and the in-depth interview are to be repeated at yearly intervals to reveal change over time both in type of experience and the impact of continued participation upon personality. In

addition, since only a relatively small number of people can be interviewed in depth and given the extensive personality inventory, a brief short-answer questionnaire with basic questions on social background and some attitudinal items is being administered to all active members throughout Australia.

Material from the Brahma Kumaris study will shed light on the ways people learn to access ASCs and how they come to interpret the significance of those experiences for their own lives. In this way the study hopes to illuminate the ways in which such dramatic religious experiences foster intimate engagement of Australians of European descent with an Asian-derived religious tradition.

The research program can also be extended from the study of the BKs to other groups to reveal how different consciousness technologies, teaching methods and organisational structures interact. One would want to look, for example, for contrasts with data from groups which place strong emphasis on the use of exactly specified and graded consciousness altering techniques to those from groups like the Brahma Kumaris, which do not. One could also compare data from organisations which strongly characterise the realm they are seeking to experience with those which impose minimal expectations and interpretations.

VI. CONCLUSION

This paper has argued the need for a non-reductive, empirical social science of religious experiences involving altered states of consciousness and sets forth a method for conducting such research. The paper has demonstrated that this method is necessarily interdisciplinary, drawing on both psychology and anthropology to construct an appropriate model for examining the states involved and for obtaining suitable data on all relevant elements of the experiences: the personalities, expectations and physical states of the experients; techniques consciously employed; and the social and cultural backgrounds of practitioners and their ASC-oriented religious practices. The interdisciplinary character of the research acknowledges the imbeddedness of all experience, including non-ordinary experiences in altered states, in specific cultural contexts. It also allows the researcher to

take into account the significance of institutional arrangements as aspects of 'set' and and 'setting', and hence as potential triggering mechanisms alongside mental operations (such as concentration techniques), physical operations (such as breathing techniques) and psychological 'set' and 'setting'. The interdisciplinary approach also makes possible an understanding of how ASC competence is developed over time in interaction with particular teaching strategies and hence forms the basis for a pedagogy of religious experience.

At the same time this interdisciplinary approach, by utilising an appropriate psychological model, allows the researcher to examine the experiences themselves as complex wholes, rather than casting them as mere epiphenomena derivative of other processes that are treated as as "really real". It has been argued that an appropriate model must be free of the presumption that altered states of consciousness are necessarily indicative of mental illness, given the preponderance of evidence to the contrary. The rejection of dualisms (whether those grounded in materialism or religious commitment) and the need to replace them with a position of ontological neutrality has been argued on philosophical grounds. Ontological neutrality opens the way for non-reductive empirical studies of ASCs whilst leaving room for a variety of interpretations of religious behaviour conducted in everyday waking consciousness in terms of the full range of political, economic, social and meaning-seeking motivations.

The possibility of conducting empirical, but at the same time non-reductive, studies of religious experiences depends not only upon removing presumptions concerning dualism and the locus of "the real", but upon utilisation of a model that relates the components of experience to one another operationally. In this paper Nelson's model for an operational psycho-phenomenology has been suggested as an appropriate means for relating personality and consciousness operations data to phenomenological data on experiences. Further it has been argued that the model can be extended to include elements of social and cultural context and serve as a uniquely productive heuristic device for the study of ASC competence acquisition *in situ,* that is, in natural learning environments. The model can thus be adapted as the basis of a psycho-social phenomenological approach to the study of religious experience, wherein ASCs are collected in identifiable institutional contexts from experients

with known social and psychological profiles using known methods of consciousness alteration.

The proposed model can then be used as a guide for a far more comprehensive analyses of how ASCs arise than have been possible in the past. Repeating data collection at intervals over time will allow analyses of the effects of extended immersion in the learning situation on ASC competence acquisition as well as sustain analyses of the impact of consciousness change on personality and commitment to institutions. In other words, feedback loops between personality, experiences and social involvement can be charted. Longer term studies would make possible the identification of patterns of spiritual development of individuals within traditions, and given comparative material, perhaps even a developmental psychology of spiritual careers.

Phenomenological data collected, coming as is does from reports of actual experiences rather than from informants' descriptions of "other worlds", can also be used on their own to draw, as it were, maps of consciousness for particular traditions. When these are compared across traditions using a variety of consciousness altering mechanisms, a more adequate "cartography of inner space" will become possible than that based, as it is presently, on experiences with certain drugs and breathing techniques in laboratory or workshop settings and on anecdotal reports in isolated accounts of adepts and saints.

The non-epistemic operational psycho-phenomenology advocated thus reinstates experience as the central locus for the psychology of religion without necessitating the abandonment of empiricism or the adoption of ontological assumptions that lead to reductionist analysis. Further, it offers anthropologists wishing to contribute to the comparative psychology of non-ordinary experience an alternative to inappropriate borrowings from abnormal psychology and a means of exploring new dimensions of significance in their data on religious institutions and beliefs for understanding consciousness transformation.

In summary, the object of this paper has been to outline an empirical psycho-social phenomenological model and methodology for the study of ASCs and mystical experience as an extention of Nelson's (1990) originial three dimensional psycho-phenomenological

model. As suggested earlier in this paper, the advantages of this sort of model building are: 1) its grounding in empirical data and 2) its non-epistemic operational character. In addition, the type of modelling being advocated opens the door to more rigorous mathematical descriptive techniques, such as those found in the 'experimental mathematics' currently being applied to ecosystems. An example of such a technique is the new systems approach evolving from the mathematics of chaos theory. If we view a 'normal' state of consciousness as a cluster of psycho-social determinants defining a given 'attractor', then an ASC may be understood as a 'strange attractor' originating when the system meets the conditions which send it 'chaotic' (but still deterministic and quasi-orderly). This approach offers the intriguing possibility of moving the study of ASCs and mystical experiences into the rigorous realms of mathematical description while, at the same time, offering a non-reductive methodology for exploring non-ordinary states. Of course, this mathematical approach remains as a door to future research when sufficient data has been collected.

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