

INTRAPSYCHIC CORRELATES OF TRANSPERSONAL
EXPERIENCES IN FOUR CREEDAL GROUPS

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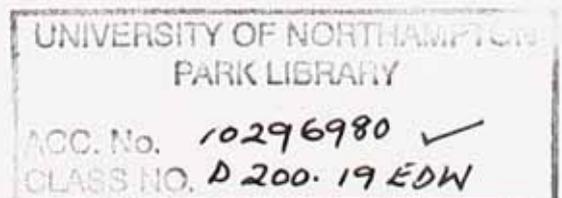
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INTRAPSYCHIC CORRELATES OF TRANSPERSONAL EXPERIENCES IN FOUR CREEDAL GROUPS

ABSTRACT: Attributes associated with mystical experience among Christians, Buddhists, Jews and Pagans are explored in psychometric data presented in this thesis. Two such attributes in particular, the personality trait of psychoticism and attitudes held towards mysticism, are given focal attention.

Psychoticism, a trait at one time supposedly linked with vulnerability to psychosis, has been much assessed in previous research into religiosity-personality correlates, and a more recent emerging literature has assessed this trait in relationship to religious experience. However, as this thesis clarifies, good grounds exist for challenging the view that this is a homogeneous trait. Assessments of traits relating to distinct facets of psychoticism, specifically the three traits of agreeableness, conscientiousness and openness to experience, provided solid grounds for taking apparently significant positive correlations between mystical experience and psychoticism as evidence that the former is associated with creativity rather than psychosis.

In each religious group studied, a significant positive correlation was found between attitudes to mysticism and mystical experience. However, this thesis also presents grounds for distinguishing these concepts. The possibility that psychoticism relates in different ways to these constructs, and the implications this has for the question of whether mysticism arises through social learning or reflects an innate tendency invariant across creed, are considered.

CHAPTER ONE

INTRODUCTION

This thesis will present original data collected for the assessment of the attributes of transpersonal experience in four creedal groups. Psychometrics, traditionally a methodology used for assessments of long-term attributes such as intelligence or stable personality traits, may seem a somewhat unusual means to learn about states as transient and allegedly ineffable as mystical and spiritual experiences. Grounds to defend such methodology to study such phenomena will therefore be given. Arguments will be presented that such research is both possible and useful, having important implications for philosophy as well as psychology.

The studies presented in this thesis will extend previous research, which has assessed relatively broad personality components in those who report transpersonal experiences, by assessment of more specific facets of personality germane to such experiences. It will also be argued that research in this field should consider an additional variable to personality, namely attitudes to mysticism, a construct that can be distinguished from mystical experience per se. The original approach this thesis will take to assessment of individual differences between those who report transpersonal experiences and those who do not has implications for major theoretical debates on the nature of mysticism, such as that of whether transpersonal experiences are learnt constructs.

1.1 Aims of the Study

Previously published psychometric research into mystical and transpersonal experiences (Francis & Loudon, 2000a, 2000b; Hood, 1970;

Hood, 1975; Hood, Hall, Watson & Biderman, 1979) neatly dovetailed much empirical study of the personality correlates of other dimensions of religiosity, such as ritual or doctrinal dimensions (see below, Section 1.4). The emerging research in this field (Caird, 1987; Francis & Thomas, 1996) has typically assessed people on the same dimensions of personality that have frequently been assessed in research into the personality traits associated with other expressions of religiosity, namely the three traits of psychoticism, extraversion and neuroticism described in Eysenck's model (Eysenck & Eysenck, 1976; Eysenck, Eysenck & Barrett, 1985). Problematic in such research has been the sheer breadth of the traits described in the Eysenckian P-E-N model, especially that of psychoticism (see Chapter Two). A central aim of the current thesis is, therefore, to examine whether assessment of more fine-tuned personality measures that distinguish between those who do versus those who do not report mystical experiences will replicate the findings that have been reported in previous scholarship when broader measures of personality, such as assessment of psychoticism as a global construct, have been employed.

This particular issue will be addressed directly in the key original empirical study presented in this thesis, reported in Chapter Six. In Chapters Four and Five, reports of two empirical studies, the first assessing whether a more narrow-band aspect of a potentially positive facet of psychoticism (increased liberalism) correlates with mystical experience and the second examining the need to distinguish between mystical experience and attitudes to mysticism, will be reported. The aims of each of the three original psychometric studies to be presented in this thesis can be set out in detail as follows:

(a) Study One aims to assess whether a form of religiosity indicative of

increased religious liberalism, quest religious orientation, is associated with greater likelihood of reported mystical experience;

(b) Study Two will present data on a new scale, original with the current thesis, that assesses attitudes to mysticism as a distinct concept from mystical experience (the importance of assessment of this variable is spelt out in subsequent sections of this chapter);

(c) Study Three will assess the extent to which six personality traits - psychoticism and the more fine-tuned measures of the five-factor model of Costa and McCrae (1992a), namely extraversion, agreeableness, conscientiousness, neuroticism and openness to experience, correlate with mystical experience in four different religious groups, Christian Protestants, Jews, Pagans and Buddhists. A further important aim of Study Three is to compare these four groups on both mystical experience and attitudes to mysticism, and to examine the extent to which these two variables correlate in each of the four groups.

1.2 Importance of Proposed Research Study

To collect empirical data germane to these questions is important on a number of theoretical levels. Firstly, such data will help to uncover the reasons for potential divergences between past findings on the personality correlates of religiosity in general and the personality correlates of mystical, religious and transpersonal experiences. Secondly, to approach these questions using psychometrics presents an original approach to a philosophical question for which the full implications of psychometric data have not been fully appreciated in previous scholarship. This is the question of whether mystical experiences

should be viewed as social constructs, and are therefore learnt; or whether elements common to such experiences as reported in different religious traditions justify the view that such experiences are innate. Finally, data in response to these questions will help to indicate which specific aspects of the broad dimension of psychoticism may be most relevant to transpersonal experiences. This is an issue which has the potential to offer important information on the mental health status of those who believe they have had mystical experiences, especially as there are certain facets of psychoticism which, at least in normal nonclinical samples, could be construed as positive traits.

To assess participants from different religious populations is important in pursuit of data pertinent to these questions. Previous studies in this area have frequently been based on only one creed (e.g. Francis & Thomas, 1996), and thus the use of cross-denominational and cross-creedal populations in the studies reported in this thesis itself presents an original contribution to research. However, aside from being interesting from a purely descriptive viewpoint, important theoretical reasons exist for use of different creedal groups in the studies reported in this thesis. Data from a cross-creedal population will enable assessment of whether there are empirical as well as theoretical grounds for the taxonomy of religions that will be presented at the end of Chapter Two. Such data are also essential for empirical assessment of the questions that emerge from the philosophical questions which will be discussed in a later section of this chapter.

The use of a new scale, assessing attitudes to mysticism as opposed to mystical experience, is important insofar as it enables, for the first time,

collection of empirical data germane to considerations on similarities and differences between these two variables. The scale's use in helping to see how the personality traits related to this variable and whether this variable relates to social learning will be highlighted throughout this thesis.

1.3 Defending Psychometric Study of Transpersonal Experience.

Religious fundamentalists and positivistic scientists may both oppose empirical study of concepts such as "religious experience", "transpersonal experience" or "mystical experience", the former through beliefs that such phenomena are beyond empirical scrutiny, the latter through fears that such concepts are too evasive to be meaningful. However, a third tradition, which has produced important texts (Batson, Schoenrade & Ventis, 1993; Cohen & Phipps, 1979; Greeley, 1974; Hardy, 1979) has been based upon convictions that such concepts are both meaningful and capable of being studied empirically. This thesis exemplifies this third tradition.

Wide-ranging empirical techniques, including projective techniques (Brown & Engler, 1978; Jonte-Pace, 1998), psycho-pharmacological research techniques (Doblin, 1991) and electro-encephalography (Zohar & Marshall, 2000) have been used in transpersonal psychology. However, as the preferred methodology of the current thesis is the psychometric questionnaire, emphasis here will be on the value of this empirical tool in particular. Fears that both positivistic and fundamentalist persuasions may have about the use of questionnaires to study religiosity in general have, to some extent, been adequately answered by Miller and Thoresen (2003) and Hill and Pargament (2003), but the focus here will be on the application of questionnaires to the

study of religious, mystical and transpersonal experiences in particular.

The empirical study of religious, transpersonal and mystical experience has produced important publications in journals in various disciplines, including religious studies (Hood, 1975), gerontology (Levin, 1993), and psychology, both abnormal psychology (Spanos, Cross, Lepage & Coristine, 1986) and more mainstream psychology (Caird, 1987). Furthermore, an impressive range and number of psychometric scales have been developed to assess transpersonal experiences and related constructs, reviewed by McDonald, Friedman and Kuenzel (1999), McDonald, Kuenzel and Friedman (1999) and McDonald, LeClair, Holland, Alter and Friedman (1995). This illustrates how the use of psychometric scales to assess transpersonal constructs has been an integral part of scholarship.

Deeper grounds for defending psychometric research into transpersonal experiences were outlined by the author of this thesis (Edwards, 2003). The argument defended in this paper was that if the use of such methodology resulted in merely meaningless data, published research findings in this field would only yield random statistical patterns. As published psychometric studies of transpersonal experiences *have* produced meaningful correlations and between-groups differences, it is safe to conclude that such research is providing psychologically meaningful information.

Limitations of the scope of empirical psychometrics to solve all philosophical questions on mystical experience are acknowledged here. Questions on the ontological and epistemological status of such experiences, such as those discussed by Gellman (1999) and Fales (1999), may be considered outside the scope of psychometric study, and thus it is with good reason that

these authors' papers have appeared in journals on philosophy and religious studies rather than social science journals. What is defended here is not a grand statement that psychometrics will solve all philosophical questions about mysticism, but the more modest claim that psychometric data have potential relevance to *some* philosophical questions on mysticism. A good example of such a question is that of whether mysticism arises through learning or is innate (see below, Section 1.5).

Purely practical advantages exist for use of the psychometric questionnaire as a research tool to study transpersonal experiences. Such scales may be administered to a large number of respondents, allowing researchers to collect a wide pool of data. As such scales may be returned to researchers anonymously, use of this methodology can respect the privacy that many respondents may attach to personal records of transpersonal experiences. Value can therefore be observed in research programmes in transpersonal psychology that both use existing tools to assess transpersonal experiences and construct new tools of potential relevance to this area.

Careful use and construction of psychometric questionnaires requires clarification of the concepts that such scales have been designed to assess. Thus, attention will now shift to definitions of the concepts under consideration in this thesis.

1.4 Definitions of "Religion", "Mystical Experience" and Related Terms

The focus of this thesis is on religious experience rather than religiosity in general, so definitions of religion will be discussed only cursorily. Discussions of how to define religion are available in major texts in this field

(Batson et al., 1993; Beit-Hallahmi & Argyle, 1997; Fontana, 2003). To present several such definitions will, however, form a neat prologue to presentation of an issue of more immediate relevance to the current thesis, that of whether religion should be viewed as multidimensional (as favoured by Glock and Stark, 1965) or as unidimensional (as favoured by Gorsuch, 1988). It will also indicate why quest, assessed in the first of the three psychometric studies presented in this thesis, can be regarded as a form of religiosity.

Several definitions of religion will be commented on briefly here, and will be followed by outlines of multidimensional models of religion. This section will conclude by considering approaches to defining one particular dimension typically included in such schemes, the experiential dimension of religion.

1.4.1 Definitions of Religion

The following three definitions have featured in different works on the psychology of religion:

- "the feelings, acts and experiences of individual men (sic.) in their solitude, so far as they apprehend themselves to stand in relation to whatever they may consider the Divine" (James 1902/ 1960; p50).

- "system of beliefs in supernatural power, and practices of worship and of other forms of ritual devoted to such power" (Beit-Hallahmi & Argyle, 1997; p1).

"whatever we as individuals do to come to grips with the questions that confront us because we are aware that we are and others are like us and that we will die" (Batson et al., 1993, p8; italics in original).

Subtle differences in meanings of "religion" are implied by each definition. Batson et al.'s (1993) definition implies the widest meaning, implying that an individual can be religious without creedal assent or regular practice of ritual. This justifies treating Batson's concept of quest (see Chapter Three) as an example of religiousness. To adopt this as a working definition of religion, as will be endorsed here, also offers justification for treatment of non-theistic systems such as certain forms of Buddhism as religions. Thus, this thesis will take the position that Buddhism can be regarded as a religion.

Beit-Hallahmi and Argyle's narrow focus on religion as a system of belief and practices failed to address purely experiential dimensions of religion. James' celebrated definition acknowledged the importance of experience and emotions in religion, but can be criticised for its reference to individuals and solitude. Such a definition would be hard to defend when describing religious experiences that take place in obvious social contexts, such as the enthusiasm of crowds at charismatic healing services. Limitations inherent in James' definition are also challenged by sociological models of religion such as those of Durkheim, cited in Hardy (1966), stressing religion as a feeling of effervescence generated by social forces. Problems inherent in overly narrow definitions of religion will be evident following the review that will now be given of multidimensional models of religion.

1.4.2 Dimensions of Religion

Multidimensional models of religion date at least as far back as Fromm (1950). Interest in such models gained momentum during the 1960s. Such

models can be distinguished from the taxonomies of religious orientation that will be reviewed in Chapter Three. The latter classify motivations underlying religiosity (Stark & Glock, 1968/ 1969) and carry sub-texts of value-judgments; the multidimensional models reviewed here imply no value-judgments and classify different modes of expressing, rather than motivations for, religiosity.

Reviewers of psychometric findings on religion should be aware that findings for a particular dimension of religion may not be replicable for other dimensions. Thus, caution should be exercised before predicting that psychometric studies of religious experience will replicate what has been found for other dimensions. While Gorsuch (1984; 1988) tried to defend treatment of religion as being unidimensional, previous research data do suggest important grounds for distinguishing the experiential from the doctrinal and ritual dimensions of religion (see Chapter Three).

Fukuyama (1961; cited in Demerath, 1965/ 1969) presented an early multidimensional model of religion. This described the creedal, cultic, cognitive and devotional dimensions of faith, referring respectively to religious beliefs, to church attendance, involvement and participation, to knowledge of one's faith and to religious activities beyond one's church, such as private prayer at home. The more famous scheme of Glock and Stark (1965) listed five dimensions, the ideological, experiential, ritual, intellectual and ethical-consequential, of which the first corresponds to Fukuyama's cultic dimension, the second concerns religious experience, the third corresponds to Fukuyama's cultic and devotional dimensions, the fourth to Fukuyama's cognitive dimension and the fifth relates to moral teachings of religions. Stark and Glock (1968/ 1969) subsequently used simpler terms for each dimension - belief, experience, practice, knowledge and

consequences - and bifurcated ritual into ritual (public worship) and devotional (private practices such as private prayer in one's own home) sub-dimensions. Seven dimensions, the doctrinal, mythological, ritual, ethical, experiential, social and material-artistic, are described in similar taxonomy outlined by Smart (1989).

All these models distinguish religious belief (creedal, ideological or doctrinal dimensions) from religious practice (cultic, practice or ritual dimensions). To distinguish these dimensions helps to resolve the ambiguities in literature on social class and religion and on generational changes in degrees of religious participation (Demerath, 1965; Glock & Stark, 1965; Stark & Glock, 1968/ 1969). Inclusion of a separate experiential dimension as was done by Glock and Stark (1965) and Smart (1989), is considered important in this thesis, as this helps to explain some of the inconsistent findings on religion and personality (see Chapter Three).

Stark and Glock (1968/ 1969) claimed that the five dimensions of their model feature in all religions, but that religions differ in which particular dimension(s) they emphasise. They claimed that religions typically grant central status to belief and that mainstream Christianity places second most emphasis on practice, but that in "more mystical religions, and in some more extreme Protestant sects, more emphasis is placed upon experience than practice" (Stark & Glock, 1968/ 1969; p258).

Empirical research needs to address more explicitly such cross-creedal variations in dimension of emphasis. This may be achieved through development of appropriate psychometric methodology. Faiths may vary in how much emphasis they attach to the experiential dimension of religion, as is

indicated by the taxonomy of attitudes to mysticism, proposed at the end of Chapter Two. Data collected using a new scale, original with the current thesis, will indicate in later chapters of this thesis how different faiths do vary in how much emphasis they attach to at least one manifestation of the experiential dimension - mystical experience.

1.4.3 Religious Experience and Related Terms

Stark and Glock (1968/ 1969) clarified that they did not intend their descriptions of each individual dimension to refer to entirely homogeneous phenomena. Various phenomena exemplify the experiential dimension. All-encompassing definitions of "religious experience" may therefore be elusive, and scholars are likely to vary in their definitions of this term. However, many scholars may agree that the term "religious experience" should not be equated with the term "mystical experience". These and related terms will now be discussed, and consideration will be given as to what is the best generic term (if any) to describe all phenomena that exemplify this dimension.

Religious Experience

Popularity of this term dates from the publication of James' (1902/ 1960) *The Varieties of Religious Experience*, although observations of what are now termed religious experiences clearly date back centuries earlier. Records of states deviant from normal waking consciousness exist in the Hebrew Bible, and the ancient Mesopotamian language uses words indicative of the existence of such states. The somewhat Darwinian ring to the title of James' work suggested that, just how naturalists had studied varieties of flora and fauna, social

scientists could now study different varieties of religious experience. Yet, despite this clear commitment to a scientific approach to the study of religious experience, James' book is unclear on how to define this term, if it did offer grounds for defining the more restricted term "mystical experience".

Implicit rather than explicit definitions of religious experience appear in works by Hardy (1966) and Greeley (1974). Questions used by these authors to collect empirical data on religious experience suggest that Hardy and Greeley, respectively, would have defined the term as (a) a feeling of being influenced by a Power or a Presence, whether referred to as "God" or not, different to one's everyday self and (b) a feeling of close contact with a powerful spiritual force that appears to lift one out of oneself. Both definitions imply qualitative differences between normal waking consciousness and religious experience. Such an approach contrasts with that of Donovan (1979), who held that "religious experience" is a term that may be applied to an experience "when it is the sort of experience in which religions may be interested, which religions value or consider important" (Donovan, 1979; p3). Boyatzis (2001) defended a similar viewpoint. The circularity inherent in such approaches has been criticised in a paper co-authored by the author of this thesis (Edwards & Lewis, 2003). These authors explained how definitions of religion such as Donovan's are uninformative unless they also delineate *which* experiences a specific faith is likely to value. Edwards and Lewis accepted that such approaches acknowledge personal significance that an individual may attach to his/ her experiences. However, they cited a definition of altered states of consciousness (Giesler, 1996) to clarify how a definition can still do this while acknowledging significant deviations between such experiences and

ordinary waking conscious states:

(Such states are) "a sufficient deviation from general norms for that individual during normal, waking consciousness (Kokoszka, 1992). MacDonald, LeClair, Holland, Alter and Friedman (1995) noted that such events can probably only be understood through direct experience. They are, in fact, unshared sensory experiences (Stevenson, in Liester, 1996). Robinson (in Hay, 1990) stated that they are self-authenticating; if a person has experienced a significant event, then that event is very real to him or her, then that event is sociologically real" (Giessler, 1996; cited in Edwards & Lewis, 2003, p55).

Related Terms

Waldron (1998) listed thirteen possible alternative terms to the term "religious experience", namely *transcendental experience, transcendent experience, spiritual/religious experience, mystical experience, cosmic consciousness, peak experience, core-religious experience, praeternatural experience, ecstasy, bliss, numinous experience, exceptional human experience* and *transpersonal experience*. Not all should be seen as truly synonymous with religious experience. For example, peak experience, ecstasy and bliss, while valuable terms and ones featuring in writings of authors such as Greeley (1974) and Maslow (1968), all describe states of intense joy. That religious experiences may also be linked with intense sorrow was noted by May (1991), who cited research using the famous Alister Hardy question: "Have you ever felt as if you were influenced by a Power or a Presence, whether you call it "God" or not, that was different to your everyday self?" which found depression to be a more common antecedent trigger for religious experience than intense happiness. A

rather more technical matter, however, is that of whether the term religious experience should be equated with the term mystical experience.

These terms have sometimes been treated as synonyms in empirical research, such as that of Back and Bourque (1970). However, grounds exist for holding that only certain kinds of religious or transpersonal experiences qualify as mystical experiences in the technical sense. To distinguish these concepts is consistent with the position advanced by Daniels (2003), who went further than the position taken here in holding that not all mystical experiences can be classified as religious experiences. The need to look at qualities unique to mystical experience, as outlined below, is essential to understand subsequent empirical and theoretical work presented throughout this thesis.

The term used in this thesis as the generic term to cover all phenomena indicated by the terms on Waldron's list is transpersonal experience. This avoids the difficulties inherent in term such as bliss, as it does not specifically link any particular emotional valence to an experience. It also avoids the ontological assumptions inherent in transcendental experience, transcendent experience and praeternatural experience, which preclude materialistic interpretations of such phenomena. Furthermore, it removes the difficulty inherent in religious experience, as it eschews implications that doctrinal interpretations are inevitably attached to such experiences.

1.4.4 Qualities Unique to Mystical Experience: James' View

Grounds for supposing that religious experiences are only "mystical experiences" if they possess certain features can be found in James' (1902/1960) work, which listed four qualities of mystical experiences:

- (a) Ineffability - such experiences are incapable of expression using conventional language;
- (b) Transiency - such experiences typically last no more than around thirty minutes;
- (c) Noetic quality - new information is disclosed during them;
- (d) Passivity - the experience happens to the recipient, and is not a state over which the experiencing mystic has dominating control.

Problematic in this list is that although these qualities may be necessary criteria for mystical experience, they are hardly sufficient. Taking them as sufficient would imply that even brief cat-naps, being short in duration, passive, hard to describe in words and experiences which may offer new insights during dream sleep, could be described as "mystical experiences". Clearer grounds for distinguishing mystical experiences from other types of experience are explicit in the lists of features unique to the former proposed by Stace (1960) and Happold (1963). These lists require close consideration here, for they relate to psychometric scales used in this thesis.

1.4.5 Qualities Unique to Mystical Experience: Views of Stace (1960) and Happold (1963)

For Stace (1960), the central feature of mystical experience properly so-called was, ironically, a quality absent from James' list - a sense of unity with qualities beyond the self. Stace's position has frequently been seen as a form of perennialism, holding that whatever the learning experiences and doctrines to which mystics in different traditions have been exposed, all mystical

experiences share certain core features. Experience of union was taken by Stace to be *the* core feature of all mystical experiences, making them phenomenologically identical, differing only in post hoc interpretations attached to them. This union could be interpreted as union with Christ (in Christian mysticism), with God (in monotheistic faith), with Nature (in nature-mystics such as Jefferies), with the cosmos (in pantheistic religion) or with the physical world (as in Aldous Huxley's experiments with mescaline).

Stace did not see a sense of unity as the only important attribute of mystical experience. He listed core features of two types of mystical experience, introvertive and extrovertive (see Table One).

Table 1. Introvertive and Extrovertive Mystical Experiences

After Stace, 1960

INTROVERTIVE	EXTROVERTIVE
Unitive quality (defined as unity between self and the world).	Unitive quality (defined as perceived unity in all things).
Ineffability	Ineffability
Noetic quality	Noetic quality
Joy	Joy
Sacred Quality	Sacred Quality
Space-Time Transcendence	Space-Time Transcendence
Loss of False Ego	Objectivity - (a sense of all things becoming conscious).

Experience of union, if defined in slightly different ways for the two types of mystical experience, was seen by Stace as the key feature of both types. Table One indicates how Stace attributed virtually identical lists of qualities to both types of experience; apart from subtle differences regarding the unitive feature, the only other distinguishing feature is that introvertive mystical

experience involves ego loss, (focussing on changes in the experiential state insofar as it relates to the inner world of self), whereas extrovertive mystical experiences involves changed perception of the external world (the objectivity attribute).

Using Stace's (1960) model, mystical experience may be defined succinctly as *a sense of union with qualities beyond the self, so that normal barriers beyond self and non-self, at least throughout the duration of the experience, are not apparent*. This definition is non-committed to any statement as to what the object of such sense of union may be, thus allowing for experiences accompanied by diverse doctrinal interpretations to qualify as mystical experiences. It also distinguishes clearly between mystical experiences and other religious experiences, such as a sense of prayers being answered, healing experiences, glossolalia, a sense of the dead being present, a sense of an evil presence or a sense of ordered coincidences, which do not involve a sense of union. This interpretation of mystical experience as meaning a sense of union is what is to be understood when the term is used throughout this thesis.

Stace's belief that introvertive mystical experiences represent a more advanced state than extrovertive has been challenged (Schlamm, 2000), but appreciation of his commitment to this position helps to clarify consistencies between Stace's work and that of Happold (1963). Such a belief implies that ego loss is important in the more advanced forms of mystical experience; this view was echoed by Happold (1963), who believed that mystical experiences, in addition to possession of the four qualities described by James (1902/ 1960), contained three additional features. These were a sense of unity, a sense of time-transcendence and a sense of ego-loss. This approach is clearly consistent with

that of Stace, implying that a sense of union is an important and necessary feature of mystical experience.

1.4.6 Definitions of Mystical Experience and Psychometrics

Heuristic value in the approaches taken by Stace and by Happold is evident from how their lists have acted as conceptual bases for psychometric scale design. Hood's (1975) M-Scale is based on Stace (1960), while Happold's (1963) scheme inspired development of the Francis-Louden Mystical Orientation Inventory (Francis & Loudon, 2000a).

More information on these scales will be presented in subsequent chapters of this thesis. Previously published work using the M-Scale has offered grounds for distinguishing the terms "mystical experience" and "religious experience", and factor analysis of this scale has suggested that introvertive and extrovertive mystical experiences can be distinguished (Hood, Morris & Watson, 1993).

Both the M-Scale and the Francis-Louden Mystical Orientation Scale are divided into sub-scales. Common to both is a sub-scale to assess *unitive experience*, considered by Stace to be the core feature of mystical experience. These questionnaires have led to research, reviewed in Chapter Three, into personality traits associated with mystical experiences.

1.5 Is Mystical Experience a Social Construct?

These psychometric scales have certainly helped to increase confidence in theoretical statements on the nature of mystical experience. Findings using the M-Scale have been used as evidence for Stace's (1960) distinction between

mystical experiences, and religious interpretations of such experiences (Hood, Ghorbani, Watson, Ghramaleki, Bing, Davison, Morris & Williamson, 2001). The Francis-Louden Mystical Orientation Scale, being a more recent scale, has yet to produce the same amount of published research data as the M-Scale, but it is likely that this position will change over time.

These scales mean that personality research into mystical experience can now neatly dovetail much empirical research into other dimensions of religiosity, as explained in Chapter Three. The latter body of literature has frequently included assessments of psychoticism, driven by the theoretical position (for which empirical support exists) that psychoticism is inversely related to likelihood of acquisition of conditioned responses. The tacit assumption behind such thinking is that dimensions of religiosity arise through social learning. This means that a similar focus on psychoticism into research into mystical experience is defensible if such experiences are also viewed as learnt constructs. A meta-theoretical position that holds that this is indeed so represents one side in a philosophical debate, which will be reviewed briefly here.

1.5.1 Social Constructivism versus Perennialism

Stace (1960) believed that mystical experiences, defined strictly as unitive experiences, feature in all religions, differences being in interpretation not phenomenology. Katz (1978) disagreed, claiming that such experiences are absent (for example) from Judaism. Using Forman's (1998) terminology, the former position, with its implications that mystical experience is innate, can be termed *perennialism*, the latter position, that implies that mystical experiences

arise through social learning, can be termed *social constructivism*. No *a priori* reasons exist for suggesting that the latter viewpoint implies general rejection of realist ontology. "Social constructivist" as used in this context should therefore be understood as having a more restricted meaning than is commonly understood by the term.

Brief juxtapositions of these two positions will highlight how certain theoretical perspectives imply that mystical experience is learnt. Assumptions that have been made about why psychoticism has typically been found to correlate negatively with other expressions of religiosity therefore provide grounds for conducting psychometric research into psychoticism as a potential personality correlate of mystical experience. However, as this thesis will highlight, the heterogeneity of psychoticism calls for some qualification here.

Perennialism and social constructivism imply different answers to the question "Do mystical experiences arise from a learned, socially conditioned, constructive process, or are they the expression of some sort of innate capacity?" (Forman, 1998, pviii). Katz (1978) made his commitment to the former viewpoint explicit. He argued passionately that Jewish experiences, such as *devekuth* (literally "*cleavage*", a state marked by feelings of clinging to a higher being, such as Yahweh), differ fundamentally from Buddhist experiences, such as *nirvana* or *satori*, states characterised respectively by extinction of the ego and profound enlightenment. Katz concluded that such experiences arise through learning:

"(T)he Hindu mystic does not have an experience of x which he (sic) then describes in the, to him, familiar language and symbols of Hinduism, but rather he has a Hindu experience, i.e. his experience is not an unmediated

experience but is itself the, at least partially, pre-formed, anticipated experience of Brahman. Again, the Christian mystic does not experience some unidentified reality, which he then conveniently labels God, but rather has the at least partially prefigured Christian experiences of God, or Jesus, or the like" (Katz, 1978, p26).

"Because the Jew *is taught* that such experiences of unity do not happen for reasons flowing out of Jewish theological tradition, he does not, in fact, have such experiences" (Katz, 1978, p35; italics added).

Similar positions have also been defended by Gimello (1978; 1983), Payne (1984), Penner (1983), Streng (1970; 1978) and somewhat more implicitly by Sundén (see Holm & Belzen, 1995). Depictions of mystical experiences as being affected by social learning directly were offered explicitly by Proudfoot (1985), who, adapting Schacter and Singer's (1962) two-factor model of emotion, argued that such experiences may acquire a sense of numinous quality if people having such experiences have been taught to label them as such. Similar implications are apparent in Sundén's "rôle theory" (Holm & Belzen, 1995) and in Keller's (1978) essay on mystical literature.

Perennialism, the other side of this debate, implies that mysticism is innate. This is evident from the title of the work edited by Forman (1998) *The Innate Capacity*. He described the state common to mystical experiences from different traditions as a state of knowing without intentional object, a state of "Pure Consciousness" characterised by neither knowing-how nor knowing-that but simply knowing. Superficially, such a state appears different from the unitive experience identified by Stace (1960) as the core feature of mysticism. However, Stace's position implies, at least in the case of introvertive mystical

experiences, that unitive experiences achieved by mystics do not involve a separation between knowing-subject and perceived-object and thus consciousness during such states lacks intentional objects. Differences between Forman and Stace may therefore be more apparent than real.

Forman's arguments for perennialism were typically based on conceptual analysis rather than empirical evidence, notably his claim that such experiences typically involve a state of *Vergessenheit* or "stripping away" of learnt concepts and thus arise through processes *antithetical* to learning. However, some of Forman's arguments for perennialism are amenable to empirical scrutiny. Longitudinal study, for example, could be used to assess Forman's claim that states such as the Buddhist concept of *satori* may be experienced prior to learning about them. The issue that must be addressed here is how these rival positions of Katz and Forman relate to psychometric research into mystical experience in general, and into psychoticism and related traits as potential correlates of such experiences in particular.

Research into nonmystical dimensions of religiosity has assessed psychoticism through a tacit assumption that religiosity is associated with conditioning, psychoticism inversely so, and that, therefore, the two will be negatively correlated (see Chapter Three). To use similar theoretical arguments to predict inverse relationships between mystical experience and psychoticism implies a tacit endorsement of social constructivism. Alternative ways to assess whether a variable arises through learning or is innate obviously exist; insights from longitudinal studies, from developmental psychology and from cross-cultural psychology can all make potential contributions here. However, the relative ease of collecting psychometric data on psychoticism and mysticism

shows how psychometrics is a relatively straightforward means to evaluate the debate between perennialism and social constructivism using empirical psychology rather than philosophy.

A final point to be addressed here is that of how, even if psychometric data were to indicate that traits such as psychoticism or other traits related to propensity for social learning bear no relationship at all to mystical experience per se, such traits could still theoretically relate to another conceptually distinct variable - attitudes to mysticism. Strong perennialist claims have had a long history, as is explained in Huxley's (1946) *The Perennial Philosophy*, the title itself coming from a Latin term used much earlier by Leibniz, *perennia philosophalis*. Forman (1998), termed his viewpoint "perennial psychology", to distinguish it from the more extreme claims of "perennial philosophy", in that while this perennial psychology implies that experience per se is identical in different creeds, this position acknowledges that considerable variations exist in the doctrinal and ideological teachings of different creeds. Such a position is consistent with hypotheses that learning, while having little direct influence on mystical experience, is highly relevant to attitudes to such experiences. Thus, both Katz and Forman may be declared as being at one in holding that assessment of traits indicative of learning potential may be used to predict the likely attitudes an individual holds towards mysticism.

Debates on how beliefs about and attitudes to mysticism relate to experience need to be more specific than has been the case in previous work. Katz criticised perennialism for its assumptions about experiences taking causal primacy, claiming that "the symmetry (that is, the relationship perennialism assumes between belief and experience) is always one-directional: from

"experience" to "beliefs" " (Katz, 1978, p30; parentheses added). Katz did not clarify, however, whether he took such a position to mean that both beliefs and experience relate in equal measure to traits indicative of learning potential. Relevance of assessments of traits such as psychoticism to this area will be outlined throughout the current thesis.

1.6 Is Mystical Experience Really Pathology?

As well as the debate on whether mystical experiences arise through learning, an important psychological issue that may benefit from assessment of psychoticism's relevance to mystical experience is that of the mental health status of those who report mystical experiences. This is particularly evident if Claridge's (1990; 2001) dimensional model of psycho-pathology, which views psychological disorders as existing on a continuum with normality, is endorsed. This perspective avoids both the extremes of a medical model, implying that disorders such as psychoses are totally discrete from normality, and anti-psychiatry, with its radical denial of such disorders.

Applied to the psychometric study of mysticism, Claridge's dimensional model implies that if mysticism is really linked to any pathology, traits linked with proneness to such pathology should correlate with self-reported mystical experience in sub-clinical populations. If mystical experiences are really psychotic delusions, for example, predictions can be made that assessed mystical experience will correlate with those traits, such as psychoticism (Eysenck & Eysenck, 1976) or transliminality (Thalbourne & Delin, 1994; 1999) that have been linked with psychosis-proneness.

Superficially, questions on the health status of mystical experience

recipients may appear unrelated to the conceptually distinct question of whether mysticism is learnt. However, assessments of psychoticism are relevant to both questions. This trait has been linked with both low levels of learning propensity and high levels of psychosis-proneness.

The sheer breadth of psychoticism means that certain facets of this trait may actually be positive attributes. An example is creativity (Eysenck & Eysenck, 1976; Woody & Claridge, 1977). Accurate assessment of the mental health status of participants who report mystical experiences should therefore assess individuals on separate facets of psychoticism as well as this trait as a global variable.

Pathology may be linked not merely with mystical experience itself, but with interests in and beliefs about such phenomena. This position is explicit in Thalbourne and Delin's (1994; 1999) link between interests and beliefs in the paranormal as well as self-reported mystical experience with transliminality; and with the American Psychiatric Association's (1994) *Diagnostic and Statistical Manual's* list of criteria for the schizotypal personality, which refers to interest in paranormal matters (not necessarily personal experiences of the paranormal). Such approaches to psychosis-proneness suggest that such vulnerability may relate more heavily to attitudes to mysticism than mystical experience, underlining why research in this area should assess individuals on both variables.

1.7 Summary, Implications and Agenda for Thesis

A defence of applying psychometric study to the study of transpersonal experiences and definitions of terms relevant to such research were presented in

this chapter. The term "religious experience" itself refers to diverse phenomena, of which one specific (but by no means the only) example is *mystical experience*, defined here as a sense of unity with qualities beyond the self.

Psychometric tools have been developed to assess self-reported mystical experiences. Questions about such phenomena, such as whether they are learnt or innate phenomena, or whether or not they are linked to pathology, may gain potential benefits from data obtained using such scales.

Conjoint assessments of individual differences in (a) mystical experience and (b) traits related to propensity for learning and latent dispositions towards mental illness, such as psychoticism, can be fruitful in addressing such questions. In addition to mystical experience and personality traits, another important variable that should be considered when these questions are addressed from a psychometric perspective is *attitudes to mysticism*. In previous scholarship, this variable has not received the attention it deserves.

Conceptual questions implicit in this brief synopsis of this introduction will be tackled in Chapter Two. This will begin with focus on the trait of psychoticism, showing how it is relevant to both social learning and to pathology, but also offer grounds for supposing this trait to be heterogeneous. Consequently, recommendations will be made for psychometricians who wish to assess this trait in conjunction with assessed mystical experiences. Chapter Two will conclude with discussion of the variable of *attitudes to mysticism*, using it as the foundation for a taxonomy of religion amenable to empirical assessment. Chapter Three will review previous empirical findings on the intrapsychic correlates of mystical experience, as reported in previously

published psychometric studies.

Whether liberal attitudes, a specific and arguably positive facet of psychoticism, are associated with mystical experience, is discussed in a new empirical study, original with the current thesis, reported in Chapter Four. Construction of a new scale to assess attitudes to mysticism is reported in Chapter Five.

In Chapter Six, which will present data from the main empirical study in this thesis, earlier themes will be brought together in one study. A report will be presented of a study, which assesses (a) mystical experience (b) personality traits (including both psychoticism and those linked with specific facets of this broad trait) and (c) attitudes to mysticism in a study of four creedal groups. Considerations will be given as to how far the reported data support the taxonomy presented in Chapter Two. A key question that will be asked with reference to data presented in Chapter Six is that of whether mystical experience relates only to specific facets of psychoticism, rather than to broad measures of this trait. The implications of the data from this study for the questions of whether mystical experience and attitudes to mysticism are learnt phenomena will also be considered. Key themes emerging from the three empirical studies will be discussed in Chapter Seven, in conjunction with interview data obtained from several participants.

Following presentation of psychometric data original with the current thesis, deeper insights into the precise manner in which mysticism may relate to the Eysenckian trait of psychoticism, discussed in Chapter Eight, will become possible. These will have implications for questions on the mental health of people who report such experiences. Potential differences that the variables of

mystical experience and attitudes to mysticism have to traits germane to learning propensity will be used to fuel an original suggestion for progress in the perennialist-constructivist debate. Unlike much previous debate in this area, these suggestions will be rigorously grounded in the results of careful psychometric study.

CHAPTER TWO:
POTENTIAL INTRAPSYCHIC CORRELATES OF
TRANSPERSONAL EXPERIENCES

2.1 Introduction

In Chapter One, a defence of psychometric methodology in transpersonal psychology was given. Two theoretical debates with potential to reap huge benefits from such research, namely the question of to what extent such experiences are pathological, and the more philosophical question of whether such experiences are better viewed as learnt or innate constructs, were outlined. While these two are by no means the only theoretical questions that can benefit from psychometric research into transpersonal psychology, both are germane to questions of assessment of psychoticism in such studies. An important conceptual issue that is intimately bound to the nature of psychometric research, the heterogeneity of the trait of *psychoticism* as represented by Eysenck and Eysenck (1976) will be discussed in detail throughout this chapter.

Mystical experience, as with other dimensions of religiosity (see Chapter Three), has been assessed in conjunction with the three traits used in the model of personality defended by Eysenck and Eysenck (1976), namely introversion-extraversion, stability-neuroticism and psychoticism. Both empirical and theoretical reasons exist for a focus, of these three traits, on psychoticism when examining the personality correlates of such experiences. As well as being pertinent to the above theoretical questions, much empirical research has suggested inverse correlations between this trait and other dimensions of

religiosity, raising the question of whether such a correlation will exist for religiosity's experiential dimension. However, the many grounds for questioning the assumption that this trait is homogeneous suggest that psychometric assessment of the personality correlates of transpersonal experience should consider specific facets of, as well as global measures of, this trait.

This chapter will also consider in more depth the variable of *attitudes to mysticism*. In Chapter One, a plea was made that this variable should be considered, in addition to personality traits and mystical experience itself, in psychometric studies of mystical experience. The latter part of this chapter will present a theoretical taxonomy of religion, distinguishing religions according to likely standing on this variable. Data which assess the extent to which this taxonomy stands up to empirical investigation will be presented in later chapters in this thesis.

2.2 Personality Models Reviewed in Chapter Two

Numerous personality models have inspired research into the psychology of religion. This chapter will focus on four of these models. These are Eysenck's psychoticism-extraversion-neuroticism model (Eysenck & Eysenck, 1969; 1976; Eysenck, Eysenck & Barrett, 1985), the five-factor model of Costa and McCrae (1992a), the Myers-Briggs typology (described in detail by Bayne, 1994, 1997) and Cattell's 16 Personality Factor model (Cattell & Kline, 1977). Alternative models have been used to look at the phenomena of transpersonal experience from a psychometric viewpoint. These include the Jackson Personality Inventory (Jackson, 1976; cited in Kaplan & Saccuzzo,

1997) and Hathaway and McKinley's (1943) Minnesota Multiphasic Personality Inventory (see Chapter Three). The latter has been named as the "most widely used and referenced personality test in existence" (Kaplan & Saccuzzo, 1997, p22), but this and other personality inventories that continue to be used primarily for clinical diagnosis, such as the Millon Clinical Multiaxial Clinical Inventory (Millon, 1983; cited in Gregory, 1992), will not be reviewed here as focus will be on those inventories which are not only widely used, but which have been used in numerous studies of nonclinical respondents. The focal question being discussed here is whether psychoticism, as a broad trait, can withstand attempts to measure personality as a broad construct in *nonclinical* samples. Thus, despite the wide usage of the MMPI, it will not feature in the following discussion.

As Kaplan and Saccuzzo explained of the Jackson Personality Inventory, this inventory is based on a theory of motivation rather than traits, being designed with the explicit purpose of assessment of needs based on Murray's (1938) theory of motivation. Anxiety, breadth of interest, complexity, conformity, energy level, innovation, interpersonal affect, organization, responsibility, risk-taking, self-esteem, social adroitness, social participation, tolerance and value orthodoxy are those needs assessed by the Jackson Personality Inventory. Some of these may be linked to separable aspects of psychoticism, such as risk-taking, value orthodoxy and organization. Nevertheless, comparisons between personality trait models and models of motivation may be accused of a failure to compare like with like. Despite its favourable psychometric properties (Kaplan & Saccuzzo, 1997), the Jackson Personality Inventory has not been as widely used in research studies as, say,

the Eysenck Personality Questionnaire of Eysenck, Eysenck and Barrett (1985). Considerations of the Jackson Personality Inventory will not, therefore, form a substantial part of the following discussion. Instead, attempts will be made to indicate how comparisons of Eysenck's P-E-N model with personality models assessed by inventories which are widely used as research tools to assess traits in nonclinical samples challenge the view that *psychoticism* is univocal.

The different facets of psychoticism that become apparent following such comparisons are not invariably negative. Creativity may be a facet of psychoticism, as considered by Eysenck and Eysenck (1976) and supported in empirical studies by Woody and Claridge (1977) and Thalbourne, Bartemucci, Delin Fox and Nofi (1997), suggesting that heightened psychoticism scores for respondents who report mystical experiences could imply links between mysticism and creativity rather than pathology. Questions of whether enhanced creativity and a willingness to challenge social convention represent *only specific facets of psychoticism* should therefore be considered in future research into potential relationships between mystical experience and psychoticism.

Psychoticism's relevance to social and cultural learning will be outlined in this chapter. An important issue that will be discussed is how the heterogeneity of psychoticism implies that certain facets of psychoticism may bear more central relevance to propensity for social learning than other facets. Links to the perennialist-constructivist debate on mystical experience will keep in mind that the form of perennialism being evaluated here, unlike earlier perennial philosophy, stresses the innate character of mystical experience, but allows for a considerable rôle in social learning of beliefs and attitudes pertinent to such experiences. Psychometric assessment of correlations between

mysticism and psychoticism therefore relate to debates between perennialists and social constructivists in terms of potential relevance to both *mystical experience per se* and to *attitudes towards and beliefs about mysticism*.

Predictions based upon social constructivism differ for those religions taking pro-mystical and those taking less pro-mystical attitudes. A taxonomy in which some religions (such as Zen Buddhism or modern Druidry) can be classified as "pro-mystical" and other religions (such as the more Calvinist forms of Christian Protestantism or Ashkenazi Judaism) can be classified as "anti-mystical" will therefore be presented in the final part of this chapter.

Personality Models

Psychoticism (Eysenck & Eysenck, 1976; Eysenck, Eysenck & Barrett, 1985) is a trait that, for both empirical and theoretical reasons, merits particularly close scrutiny in thinking about how psychometric assessment of personality relates to questions on transpersonal experiences. Most published empirical research papers on personality correlates of religiosity published since 1990 have employed measurements of the three traits in the Eysenckian P-E-N model, and, since the mid-1990s, an emerging database has looked specifically at the experiential dimension of religion in connection with this model. This literature will be reviewed in more detail in Chapter Three, and the existence of such empirical data mean that certainly, considerations of potential correlates of transpersonal experience should consider (among other variables) psychoticism. There are, however, also good theoretical reasons for considering psychoticism here (see below, Section 2.3).

The acronym P-E-N stands for the three traits in Eysenck's model - P. for psychoticism, E. for extraversion and N. for neuroticism. Of these, P. (Psychoticism) not only relates most closely to theoretical foundations for empirical research programmes on the question on whether transpersonal experiences should be viewed as innate or socially constructed, but is the most controversial of the three traits. Its relevance to questions on human potential for acquisition of any psychological attribute or experience that may accurately be deemed a learned construct will be elucidated more fully after expositions of the model and of Eysenck's theoretical grounds for inclusion of P. (Section 2.2). Criticisms of these theoretical foundations imply that psychoticism may more adequately be represented by descriptions of several distinct traits - thus, several alternative personality models that describe more than one trait in place of broad psychoticism will be outlined in Section 2.3. Empirical evidence against treating P. as univocal is considered in 2.4.

2.2.1 Psychoticism, Extraversion and Neuroticism

The late Hans Jürgen Eysenck (1916-1997) showed a considerable shift of interest in his research career from the late 1960s onwards (Gibson, 1980). Eysenck's early work, based upon factor analytic data, described human personality in terms of two broad traits - introversion-extraversion and stability-neuroticism. Introversion-extraversion corresponds to the term as used in common English; stability-neuroticism is best defined as proneness to negative emotions, rather than as any *prima facie* ground for diagnosis of clinical neurosis or any other form of recognised psycho-pathology (these traits were described by Eysenck in such a way as to cover normal ranges of individuals,

most of whom, including high scorers on N. (neuroticism), would have had no history of psychiatric diagnosis). Largely orthogonal, these two traits gave Eysenck a form of vindication of the Ancient Doctrine of the Four Humours, albeit as a trait rather than type model (introverted stable individuals, introverted unstable individuals, extraverted stable individuals and extraverted unstable individuals corresponding respectively to phlegmatic, melancholic, sanguine and choleric types in the famous ancient Hippocratean model of personality). However, as from the end of the 1960s, Eysenck introduced a third trait into his model - psychoticism (Eysenck & Eysenck, 1969). Theoretical foundations for inclusion of this trait are best understood with reference to the nineteenth century concept of *Einheitspsychosen*.

2.2.2 *Einheitspsychosen* and Vulnerability to Psychoses

The doctrine of *Einheitspsychosen*, proposed by Heinrich Neumann in 1859, declared that all psychoses - whether manic-depressive psychosis, what later came to be known as schizophrenia or any other form of psychotic illness - were, in reality, a unitary phenomenon, in short, a single illness (Shorter, 1997). Neumann was therefore implying that a common root cause lay behind disorders that, on the surface, appeared different. The theory soon met with opposition; as early as 1863, Karl Kahlbaum proposed that different psychoses were far more heterogeneous than the *Einheitspsychosen* doctrine implied (Shorter, 1997). Many psychiatrists since Kraepelin have rejected full commitment to the doctrine, agreeing with Kraepelin that sharp distinctions should at least be made between schizophrenia (termed *dementia praecox* in Kraepelin's time) and manic-depressive psychosis. Full evaluation of the

doctrine is not the purpose of this thesis; the theory is referred to here as it helps us to understand both theoretical bases for Eysenck's postulation of P., and the many criticisms that have been levelled against Eysenck's conceptualisations of this trait.

To attribute all psychoses to a common root raises the question of what this common denominator might be. Eysenck's portrayal of P. can be understood as a tentative answer, implying that the characteristic that links *all* psychotics is elevated scores on psychoticism. This is not to say that there is such a thing as "the gene" for psychosis, especially as Eysenck's account of the ontogenetic bases of P. implies that P. is more likely to be polygenic rather than linked to a single gene (Eysenck & Eysenck, 1976). It is merely to say that a high level of the subclinical trait of psychoticism is, in Eysenck's view, the common factor that underlies all psychoses. Eysenck and Eysenck (1976) linked psychoticism with heredity, a position that may be challenged by more recent research data (see below).

Implications of this for an understanding of both normal personality and abnormal personality have been outlined well by Eysenck's critics, perhaps most notably by Bishop (1977). Bishop noted the following three implications of Eysenck's position:

- (a) Psychosis and normality can be regarded as being part of the same continuum;
- (b) Qualitative distinctions exist between neurosis and psychosis - psychoses should not be regarded as more advanced stages of neurosis, but as qualitatively distinct phenomena, with neurosis associated with high scores on N., psychosis high scores on P., in Eysenck's model;

(c) Psychoses form a homogeneous set of psychological disorders.

The third of these implications is most immediately relevant to the nineteenth century doctrine of *Einheitspsychosen*, but is also that which most readily invites criticism. Grounds exist for supposing that psychoses do indeed represent diverse nosological categories, opening the possibility that if they are linked by elevated scores on P., this is only because P. is, in reality, assessing a number of different facets. Extensive empirical literature in the psychology of religion (reviewed in Chapter Three) has employed broad assessments of P.; however, the possibility that P. is not entirely univocal implies important grounds for fundamental revision to future research programmes in this field.

2.2.3 Impulsivity, Conditionability and Propensity for Social Learning:

Implications for levels of P.

Caution must be exercised in treating P. as a univocal construct; however, the question which needs to be addressed at this stage is that of why this trait has attracted so much research interest in the psychology of religion. Approaching this question theoretically rather than empirically, the answer lies in the trait's theoretical importance for understanding variance in conditionability, in impulsivity and, more specifically, in conditionability into tender-minded social attitudes (Beyts, Frecka, Martin & Levy, 1993; Rocklin & Revelle, 1981). These theoretical considerations give the trait an immediate relevance to the constructivist-perennialist debate on mystical experience.

Although psychoticism may be multi-faceted, one may still delineate its central facet as *low propensity for socio-cultural learning*. Indeed, P. is arguably better defined as an inhibition against readiness to acquire social and

cultural mores than as any trait linked with increased vulnerability to psychosis (a definition that soon runs the risk of circular reasoning). To understand why P. can be defined in this manner, it is of relevance to look at one of its sub-facets - impulsivity, linked with low conditionability.

Impulsivity was initially portrayed by Eysenck as a facet of extraversion, but good empirical grounds exist for accepting Eysenck's later shifting of impulsivity from a facet-level trait loading on E. to the domain of P. (Howarth, 1986; Rocklin & Revelle, 1981). Since high impulsivity is linked with reduced conditionability this means that P., rather than E., of the three traits in Eysenck's P-E-N model, can be taken as a marker of how readily individuals will acquire commitment to anything that can be deemed a learnt construct. Links between impulsivity and low conditionability relate to degrees of cortical inhibition associated with different levels of impulsivity. Full evaluation of these theoretical links would require an in-depth analysis of neuro-psychological processes that is somewhat beyond the concerns of the current thesis.

Such an approach to psychoticism has important implications. For example, the typically high psychoticism scores of criminals, noted by Eysenck and Eysenck (1976), can be understood as evidence that criminals do not learn appropriate codes of social behaviour that the bulk of a more law-abiding population do learn successfully. Applied to the study of religion, an important implication is that if a dimension of religion really is *learnt*, it should correlate significantly *negatively* with psychoticism. Psychoticism may be predicted to correlate negatively with agreement with orthodox doctrine or engagement in conventional religious practices, for example, if these are learnt phenomena. Similar arguments apply when attention is shifted to religious experience. If

religious experience is, as constructivists such as Katz (1978) hold, a largely learnt phenomenon, significantly negative correlations can be expected between P. and self-reported religious, mystical or transpersonal experience. If, however, as perennialists claim, religious experiences arise independently of social learning, such theoretical grounds for supposing statistically significant negative associations between P. and self-reported mystical experience are more difficult to defend. An important qualification to these statements is that the negative correlation between mystical experience and P. implied by social constructivism should be stronger in religions that value mysticism than those that do not. This necessitates classification of religions as being either pro-mystical or anti-mystical (see below).

2.3 Alternative Personality Models to Eysenckian Theory

If psychoticism is not homogeneous, it is plausible that some of its facets relate more strongly to socio-cultural learning than do others. Research that aims to assess correlations between self-reported religious, transpersonal or mystical experience and psychoticism should take particular cognizance of this possibility, for theoretical grounds exist for supposing that some facets of P. may actually correlate *positively* with religious, transpersonal or mystical experience (cf. Thalbourne & Delin, 1994; 1999). Thus, blanket measures of P. that appear to be orthogonal with self-reported mystical experience could actually be obscuring how different facets within the trait may have diametrically opposed relationships with mystical experience. Discussion below will indicate how there is no *a priori*, necessary logical contradiction for supposing that mystical experience could be both socially constructed, and

related positively to at least certain highly specific, well-defined aspects of P. in certain samples.

Comparisons between Eysenck's P-E-N model and other models reveals how, although such models frequently describe traits that can be equated with E. or N., they typically represent P. by descriptions of several distinct traits, thus stressing the heterogeneity of psychoticism. It may therefore be advantageous to the researcher into transpersonal experience to adopt measurements of these alternative models in his/ her research programme if such personality models satisfactorily distinguish those facets of psychoticism that are most germane to socio-cultural learning from other specific facets of the trait. If psychoticism is typically represented by several traits in models other than Eysenck's, it follows that such models should typically describe more than three traits. This is indeed the case, as comparisons of Eysenck's P-E-N model with three other personality models will now clarify.

2.3.1 Five-Factor Model (FFM)

The first of three such models to be reviewed here is the five-factor model, or FFM (Costa & McCrae, 1992a; 1992b; 1992c; 1995; Digman, 1990; Digman & Inouye, 1986; Goldberg, 1990; McCrae & Costa, 1983). This model was initially based on factor analyses of peer ratings rather than self-reports (Norman, 1963), so early versions of the five-factor model can be viewed as contributions to social cognition literature as much as objective accounts of human personality structure. It can now be regarded as a model of the latter, being based upon factor analyses of self-ratings.

Alternatively known as "The Big Five" model, although its most famous advocates, Costa and McCrae, prefer the less pretentious title "Five-Factor Model" (Costa & McCrae, 1992b), the model describes five orthogonal traits as fundamental for understanding human personality. These are (in descending order of variance): extraversion, agreeableness, conscientiousness, neuroticism and openness to experience. These have been described as follows:

"Extraversion summarises traits related to activity, energy, dominance, sociability, expressiveness and positive emotions. Agreeableness contrasts a prosocial orientation towards others with antagonism, and includes traits such as altruism, tender-mindedness, trust and modesty. Conscientiousness describes socially prescribed control that facilitates goal-directed behaviour. Neuroticism contrasts emotional stability with a broad range of negative affects, including anxiety, sadness, irritability and nervous tension. Openness describes the breadth, depth and complexity of an individual's mental life". (Benet-Martinez & John, 1998, p730).

McCrae and Costa (1983) developed an inventory, the NEO, that initially assessed three traits of these traits, neuroticism, extraversion and openness to experience, taking its name from the initial letters of these three traits. Subsequently extended to assess all five traits, two major forms of the NEO now exist. These are the NEO-PI-R, which assesses observer-based ratings, and the NEO-PI-S, which assesses self-ratings self-ratings (Costa & McCrae, 1992a). This instrument has been found to have both good reliability and good validity (Costa & McCrae, 1992a).

Research data using the NEO-PI-S, alongside data on psychoticism, will be presented in later chapters in this thesis. Good reasons exist for choice of this

instrument to guide empirical research in this thesis, which will be outlined below. Other potential candidates for assessment of more finely graded personality facets than psychoticism include the Myers-Briggs Type Indicator (MBTI), and Cattell's 16 P.F. model, and as cognizance of these latter two models strengthens the case for holding psychoticism to be heterogeneous, reviews of these two models will be given. However, advantages that the FFM has over these models will be presented in these reviews.

Cross-cultural replications of the FFM (Benet-Martinez & John, 1998; Katigbak, Church & Akamine, 1996; Saucier, 1997; Saucier & Ostendorf, 1999) are evidence that its five factors are based on more than mere perceptions of similarities between words in specific languages. Despite its critics (Block, 1995; Eysenck, 1992a; Waller & Ben-Porath, 1987), it has sometimes been viewed as a more or less definitive account of human personality (Deary & Matthews, 1993).

Representations of Eysencks' Traits in the Five-Factor Model

Deary and Matthews (1993) held that reasonable parity exists between Eysenck's model and the FFM if (i) psychoticism is equated with both low conscientiousness and low agreeableness in the five-factor model and (ii) openness is equated with intelligence rather than personality. (Eysenck consistently took intelligence to be quite distinct from any personality traits). This assertion deserves careful scrutiny. Aside from Costa and McCrae's (1993) flat denial that openness to experience should be equated with intelligence, such statements are problematic insofar as claims that low psychoticism relates to

agreeableness *and* conscientiousness obscure how these two traits appear to represent different facets of low psychoticism.

Costa and McCrae (1995) offered both theoretical and empirical reasons as to why bifurcation of low psychoticism into low conscientiousness and low agreeableness is an improvement upon treatment of psychoticism as homogeneous. Theoretically, they argued that effective leadership requires assertiveness, which they associate with high conscientiousness but low agreeableness. Empirically, Costa and McCrae (1985) found that of the five traits in the five-factor model, agreeableness correlated most strongly with P. ($r = -0.32$), and conscientiousness second most strongly ($r = -.28$). Both correlations reached statistical significance, and although these correlations were not so high, in Costa and McCrae's view, to justify treating conscientiousness and agreeableness as equivalent, they prompted Eysenck (1992a; 1992b) to criticise such bifurcation as superfluous. Eysenck (1992c) also criticised what he perceived to be the atheoretical nature of the five-factor model, holding that the concept of P. was based upon a well-recognised theory, the nineteenth century theory of *Einheitspsychosen*, whereas the five-factor model had no equivalent theoretical grounding. However, the reservations that many psychiatrists would have in treating psychoses as a homogeneous category (see above) imply that Eysenck's attempts to defend P.'s univocality rest on shaky grounds here.

An approach to the five-factor model that has been popular since 1990, known as "The Little Thirty" approach to personality, has been to associate each factor with six sub-components. For example, openness to experience is represented by the sub-facets of fantasies (a willingness to indulge in fantasies

and daydreams), aesthetics (possessing artistic interests), feelings (perceptive access to one's own feelings), actions (willingness to perform a variety of actions in life), ideas (philosophical interests combined with love for puzzles) and values (holding of liberal values). A full list of the six values listed by Costa and McCrae (1992a) as representing each of the five-factor traits is given below in Table 2.1:

Table 2.1 Six Facets per Broad Trait in "Little Thirty" Conceptualisation of Five-Factor Model. Based on Costa and McCrae (1992a)

BASIC LEVEL TRAIT	SIX SUB-FACETS OF TRAIT
EXTRAVERSION	Warmth
	Gregariousness
	Assertiveness
	Activity
	Excitement-seeking
	Positive Emotions
AGREEABLENESS	Trust
	Straightforwardness
	Compliance
	Altruism
	Modesty
	Tender-Mindedness
CONSCIENTIOUSNESS	Competence
	Order
	Dutifulness
	Achievement-striving
	Discipline
	Deliberation
NEUROTICISM	Anxiety
	Depression
	Angry Hostility
	Impulsivity
	Vulnerability
	Self-consciousness
OPENNESS TO EXPERIENCE	Fantasy
	Aesthetics
	Feelings
	Actions
	Ideas
	Values

These lists appear to have been intended by Costa and McCrae as being useful heuristic devices, rather than definitive lists of the facets of each trait. Nevertheless, the "Little Thirty" approach is illuminating insofar as to list the six sub-facets in this manner helps to represent exactly what Costa and McCrae mean by each basic-level trait in the model. This "Little Thirty" model also demonstrates how two individuals with differing personality profiles could both obtain reasonably similar scores on the same trait. For example, an individual who has an interest in the arts and pursues many intellectual interests may still have very conservative social attitudes, and yet obtain a similar score to an individual with radical socio-political views but only limited artistic interests on the trait of openness to experience.

Butcher and Rouse (1996) have used the "Little Thirty" approach to criticise application of the five-factor model in clinical psychology. They noted how Widiger's work suggested that the passive-dependent personality disorder is associated with high warmth but low assertiveness, yet both are facets of extraversion. While such criticism offers *prima facie* grounds for questioning the breadth of traits in the five-factor model, such criticisms imply even firmer grounds for questioning the homogeneity of the three traits in Eysenck's model, as these traits are construed as being at least as broad as those in the five-factor model.

2.3.2 Myers-Briggs Type Indicator (MBTI)

The Myers-Briggs Type Indicator (MBTI) is one of the most widely used psychometric tests in the United States (Walsh & Betz, 1996); good

outlines and reviews of the MBTI, empirical research with it and its possible shortcomings have been published by Boyle (1995), Cummings (1990) and Bayne (1994; 1997). Over 250, 000 computer protocols based upon MBTI scores have, since 1971, been published by the Center for Application of Psychological Type alone (Croom, Wallace & Schuerger, 1989). It is the most widely used of a number of psychometric available tests based on Jung's (1921/ 1923) personality theory. A brief review of Jungian typology is, therefore, necessary prior to a basic exposition of the MBTI model. However, the focus of this section of Chapter Two is on how models such as the MBTI pose challenges to Eysenck's model. Thus, the major comparisons that will be presented here will not be between the MBTI and Jung's model, but between Eysenck's model and the MBTI, especially in terms of whether the latter model challenges adoption of psychoticism as a univocal construct.

Jung's (1921/ 1923) typology described two separate *attitude types* - introverts and extraverts - and four separate *function types* - the intuitive, sensate, thinking and feeling types. The history of how Jung came to propose these distinctions has been published in good biographical sources on Jung (Brome, 1978, Wehr, 1987). *Introverted attitudes* imply focus of attention on one's inner mental life, while *extraverted attitudes* imply habitual focus of attention on the external world. Jung's terminology therefore differs slightly from common English in its usage of the terms "introverts" and "extraverts", and uses the term "attitude" to refer to direction of orientation of psychological energy, rather than in any way comparable to usage of the term in social cognition literature. Function type indicates which of four functions is the preferred way of gaining information or evaluating the world. The four

functions considered by Jung, intuition, sensation, thinking and feeling, relate respectively to knowledge gained via hunches, raw perceptions of the world, evaluation in terms of logic and truth-falsity and evaluation in terms of feelings of pleasure or discomfort.

Preference for any of the four functions may be accompanied by either introverted or extraverted attitudes. This typology therefore describes eight types, as depicted in Table 2.2:

Table 2.2 Jung's Typology

INTROVERTED	EXTRAVERTED
Intuitive (Mystical, other-worldly)	Intuitive (Skilful in business hunch-spotting)
Sensate (Sensitive to internal images, as in some painting forms)	Sensate (Hedonistic)
Thinking (Scientific and theory-orientated).	Thinking (Legalistic, accountant-like)
Feeling (Passive on surface, emotional beneath face)	Feeling (Socially adaptable - cf. Snyder's (1974) high self-monitor)

The three polarities implied by this typology - introversion contrasting with extraversion, intuition with sensation (imaginative intuitive types contrast with down-to-earth sensate types), and thinking with feeling - form, in part, the basis for the MBTI, on which separate sub-scales indicate whether respondents are primarily (a) introverted or extraverted, (b) intuitive or sensate and (c) feeling or thinking. A fourth MBTI sub-scale assesses whether respondents are *judging*, liking routine and order, or *perceiving*, preferring an unstructured and spontaneous tendency to leave options open. Scores for each MBTI dimension are indicated by letters as follows:

I or E - denotes Introversion or Extraversion;

N or S - denotes preference for iNtuition or Sensation; (N, rather than I, is used to denote intuition so as to avoid confusion with introversion);

T or F - denotes preference for Thinking or Feeling;

J or P - denotes preference for Judging or Perceiving.

Four letters can therefore be used to describe an individual's MBTI type. INFJ, for example, denotes an Introverted-Intuitive-Feeling- Judging type, one of sixteen possible types implied by the MBTI model. Similarities have been observed between this model and the FFM. Introversion-extraversion features in both models, while openness to experience, agreeableness and conscientiousness can be compared respectively with MBTI intuition, feeling and judging, leaving only neuroticism with no clear MBTI counterpart (Bayne, 1994; Dachowski, 1987; McCrae & Costa, 1989). Empirical data have supported these conceptual correspondences (McCrae & Costa, 1989).

Divergences exist between the MBTI and Jung's original typology, such as the former being less immediately concerned with unconscious processes and coming somewhat closer to everyday English in usage of the terms "introvert" and "extravert". Both MBTI advocates (Bayne, 1997) and critics (Costa & McCrae, 1989) have appreciated this, with Bayne (1997) seeing this as a strength rather than weakness of the MBTI. More germane to the questions that are being considered in this thesis than comparisons between Jung's original model and the MBTI, however, are comparisons between the MBTI and Eysenck's model, especially in terms of potential representations of psychoticism in the MBTI.

MBTI Representations of Psychoticism

An obvious commonality between these two models is how both describe a dimension of personality labelled "introversion-extraversion", while an obvious difference is the MBTI's lack of any counterpart of neuroticism. Particular attention will be given here, however, to a rather more complex issue, that of whether the MBTI can be taken to describe personality dimensions that relate to distinguishable facets of psychoticism.

Insofar as psychoticism represents a disregard for rules and protocol, perhaps the most obvious MBTI trait of relevance to psychoticism is judging-perceiving, with judging representing the low pole of psychoticism. Indeed, MBTI judging has been found to be negatively correlated with psychoticism (Francis & Jones, 2000). However, the possibility that high psychoticism may be linked to increased creativity, as was defended by Eysenck and Eysenck (1976) and subsequently considered in extensive literature and relevant to Post's (1994) study of how genius (scientific as well as artistic) may relate to certain forms of pathology, imply that MBTI *intuitive preference* could also be relevant to psychoticism. Indeed, Francis and Jones (2000) found statistically significant correlations between MBTI intuitive preference and psychoticism. Weaker but still significant correlations were found between MBTI extraversion and psychoticism in their study, although significant correlations between MBTI thinking-feeling and psychoticism were not found. These findings indicate how different MBTI sub-scales describe distinguishable facets of broad psychoticism, suggesting a need to separate the latter trait into constituent components.

The findings of Francis and Jones (2000) imply that certain MBTI types will be high in some, but low in other, facets of psychoticism, as MBTI literature typically treats intuitive-sensate and judging-perceiving preferences as orthogonal. These are those MBTI types high in both intuition and judging - the INFJ, ENFJ, INTJ and ENTJ. Religiously inclined individuals have typically been found to be judging types, but different forms of spirituality and religious preference have been found to be associated with intuitive and with sensate preferences (see Chapter Three). This implies that at least some forms of spirituality are linked with both high J. scores and high N. scores on the MBTI, and therefore calls into question whether it is appropriate to relate all forms of spiritual commitment to broad measures of psychoticism rather than to distinguishable facets of this trait.

These challenges raise the question of whether empirical research employing the MBTI would improve upon that using Eysenck's model. Psychometric properties of the MBTI have been observed as good. Data from over 300 studies have indicated its good criterion-related validity and, generally, sound reliability, internal consistency being good and test re-test reliabilities being around 0.87 for short (seven week) intervals (Walsh & Betz, 1996). Test re-test reliabilities have, however, been less impressive (around 0.48) for fourteen-month intervals, and test re-test reliability of the thinking-feeling sub-scale has been found to be less high (at least for male respondents) than that found for other sub-scales (Walsh & Betz, 1996). At least two additional reasons for caution in use of the MBTI in empirical research should be emphasised.

The first problem with the MBTI is its lack of a dimension corresponding to neuroticism. The second is the controversy which exists over whether contrasts implied by MBTI sub-scales should be viewed as end-points of continuous dimensions, and not, as in original MBTI formulations, discrete types (Boyle, 1995; Girelli & Stake, 1993). These problems are not apparent with the FFM; cases can therefore be strengthened for adoptions of measurements of the latter model in empirical research.

Developments of MBTI theory: Potential for Further Challenges to Eysenck

Conceptual thinking, rather than sustained empirical research programmes led Keirse and Bates (1984) and Keirse (1984) to propose a simplified version of MBTI typology. This takes the intuitive-sensate distinction as fundamental and describes four broad types. Brief consideration of this model gives further ground for refinements of Eysenckian theory.

This model distinguishes individuals high in intuition according to preference for feeling or thinking, and those high in sensation according to standing on judging-perceiving. The four types implied by this scheme - the Intuitive-Feeling, Intuitive-Thinking, Sensate-Perceiving and Sensate-Judging types - were initially given names from Greek mythology, respectively, the Apollonian, Promethean, Dionysian and Epimethian types (Keirse & Bates, 1984), and have more recently been named respectively as "Idealists", "Rationals", "Artisans" and "Guardians" (Keirse, 1998). These new terms represent an improvement over earlier terminology, which was not only obscure but made questionable use of Greek myth. Epimethius, notorious for being wise

after events (in contrast to Prometheus), hardly bore the prudence associated with Sensate-Judging types.

These four types can be described briefly as follows. Idealists are a spiritual, mystical orientation; Rationals are intellectuals who are always ready to challenge existing dogma; Artisans are the most Hedonistic of the types; and Guardians value tradition and accepted protocol. This model has immediate appeal and intuitive face validity. Stereotypes of accountants, counsellors, scientists and disc jockeys, for example, may easily be linked with different types in this scheme. Nevertheless, psycho-metric research based on the Keirsey-Bates model has yet to reach the same momentum as that based on the original MBTI model.

An obvious challenge the Keirsey-Bates model poses to Eysenck's is its implication that a trait other than introversion-extraversion should be taken as fundamental. However, as with the MBTI, it also challenges the univocality of psychoticism. It implies that strong distinctions should be made between intuition-sensation and judging-perceiving. Since Francis and Jones (2000) found both of these MBTI sub-scales to be linked to psychoticism, this suggests that distinguishable facets should be considered in assessments of the latter trait. It may be premature to adopt the Keirsey-Bates model as a favoured model until it has received further empirical validation, but its theoretical implications still mean that researchers into religiosity-personality correlates should be wary of treating psychoticism as a homogeneous trait.

2.3.3 Cattell's 16 P.F.

Further challenges to Eysenck are inherent in a model which has frequently been compared with Eysenck's - the Cattell 16 P.F., or Sixteen Personality Factor model, named after Raymond B. Cattell (Cattell & Kline, 1977). Popularly depicted as listing sixteen traits as fundamental to human personality (Cattell & Kline, 1977), to describe it as a list of only sixteen traits would be an over-simplification. Cattell, at various points in his career, identified traits that never quite found their way onto the sub-scales of his Sixteen P.F. test. Scrutiny of Cattell's work reveals how, even when factors of personality are represented as broad constructs based on correlations between more specific traits, searching for a univocal equivalent of the Eysenckian trait of psychoticism is problematic.

The Cattell 16 P.F. was first published in 1949, subsequently revised in the years 1956, 1962, 1968 and most recently in 1988 (Cattell & Kline, 1977; Cattell & Cattell, 1995). Cattell, as with Eysenck, based his model on factor analysis, but unlike Eysenck, showed a strong preference for oblique as opposed to orthogonal factor rotation of factors. The greater number of traits reported by Cattell than by Eysenck can therefore be attributed, in part, to the former's use of oblique rotation, as oblique rotations are likely to represent variables that share considerable variance as distinct constructs. Sixteen apparently independent traits are assessed on the Cattell 16 P.F., but as this includes groupings of traits that are correlated, five or six "global" or "second-order" factors can be described to summarize Cattell's model. The sixteen traits assessed on the Cattell 16 P.F. are displayed in Table 2.3. Early terminology presented in Table 2.3 shows Cattell's use of both psychoanalytic concepts and

more idiosyncratic theoretical constructs that he himself developed - such as *Parmia*, derived from *parasympathetic nervous system*, or *Premisia*, from *Protected Emotional Sensitivity* (the low pole of this trait, *Harria*, stands for *Hardened Realism*). Cattell later proposed more self-explanatory terms for each trait (Table 2.3).

Table 2.3 Traits of the Cattell 16 P.F.:

TRAIT	OLD NAME	NEW NAME
A	Affectothymia	Warmth
B	Intelligence	Reasoning
C	Ego strength	Emotional Stability
E	Dominance	Dominance
F	Surgency	Liveliness
G	Superego strength	Rule-consciousness
H	<i>Parmia</i>	Social boldness
I	<i>Premisia</i>	Sensitivity
L	Protension	Vigilance
M	Autia	Abstractedness
N	Shrewdness	Privateness
O	Guilt-proneness	Apprehension
Q ₁	Radicalism	Openness to Change
Q ₂	Self-reliance	Self-reliance
Q ₃	Self-sentiment integration	Perfectionism
Q ₄	Ergic Tension	Tension

Cattell's evidence for the existence of these traits came from three sources - questionnaire-data (Q-data), biographical data (L-data or Life-data) and data based upon performance on so-called objective tests, e.g. analyses of an individual's expressive movement or performance in projective tests. Certain traits, namely those indicated by Q followed by a subscript in Table 2.3, were only observed in questionnaire-data. Traits A to O in Table 2.2 were observed in both L-data and Q-data, and Cattell believed that they represented a more-or-

less completely comprehensive list of all traits needed for adequate assessments of human personality (Kline, 1993).

Several other traits were identified by Cattell, but lack of sufficient consistency across method or time resulted in their exclusion from the Cattell 16 P.F.. These were Factors D (excitability), J (neurasthenia) and K (culture). Although none of these three traits are assessed on the Cattell 16 P.F., the first two (D and J) are assessed on a less widely used instrument, the High School Personality Inventory (Barton, Mogdil & Cattell, 1973).

Comparisons between Eysenck's model and Cattell's model

Pertinent to a comparison between Cattell and Eysenck are the observations that:

- (a) The low pole of Factor A was initially labelled as "schizothymia", indicative of Cattell's conviction (for which empirical support has been found) that schizophrenics would score at the low pole of this trait, suggesting its relevance to psychoticism as well as extraversion;
- (b) M and Q1 may - conceptually if not empirically - relate to an aspect of psychoticism identified by Heath and Martin (1990), that of unconventional social attitudes;
- (c) Empirical data support a link between Factor G and MBTI judging (Croom et al., 1989), indicating links between a trait Francis and Jones (2000) found to be linked with low psychoticism and Factor G. Indeed, psychoticism is sometimes *defined* as being more or less equivalent to "low superego strength" in Cattell's sense.

Cattell's preference for oblique factor rotation as distinct from Eysenck's use of orthogonal rotation renders it somewhat misleading to base comparisons between these models on Cattell's primary traits. Comparisons of these two models should advisedly examine possible similarities and differences between Eysenck's traits and groups of correlated traits among Cattell's list of sixteen traits. Initially, Cattell used the term "second-order factors", to refer to such groupings, and two examples, *exvia* (associated with A, F, H and Q2) and anxiety (associated with C, H, L, O, Q3 and Q4) are conceptually similar to the first two traits in Eysenck's model (Cook, 1993). Such factors are now called "global factors" and are represented by six traits (Cattell & Cattell, 1995). These are Extraversion, associated positively with A and F and negatively with N and Q2; Anxiety, associated primarily with factors C (negatively) and Q4; Tough-Mindedness, associated primarily with Factors A, I, M and N - all loading negatively on this factor; Independence, associated primarily with Factors E and Q1; Self-control, associated primarily with Factors G and Q3 and negatively with M; and an unnamed factor associated with high loadings for Factor B and a negative loading on L (Cattell & Catell, 1995).

Of the three Eysenckian traits, extraversion and neuroticism are represented by the first two global factors reported by Cattell, but psychoticism has no single equivalent. Instead, distinguishable facets of psychoticism appear to be represented by three distinct global factors - tough-mindedness (a term which is sometimes used as a synonym for psychoticism), self-control (negatively associated with psychoticism) and independence. These may be compared respectively with MBTI thinking, judging and intuitive preferences.

Taken together, therefore, both the MBTI and the Cattell 16 P.F. suggest that, for broadly similar reasons, it is inappropriate to treat psychoticism as univocal.

As with the MBTI model, the 16 P.F. offers prima facie grounds for supposing that psychoticism should be sub-divided into facet components. However, manifold problems have been noted with Cattell's model, such as its low parsimony in comparison with Eysenck's model and the modest test re-test reliabilities (typically below $r = 0.7$) for ten of the sixteen sub-scales (Kline, 1993). Cattell and Cattell's (1995) claim that data from 34 separate factor analytic studies supported the validity of the scale, and that the model has good cross-cultural applicability, should be compared with evidence that different versions of the Cattell 16 P.F. correlate only modestly, in the region of $r = 0.5$ (Walsh & Betz, 1996). Such considerations imply that researchers into personality correlates of transpersonal experience should be cautious before choosing the Cattell 16 P.F. as a model to research this field. As such accusations of low parsimony cannot be so readily applied to the FFM, and the NEO-PI-S has not been found to suffer as many psychometric shortcomings as the Cattell 16 P.F., the NEO PI-S will be the instrument used in later empirical research that will be reported in this thesis.

2.3.4 Related Traits: Schizotypy and Transliminality and Comparisons with Psychoticism

The breadth of the trait of psychoticism justifies devoting space to consideration of two traits that may be relevant to transpersonal experience, but which have typically been considered more narrow-band traits - *schizotypy* and *transliminality*. Schizotypy, originally proposed by Rado (1953; cited in

Claridge, McCreery, Mason, Bentall, Boyle, Slade & Popplewell, 1996) and elaborated by Meehl (1962; cited in Claridge et al, 1996), refers to a trait similar to psychoticism insofar as it has been proposed as a marker for latent vulnerability to one particular type of psychosis, schizophrenia. However, as Claridge et al. (1996) pointed out, recent understanding of schizotypy has conceptualised it as a more general marker of psychosis-proneness. This brings the trait into closer parity with Eysenck's concept of psychoticism.

Original theoretical formulations of schizotypy were not based upon the doctrine of *Einheitspsychosen*, and presented the trait as a marker for schizophrenia rather than for psychoses in general. Although this may lead to expectations that schizotypy is more univocal than psychoticism, this has not been found to be the case in empirical research. Indeed, empirical studies have suggested that schizotypy, if anything, appears to be even more heterogeneous than psychoticism. Factor analytic studies, as Claridge et al. (1996) noted, have almost invariably found that scores on questionnaire-based measures of schizotypy yield at least two distinct factors, *perceptual aberrations* and *social anhedonia* (Raine & Allbutt, 1989). Perceptual aberrations and social anhedonia may be defined respectively as a tendency to have hallucinations and an extreme state of social withdrawal and inability to enjoy pleasure, and correspond respectively to the positive and negative symptoms of schizophrenia. A third factor corresponding to social anxiety has been found in some research (Bentall, Claridge & Slade, 1989).

A study in which 1,095 respondents completed the Combined Schizotypal Traits Questionnaire (C.S.T.Q.), the E.P.Q. and several scales assessing related traits such as delusion-proneness helped to clarify how

schizotypy compares with psychoticism (Claridge et al., 1996). The factor analyses Claridge et al. applied to their data suggested their data were best explained using a four-factor solution. The first factor related to perceptual aberrations, the second factor to social anxiety accompanied and cognitive disorganization, the third factor to asocial behaviour accompanied by "associated impulsiveness and mood-related disinhibition" and the fourth factor to social anhedonia, an extreme form of social withdrawal associated with the schizoid personality disorder described in the *Diagnostic and Statistical Manual (D.S.M.) - IV* (American Psychiatric Association, 1994). Of the three traits in Eysenck's model, P. most closely related to the third of these factors. E. loaded most strongly (negatively) on the fourth and N. on the second.

In this study by Claridge et al. (1996), psychoticism as described by Eysenck was found to relate primarily to antisocial behaviour and high impulsivity (with resulting low propensity for social learning) rather than to perceptual aberrations. If proneness to delusions is viewed as the defining feature of psychotic disorders, such findings challenge conceptualisations of P. as a trait linked with vulnerability to psychoses. They suggest that P. is better defined as low propensity for learning of socially prescribed codes of conduct. Contrasting with the findings of Claridge et al. (1996), Bentall et al. (1989), did find psychoticism to load on a factor linked with schizophrenia's positive symptoms, i.e. with perceptual aberrations. Such findings have implications for potential definitions of psychoticism (see below).

Transliminality (Thalbourne & Delin, 1994; 1999) is a trait which has more explicitly been linked to perceptual aberrations than either psychoticism or schizotypy. Unlike the case with both psychoticism and schizotypy, initial

literature on this trait referred *explicitly* to mystical experience and belief in the paranormal. Observing how believers in the paranormal typically scored high on measures of (a) magical ideation - a variable strongly associated with positive symptoms of schizophrenia and the first factor found in factor analytic studies of schizotypy, (b) history of manic experience, depressive experience and manic-depression, and experience of hypomania, and (c) creativity and mystical experience, Thalbourne and Delin sought a common factor underlying all these variables. Their answer was a trait for which they introduced the neologism "transliminality", literally, "ease in crossing the threshold" (Thalbourne & Delin, 1999, p46). This means (largely involuntary) access to unconscious affects and cognition generated within one's own internal psychological make-up. Similarities with Jung's introverted intuitive type may be noted. Thalbourne has not portrayed the concept entirely negatively, having linked transliminality to creativity, echoing Eysenck and Eysenck's assertions that high P. scores may be linked with increased creativity, and also the findings of Woody and Claridge (1977).

Transliminality's relevance to psychoticism is evident from the positive correlation ($r = .37$; $N = 53$; $p < 0.01$) found by Thalbourne et al. (1997) between these two variables. However, when these authors separated transliminality into the five constituent components of creative personality, manic experience, paranormal belief, mystical experience and magical ideation, they found only the first two to be significantly correlated with psychoticism. The failure of Thalbourne et al. to find a significant correlation between the mystical experience factor of transliminality and psychoticism is of interest, and

may be compared with findings from other studies that will be reviewed in Chapter Three.

Assessments of transliminality rather than psychoticism or schizotypy may seem more appropriate in psychometric research into transpersonal experience, given the explicit reference that authors on the former have made to mystical experience. However, such an inference would currently be premature. The trait has been identified only in relatively recent research, largely confined to that conducted by Thalbourne and his associates, and carries with it inherent risks of circular reasoning. To list both increased propensity to psychosis and increased likelihood of mystical experience as elements of a trait rests upon an *a priori* assumption that transpersonal experiences *are* linked with psychoses. Absence of significant correlations between transpersonal experiences, psychoses and transliminality could therefore be attributed (by defenders of the concept) to scale invalidity rather than conceptual shortcomings. Thalbourne has not explicitly linked transliminality with reduced propensity for social learning, so assessments of transliminality as a potential correlate of mystical experience may be less relevant to evaluations of social constructivism than assessments of psychoticism. Nevertheless, that this concept has been proposed as a marker for proneness to manic-depressive experience highlights how traits that may be compared with psychoticism vary across research groups. The links that have explicitly been made by Thalbourne between transliminality and creativity also stress how such traits have not exclusively been described in merely negative terms.

2.4 Empirical Evidence Against the Homogeneity of Psychoticism

Considerable empirical data exist to suggest that Costa and McCrae's concerns about treating P. as univocal are valid (Heath & Martin, 1990; Heath, Cloninger & Martin, 1994; Howarth, 1986; Stallings, Hewitt, Cloninger, Heath & Eaves, 1996). Ironically, some of the data challenging the univocality of P. were collected by the Eysencks themselves. Eysenck et al. (1985) reported lower Cronbach's alpha coefficients, typically around $r = 0.7$, for the psychoticism sub-scale of the Eysenck Personality Questionnaire (E.P.Q.) than for its neuroticism or extraversion sub-scales, suggesting P. is the least homogeneous of the traits in their model. Early factor analytic studies challenging Eysenck's original conceptualisation of P. are reviewed by Howarth (1986). Noting that E. was found to be less homogeneous than N. in early research, Howarth commented on how the homogeneity of E. was improved when impulsivity was treated by Eysenck as a facet of P. rather than E., but also noted that "there are still at least four primaries combined in that scale" (i.e. the P-scale of the EPQ) (Howarth, 1986, p226). Howarth argued that P. quite consistently emerged as the least univocal of Eysenck's three super-factors in factor analytic research.

Recent factor analytic study of questionnaire-based measures of the Eysenckian personality model by Jackson, Furnham, Forde and Cotter (2000) has found that a three-factor solution is a reasonably good fit to explain variance in psychometric data, and that the three factors reported correspond well with extraversion, neuroticism and psychoticism; but, unlike most studies of Eysenck's model, this study analysed scores on the Eysenck Personality Profiler (E.P.P.) and not the E.P.Q.. Earlier factor analyses of E.P.P. scores by Costa and

McCrae (1995) found that a five-factor solution offered a better explanation of variance in scores, and that the seven E.P.P. sub-scales designed as measures of primaries of P. did not load on identical factors in this five-factor solution.

Deary, Peter, Austin and Gibson's (1998) factor analysis of data obtained from 400 undergraduates who had completed both the E.P.Q. and the Structured Clinical Interview for D.S.M.-III-R Disorders Questionnaire (S.C.I.D.), a questionnaire assessing vulnerability to the personality disorders listed in the third edition of the American Psychiatric Association's (1994) *Diagnostic and Statistical Manual*, found that their data were best explained using a four-factor solution. Unlike N. and E., which loaded on the first and third of their factors respectively, P. loaded strongly on two separate factors. P. loaded positively on Factor 2, associated with the passive-aggressive disorder, the narcissistic disorder and the antisocial disorder, and negatively on Factor 4, associated primarily with the obsessive-compulsive and narcissistic personality disorders and somewhat more modestly with the avoidant and dependent personality disorders. P.'s loading on two separate factors gives grounds for supposing that P. is not homogeneous, as Deary et al. themselves acknowledged. Indeed, they recognised how their data support bifurcation of P. into low agreeableness (associated with their second factor) and low conscientiousness (associated with their fourth factor).

Stallings et al. (1996) did a factor analysis of E.P.Q. scores combined with those from several other personality measures. They found that, at least in male participants, P. scores loaded significantly on a factor associated with novelty-seeking, impulsivity and disorder, but also significantly negatively on an entirely separate factor associated with dependence, attachment and

sentimentality. The emergence of two dimensions as separate factors, comparable respectively to NEO conscientiousness and NEO agreeableness, is further support for bifurcation of P., as in the five-factor model. Other factor analytic data challenging the view that psychoticism is univocal have been reported by Zuckerman and his co-workers (Zuckerman, Kuhlman & Camac, 1988; Zuckerman, Kuhlman, Joireman, Teta & Kraft, 1993).

Cogent evidence against the view that P. can be regarded as a univocal construct has come from the programmatic research of Heath and his associates (Heath & Martin, 1990; Heath et al., 1994). These authors have, since 1990, reported an impressive body of data using multivariate genetic analysis, a technique combining factor analysis and behaviour genetics, based on twin data, typically including E.P.Q. scores. Psychometric assessment of Australian twin pairs by Heath et al. (1994) found lower internal reliability coefficients for P. than for E. or for N., being as low as $r = .36-.46$ for males and $r = .31-.44$ for females. Heath et al. (1994) also found that only 35% of variance in P. could be accounted for in terms of genetic factors (the remaining variance being attributable to nonshared environmental factors). Their findings that correlations for monozygotic twin pairs were higher for E. than for P. suggest that P. is likely to be more heterogeneous in terms of its ontogenetic bases than is extraversion.

Multivariate genetic analytic data reported by Heath and Martin (1990), in which three separate variables associated with (I) genetic influence (II) shared environmental influences and (III) nonshared environmental influences on personality were identified, offered particularly compelling grounds for rejecting the view that P. is homogeneous. Items assessing P. related to

suspicion and paranoia were found by Heath and Martin to load significantly negatively on the first of these variables; but so too did items assessing P. related to cautious and conforming behaviour. Since the latter items were included in the original Eysenckian measures of psychoticism as items supposed to load negatively on psychoticism, whereas items assessing paranoia were intended as positive markers of psychoticism, this finding makes it difficult to defend the view that P. is homogeneous. The shared environmental variable was found by Heath and Martin to be associated primarily with hostility and tough-mindedness; the nonshared environmental variable with suspiciousness and with unconventional social attitudes (but not, apparently, with indifference to suffering or hostility). Such findings imply that three separate facets of psychoticism - paranoia, hostility and unconventional social attitudes - may have quite separate patterns of ontogenetic development. The association of paranoia with excessive caution and arguably high levels of obsessionality in Heath and Martin's data raises the possibility that their genetic factor could be compared roughly with MBTI judging, NEO conscientiousness and self-control in Cattell's list of global factors. Clearer similarities may be observed between their other two variables and (i) MBTI thinking-feeling, NEO agreeableness and Cattell's global factor of tough-mindedness; and (ii) MBTI intuition-sensation, Cattell's global factor of independence and NEO openness.

2.5 In Search of a Definition of Psychoticism

The above review raises the question of how psychoticism is best defined. Implicit in the above review is that the trait may be defined as low propensity for social learning, but fully comprehensive definitions of the

concept may also need to consider other variables, such as perceptual aberrations (Bentall et al., 1989).

Psychoticism is sometimes equated more or less with Factor G in Cattell's model, as appeared to be Eysenck's later position. This suggests that Eysenck's later writings would certainly *not* define psychoticism primarily as a marker for psychosis. No contradiction is posed between this position and a definition of P. which emphasises social learning. Nor should it be considered that definitions of P. in terms of social learning make the trait irrelevant to perceptual aberrations. However, it is important here to comment on why, if psychoticism is both defined in this way and is taken to have relevance to perceptual aberrations, the conclusions that may be drawn are that assessments of psychoticism alone in psychometric research into transpersonal experiences limit the potential theoretical insights that such data may generate.

Suppose that one believed that religious experiences were, in reality (i) learnt phenomena and (ii) perceptual aberrations comparable to psychotic delusions. (There is no necessary contradiction inherent in holding both premises to be true. Psychoses could arise through peculiar patterns of learning; this position is a tacit assumption behind the growing body of literature suggesting that cognitive therapy may be useful in treatment of psychoses, reviewed by Haddock and Slade, 1996). Such a position implies that perceptual aberrations would correlate positively, and reduced propensity for social learning negatively, with reported religious experiences. It therefore highlights how some theoretical positions stress a need to disentangle different facets of psychoticism in psychometric assessments of the correlates of transpersonal experiences. Similar implications are raised by such data for assessments of

schizotypy in such research. Factors such as introverted anhedonia suggest a reduced attention to positive reinforcements, and therefore reduced conditionability, and thus its relationship with transpersonal experience could be taken as being diametrically distinct from that of the perceptual aberrations factor typically found to account for most variance in factor analytic studies of schizotypy.

2.6 Summary and Implications of Sections 2.2 to 2.5

The above review has shown how good grounds exist for challenging assumptions of the homogeneity of psychoticism. These are:

- (a) The nineteenth century theory upon which the concept is based, that of *Einheitspsychosen*, has been challenged, specifically by those who believe that psychoses do not represent an entirely unified disease category;
- (b) When the Eysenckian P-E-N model is compared with other models of personality, it almost invariably emerges that alternative models list more than three traits of personality. Considered comparisons of the Eysenckian P-E-N model with these models reveal that while such models typically include traits equivalent to E and/or N in the Eysenckian model, they almost never include a single trait to represent P., but instead include distinct traits representing different facets of P.;
- (c) Empirical data, from both internal analyses of P. scale scores and multivariate genetic analysis, challenge the view that P. is homogeneous.

Such considerations help to clarify the advantages of using a model, such as the FFM, which measures distinct traits in place of broad measures of psychoticism in psychometric studies of transpersonal experiences. The two

theoretical questions that have been given as examples of theoretical questions that could benefit from transpersonal psychometrics, that of whether mystical experience is a learnt construct and that of whether mystical experience should be equated with health or with pathology, would certainly both benefit from studies that attempt to disentangle different facets of psychoticism. The former question is relevant to assessments of facets of psychoticism connected with reduced propensity for social learning. The latter question is relevant to assessments of facets that pertain to perceptual aberrations, or indeed, creativity insofar as mystical experience could relate to potentially *positive* facets of psychoticism.

Three alternative models to Eysenck's PEN model were reviewed in Section 2.3, namely the Myers-Briggs model, the Cattell 16 P.F. and the five-factor model. The Myers-Briggs model and the Cattell 16 P.F. may be criticised respectively for treatment of personality as a type rather than continuous variable and for low parsimony. It is, therefore, the Five-Factor Model that will be used, in conjunction with E.P.Q. measures of psychoticism, in collecting empirical data for the current thesis. An advantage of this model is that it very clearly assesses, as separate traits, three traits that correspond to distinguishable facets of psychoticism. These are openness to experience, agreeableness and conscientiousness.

Advantages of assessing these three traits as separate traits are evident when attention is given to the above two theoretical questions. If, for example, one of these NEO counterparts of P. is particularly germane to propensity for learning, it follows that assessments of this trait that will highlight the potential

impact that psychometric data may have for evaluations of social constructivism more than will assessments of psychoticism alone.

Grounds exist for taking conscientiousness in the FFM to be the trait in this model most relevant to propensity for learning. This can be understood by re-considering the definition of NEO conscientiousness given by Benet-Martinez & John (1998):

"Conscientiousness describes *socially prescribed control that facilitates goal-directed behaviour*" (Benet-Martinez & John, 1998, p730; emphasis added).

This definition relates conscientiousness explicitly to *socially prescribed control*, suggesting that a high scorer on this trait would be an individual who has readily assimilated the prescriptions of social norms. It associates high conscientiousness with goal-directed, deliberated, considered actions rather than impulsive actions. Both studies of psychoticism itself (Rocklin & Revelle, 1981) and sketches of theoretical backgrounds to research into religious attitudes (Francis, 1992a) have suggested that high psychoticism is linked with increased impulsivity, which in turn relates to reduced conditionability of socially prescribed, tender-minded attitudes. To define conscientiousness as Benet-Martinez and John do therefore implies that it is this trait, of the three distinct FFM facets of P., that is most relevant to propensity for social learning. Thus, psychometric evaluations of positions such as those of Katz (1978; 1983) may gain greater benefits from assessments of the NEO traits than from assessments of PEN traits.

Katz's paper "The 'Conservative' Character of Mystical Experience" (Katz, 1983) indicates how Katz would now accept that mysticism is associated with both enhanced creativity, and reduced propensity for learning. Despite its

title, this paper indicated how Katz now accepts that mysticism does contain radical elements. His argument appeared to be that apparently radical re-interpretations of Scriptures by mystics can be construed as a means by which mystics defend the relatively conservative position of supporting the supremacy of Scriptures from their particular faith tradition. Ability for such re-interpretation implies considerable creativity on the part of the mystic.

However, it is clear that this essay of 1983 continued Katz's well-known commitment to social constructivism. Katz's more recent position can therefore be seen as implying elevated levels of both conscientiousness and openness in the FFM. Since the latter is believed to be negatively correlated with psychoticism, the former positively associated with psychoticism, it is clear that psychometric evaluation of Katz can reap more benefits from use of the FFM than from mere assessments of psychoticism.

Eysenck's Defence

Eysenck himself tried to defend the univocality of P. against critics of the P. construct such as Costa and McCrae (1992b) by claiming that such authors had merely looked at patterns of statistical correlation, and not considered homogeneous biological markers for psychoticism (Eysenck, 1992a). In response, Heath, Cloninger and Martin's study (1994) (see above) offered genetic evidence for challenging Eysenck here. More importantly for concerns in the current thesis, if psychometric assessments of correlates of transpersonal experience are still to prove insightful with respect to theoretical issues, it remains important to ask whether such issues may derive only limited benefit from assessments of psychoticism as a homogeneous trait.

2.7 Taxonomic Scheme: Pro-Mystical and Anti-Mystical Religions

It may be inferred from the above review that advised research programmes assessing the extent to which a variable is a learnt phenomenon will benefit from assessments of *both* psychoticism *and* five-factor model traits. It would be premature to claim that social constructivist accounts of mystical experience merely imply negative correlations between mystical experience and psychoticism; they also imply particular relationships between mystical experience and other traits such as five-factor model conscientiousness. However, this statement needs an important qualification. It is true for religious groups where a positive value is attached to mystical experience; in religions where mystical union as described by Stace (1960) is *not* a prescribed norm, social constructivism makes rather different predictions. In this thesis, therefore, a new taxonomy of religion will be presented, based upon the concept of *attitudes to mysticism*. Cross-creedal comparisons that will clarify this concept, and commentary germane to the hypotheses that, in the course of this thesis, will be tested in relation to this variable, will be presented in the concluding sections of this chapter.

It is important to appreciate that the taxonomy which follows is based upon how religions are likely to differ in terms of their *attitudes to mysticism*, and that this is presented here as a distinct concept to *mystical experience*. The stress on the heterogeneity of psychoticism outlined above can be used as guidance for empirical research which may uncover further ground for distinguishing these two concepts. Both variables may relate to psychoticism,

but to different facets of this trait. Such divergences may not be apparent when psychoticism is merely assessed as a broad construct. For example, the particular form of perennialism offered by Forman (1998) implies that both concepts may relate to facets of psychoticism connected with increased creativity, but only attitudes to mysticism will relate significantly negatively to facets of this trait connected with reduced propensity for social learning. Furthermore, between-group differences on scores on either variable may not be identical. These issues are relevant to the empirical study that will be presented in Chapter Six.

The goals of the comparisons between religions presented below are to emphasise the importance of the variable *attitudes to mysticism* in social science research into religion, and to indicate how it differs from *mystical experience*. A psychometric tool to assess attitudes to mysticism can therefore be seen to serve a different function to a scale such as Hood's (1975) M-Scale. This distinction also helps to clarify how psychometric evaluation of the perennial psychology of Forman (1998) should take different forms to psychometric evaluations of perennial philosophers such as Huxley (1946).

2.7.1 Comparing Abrahamic with Eastern and Western Mystical Faiths

Contrasts between the Abrahamic faiths of Christianity, Islam and Judaism and Eastern religions such as Hinduism or Buddhism in terms of their attitudes to mysticism have been outlined by many scholars. Such a contrast was presented explicitly in Sisikumar Ghose's essay in *Encyclopaedia Britannica*:

“Although mysticism has been the core of Hinduism and Buddhism, it has been little more than a minor strand - and frequently a disturbing element - in Judaism, Christianity and Islam”. (Ghose, 1993, p583).

This quotation appears within a context which emphasises how, in Ghose’s view, religions that emphasise formal social structures (such as the Christian church) are less likely to endorse mysticism than are those that are more individualistic. He quoted Inge, who claimed that mysticism and institutionalism are uneasy bedfellows.

Doctrinal as well as social considerations help to clarify why monotheistic faiths have not always been particularly positive in their attitudes to mysticism. Concept of God as being “totally other” challenge the view that a mere human mortal can achieve union with God by his or her own efforts. Such doctrinal foundations, which have long been a feature of certain strands of monotheistic theology, make the premises which allow for *unio mystica* appear to be decidedly shaky. This stands in marked contrast to the religions of the East, such as Hinduism, where the concept of “one without a second” indicates the sense of unitive experience as described by Stace appear both possible and desirable (cf. Zaehner, 1957). Strands of Eastern religion and philosophy other than Hinduism, perhaps most particularly Zen Buddhism (Humphreys, 1949/1984) and Nichiren Daishonen Buddhism (Causton, 1995), also operate with concepts - in the case of these two forms of Buddhism, respectively *jijimuge* and *Esho Funi* - that imply both the possibility and desirability of *unio mystica*.

The presence of mystics in the history of the Abrahamic faiths appears, *prima facie*, to challenge this position. History, it is true, does reveal that a vast

body of mystics have appeared in such religions. In Christianity, examples include Meister Eckhart, the author of *The Cloud of the Unknowing* and Dame Julian of Norwich from medieval Europe; Teresa d'Avila and Juan de la Cruz from the Counter-Reformation; Madame Guyon and François Fenelon from the seventeenth century; and Teresa of Lisieux from the nineteenth century, as well as Protestant mystics such as the late sixteenth and early seventeenth century Lutheran Jakob Boehme. In Judaism, the traditions centred around the *Zohar* or the *Kabbala*, and movements such as Hassidism come to mind. In Islam, schools of Sufism discussed by Occidental scholars such as Nicholson (1914), including the Suhrawardi, the Qadiri, the Naqshbandi and the Mevlevi dervishes (associated with the thirteenth century Afghan Rumi) exemplify mystical elements. However, these trends are not - as the above quotation by Ghose underlines clearly - ones which have always been welcomed within mainstream, central teachings and institutions within Judeo-Christian-Islamic tradition.

The attitude that the Judeo-Christian-Islamic tradition has taken towards mysticism, if not always entirely negative, has frequently been ambivalent. Martin (1987) noted how "in Biblical Judaism, in Christianity and in Islam, forms of religious experience typically called mystical have been both suspect and deeply prized and influential. Suspicion and caution stem from the fear that in such experience there may be an impetus towards obliteration of the distinction between the creature and the creator, together with an exaltation of the human experience to salvific power, which stems ultimately and solely from God" (Martin, 1987, p326). To quote Ghose again:

“The relationship of the religion of faith to the religion of mysticism (“personal religion raised to the highest power”) is ambiguous, a mixture of respect and misgivings. Though mysticism may be associated with religion, it need not be. The mystic often produces a type that the religious institution (e.g. *church*) does not and cannot produce and does not know what to do with if and when one appears” (Ghose, 1993, p583; emphasis in the original).

Ghose (1993), Martin (1987) and various other reference papers on mysticism (Dupre, 1987; Marcoulesco, 1987) presented their comments on the attitudes to mysticism taken by the Abrahamic faiths within a wider context, indicating conviction that Eastern religions such as Hinduism and Buddhism take a very different view of mysticism. Implicit in the works of such scholars is that the Abrahamic faiths can be described as anti-mystical religions, in which doctrinal conviction, faith and the social structures of religion are granted more importance than are personal mystical or spiritual experiences. Their works also imply that Eastern faiths such as Hinduism and Buddhism are pro-mystical religions, in which mystical experience viewed as a central goal of religious commitment. The first of the two above quotations by Ghose indicates very clearly that this is Ghose's view. Furthermore, an anonymous article on mysticism in the *Micropaedia* section of the same reference work as that in which Ghose's paper appears (the *Encyclopaedia Britannica*) declares Hinduism to be the religion most readily associated with mysticism. Brief reviews of such reference-work literature may give the impression that the distinction between religions deemed pro-mystical and those deemed anti-mystical can be equated with a distinction between Eastern and Western ways of thinking, comparable to polarities between intuitive and rational thought.

This is not merely a polarity that has influenced popular works such as Ornstein (1977). Such assumptions have influenced psychometric scale construction, specifically of Gilgen and Cho's (1979) East-West Questionnaire, or E.W.Q. (empirical work with this scale has been reviewed by McDonald, Friedman and Kuenzel, 1999).

A major criticism that may be levelled against both papers of scholars such as Ghose, Marcoulesco, Dupre and Martin and the construction of the E.W.Q. is that their implicit endorsement of the view that pro-mystical religions can be equated with Eastern religions can be challenged. Such scholarship has typically said little about contemporary New Age preoccupations such as Shamanism, Native American tradition, Wicca or Druidry. These movements derive from cultures outside the Orient as conventionally defined, but still show an intense interest in altered states of consciousness and the experiential dimension of religion, including conviction that mystical unitive experience is possible. Thus, there are indeed *Occidental religions* that can be assigned to the category of pro-mystical religions.

Distinctions of religions into pro-mystical and anti-mystical categories are quite orthogonal to distinctions between Eastern and Western faiths. Confucianism, for example, could hardly be described as a movement which emphasises mystical experience. Küng's (1991) taxonomy of religions divides religions into the prophetic, exemplified by Semitic faiths; the mystical, exemplified by Indian religions; and religions-of-harmony, exemplified by Confucianism. This is consistent with the point being made here about Confucianism, but again, this taxonomy suffers from assumptions that Eastern

religions are those that are pro-mystical, overlooking movements such as Wicca or Druidry.

Major reasons exist as to why it is important to emphasise these mystical strands within the Western tradition. Such movements are attracting considerable interest today, as is evident in reviews of *New Religious Movements* such as Barker (1989) or Barrett (1996). Comprehensive assessments of religions in contemporary industrialised societies should therefore consider such faiths as Druidry. Psychometric grounds exist for emphasising such movements. A valid psychometric scale, it is held here, to assess attitudes to mysticism would be one on which Druids would score higher than members of more mainstream Christian Protestant churches. This point is germane to certain linguistic advantages that exist in checking out the validity of such a scale by use of such groups, rather than by comparisons of Christians and Hindus (see below). Finally, inclusion of both Eastern and Western religions within the broad category of "pro-mystical religions" highlights how movements of diverse cultural background and theological orientation may still occupy this broad category. The religions of Druidry, Wicca and Buddhism may all be classified as "pro-mystical religions", even though differences can be observed in their doctrinal foundations.

This observation is not intended to undermine the taxonomy proposed here. Distinctions of religions in terms of their attitudes to mysticism may be considered distinction at the level of the genus, distinction of theological positions of different religions within either of these two broad categories may be considered to be distinction at the level of the species. The one common denominator linking the first two religions analysed in the discussion that

follows is that they are both pro-mystical, even though their theological viewpoints are, in other respects, often quite different.

To define *mystical experience* as a sense of unity with qualities beyond the self means that certain religions which are not theistic, pantheistic or panentheistic and which, indeed, in the technical sense of the term could be viewed as "atheistic" may nevertheless be described as "pro-mystical". Buddhism is the most obvious example. Despite quite different theological orientations, Buddhism and Paganism (in the modern sense of the term, i.e. as a New Age movement that is attracting considerable followers) may both be termed "pro-mystical". Discussion that follows will commence with a consideration of these two religions. They will then be contrasted with the "anti-mystical" religions of orthodox Christianity and orthodox mainstream Judaism.

2.7.2 Buddhism: A Pro-Mystical Faith

Although Buddhism is sometimes portrayed as being, at least in certain forms, atheistic, its reference to states such as *nirvana*, or (in its Zen forms) *kensho* or *satori* reveals its positive attitudes towards the experiential dimensions of religion. This can be seen very clearly when looking at the Zen/Ch'an schools of Buddhism, a form of Buddhism which has become very popular in the West, with its almost "New Age" interest in the mystical. The Ch'an School of Buddhism is generally traced back to the seventh century Chinese teacher Hui-Nen (638 A.D. to 713 A.D.), whose teachings, recorded in the Platform Structure of the Sixth Patriarch, are often seen as pivotal in the development of what later became known, following their transmission to Japan, as *Zen Buddhism* (Scott & Doubleday, 1992). The word "Zen", derived

from the Chinese *Ch'an*, in turn derives from the earlier Sanskrit word "*Dhyana*", which is typically translated by modern scholars as "meditation" but which can also be translated as "trance" (Chadwick, 1994). This etymology indicates a clearly positive attitude towards altered states of consciousness as a particular feature of this form of Buddhism.

A central concept in Zen Buddhism is that of *satori*. This is generally taken to mean an enlightened state of consciousness gained after meditation, whether after many quiet periods (as in the Soto tradition) or after meditation on the paradoxes known as *koans* (as in the Rinzai tradition). So central to Zen is the concept of *satori* that Humphreys (1949/ 1984) has *defined* Zen in terms of its emphasis on *satori*, holding that all else, such as meditation on *koans*, should be seen as subservient to attainment of *satori*. Similarities can be observed with the term *kensho*, meaning a sudden awakening or realization, and much literature on Zen equates the two terms, but Scott and Doubleday (1992) carefully distinguished these two terms, taking *satori* (or *dai-kensho*, literally "The Great Awakening") to be the more complete state of enlightenment, with implications that *kensho* represents a gradual, *satori* a more sudden, state of awakening. However, the centrality Zen accords both concepts implies positive attitudes towards the experiential dimensions of religiosity.

Humphreys' (1949/ 1984) comments on the Zen concept of *jijimuge* very strongly demonstrate Zen Buddhism's positive attitudes towards mysticism. *Jijimuge* may be defined as a state, experienced during *kensho* or *satori*, in which normal distinctions between subject and object are dissolved, in which the normal perceptions of reality as consisting of atomistic elements dissolve as one begins to perceive reality as an interrelated whole - in short,

the state of union identified with mystical experience by Stace (1960). It would appear in Humphrey's view that such perception represents a more authentic perception of reality than normal perceptions of the world as consisting of discrete units. In this sense, the mystical states valued by Zen Buddhism are to be seen as realisations, not attainments. A concept equivalent to the Zen concept of *jijimuge* is difficult to find in Jewish or Christian teaching. This indicates how Zen Buddhism, in contrast to the latter two religions, merits legitimate description as a pro-mystical religion.

Conceptualisations of *satori* or *kensho* as realizations of how things really are may seem more readily compatible with Forman's perennialism than with Katzian constructivism. Social constructivists could still defend their beliefs, however, by portraying these realizations as post hoc constructions rather than accurate and objective self-perceptions.

Forms of Buddhism other than the Zen tradition have also placed a high value on mystical experience. Among Tibetan Buddhism, for example, an interest in mystical states is discernible, although it is debatable that many of the interests of Tibetan Buddhists are closer to what Daniels (2003) calls *psychic experiences* than to mystical experiences in the strict sense taken here. Within Nichiren Shoshu (or Nichiren Daishonen) Buddhism, emphasis on unity with nature as an experiential state is evident in the concept of *Esho Funi*. These observations suggest that in a taxonomy where religions are classified as "pro-mystical" or "anti-mystical", Buddhism, despite occasional atheistic theology, can emphatically be placed in the former category.

2.7.3 Contemporary Paganism: A Pro-Mystical Faith in the Western

Mystery Tradition

Contrasting Buddhism with Judaism and Christianity in terms of its standing on the variable of attitudes to mysticism needs to be carefully distinguished from any comparison of the frequency of mystical experience in such traditions. However, distinctions along this variable must also be differentiated from taxonomies contrasting Eastern and Western religions. A pro-mystical faith largely rooted in Western, not Oriental culture, which takes rather different theological perspectives to the belief systems endorsed by many Buddhists demonstrates this - contemporary Paganism.

Used to refer to contemporary social and religious movements, the term "Paganism" can be understood as a generic name for a certain family of the so-called "New Religious Movements" considered by Barker (1989), and has quite distinct meanings from earlier pejorative usage of the term. The fact that many Pagans today would quite happily label themselves as "Pagans" indicates how current usage of the term need not carry pejorative associations. Such Paganism has roots in a Romanticist reaction to the Enlightenment of the eighteenth century, rather than representing an unbroken continuity with ancient teachings. The word "Pagan" is sometimes traced back to the Latin root *Paganus*, meaning "rural folk" or "people of the land" (Barker, 1989; Moorey, 1996), to contrast a religion of rural or village-dwelling people with the more urban religion of the city, but is also sometimes, as by Fox (1986) traced back to the Latin root *Pagani*, literally "civilian", contrasting earlier portrayals of Christianity as a religion in which one acted as a soldier for Christ with the more civilian religions of rural communes. Today, however, the term can be thought of as

referring to a wide and diverse strand of movements, including modern-day Druidry, Wicca, the Nordic tradition and the more solitary approaches to Pagan practices favoured by Beth (2001) and by Green (1991), popularly known by Beth's (2001) term "Hedgewitch".

For all their diversity, these movements still share considerable commonalities. These include motivation to commune with Nature and a combination of polytheistic, pantheistic and panentheistic beliefs. The example of a common feature that is most relevant to the current discussion is how they typically emphasise the experiential dimension of religion. This emphasis may be contrasted with that on methodical adherence to ritual protocol characteristic of mainstream Judaism, or that on intellectual commitment to creedal assent found in some forms of Christian Protestantism.

The Pagan Federation, founded in Britain in 1971, gives a very clear and succinct overview of the basic ideological beliefs of modern Paganism (broadly defined). These are summarized in the Pagan Federation's list of the movement's three central tenets:

- (a) Love for and kinship with Nature;
- (b) The Pagan ethic - "Do as thou wilt, but harm none" (actually a paraphrase of the Wiccan Rede, "Eight words the Wiccan Rede fulfil, An' it harm none, do as you will");
- (c) Acceptance of even-handed polarity between male and female deities.

(Green, 1997, p160).

The first of these tenets suggests a desire for pantheistic union with Nature. As with Buddhism, therefore, Paganism greatly values unitive experience, but in contrast to the more abstract Buddhist concepts of *jijimuge* or

Esho Funi, Paganism appears to take a more concrete, earth-bound approach to the belief that such unitive states of consciousness are possible. This distinction does not undermine any basis for placing both religions in the category “pro-mystical”; rather, it implies that Buddhism and Paganism may be linked respectively with the introvertive and extrovertive forms of mysticism described by Stace (1960). Polytheistic theology implied by the third of these tenets should not be seen as inimical to any assumptions that states of *unio mystica* are possible; the Pagan outlook can be understood by quoting Thales, “Nature is full of gods” (cited in deQuincey, 2002, p9). This quotation suggests that elements of the natural world are imbued with their own consciousness, somewhat evocative of Stace’s category of objectivity as one of the criteria of authentic mystical experience.

Whether empirical data support this classification of Paganism as “pro-mystical” will be explored in a study reported later in this thesis. Here, the interest in personal development and acquisition of altered states of consciousness valued in Paganism will be indicated by looking at just one example of modern Paganism - contemporary Druidry.

Exactly what the Druids of antiquity believed is moot. Sources of information on these early Druids came from non-Druid authors such as Poseidonos (c. 135-50 B.C.E.) and the so-called “Poseidonian School” of Julius Caesar, Strabo, Timogenes and Diodorus Siculus, who were not always favourable in their portrayals of Druids, and who claimed that the Druids were against committing their vast learning to writing (Ellis, 1994). However, an understanding of Druidry as a movement in contemporary Britain, as Ellis (1994) explains, can be gained from historical considerations that date back far

more recently, specifically the times of seventeenth and eighteenth century antiquarians such as Toland, Aubrey and Stukeley. Such scholars may have based some of their teachings on decidedly shaky historical foundations. Nevertheless, the important point to grasp about their work from the point of view of understanding *contemporary* Druidry is how, in an era characterised by growing emphasis on human rationality, they were challenging the Age of Reason through emphasis on spirituality and intuition over and against the rational. Insofar as these authors believed Druids had been an intensely spiritual people, their promotion of interest in Druidry may be seen as a means to this end. Such promotion helped to bring the concept of what later became known, following James (1902/ 1960), as *religious experience* into sharp public awareness.

Modern-day Druid orders have been founded since 1700, such as Henry Hurle's Ancient Order of Druids, founded in 1708, into which Winston Churchill was initiated in 1908 (Ellis, 1994; Green, 1997). The most famous and largest of such orders today, with an international membership of over 4,000, its own journal *Touchstone* and its own web-site, is the Order of Bards, Ovates and Druids or O.B.O.D., initially founded in 1964 as the *Cairdeas More Shaoghal Nan Druidh* (literally, "Worldwide Fellowship of Druids").

Contemporary scholarship's appraisal of Druids today indicates how the movement is very much orientated towards promotion of positive attitudes towards mysticism. In his admirably scholarly work on the Druids, Ellis (1994) states how "Celtic and Druidic "truth" of every description - from "arcane knowledge", "the true path", "karmic destiny" to "*mystic awareness*" - are solicited in the commercial deluge of New Age philosophies" (Ellis, 1994,

p280; italics added). Green (1997) has explained how modern Druidry emphasises the fun elements of religion, a sense of spirituality derived from ancestors, continuity with and concern for Nature and that favourite New Age preoccupation "energy", construed in a spiritual rather than physical sense. Since Green (1997) lists the two main aims of O.B.O.D. as being "to help each individual to develop his/ her intellectual, emotional, physical and artistic potential, and to cherish and to protect the natural world" (Green, 1997, p170), it can be seen that modern Druidry has as much to do with post-1960s interest in transpersonal psychology, New Ageism and the Human Potential Movement as it has to do with promotion of historically authentic antiquarian scholarship based upon rigorous archaeological study.

To be fair to contemporary interest in Druidry, it should be acknowledged that experience of a Stacean mystical oneness with Nature may, quite possibly, have featured in the religion of the ancient Druids. Ancient Druids have been depicted, in works by contemporary Druid scholars, as perceiving supernatural presences in Nature, leading Green (1997) to state that "The sky, the sun, the dark places underground all had their spirits. Every mountain, river, spring, marsh, tree and rocky outcrop was endowed with Divinity" (Green, 1997, p29). Shamanism, another preoccupation of contemporary Pagan movements, has been linked with Druidry by John Matthews, who Ellis (1994) cites as the *muintid* or *athro* of modern New Age interest in Druidry, and who Ellis portrays as having a deeper understanding of Celtic culture than is typically found among contemporary Druids. Since Shamanism involves initiation into altered states of consciousness and a sense of loss of boundaries between self-perception of oneself as human and self-

perception of oneself as part of the natural world, hypotheses that Druidry and Shamanism share parallels, if defensible, would offer solid evidence that Druidry is a pro-mystical religion. Archaeological finds, such as that of antler head-dress in Hertfordshire or cannabis at an Iron Age tomb in Hochdorf, Germany (Green, 1997), may offer some tentative evidence that early Druids did practice what is now termed Shamanism, although this remains a matter of speculation. It should be stressed again that concern here is less with the Druids of antiquity than with the beliefs, practices, attitudes and experiences of contemporary Druids.

Associations made by authors such as John Matthews between Shamanism and Druidry imply the latter's focus on mystical experience, unitive states and altered states of consciousness. Thus, contemporary Druidry and related Pagan movements can legitimately be described as "pro-mystical religions". Earlier dubious claims made by seventeenth and eighteenth century scholars on Druids - perhaps most notoriously, Aubrey's now totally discredited hypothesis that Stonehenge was built by the Druids - should not be thought of as casting aspersions on the beliefs of modern Druids, but as evidence that contemporary Druidry can legitimately be considered a "New Age" movement having its roots in post-Enlightenment, anti-rationalistic Romanticism, and one which places a greater emphasis on the experiential dimensions of religion than it does on acquisition of factual knowledge or credal assent.

2.7.4 Religions Adopting Negative Attitudes to Mysticism:

Christianity and Judaism

Two separate spiritual traditions have now been represented as taking positive attitudes to mysticism. The usefulness of this variable in classifying faiths will now be indicated by a review of two faith traditions taking less positive attitudes towards mysticism. These are Christianity and Judaism. The former, especially in certain Protestant forms, and the latter, especially in its orthodox form, may generally (if not invariably) be placed on the negative end of the attitudes to mysticism dimension.

As noted in Chapter One, orthodox Jewish teaching and belief does not, in the views of Katz (1978), refer to the concept of unitive consciousness that defines mystical experience in the strict sense of the term. If positive attitudes to mysticism are equated, therefore, with a positive orientation to any attempted quest for experience of unitive consciousness, coupled with beliefs that such states of consciousness are possible, Katz' position strongly implies that orthodox Judaism is an anti-mystical (or at least, non-mystical) religion. Observations of accounts of visions of figures such as Daniel, Ezekiel, Isaiah or Jeremaiah in the Hebrew Bible appear, *prima facie*, to challenge this assertion. However, these accounts are typically based on belief in a Deity that is largely portrayed as remaining totally transcendent, and do not describe any sense of union with any figure (whether natural or supernatural) beyond the self. Consequently, they would not qualify as "mystical experiences" in the strictly Stacean sense. Equally importantly, modern Jewish ideology portrays these visions as once-and-for-all prophecies and revelations, and makes no grounds for expectations of their repetitions in the contemporary world. Thus, just how

modern Druidry can be declared a pro-mystical religion, modern Judaism may be declared an anti-mystical religion. This is especially true of Ashkenazi rather than Sephardi Judaism (Greenberg, Witzum & Buchbinder, 1992).

It is true that mystical strands such as Hasidism or the Kabbala can be detected in Judaism's history, but these strands have generally remained on the periphery of Judaism. The history of Jewish mysticism indicates how:

(i) Jewish mysticism does not encourage a state of unitive consciousness - it therefore must be distinguished from an interest in mysticism in the Stacean sense;

(ii) Jewish mysticism probably represents a more heterogeneous set of movements than the mysticism of any other religion. As Dupre (1987) noted, "Judaism has produced forms of mysticism so unlike any other and so variant among themselves that *no common characteristic marks them all* (Dupre, 1987, p258; emphasis added).

To stress heterogeneity of mysticism in the Judaic tradition renders it questionable as to whether the term "mysticism" in this context really represents an identical usage of the term as applied to other faith traditions, and thus means that the acknowledgement of the existence of movements such as the Kabbala, Hassidism or Zohar can easily be squared with the view that Judaism holds negative attitudes towards mysticism if by the term "mysticism" one means an attempt to initiate unitive states of consciousness. Furthermore, if Dupre's assertion that the diverse strands of movements within the Jewish mystical tradition lack a common denominator is correct, it would be logically impossible to claim that any attempt to initiate unitive states of consciousness is

a common goal of all Jewish mystics, for such an assertion implies that there is *no* common goal linking all the Jewish mystics.

Orthodox Judaism emphasises the ritual, ethical and social dimensions of religion, rather than the experiential. For example, in defining Jewish consciousness, adherence to the 613 *mitzvot* or ethical precepts as described in the Hebrew Bible is seen as important. Thus, in exact contrast to Paganism and Buddhism, Judaism may be described as a *religion of action* rather than a *religion of experience* - stressing the ritual, social and ethical dimensions of religion over and above the experiential, adopting positive attitudes towards practice and protocol rather than to mystical experience.

Broadly similar comments may be made regarding Christianity, although here, as one moves into Protestant rather than Catholic forms of this faith tradition, the emphasis shifts from ritual and practice to belief. The belief that Jesus died on the Cross to save us from our sins, characteristic of much popular Protestant theology today, implies that any self-initiated attempt at the mystical quest is to be proscribed, as does the Lutheran doctrine that we are justified by faith in this doctrine alone. Somewhat more in common with Judaism than with Protestantism, Roman Catholicism emphasises the ritual and ethical dimensions of religion, rather than the experiential. Dupre summarizes the orthodox Christian position on mysticism by stating that "Unlike some other religions, Christianity has never equated its ideals of holiness with the attainment of mystical states" (Dupre, 1987, p251).

These comments are not to deny that, within Christian history, there have been many famous Christian mystics, and that some of these mystics - unlike the case with Judaism - have indeed described their visions in terms

which can be understood as attempts to attain unitive states of consciousness (especially a sense of union with Christ), and which would therefore qualify as mystical experiences in Stace's (1960) strict sense. Examples include Julian of Norwich, Teresa of Avila and Juan de la Cruz. In particular, Eckhart has been cited as an example of a Christian mystic whose understanding of the quest to gain unitive states of consciousness comes surprisingly close to the attitudes towards mysticism found within certain Eastern religions, especially Zen Buddhism (Marcoulesco, 1987). However, close scrutiny of the history of the Christian church reveals that the flowering of mysticism has frequently been viewed with suspicion by mainstream bodies within the Christian churches, insofar as taken to its conclusion, mysticism's stress on individuality renders the need for a socially organized church hierarchy superfluous. Thus, as with Judaism, Christianity cannot be declared a pro-mystical religion, at least not in its mainstream forms. Indeed, the teachings of much orthodox Protestant theology, which stress the sovereignty of God as an "Absolute Other" and emphasise the transcendence rather than the immanence of God, exemplified by the theologies of Calvin and more recently Barth, stand in such obviously marked contrast to the Pagan belief in the immanent Divinity of Nature that it is clear that much mainstream Protestant theology would treat with suspicion claims to enter states of unitive consciousness with God.

Katz (1978) portrays Christianity as taking a rather ambivalent attitude towards attempts to gain unitive consciousness. While his descriptions of Judaism take unitive consciousness to be largely absent from Judaism, Katz concedes that entry into unitive consciousness *is* found among some elements within the Christian mystical tradition. He cites Augustine of Hippo as a case in

point. However, it would appear that in Katz's view, this occurred due to the influence of neo-Platonism on early Christian thought, rather than as the direct result of any Christian theological teaching. Thus, the taxonomy proposed here allows us to place both Christianity and Judaism within the category "anti-mystical religion".

2.8 Attitudes to Mysticism and Mystical Experience: Conceptual

Distinctions

The above taxonomy of religions has been based on the variable of attitude towards mysticism. Previous publications have alluded to such a taxonomy, but in the absence of empirical data. The question of whether empirical data can contribute to an understanding of this distinction will be explored in detail in Chapters Five and Six. The original contribution to knowledge presented in these two chapters will describe, in part, the construction and use of a scale original with the current thesis, designed to assess attitudes to mysticism.

The construction of this scale represents an original contribution to transpersonal psychometrics insofar as it will be the first scale to assess this construct as distinct from mystical experience. Its purpose should not, therefore, be confused with that of earlier scales such as Hood's M-Scale (1975), which were designed to assess respondents' past record of actually having had a mystical experience, rather than attitudes to mysticism. To explain how these two constructs of attitudes to mysticism and mystical experience are conceptually distinct will help to emphasise the value in construction of a new scale to assess the former.

Prima facie, it may seem a truism to suggest that mystical experience and attitudes to mysticism are closely related, and so scores on questionnaires assessing these two variables can be expected to be significantly positively correlated. However, it is important to see that there are also conceptual distinctions that can be drawn between these variables. Such correlations should not, therefore, be so high as to lead to inferences that the two concepts are identical. People who have had a mystical experience may be more inclined to view mysticism positively than those who have not - just how those who view mysticism positively may be more likely to report such experiences than those who do not. However, through second-hand reading, people may acquire very positive attitudes to mysticism without themselves ever having had mystical experiences. Less obviously, but equally certainly, an individual who has had a mystical experience could still possess quite negative attitudes towards mysticism. One might believe oneself to have had such an experience, but believe that such experiences are pathology, or are actually Satanic visions, as considered in comments on Teresa of Avila presented in Chapter Seven.

Linguistic considerations

Value exists in sampling an Occidental religious group to assess the criterion-related validity of a scale to assess attitudes to mysticism. To compare adherents of Eastern and Western religions on such a scale in a country such as the United Kingdom would be problematic, insofar as many Hindus (for example) in the United Kingdom would not necessarily be using English as a first language. To compare scores obtained by Jews and Christians on such a

scale with those obtained by pro-mystical Pagans, a pro-mystical Western movement, would therefore be an effective way to validate such a scale.

2.9 Perennialism and Constructivism Re-Visited: Perspectives on Attitudes to Mysticism

These conceptual distinctions suggest that there could be different patterns of ontogenetic development for mystical experience and attitudes to mysticism. Reasons for individual variations in attitudes to mysticism may be attributable, in part, to whether people have ever actually had mystical experiences themselves, but this seems unlikely to be the sole explanation for such intra-individual differences. Socio-cultural learning is likely to play a rôle, as, indeed, Forman's own version of perennialism allows (Forman, 1998). This raises the possibility that attitudes to mysticism could be primarily a variable that arises through socio-cultural learning, even if mystical experience does not. Thus, personality traits relevant to social learning could still theoretically bear particular relationships with attitudes to mysticism, even if they are found to be unrelated to mystical experience.

These relationships will depend upon the status one's membership group grants to attitudes to mysticism. To define NEO conscientiousness, as Benet-Martinez and John (1998) do, as "socially prescribed control", indicates that individuals who score high on this trait should learn social norms readily, a definition that implies a need to consider how prescriptive norms may differ for different membership groups in thinking about this trait. Such norms may vary across the four groups discussed, with Pagans and Buddhists treating positive attitudes to mysticism as a socially prescribed norm, Christians and Jews

treating negative attitudes to mysticism as a socially prescribed norm. If attitudes to mysticism is a learnt variable, and NEO conscientiousness represents increased propensity for social learning, hypotheses may be articulated that NEO conscientiousness will be positively associated with attitudes to mysticism among Buddhists and Pagans but negatively associated with attitudes to mysticism among Christians and Jews.

2.10 Summary and Conclusions to Chapter Two

Psychoticism and attitudes to mysticism are both potential correlates of transpersonal experience worthy of assessment in empirical studies. Theoretical questions, such as that of whether mystical experiences arise through social conditioning or are innate, may benefit from assessments of how transpersonal experiences relate to psychoticism. However, reasons for questioning the heterogeneity of psychoticism have been emphasised in this chapter, suggesting that future psychometric research into transpersonal experience should assess more narrow-band traits as well as psychoticism. If NEO conscientiousness, for example, has a more specific relevance to impulse control and therefore conditionability than psychoticism, implications are that psychometric evaluations of social constructivism may gain greater benefits from use of the NEO than from use of Eysenck's P-E-N model.

Initial grounds for assessments of whether attitudes to mysticism arise through social learning may be obtained through studying this variable's relationship to psychoticism. The heterogeneity of psychoticism and sampling issues must both be considered in such research. Use of a more focussed model of personality than Eysenck's, such as the five-factor model, permits attention to traits more specifically linked to impulse control than psychoticism. Personality

correlates of attitudes to mysticism may differ in pro-mystical and anti-mystical religions. Psychometric study should take such sampling issues into consideration, and ideally consider both pro-mystical groups such as Pagans and Buddhists, and anti-mystical groups such as Christians and Jews.

Previously published empirical findings germane to these comments will be reviewed in Chapter Three. Important omissions from the available published literature will be highlighted. Theoretical questions that will be presented at the end of Chapter Three form the bases for the hypotheses that will be tested in the empirical studies that will be presented in this thesis.

CHAPTER THREE:
REVIEW OF PREVIOUSLY PUBLISHED DATA ON
TRANSPERSONAL EXPERIENCES

Published literature on the personality correlates of religiosity, including that which has looked at religious experience, will be reviewed in this chapter. Although psychoticism as described in Eysenck's model has frequently been assessed in such studies, grounds were offered, in Chapter Two, for questioning the univocality of this trait is questionable. Reasons why the contributions of psychometrics to theoretical questions on transpersonal experience may be enhanced by measurements of distinguishable facets of psychoticism rather than broad measures of this trait were given in the previous chapter.

A review of literature on the personality correlates of general religiosity, followed by a review of studies which have looked specifically at religiosity's experiential dimension, will be presented in Section 3.1. As precise personality correlates of religiosity may depend upon which form of religious orientation (intrinsic, extrinsic or quest) is being assessed, a review of literature on religious orientation and transpersonal experience will be presented in Section 3.2. As psychoticism may be linked with certain forms of pathology at extreme levels, a review of the literature on mental health and transpersonal experience will be presented in the final section of this chapter, Section 3.3.

Much empirical literature has been published on transpersonal experiences' connection to demographic variables such as age, gender, social status, educational level and ethnic group (Back & Bourque, 1970; Carroll, 1983; Hay, 1982, 1990; Hay & Morisy, 1978; Levin, 1993; Levin & Taylor, 1997). This includes the author's own work on gender differences in M-Scale scores

(Edwards, 1999). However, such literature will not form a central point of the following reviews, which will focus on "intrapsychic" rather than demographic correlates of transpersonal experience.

3.1 Personality and General Religiosity

Voluminous literature published since the 1950s has presented findings on how religiosity in general (not specifically the experiential dimension) relates to various personality traits. These include self-esteem, anxiety and hostility (Heintzelman & Fehr, 1976), intrapunitive and extrapunitive means of anger expression (Bateman & Jensen, 1958), variables assessed on the Edwards Personal Preference Schedule (McClain, 1978; Meredith, 1968), on Gough's California Psychological Inventory (Hoffnung, 1975; McClain, 1978), on the Jackson Personality Inventory (Hood, Hall, Watson & Biderman, 1979), and on the Minnesota Multiphasic Personality Inventory (Mayo et al., 1969; cited in Koenig et al., 1990) and locus of control (Kahoe, 1974). Research which reflected the influences of Rokeach and of Adorno considered whether increased religiosity was linked with being dogmatic or authoritarian (Hoffnung, 1975; Kahoe, 1977; see also more recent studies reviewed by Paloutzian, 1996). Heintzelman (1975), while acknowledging lack of total consistency, noted how early studies had associated religiosity with low self-esteem, conventionality and suspicion. Indeed, early literature has been summarized as portraying religious people as tending "to have more prejudice, rigidity, suspicion and general personal immaturity" (McClain, 1978, p159). However, these early studies focussed on a particular form of religiosity linked with right-wing conservative ideology in the United States, and focussed on

belief and behaviour rather than experience.

A similar tendency for empirical researchers to have concentrated their efforts on belief and behaviour rather than experience is discernible when one addresses religiosity research in connection with the four personality models outlined in Chapter Two. Caution should therefore be exercised in making inferences from such literature regarding personality correlates of religious experience. However, this wider body of literature on personality and religion in general at least sets a context for a review of studies that have looked specifically at experience. To contextualise the latter literature in this way enables major differences between these two research areas to be highlighted.

3. 1.1 Religiosity and Eysenck's P-E-N model.

Since 1980, there have probably been more published studies assessing religiosity in conjunction with assessments of traits from Eysenck's P-E-N model (e.g. Chau, Johnson, Bowers, Darvill & Danko, 1990; Francis, 1991a, 1991b, 1992a, 1992b, 1993, 1997; Francis & Astley, 1996; Francis & Bolger, 1997; Francis, Brown, Lewis, Philipchalk & Lester, 1995; Francis & Katz, 1992; Francis, Lankshear & Pearson, 1989; Francis & Pearson, 1985a, 1985b; 1988; Francis, Pearson & Kay, 1981; Francis, Pearson, Carter & Kay, 1981; Francis & Wilcox, 1996; Heaven, 1990; Johnson, Danko, Darvill, Bochner, Bowers, Huan, Park, Pecjak, Rahim & Pennington, 1989; Katz & Francis, 1995; Kay, 1981; Loudon & Francis, 1999; Maltby, 1995, 1999a; Maltby & Day, 2001; Robinson, 1990; Watson, Morris, Hood & Foster, 1986; Wilde & Joseph, 1997) than with any other personality model. The clergy have been assessed in some studies (Francis, 1991b; Loudon & Francis, 1999) but numerous other

studies have assessed respondents drawn from more general populations. A casual overview of this literature offers the impression that religiosity is orthogonal to both neuroticism and extraversion but negatively correlated with psychoticism (Eysenck, 1998; Francis, 1992a). However, closer scrutiny of the literature reveals how this broad statement requires careful qualification, especially when different religious orientations are considered.

Brief outlines will be offered here of three distinct forms of religious orientation - intrinsic, extrinsic and quest. This taxonomy of religious orientation should be seen as an addition to, not an enlargement of, the multidimensional models of religion outlined in Chapter One, for reasons outlined in Chapter One.

Religious Orientations

The term "religious orientation" has been used extensively to distinguish between *intrinsic religion* (a genuine, heart-felt piety) and *extrinsic religion* (a more utilitarian ends-orientated use of religion). Popularity of the term dates from Allport and Ross' (1967) publication of the Religious Orientation Scale (R.O.S.), although the distinction is discernible in Allport's earlier theoretical writings (Allport, 1950). Allen and Spilka (1967) introduced the terms "*committed*" and "*consensual*" religion - terms arguably more self-explanatory but which have never been quite as popular in published research literature. Intrinsic and extrinsic orientations bear conceptual similarities with, respectively, committed and consensual religion. Reported correlations between intrinsic and committed religious orientations have typically ranged from +.62 to +.88, while reported correlations between extrinsic and consensual religion

have typically been around $+0.5$ (Wulff, 1997). Data therefore justify treating intrinsic religious orientation and committed religion as equivalent concepts; that extrinsic and consensual religious orientation have typically been found to correlate less strongly means that whether these two concepts are equivalent is more moot. However, extrinsic religious orientation may take more diverse forms than intrinsic religious orientation, as explained below (Section 3.2). Taking the two concepts of intrinsic and extrinsic religious orientation as broad dimensions used to refer to motivations for religious (or apparently religious) acts of piety, Allport's distinction was summarised in his statement that intrinsically religious individuals *live* their religion, extrinsically religious individuals *use* their religion (Allport, 1950).

Significant contributions to religious orientation research have been made by Batson (Darley & Batson, 1973; Batson, 1976; Batson & Schoenrade, 1991a, 1991b; Batson et al., 1993), who has introduced terminology in which intrinsic and extrinsic orientations are labelled as *religion-as-ends* and *religion-as-means* respectively. Implicit in this terminology is that intrinsics treat their religion as an end to be lived for in itself, extrinsics use religion as a means - for example, attending church to gain social approval, or saying prayers to gain solace. Criticisms of a simplistic distinction between religion-as-ends versus religion-as-means have been offered, however (see Section 3.2).

Batson (Darley & Batson, 1976; Batson, 1976; Batson & Ventis, 1985; Batson & Schoenrade, 1991a, 1991b; Batson et al., 1993) has outlined a third form of religious orientation - quest religious orientation. Popular literature has described this as a religious orientation whereby "one may continuously search, but never find" (Dein, 1996, p16). More technically, this

concept is represented by Batson et al. (1993) as consisting of three facets that they believed were characteristics Allport attributed to his earlier concept of intrinsic orientation, but which had been lost in R.O.S. operationalisations of the concept, specifically:

- (a) Existential complexity, a willingness to face life-and-death issues in all their complexity in reflective dialogue;
- (b) A tendency to view religious doubts as positive;
- (c) A willingness to see one's religious views as an ongoing, fluid process of change, not rigid unchanging beliefs.

The concept of quest religious orientation has proven controversial (Donahue, 1985; Kojetin, MacIntosh, Bridges & Spilka, 1987), but this three-fold taxonomy of religion-as-end, religion-as-means and religion-as quest at least provides a basic working model that helps to understand reasons for inconsistencies in the published literature on personality and religion. Construction of the R.O.S. by Allport and Ross (1967), on which separate sub-scales are used to assess intrinsic and extrinsic religious orientation, indicates commitment to the view that intrinsic and extrinsic orientation may be orthogonal, not negatively correlated.

Orthogonality of intrinsic, extrinsic and quest orientations was explicitly defended by Batson et al. (1993). Their Religious Life Inventory (Batson et al., 1993) uses separate sub-scales to assess each dimension. Batson prefers to see these three separate orientations as continuous dimensions rather than types (personal communication), and in his later work at least, has declined to declare that any of these three orientations should be seen as more advanced than the

others (Batson & Ventis, 1985), implicitly denying that any of these orientations can be equated with religious maturity. Batson's model can therefore be differentiated from any models based upon concepts of spiritual development, such as Genia's (1997) model of spiritual openness and spiritual support, which portrays high levels of both as being a more advanced stage than a high level on only one of these two variables. Genia's model has been influential in general social science research into religion, but has yet to have substantive impact on either theoretical debate or empirical research into transpersonal experience.

Francis, Psychoticism and Religious Attitudes and Behaviour

Francis' (1992a) position implies that statistically significant negative correlations should be found between psychoticism and religiosity. The theoretical background for this position, postulating that individuals low in psychoticism, through reduced impulsivity and therefore heightened conditionability, are more likely to learn socially prescribed values than are individuals high in psychoticism, was sketched in Chapter Two. This portrayal of psychoticism stems from a shift in Eysenckian theory, with impulsivity being treated as a facet of psychoticism rather than extraversion. Thus, Francis' theoretical position may be regarded as a qualification of an earlier theoretical proposal that introversion in Eysenck's model should correlate positively with religious beliefs and behaviour. This supposed link between introversion and religiousness has not been supported. Apparent relationships between religion and both introversion and neuroticism observed in early studies were reduced to non-significance after controlling for sex of participant (Eysenck, 1998).

The most sustained research effort that has pursued empirical testing of

the prediction that psychoticism will correlate negatively with degree of religious commitment has been that involving the Francis Scale of Attitudes towards Christianity, in both its junior (Francis, 1978) and adult (Francis & Stubbs, 1987; Francis, Lewis, Brown, Phillipchalk & Lester, 1995) forms. A full version of the 24-item junior version of this scale is available in the appendix to Francis (1992a). A reasonably consistent finding from studies using this scale is that religiosity is orthogonal with both introversion and neuroticism but is negatively correlated with psychoticism, a finding made in studies of both school-age students (Francis, 1992a) and university-age students (Francis et al., 1995).

This negative relationship between psychoticism and religious attitudes has been observed in non-Christian samples. Using the Moslem Attitude to Religion Scale (M.A.R.S.), Wilde and Joseph (1997) found a negative correlation between psychoticism and religious attitudes among Moslem university students in the United Kingdom. Studies by Francis and Katz (1992) and Katz and Francis (1995), using a specially constructed scale to assess allegiance to Jewish orthopraxy, the Katz-Schmida Scale (cited in Francis & Katz, 1992) have found a similar negative correlation between psychoticism and positive attitudes towards Judaism among female Jewish teacher trainees in Israel. As with the studies of Christian respondents, these studies also found religious commitment to be orthogonal with extraversion and neuroticism.

An observation of the Francis Scale of Attitudes to Christianity reveals its heavy bias towards the doctrinal and ritual dimensions of religion as sketched in Chapter One. Examples of items from the 24-item version of the junior version of this scale include Item 4 ("The church is very important to

me"), Item 7 ("I think church is a waste of my time"), Item 12 ("I believe the Bible is out of date"), Item 13 ("I believe that Jesus still helps people") and Item 15 ("I find it hard to believe in God"). Such examples can be construed as measurements of either the ritual (Items 4 and 7) or doctrinal (Items 12, 13 and 15) dimensions of religion. Other items include those pertinent to prayer and therefore devotional religiosity ("I think praying is a good thing"), to the ethical-consequential dimension of religion ("God helps me to lead a better life") and a final item ("I like to learn about God very much") that is relevant to the knowledge-based dimension of religiosity. Unless questions on prayer are considered relevant to the religious experience of such prayers being answered, only two questions on this scale, and these somewhat ambiguously, relate to religious experience rather than religious ritual or doctrine. These are Item 17 ("God is very real to me") and Item 20 ("I know that Jesus is very close to me"), although Item 17 arguably relates to doctrine rather than experience. Studies finding negative correlations between this questionnaire-based measure of religiosity and psychoticism also leave open the question of whether such an inverse relationship is found when behavioural, rather than questionnaire-based, measurements of religiosity are employed. A similar bias towards the doctrinal and ritual dimensions of religion can be observed in the adult version of the Francis Attitudes to Christianity Scale, of which the items appear in Francis, Lewis, Brown, Phillipchalk and Lester (1995).

Behavioural measurements, such as asking respondents directly about their frequency of church attendance or prayer, have been used in some studies, such as Francis and Bolger (1997) and Maltby (1995). Statistically significant correlations between psychoticism and behavioural measures of religiosity were

found by both Francis and Bolger (1997) and Maltby (1995). Although a review of literature on religion in connection with the Eysenckian P-E-N model offers some preliminary corroboration of the position that religiosity and psychoticism are inversely related, leading Eysenck (1998) to take a negative correlation between religiosity and psychoticism as a consistent finding, some rather subtle ambiguities in the research literature demand that the literature should be reviewed in greater depth.

Studies Assessing Different Religious Orientations

Those studies that have treated religion as a broad variable (Francis, 1992a, 1992b; Francis & Kay, 1992; Francis, Lankshear & Pearson, 1989; Francis & Pearson, 1985, 1988; Francis, Pearson, Carter & Kay, 1981; Wilde & Joseph, 1997) have reasonably consistently found religion and psychoticism to be inversely related. Qualifications to this broad statement, however, emerge from studies which have assessed participants on the separate orientations of intrinsic, extrinsic (Johnson et al., 1989; Robinson, 1990) and quest (Watson et al., 1986) orientations.

A positive correlation between quest and psychoticism was found in a study reported by Watson et al. (1986). While the magnitude of this correlation was not great, if statistically significant, this finding suggests that the precise relationship that personality bears to religiosity depends upon the form of religiousness being assessed. The possibility that unconventional social attitudes, as explained in Chapter Two, may be a facet of psychoticism helps to explain why psychoticism may relate to the quest orientation.

Robinson (1990), assessing respondents on the R.O.S., found that for

certain respondent groups, extrinsic religious orientation correlated *positively* with psychoticism. This could be because certain items on the R.O.S. extrinsic sub-scale indicate willingness to sacrifice ethical standards (e.g. endorsement of an item asking whether one is willing to compromise one's religious ideals for economic gain is taken as indicative of greater extrinsic religiosity), and conceptually imply higher, rather than lower, psychoticism. Quest and extrinsic religiosity may correlate positively with psychoticism; one may conclude that the common finding that religiosity and psychoticism share a negative relationship is really a comment on intrinsic religiosity. Indeed, much evidence for an inverse relationship between religiosity and psychoticism has come from those studies such as Francis (1992a) where the operational measure of religiosity has been the Francis Scale of Attitudes to Christianity. Empirical evidence exists that scores on this scale correlate positively with intrinsic, negatively with extrinsic and quest, orientations (Francis & Orchard, 1999). However, a rather intriguing anomalous finding from at least one part of the world should be outlined.

Johnson et al. (1989) found a positive correlation between *intrinsic* religious orientation and psychoticism among respondents in Hawaii. These authors collected a large pool of data on potential correlates of altruism in Hawaii (and also in Missouri, where they found intrinsic religious orientation and psychoticism to be orthogonal). Type One errors may have stemmed from the large number of correlations reported by Johnson et al. (1989); however, positive correlations between intrinsic religious orientation and psychoticism in Hawaii were also observed by Chau et al. (1990).

Theoretical debate has seldom discussed why, in a Pacific U.S. state,

associations between intrinsic religious orientation and psychoticism were the direct opposite of those typically found elsewhere. This may relate to the inherent bias, noted by Paloutzian (1996), of the intrinsic scale of the R.O.S. towards conservative Christianity. As a measure of religiosity, this scale may have most applicability in the Bible belt states in the Deep South of the United States, such as Alabama, Tennessee, Louisiana or Georgia, where endorsement of conventional religious values may very much correspond to higher scores on the R.O.S. intrinsic sub-scale. This association may be less marked for states such as Massachusetts, influenced by liberal denominations such as Unitarianism, or among the New Agers of the West Coast of California.

Hawaii's multi-ethnic approach to faith, combining commitment to the Christian faith with an inheritance from Pagan, animistic religions predating Christianity (Smart, 1999), may differ sharply from the Bible-based fundamentalism typical of the Deep South of the United States. If the theoretical position of Francis (1992a), that inverse relationships between psychoticism and religiosity emerge through higher religiosity stemming from learning and acquisition of socially derived teachings and conventions, is defensible, the greatest negative correlations between psychoticism and religiosity should be in societies which most value the form of religiosity that is being assessed on both the Francis Scale of Attitudes to Christianity and the intrinsic sub-scale of the R.O.S. (i.e. a Bible-based form of conservative Christian Protestantism) - at least, if religiosity is operationally defined as scores on these two scales. Hawaii's multi-ethnic culture may value a rather different approach to faith. Buddhist and animist influences on Hawaiian religious life may have caused some religiously-inclined Hawaiians to look with suspicion at some of the forms

of religiosity that such scales are measuring. In Hawaii, religious individuals may have had reservations about what they perceived as a form of religion imported from the mainland United States; thus, the positive correlation between intrinsic religiosity and psychoticism reported by Johnson et al. (1989) becomes less surprising than it may appear *prima facie*.

Cultural Considerations

Findings in Hawaii may be exceptional, for some evidence exists that a negative correlation between psychoticism and religiosity does exist in different cultures (Francis et al., 1995a). These authors found negative correlations between psychoticism and religiosity in the United Kingdom, the United States, Canada and Australia. These correlations all remained significant after controlling for gender. Only two other correlations observed by Francis et al. (1995) remained significant after controlling for sex of participant. These were a positive correlation between scores on the E.P.Q. Lie-scale and the Francis Scale of Attitudes to Christianity Scale in United Kingdom, and a negative correlation between scores for E.P.Q. neuroticism and on the Francis Attitude to Christianity Scale in Canada, although neither were of the same level of magnitude as the inverse correlations reported by Francis et al. between religiosity and psychoticism. Maltby (1995) found an inverse relationship between psychoticism and religiosity in a U.S. sample, consistent with the findings obtained by Francis (1992a), Francis (1992b) and Francis and Bolger (1997) for United Kingdom samples. Assessments of Israeli samples (Francis & Katz, 1992; Katz & Francis, 1995) have also found an inverse relationship between psychoticism and religiosity.

Although a negative correlation between religion and psychoticism may exist in both different creeds and different cultures, it may require different measuring instruments for its detection depending upon the sample being studied. Use of the Francis Scale of Attitudes towards Christianity, for example, would have been wholly inappropriate in the studies of Jews and Muslims of Katz and Francis (1995) and Wilde and Joseph (1997). A less truistic example relates to the failure of Johnson et al. (1989) to find a negative correlation between intrinsic religiosity and psychoticism in Hawaii, which may have been less to do with genuine absence of such a relationship than to use of an inappropriate scale. A scale asking about "Attitudes to Indigenous Religious Faith and Practices as Traditionally Valued in Hawaii" may have yielded quite different findings.

Analogies with research into intelligence help to clarify this argument. Different perspectives are available in cross-cultural research into intelligence, ranging from the strongly universalist viewpoint that intelligence is an identical concept in all cultures and can be assessed on the same instruments, to the radical cultural relativist view that intelligence means different things in different cultures and can only be assessed by use of different measuring tools in different cultures (Sternberg, 1990). Between these two extremes, Sternberg noted intermediate viewpoints. One is the view that intelligence is an identical concept in different cultures, but requires culture-specific instruments for appropriate assessment. Similarly, relationships between psychoticism and religiosity may be invariant across cultures, but may require culturally variant means for appropriate assessment.

Qualifications to Generalisations on Psychoticism as a Negative Correlate of Religiosity

To a greater extent than creed or culture, gender and age of respondents being sampled may complicate religiosity's relationship with psychoticism. The inverse relationship between psychoticism and religiosity has been more regularly reported in studies employing younger respondents, such as Francis (1992a) and Francis & Wilcox (1996), than in studies of older respondents. Although Francis and Bolger (1997) did find some evidence for a negative relationship between psychoticism and religiosity in a study employing older respondents, Francis and Astley (1996) found that prayer frequency did not correlate with psychoticism among adult church-goers. This latter finding may be contrasted with Francis' (1997) finding of a negative correlation between psychoticism and both prayer frequency and church attendance frequency in a sample of first-year undergraduate students, of whom 71% were under the age of twenty.

A possible reason why intrinsic religiosity and psychoticism may be more closely linked in early life stages may relate to social constructivist explanations of intrinsic religiosity. Early life may be when people are most readily acquiring adherence to the pattern of beliefs and behaviours that reflect the norms of their in-group, meaning that it may be these life stages, rather than those of later life, in which such adherence is most readily linked with low levels of traits which inhibit conditionability.

The inverse correlation between psychoticism and religiosity appears to be stronger in male than female respondents. Kay (1981) found that in four classes of 11-15 year-old school children, psychoticism and religiosity were

negatively correlated in all four classes for males, but only correlated negatively in the youngest class in females. Kay found psychoticism and religiosity to be orthogonal among females in the older classes. Francis (1992b), looking at members of the Christian Union at Cambridge University, found that only the male members scored lower than their age and gender-matched norms on psychoticism, a finding replicated by Francis and Pearson (1993) after assessing student church-goers. In these studies, religiously active males but not females were found to have lower than average scores on E.; Francis and Pearson (1993) found that female student church-goers did not differ significantly from their age and gender-matched norms on E, P or N, but did score significantly lower on the E.P.Q. Lie-scale.

Even when strong negative relationships between psychoticism and religiosity have been reported for both genders, evidence can be observed that this correlation is stronger in males. In Francis' (1992a) study, correlations between psychoticism scores and religious attitudes as assessed on the Francis Attitudes towards Christianity Scale were $r = -.17$ and $r = -.34$ for females and males respectively. Equivalent correlations for P as assessed on the JEPQ (Junior Eysenck Personality Questionnaire) in this study were $r = -.21$ for females and $r = -.34$ for males. A possible explanation is that, as females typically score lower on the E.P.Q. psychoticism sub-scale than males, their responses are more likely to have been affected by floor effects, suggesting that this observation is a methodological problem and should not be considered to have substantive theoretical impact. This explanation is supported by the fact that negative correlations between psychoticism and religiosity have been observed in studies using all-female samples (Francis & Wilcox, 1996; Katz &

Francis, 1995; Maltby 1995).

Qualifications to statements that religiosity and psychoticism are always inversely related have come from studies of the clergy. Mean average psychoticism scores for secular parochial clergy in the Roman Catholic church appear to be higher than the normative average for male respondents in general (Louden & Francis, 1999). This may relate to the considerable authoritarian qualities, or high ego strength, demanded by a position that requires one to lead others. Such findings therefore help to clarify how the qualities implicit in high psychoticism scores need not be perceived as being entirely negative qualities. Evidence exists that typical personality profiles of the Anglican clergy are not simple replications of those found for the typical religious individual (Francis, 1991b). Louden and Francis's (1999) more recent study suggests that this also applies to Roman Catholic clergy.

Theoretical postulates linking heightened conditionability with greater religiosity cannot, it is argued here, be used as an obvious justification for any hypotheses that the clergy will have lower psychoticism scores than average, insofar as only a minority of one's social group actually do train to become clergy and thus, social convention should not be equated with willingness to train for the ministry. Thus, while respondents who are lower in psychoticism may, by virtue of their greater conditionability, more readily acquire patterns of religiosity that genuinely reflect greater social convention and acquisition of the mores of their in-group, desire to join the clergy cannot be taken as one of these patterns. If initial impetus to join the clergy stems from a personal feeling or conviction that one has in some way experienced a "calling" or "vocation", it is the experiential dimension of religiosity that needs to be considered when

looking at religiosity and the clergy, and it is on this dimension where (see below) some interesting patterns that clearly diverge from the typical patterns on personality and religiosity have been obtained.

Religiosity's negative correlation with psychoticism may be more marked for younger rather than older participants, and for males rather than females. However, another reason for inconsistencies in the literature on psychoticism and religiosity measures must be considered.

Three reasons for such inconsistencies were considered by Francis et al. (1995a). The first was that such inconsistency is attributable to cultural variations, but as noted above, this negative correlation between psychoticism and religiosity may be both invariant across creed and culture, if requiring culturally sensitive instruments for its detection. The second was that inconsistencies may have stemmed from age-based variations in samples. This position is defensible, and is consistent with Francis' theoretical position, but it should nevertheless be noted that a negative correlation between psychoticism and religiosity has been observed in adults in later stages of life (Francis & Bolger, 1997).

The third possibility considered by Francis et al. (1995a) has most immediate relevance to the concerns of the current thesis. They suggested that inconsistencies in the literature on religion and psychoticism may be attributable, in part, to religiosity being multi-dimensional, so that whether religiosity correlates negatively with psychoticism may depend on which particular dimension of religion is being assessed. It has been noted above how intrinsic, extrinsic and quest religious orientations may have different relationships with psychoticism. As with different religious orientations, so too

might different religious dimensions bear different relationships with psychoticism, a premise supported by Maltby and Day's (2001) findings that the personality traits of Eysenck's P-E-N model that are associated with spirituality do not match entirely those found for religion.

Three types of study have produced evidence that psychoticism and religiosity are negatively correlated. These are those which have used questionnaire-based measurements (e.g. Francis, 1992a; Francis et al., 1995a; Wilde & Joseph, 1997); those which have used behavioural measures of what Stark and Glock (1968/ 1969) termed devotional religious dimension (e.g. Francis, 1997); and those which have used behavioural measures of public religiosity, or what Stark and Glock termed ritual religious dimension (e.g. Francis & Bolger, 1997; Maltby, 1995). Francis and Astley's (1996) failure to find a negative correlation between prayer frequency and psychoticism among adult church-goers may be interpreted as evidence that this negative correlation between religiosity and psychoticism is weaker for the devotional dimension. Evidence that this negative correlation is not always found for the public-ritual dimension came from one of the largest studies employing behavioural measures of religiosity. This was the so-called "Virginia 30, 000", which examined some 14,781 pairs of twins in Virginia, United States. Here, for both males ($r = 0.106$; $N = 11, 509$) and females ($r = 0.111$; $N = 17, 064$) small but significant positive correlations between psychoticism and church attendance were observed (D'Onofrio, Eaves, Murrelle, Maes & Spilka, 1999).

Such data have provided little information on potential negative correlations between psychoticism and religiosity's experiential dimension. In quite subtle ways, those studies using questionnaire-based measures of

religiosity, such as the Francis Scale of Attitudes towards Christianity, may have been orientated towards religiosity's doctrinal and ritual dimensions. In themselves, such scales may be relatively uninformative as to whether a respondent has ever had a personal spiritual experience, whether one readily associated with Christianity, such as a born-again conversion experience, charismatic healing experience, glossolalia or a sense of union with Christ, or one which is less specifically bound to any faith tradition, such as the more generic sense of union assessed on Hood's (1975) M-Scale. Similar absence of attention to religiosity's experiential dimension can be observed on the scales used to assess attitudes towards Judaism and Islam used respectively by Francis and Katz (1992) and Wilde and Joseph (1997). Studies of Eysenck's P-E-N traits and religious experience are reviewed below, and it is as well to acknowledge here that literature on this topic has yet to be as voluminous as that on other dimensions of religion in connection with this model.

This review of literature on the Eysenckian P-E-N model of religion and personality can be summarized as follows. Firstly, there is little evidence that either extraversion or neuroticism bear any relationship to religiosity levels once gender has been controlled. Secondly, psychoticism has regularly been found to be negatively correlated with religiosity. This negative correlation appears to be stronger in studies of younger rather than older respondents, and for males rather than females.

A major qualification to attempts to summarize literature in this area by declarations that religiosity is negatively correlated with psychoticism is that such a negative correlation has more typically been observed for measures of intrinsic than extrinsic or quest religious orientation. Studies of religious

experience (see below) suggest that variations in religiosity dimension as well as religious orientation have contributed to the inconsistent findings on religion and Eysenck's P-E-N model.

A key theoretical postulate that has guided research in this area is that low psychoticism is associated with conditionability into tender-minded attitudes (Beyts, Frcka, Martin & Levy 1983; Rocklin & Revelle, 1981), and that, therefore, inverse relationships will be observed between religiosity and psychoticism if the former is associated with this form of conditionability. The above findings suggest that such conditionability may explain the origins of intrinsic rather than quest or extrinsic religiosity. The question of whether such conditionability underlies the origin of all religiosity dimensions should now be considered.

Katz's (1978; 1983) social constructivism implies that this is so for religious experience. His position therefore implies that negative correlations between psychoticism and religious experience will be found, at least in samples that value such experiences. However, the heterogeneity of psychoticism should be recalled. More cogent evidence that a particular form of religious orientation or particular religious dimension is associated with increased conditionability into tender-minded attitudes will emerge from data that, rather than merely report negative correlations between psychoticism as a broad trait and that particular dimension or orientation, suggest negative correlations between those facets of psychoticism pertinent to social learning and that dimension or orientation. Reviews of literature on personality and religion should therefore consider alternative models to those of Eysenck.

3.1.2 The Five-Factor Model of Personality (FFM) and Religion

Very few studies of religiosity-personality published prior to the late 1990s had considered respondents' scores on the Five-Factor Model (FFM). A special edition of *Journal of Personality* published in 1999, devoted solely to papers on religion and personality and featuring two papers relevant to the FFM (McCrae, 1999; Piedmont, 1999), may help to raise awareness of this model's value in future research into religion. Goldberg's (1990) study, although only incidentally concerned with religion, found the three variables of religiosity, evangelicalism and irreverence to load upon a separate religiosity factor (irreverence loading negatively) when six- and seven-factor solutions were applied to the data. Each of these variables loaded on conscientiousness in a five-factor solution.

Three empirical papers more explicitly linked with religion represent a ground-breaking beginning in raising consciousness of the FFM's potential as an important heuristic tool in empirical studies of religiosity-personality associations (Streyffeler & McNally, 1998; Piedmont, 1999; Taylor & MacDonald, 1999). Streyffeler and McNally (1998) found that both liberal and fundamentalist Protestants scored higher in extraversion and agreeableness but lower on neuroticism than general population norms, but that these two groups needed to be differentiated in that the former scored *higher*, the latter *lower*, on openness to experience than general population norms. Conscientiousness scores were not significantly different from general population norms for either group.

Streyffeler and McNally collected important cross-denominational comparative data; Taylor and MacDonald (1999) went further and compared

different creeds. They assessed respondents from four categories (Roman Catholic; Other Christian or O.C.; Other Religion or O.R.; and No Religion or N.R.) on each of the five FFM traits. Unlike Streyffeler and McNally, their findings suggested that the trait of conscientiousness *is* relevant to religiosity, insofar as post hoc analyses revealed respondents in both the O.C. and O.R. categories scored higher on conscientiousness than respondents in the N.R. category. O.C. respondents scored significantly higher on agreeableness than N.R. respondents, but other between-group comparisons for agreeableness were non-significant. No significant between-group differences were found for openness to experience.

If conscientiousness, agreeableness and openness to experience each represent a distinct facet of P., Taylor and MacDonald's data highlight problems with broad assessments of psychoticism in personality-religiosity research. Such data suggest distinct facets of P. yield different patterns of between-group differences.

Taylor and McDonald (1999) did find intrinsic religiosity to be significantly correlated with both agreeableness ($r = 0.21$; $N = 368$; $p < 0.001$) and conscientiousness ($r = 0.20$; $N = 368$; $p < 0.001$). This aspect of their data appears to be consistent with the large body of literature suggesting intrinsic religiosity correlates negatively with global measures of psychoticism. Gender considerations, however, reveal an important difference between the findings of these authors and findings using Eysenck's P-E-N model. They found conscientiousness to be more strongly correlated with intrinsic religiosity in females ($r = 0.24$; $N = 266$; $p < 0.001$) than in males ($r = 0.08$; $N = 102$; N.S.). This is quite the reverse from the finding typically made in studies using

Eysenck's model, where, as noted above, inverse relationships between psychoticism and religion appear to be stronger for males than females. Taylor and McDonald also found that openness to experience correlated negatively with extrinsic religiosity, but only in female participants, again suggesting an important difference between their work and that using Eysenck's model was that greater effect sizes were observed for females.

The most original approach to linking religion with the five-factor model has been published by Piedmont (1999). Arguing that a *sixth* factor, *spirituality*, should be added to the original five, Piedmont assessed both self-ratings and peer-ratings on this variable on a newly developed Spiritual Transcendence Scale (S.T.S.). Piedmont represented this trait as comprised of three sub-facets:

- (a) Universality, a sense that one's life is being well orchestrated by the harmony of the universe;
- (b) Prayer fulfilment, the extent to which personal satisfaction with life is drawn from regular practice of devotional exercises such as prayer or meditation;
- (c) Connectedness, a sense of unity with Nature or the universe, similar to mystical experiences as described by Stace (1960).

These three variables correlated significantly with extraversion in both self-ratings and peer-ratings, but as extraversion correlated most strongly with self-assessed prayer fulfilment at a level indicative of considerable unshared variance ($r = +0.27$), spirituality still appeared to be distinct from extraversion. Of the original five factors, the most similar conceptually to spirituality may appear to be openness to experience (cf. McCrae, 1999). Indeed, the highest correlation reported by Piedmont between any of the five factors and scores on

the S.T.S. was that between openness to experience and universality for self-ratings ($r = +.33$; $N = 342$). Openness to experience, in both self-ratings and peer-ratings, correlated significantly positively with universality. For self-ratings but not peer ratings, openness to experience correlated significantly positively with connectedness. Prayer fulfilment, whether assessed by self-ratings or peer-ratings, did not correlate significantly with openness to experience.

Piedmont found that conscientiousness and agreeableness correlated significantly with facets of spirituality as assessed by self-ratings but not peer-ratings. Conscientiousness correlated with prayer fulfilment but not universality or connectedness. Agreeableness showed the complementary pattern, being significantly positively correlated with universality and connectedness but not prayer fulfilment. For neither self-ratings nor peer-ratings were any significant correlations observed between spirituality facets and neuroticism.

Compared with the vast literature on the Eysenckian P-E-N model and religion, published literature on the five-factor model and religion remains slight, but has raised questions about potential challenges to received wisdom on how the former model relates to religion. Streyffeler and McNally's (1998) findings are inconsistent with numerous studies using Eysenck's model that have found doctrinal and ritual dimensions of religion are orthogonal with extraversion. Data on conscientiousness presented by Streyffeler and McNally are inconsistent with the frequently observed negative relationship between psychoticism and religiosity. Taylor and McDonald's (1999) observations of significant differences between adherents of non-Christian religions and non-religious respondents on conscientiousness but not agreeableness suggests that

researchers into personality and religion who plan to study non-Christian religion should be wary of attempts to assess psychoticism as a global trait.

The most complete picture of how religion, construed as a multi-dimensional construct, may relate to the five-factor model emerged from Piedmont's (1999) data. These data suggested that prayer fulfilment (exemplifying religion's devotional dimension) and a sense of universality or connectedness (exemplifying religion's experiential dimension) may relate primarily to distinct facets of psychoticism. The former may relate primarily to conscientiousness; the latter to agreeableness. Thus, research that construes religion and spirituality as multi-dimensional constructs can benefit from bifurcation of psychoticism, as is done in the five-factor model.

3.1.3 MBTI Typology and Spirituality and Religion

Canadian Religious Studies scholar Christopher Ross has published important theoretical (Ross, 1992a; 1992b) and empirical (Ross, 1993; Ross, Weiss & Jackson., 1996) papers linking MBTI typology to different types of spirituality and religion. Indeed, it would be only a slight exaggeration to say that what Leslie Francis has achieved in furthering knowledge of how Eysenck's P-E-N model relates to religion, Christopher Ross has achieved in furthering knowledge of how the MBTI relates to religion. In reviewing this literature, it is important to recall how, as clarified in the last chapter, three distinct MBTI dimensions, namely MBTI intuitive, judging and feeling preferences, may relate to distinguishable facets of psychoticism.

Francis (1992a) explicitly defended the view that a negative correlation between religion and psychoticism extends to all facets of psychoticism. In

MBTI terms, this implies links between religion and (a) judging (b) feeling and (c) sensate types. In fact, when MBTI literature is reviewed carefully, such predictions are challenged, as is apparent from findings contrasting religious liberals with religious conservatives.

Religious groups have been found to consist of predominantly MBTI judging types, especially judging and feeling, and of the four Keirsey-Bates types, the intuitive-feeling type may be the most common type among participants of spirituality workshops (Ross, Weiss & Jackson, 1996). Among liberal religious groups in Northern America, such as Unitarians or the Anglican Church of Canada, intuitive types predominate, whereas among samples of fundamentalists and Roman Catholics, sensate types predominate (Ross, 1993). If this bias towards MBTI judging characterises religious liberals, it would be an over-simplification to claim that literature on psychoticism, when translated into MBTI terms, can be summarised by generalised statements that religious individuals will tend to be sensate, judging and feeling types. The literature on the MBTI suggests that conservative religious individuals will be high in both judging and sensate preference, whereas liberal religious individuals will be high in judging and intuitive preference. This is consistent with Streyffeler and McNally's (1998) findings on FFM openness to experience in fundamentalist and liberal Protestant groups. Since Francis and Jones (2000) found the MBTI judging and intuitive preferences to be linked respectively with lower and higher psychoticism, such findings also imply that religious liberals are high in some but low in other facets of psychoticism.

In more theoretical papers, Ross has associated the MBTI feeling preference with a form of piety that many today would regard as spirituality

rather than religion, emphasising harmony in relationships with other people, personal devotion and a tendency to view sin as neglect of human concerns (Ross, 1992a). Ross has also associated the MBTI intuitive preference with a tendency to see God as mystery, rather than as a demonstrable, concrete fact, and with a tendency to seek symbolic rather than literal interpretations of sacred texts (Ross, 1992b). The tendency for religious individuals to be predominantly MBTI judging types has been found to be even greater in samples of rabbis and the clergy than in samples of religious laity, as Ross et al. (1996) have noted. Although much literature on Eysenck's P-E-N model and religion has generally reported only collateral relationships between religiosity and personality, these studies of the clergy have led to considerations of directions of causality in some MBTI studies. MBTI judging preference could be seen as the effect of increased religious instruction; but could also be viewed as the cause of increased religiosity (judging types may be attracted to religious institutions because of the routine and order that such institutions offer).

Several studies cited in Ross (1993) suggested that judging types predominate in samples of candidates for the ministry even prior to their commencement of theological training. They are therefore evidence that MBTI judging preference should be viewed as a cause, rather than an effect, of association with religious institutions. This is consistent with Francis' (1992a) theoretical stance, which, by associating low psychoticism and religion through linking the former with greater conditionability, implies that greater religiousness is the effect, not the cause, of low psychoticism.

Studies using the MBTI have furthered knowledge of the relationships between personality and religion, but limitations of this literature should be

acknowledged. A small body of literature has been published on MBTI type distribution among Hare Krishna devotees (Poling & Kenney, 1986) and rabbis (cited in Ross, 1993), but most of this literature has focussed on Christian samples. Questions therefore remain as to whether a similar bias towards judging types is to be found in non-Christian religions. This bias may be accented in a religion such as Judaism, with its strong emphasis on orthopraxy and ritual over creedal affirmation (cf. Armstrong, 1993), but attenuated or even reversed in a religion such as Taoism, with its emphasis on "letting things happen". Research into religion and the MBTI may also be criticised for frequent failure to ignore base-rate distribution of type. As a bias towards judging types has been found for general populations (Cummings, 1995), findings of a bias towards judging types in specifically religious samples should not be seen as surprising.

Prolific as the literature on the MBTI typology and religion is, it may be some time before its impact on academic psychology is quite as strong as the literature on Eysenck's P-E-N model and religion, as much of the former literature has been in works of Christian apologetics and New Age spirituality rather than research journals. This observation is supported by observing how, of the eight references cited by Ross et al. (1996) on religion and the MBTI, seven were from books and one from the highly specialist journal *Practice of the Ministry in Canada*.

These limitations acknowledged, a considered awareness of research into MBTI type and religion is of value in this thesis for two central reasons. Firstly, such studies indicate the need to compare individuals who affiliate with different forms of spiritual group, rather than, as with much research using

Eysenck's model, compare individuals of high and low religiousness as if religion were purely unidimensional. Secondly, MBTI studies provide evidence that future research should consider different facets of psychoticism and how they relate in different ways to different forms of spirituality and religion. Such literature has found an association between religious liberalism and MBTI intuitive preference - an MBTI preference linked with elevated, not reduced, psychoticism (Francis & Jones, 2000). If evidence can be obtained to suggest that mystical and transpersonal experiences are more typical among religious liberals than religious conservatives, therefore, the case is strengthened for an emphasis on distinguishing between different elements of psychoticism in research into personality correlates of transpersonal experience, as these may be individuals who are high in certain facets of psychoticism (those linked with MBTI intuitive preference) but low in other facets of psychoticism (those linked with MBTI judging preference).

3.1.4 Cattell's 16 Personality Factor (16 P.F.) Model and Religion

The influence of psychoanalysis on Cattell and the important influence that Freudian psychology has had on the psychology of religion make it somewhat surprising that relatively few studies have employed Cattell's model to assess personality-religiosity correlates. Research for the current review discovered only seven published papers (other than those looking specifically at personality in the clergy, such as Musson, 1998) that looked at how religiosity relates to traits in Cattell's model (Barton, Mogdil & Catell, 1973; Koenig, Siegler, Meador & George, 1990; McClain, 1978; Meredith, 1968; Rasmussen & Charman, 1995; Wiebe & Fleck, 1980; Watson et al., 1986). Of these, Barton et

al (1973) used the High School Personality Inventory, rather than the Cattell 16 P.F. itself; Rasmussen & Charman (1995) assessed only two traits in the model; and McClain (1978) based final analyses on factors derived from assessments of Cattell's traits combined with measurements of variables assessed on Gough's California Psychological Inventory and the Edwards Personal Preference Schedule, rather than on raw measurements of the 16 traits in Cattell's model. Thus, only four of these studies (Koenig et al. 1990; Meredith, 1968; Watson et al., 1986; Wiebe and Fleck 1980) assessed all 16 traits in the Cattell's model in conjunction with religiosity assessments.

A study of high school age students' scores on the High School Personality Inventory found that none of the traits assessed on this inventory predicted attitudes to religion (Barton et al., 1973). Although the negative findings of this study may partially account for relative lack of enthusiasm for use of Cattell's model in subsequent research into personality-religiosity correlates, it should be recalled, as noted in Chapter Two, that the High School Personality Inventory does not assess an identical list of traits to those assessed on the Cattell 16 P.F.. Meredith (1968), Wiebe and Fleck (1980) and Watson et al. (1986) all obtained more significant findings using this model. The focal question to be addressed here is whether such research has found religiosity to be associated with *all* traits on the Cattell 16 P.F. which indicate low psychoticism, or has found religiosity to be associated with only some of these traits.

Meredith (1968) found that of the Cattell 16 P.F. traits, scores on the Thurstone and Chave Attitudes towards the Church Scale (Thurstone & Chave, 1929; cited in Meredith, 1968) and the Ferguson Religionism Scale (Ferguson,

1944; cited in Meredith, 1968) were most predicted by Factors G (conscientiousness) and Qi (Conservatism). A more widely cited study, in which intrinsically religious Catholics, extrinsically religious Catholics, intrinsically religious Protestants, extrinsically religious Protestants and non-religious students drawn from a population of Canadian undergraduates completed the Cattell 16 P.F., found intrinsic religiousness to be associated with increased tender-mindedness, reduced liberalism and increased conscientiousness (Wiebe & Fleck, 1980). Similar findings on which of Cattell's traits are linked with intrinsic religiosity were obtained by Watson et al. (1986); these authors found extrinsic religiosity to be associated with Cattellian traits indicative of elevated sociability, reduced ego strength, and increased conventionality. Quest religious orientation was not found by Watson et al. (1986) to be linked with any of the Cattell 16 P.F. traits. Rasmussen and Charman (1995) only assessed Factors C (ego strength) and G (rule-consciousness) from the Cattell model, and found increased intrinsic religiousness to be associated with elevated scores on G.

Taken together, the above studies do *not* appear to challenge assumptions that psychoticism can continue to be assessed as a broad, homogeneous trait in personality-religiosity research. Distinguishable facets of low psychoticism are represented on the Cattell 16 P.F. by conscientiousness, tender-mindedness and conservatism, all of which were found to be related to religiosity in the above studies. However, it should be emphasised that use of student samples in these studies leaves open the question of whether research with the Cattell 16 P.F. implies univocality of psychoticism among older respondents.

Koenig et al. (1990) assessed patterns of religious coping among adult respondents in the Duke Longitudinal Study of Aging, of mean average age 66.8, who had responded to questions on how they coped with stress at three difficult stages of their lives. Consistent religious coping was found to be linked with lower scores on Factor E and higher scores on Factor I, that is, with lower dominance and increased tender-mindedness. No significant differences were found between religious and non-religious copers, or between religious and occasional religious copers, on the remaining fourteen traits. This suggests that among older respondents, only one particular facet of reduced psychoticism (tender-mindedness) is linked with religiousness, although in this study, this may have been a confound of gender, with women being both more tender-minded and more likely to use religious coping.

McClain (1978) compared intrinsically religious and non-religious students on eight factors derived from assessments of the Cattell 16 P.F. traits and those measured on the Edwards Personal Preference Schedule and the California Psychological Inventory. Only the first five of these eight factors will be considered here, as Cattellian traits did not load strongly on the remaining three factors, none of which accounted for more than 3.5% of variance in McClain's data. These five factors could be understood as capacity for independent and critical thinking; self-control; assertiveness; nurturance; and ego strength, the latter corresponding (inversely) to Cattell's global factor of anxiety. Of these factors, differences between religious and non-religious students were observed for only two - the second factor, representing self-control, and the fifth factor, representing ego strength, suggesting that religious students are higher in conscientiousness and lower in anxiety than are non-

religious students. No interaction was found between gender and religion on any of these five factors. McClain's data on self-control are consistent with other research suggesting associations between Factor G of the Cattell 16 P.F. and religiosity, and also with evidence for inverse relationships between intrinsic religiosity and psychoticism and with that suggesting associations between religiosity and MBTI judging preference.

The studies of Koenig et al. (1990) and McClain (1978) suggest, respectively, that only facets of psychoticism related to tender-mindedness may relate to religion in older respondents, and that only facets of psychoticism associated with superego strength, conscientiousness and impulse control may relate to religion in a student-aged population. Such findings therefore challenge attempts to assess psychoticism as a broad trait in assessments of personality and religion.

3.1.5 Studies of Personality and the Experiential Dimensions of Religion

Fewer studies have assessed personality correlates with the experiential dimensions of religion (Caird, 1987; Francis & Kay, 1995; Francis & Loudon, 2000a, 2000b; Francis & Thomas, 1996, 1997; Hood, 1975; Hood, Hall, Watson & Biderman, 1979; Loudon & Francis, 2001) than have assessed personality correlates of other religiosity dimensions. This may be attributed to both methodological and theoretical reasons. Doctrinal and ritual elements of religion can be assessed by the relatively straightforward means of frequency counts of, for example, prayer or church attendance or by well-established questionnaires such as the R.O.S. of Allport and Ross (1967). Assessments of the experiential dimension of religion have had to wait upon a more recent development, the

design of self-report questionnaires to assess transpersonal experiences. From a theoretical standpoint, the relevance of Katzian social constructivism to similar statements on how mainstream religion is associated with conditionability into tender-minded attitudes may have been underestimated by many psychologists of religion.

Research into the personality correlates of religious experience has, as with studies of general religiosity, generally been based on Eysenck's P-E-N model, ever since Caird's (1987) study. Caird found that psychoticism, extraversion and neuroticism were all orthogonal with scores on Hood's M-Scale in a student sample. Findings that all three traits in this model are unrelated to transpersonal experience have not, however, been replicated in subsequent studies using clergy-based samples. Studies of charismatic experience among Catholic and Anglican clergy have reported that such experiences are orthogonal with P., but correlate positively with E and - at least among Catholic clergy - negatively with N (Francis & Thomas, 1997; Loudon & Francis, 2001). Mystical experience as assessed on the Francis-Louden Mystical Orientation Scale has, among Anglican clergy, been found to be orthogonal with neuroticism and psychoticism, but positively correlated with extraversion (Francis & Thomas, 1996).

Relationships between M-Scale scores and personality were assessed by Hood (1975) and Hood et al. (1979). Hood (1975) found mystical experience to be correlated positively with openness to experience, a term used by Hood to refer to a trait other than openness to experience as assessed on the NEO-PI, but to a psychoanalytic concept referring to capability to access preconscious and unconscious materials, linked with "belief in the supernatural, ecstatic emotions,

and alterations of consciousness" (Hood, 1975, p36). Hood et al. (1979) examined correlations between the fifteen traits assessed on the Jackson Personality Inventory (J.P.I.) and M-Scale scores. Significant positive correlations were observed for complexity for both males and females, social adroitness in males and innovation and breadth of interest in females. Factor analytic studies of the M-Scale have reasonably consistently found that it is actually assessing two different factors, one assessing mystical experience per se, and one assessing religious interpretations of such experiences. The former was found to correlate significantly *negatively* with value orthodoxy in females, the latter significantly positively with value orthodoxy in males, by Hood et al. (1979).

Traits assessed on the JPI can be said to represent different facets of psychoticism, for example responsibility and value orthodoxy could respectively be described as the low poles of conscientiousness and conventional social attitudes. As Hood et al.(1979) did not find variables on the Jackson Personality Inventory relevant to the former to correlate with M-Scale score, their data suggested that those elements of psychoticism that are most relevant to mystical experience relate to increased liberalism and to unconventional social attitudes. Their findings on value orthodoxy, for example, suggested that at least among female respondents, mysticism is associated with liberalism rather than conservatism.

Using the MBTI, and looking at a population consisting of various church-goers, mainly Anglican but also with some Roman Catholic and Protestant representatives, Francis and Loudon (2000b) found feeling and intuition, but not extraversion, to be linked with mystical experience. The

inconsistencies with Francis and Thomas' (1996) findings on extraversion could relate to sampling issues (potential differences between a more generic religious sample and the clergy), to methodological differences (the MBTI versus the E.P.Q.) or a combination of both.

Notable from these findings is that, unlike the case with doctrinal and ritual dimensions of religiosity, the experiential dimension of religiosity (at least when equated with mystical experience) appears to be orthogonal with psychoticism. Reasons for this inconsistency between findings on religious experience and findings on other dimensions of religion need to be addressed more explicitly in future research.

A potential explanation that is apparently favoured by Loudon and Francis (2001) for this inconsistency is that an experience such as charismatic experience is unrelated to conditionability, even if other dimensions of religion do appear to be relevant to conditionability into tender-minded attitudes. If this explanation is defensible, challenges are presented for social constructivism. However, considerations of both the heterogeneity of psychoticism and sampling issues should be addressed before rigid conclusions are drawn from such findings.

Studies suggesting orthogonality of transpersonal experience and psychoticism have typically treated psychoticism as a broad dimension. However, the findings of Hood et al. (1979) suggest that only particular aspects of psychoticism (those related to unconventional social attitudes) relate to mystical experience. Issues relating to the heterogeneity of psychoticism need to be addressed more explicitly in future research into transpersonal experience and personality.

A more theoretical issue concerns implications such data have for the debate on whether mystical experiences arise through social learning. If a social constructivist account of mystical experience is defensible, predictions can be made that it is only those facets of psychoticism germane to conditionability that will correlate significantly negatively with mystical experience, at least in samples where such experiences are valued.

Studies in this area have generally used Christian-based samples (often clergy). If the taxonomy of religions presented in Chapter Two is defensible, this apparent orthogonality between mystical experience and psychoticism could stem from mystical experience being less highly valued by Christians than, for example, Buddhists. Thus, apparent challenges to social constructionism implied by data such as that of Francis and Thomas (1996) could be answered by declarations that psychoticism, through its link with reduced conditionability, will only correlate negatively with mystical experience in groups where such experiences are highly valued and perceived as prescribed norms. If Christian samples are outside this category, the social constructivist would have no difficulties with findings that psychoticism and mystical experience in such samples appear to be orthogonal. These issues of the heterogeneity of psychoticism and of sampling issues both merit more attention in future research than they have received previously.

3.1.6 Summary and Implications of Section 3.1

A consistent finding from studies using the Eysenckian P-E-N model in conjunction with assessment of religiosity has been that *psychoticism* is significantly negatively correlated with religion, whereas introversion-

extraversion and neuroticism are unrelated to degrees of religiosity. However, several qualifications are needed to this statement. This inverse relationship appears largely confined to intrinsic religious orientation, does not appear to apply to extrinsic or quest orientations and does not, apparently, extend to the experiential dimension of religion. Francis' (1992a) question, "Is psychoticism really a dimension of personality fundamental to religiosity?" may be answered, following a summary of the implications of Section 3.1, as "Yes, especially if religiosity is equated with a conservative form of Christianity, comparable to intrinsic religious orientation as assessed on the R.O.S.". It may also be added that it is when such a form of religiosity is most likely to be the prescriptive norm of one's membership group that a negative correlation between psychoticism and religiosity is most likely. (The fact that similar negative relationships between psychoticism and religiosity have been observed in non-Christian samples is answered by responding that the form of religiosity being assessed in studies of these samples represents prescriptive norms for them). Thus, failure of certain studies to find significant relationships between psychoticism and religion's experiential dimension could be due to such studies using samples representing conservative religious groups, for whom religious experiences such as mystical experiences may not be prescriptive norms.

In addressing the question "Is psychoticism really a dimension of personality fundamental to religiosity?", Francis (1992a) acknowledged how critics of the concept of psychoticism have stressed this trait's heterogeneity. His response was to use two distinct measures of psychoticism, the E.P.Q.-R. and the J.E.P.Q.-R (Junior Eysenck Personality Questionnaire-Revised). An alternative response would be to assess religious individuals on distinguishable

facets of psychoticism, as Francis and his colleagues have done in their assessments of potential correlations between sensation-seeking, impulsivity and religiosity (Pearson, Francis & Lightbrown, 1986). A more radical approach is called for here, however, in which respondents are not only assessed on psychoticism, but on models, such as the MBTI, the Cattell 16 P.F. or the FFM, in which psychoticism is represented by distinguishable traits.

If all facets of psychoticism relate equally inversely to religion, MBTI research should indicate that religious individuals are predominantly sensate, feeling and judging types. The literature suggests a qualification to this, in that members of more liberal religious groups tend to be predominantly intuitive, feeling and judging. While research findings from studies using the Cattell 16 P.F. have been more consistent with that using Eysenck's P-E-N model, it is the emerging literature on the FFM in connection with religion which has offered the firmest ground for challenging undifferentiated measures of psychoticism in research into personality-religiosity correlates. Data drawn from studies using this model are mixed, but do suggest that the patterns of differences between different religious groups, or between religious groups and the general population, on the three FFM traits which are germane to psychoticism, namely conscientiousness, agreeableness and openness to experience, depend, in part, on which of these three traits is being assessed.

The FFM challenges the continued use of broad assessments of psychoticism in personality-religiosity research on theoretical as well as empirical grounds. Theoretical bases for a hypothesised negative correlation between psychoticism and religion stem from the former variable's link to heightened conditionability and reduced propensity for learning of norms. If, as

argued in Chapter Two, the FFM trait that is most relevant to level of conditionability is conscientiousness, and inverse relationships between psychoticism and religion really do come about through the former's links with conditionability, the inverse correlation regularly reported between psychoticism and religiosity should be reduced (possibly to non-significance) after partialling out for NEO conscientiousness.

A major omission from the literature reviewed in Section 3.1 has been that no published study of religiosity-personality correlates has, as yet, assessed respondents on *both* the EPQ and the NEO-PI. The study reported in Chapter Six will make an original contribution by its examination of a dimension of religiosity (the experiential) and how this dimension relates to both psychoticism and to FFM traits.

Studies of religious experience have found this particular dimension of religion to be orthogonal with psychoticism. However, in addition to the heterogeneity of psychoticism, sampling issues, specifically the strong Christian bias of the samples studied, complicate this literature. Understood correctly, a meta-theoretical perspective such as social constructivism does lead to predictions of inverse relationships between psychoticism and mystical experience, and to predictions of significant positive correlations between traits linked with increased conditionability and mystical experience, but only in those religions taking positive attitudes to mystical experience. If the taxonomy of religions presented in Chapter Two, this thesis, is valid, Christianity may be outside this category. Empirical data reported in subsequent chapters in this thesis will reflect considerations of sampling issues as well as of the heterogeneity of psychoticism.

3.2 Studies of Religious Orientation and Transpersonal Experience

Intrinsic religious orientation correlates negatively with psychoticism, but extrinsic and quest orientations do not, and are possibly even positively correlated with psychoticism (Section 3.1). Early studies of questionnaire-based measures of transpersonal experience, which typically examined whether scores on such scales correlated with intrinsic and extrinsic orientations, are therefore of interest to researchers interested in the personality correlates of such experiences. These studies used scales such as the Religious Experience Episode Measure, or R.E.E.M. (Hood, 1970) or M-Scale (Hood, 1975). The rationale typically given for measurements of intrinsic and extrinsic religious orientation in such studies was that this was a means to assess these scales' criterion-related validity. Such assessments can now, however, be conceptualised as more than mere scale validation. Knowledge that has accumulated in the literature on personality-religiosity correlates implies that observations of religious orientations in participants obtaining high and low scores on such scales may offer preliminary grounds for predictions about where such participants are likely to score on psychoticism and related traits. Positive correlations between intrinsic religious orientation and transpersonal experience, for example, provide a ground for predicting low psychoticism scores in those who report such experiences.

3.2.1 Intrinsic and Extrinsic Orientations and Transpersonal Experience

The terms *intrinsic*, *extrinsic* and *quest* religious orientation were outlined and defined in Section 3.1. A consistent finding from Hood's programmatic research in the 1970s was that intrinsic but not extrinsic

religiousness was associated with assessed transpersonal experiences, whether such experiences were assessed by the R.E.E.M. (Hood, 1970), interviews (Hood, 1973) or the M-Scale (Hood, 1975). Treating intrinsic and extrinsic religiousness as orthogonal, permitting sub-division of his sample into four categories of participants (high on both orientations, high on intrinsic only, high on extrinsic only, low on both orientations), Hood found intrinsics to have higher R.E.E.M. scores than those high in extrinsic orientation only or low in both orientations, but not to have significantly higher R.E.E.M. scores than participants scoring high on both orientations (Hood, 1970).

Regarded in their time as psychometric validations of the R.E.E.M. and M-Scale, these findings raise several important questions that have been left unanswered in subsequent research literature. One is direction of causality. Hood's findings do not, in themselves, inform us as to whether intrinsic orientation increases likelihood that one will have or report a transpersonal experience, or whether initial transpersonal experience is a causal factor leading to increased intrinsic religiousness. A third possibility is that intrinsic orientation and transpersonal experience both arise from a third variable (or class of variables), as is implied by social constructivist accounts of transpersonal experiences. A combination of low psychoticism and social conditioning could lead to development of both greater intrinsic religious orientation and increased likelihood of transpersonal experiences among participants who have been raised in groups where both intrinsic religiousness and transpersonal experience are appropriate social norms.

As Paloutzian (1996) noted, certain items on the R.O.S. explicitly

refer to experience, suggesting that findings of a positive relationship between intrinsic orientation and transpersonal experience can now be seen as rather truistic. However, to review subsequent developments in work on religious orientation reveals some major omissions from the published research literature on how this variable relates to transpersonal experience.

3.2.2 Under-researched Areas in Connection with Religious Orientation

One example is that researchers into transpersonal experiences have not clearly addressed how extrinsic religious orientation may be more heterogeneous than intrinsic religious orientation, as the debate between Kirkpatrick and Hood (1990, 1991) and Masters (1991) attested. Kirkpatrick and Hood (1990, 1991) argued that items on the R.O.S. extrinsic sub-scale can be assigned to one of three categories:

1. Those assessing religion used a means to social ends, such as church attendance to make friends (Esocial items);
2. Those assessing religion used as a means to bring personal ends, such as prayer for emotional comfort (Epersonal items);
3. Those that genuinely correlate negatively with intrinsic religiousness (Eresidual items).

Overly simple attempts to separate religion-as-means from religion-as-ends are challenged by such thinking, and also by Pargament's (1992) claim that all spiritual paths use religion as a means to an end, but different forms of religious orientation are associated with different ends. Such thinking allows for the possibility that some forms of means-orientated religion may actually be

conducive to the onset of transpersonal experiences. The individual who goes to church to sell life insurance policies to other members of the congregation, and the individual who engages in regular prayer for spiritual guidance, could both be said to be using religion as a means to an end, but to very different types of ends. The first exemplifies Esocial; the second, Epersonal. The former seems less immediately relevant to transpersonal experience than the latter. This highlights how greater attention to revision of earlier thinking on religious orientation is vital if this variable is to continue to interest researchers into mystical and other transpersonal experiences. Epersonal has been found to correlate *positively* with intrinsic orientation (Kirkpatrick & Hood, 1990); empirical data are as yet lacking on whether it also correlates with transpersonal experience.

One of the most conspicuous omissions from the literature on transpersonal experience and religious orientation is an absence of any published data on relationships between quest and such experience until the publication of Maltby's (1999b) study. This can be attributed to both the ambiguity of the concept of quest orientation (Paloutzian, 1996), and apparent absence of theoretical postulates for linking quest with transpersonal experience. Several possible ways of interpreting quest were noted by Paloutzian (1996); the most relevant to concerns in the current thesis is that quest is a form of being religious that applies to religious liberals (effectively implying that liberal Christian groups should score higher on quest than more conservative groups). Apparent absence of guiding theory for supposing any link between quest and transpersonal experience is stated explicitly by Batson et al. (1993). Batson has subsequently stated, however, that his caution in linking

quest with experience stemmed from lack of empirical data and has expressed personal convictions that the two concepts are likely to be positively linked (personal communication dated July 2001).

It is argued here that good theoretical reasons exist for supposing that quest religious orientation, especially if viewed as religious liberalism, will *correlate positively with transpersonal experience*. One possible interpretation of quest not considered by Paloutzian (1996) is that this form of religious orientation can be understood as the MBTI intuitive preference when applied specifically to the religious domain. Consider the following statements by Ross (1992a):

"Intuitives are less disturbed by religious doubts" (Ross, 1992a, p92).

"Personal religious change, sometimes of an abrupt kind, is often welcomed and accepted (by intuitive types) as essential for religious vitality" (Ross, 1992a, p93).

These statements obviously parallel two of the three facets Batson has used to describe quest orientation. This interpretation is in no way incompatible with Paloutzian's interpretation of quest as religious liberalism, especially in view of findings relating religious liberalism to MBTI intuitive preference. Exciting grounds for the possibility of articulation of hypotheses linking quest and transpersonal experience arise here. Such experiences may be understood as surfacing of previously unconscious archetypal material, as is supported by Thalbourne and Delin's (1999) findings on transliminality and mystical experience. If it seems rather truistic to predict that intuitive rather than sensate types access such material more readily, predictions can be made that both quest

orientation and religious liberalism should correlate positively with transpersonal experience.

Other theoretical grounds exist for linking quest to transpersonal experience. Models of the stages preceding mystical experience frequently include reference to a period of questioning and doubt, as is implicit in the Christian concept of The Dark Night of the Soul. The four-stage model of religious experience presented by Batson et al. (1993), based upon Wallas' (1926) model of creativity and subsequently reformulated by Edwards and Lowis (2001), outlines stages prior to onset of religious experience per se that may be equated with the open-ended questioning and dialogue characteristic of individuals high in quest.

Maltby's (1999b) study, based on a slightly different theoretical perspective (that quest and range of spiritual experiences both relate to spiritual maturity, with implications being that positive correlations between quest and range of religious experiences would offer evidence for validity of the quest construct) offered the first published data in support of such a positive correlation. In a sample of Church of England Christians, Maltby found that intrinsic, extrinsic and quest orientations all correlated significantly positively with range of religious experience - the highest correlation being for quest ($r = 0.44$; $N = 103$). This correlation was significantly higher than that for extrinsic orientation and transpersonal experience (but not significantly higher than the correlation of 0.35 found by Maltby for intrinsic orientation and religious experience). Quest and religious experience therefore appear to share considerable variance.

3.2.3 Summary and Implications of Section 3.2

Early research into religious experience suggested that self-reported religious experience correlated positively with intrinsic but not extrinsic religious orientation, although data have yet to clarify whether transpersonal experience is orthogonal with all forms of extrinsic orientation. The most notable omission from published literature on religious orientation and transpersonal experience, however, is a notable lack of both empirical data and skilful theoretical debate on quest religious orientation's relationship to such experiences. Maltby's (1999b) findings give some preliminary grounds for supposing that quest is relevant to religious experience; greater theoretical discussion of why quest and transpersonal experience may be linked is clearly needed. Throughout this chapter, quest orientation has been linked to several variables - psychoticism, MBTI intuitive preference, religious liberalism - that suggest that if quest does help us to understand variance in transpersonal experience, implications are raised for the likely personality correlates of reports of such experiences.

3.3 Transpersonal Experience and Mental Health

The dimensional model of mental illness, representing mental illnesses as existing on a continuum with normality (Claridge, 2001), renders it important for researchers interested in the personality correlates of transpersonal experiences in nonclinical samples to possess at least a rudimentary knowledge of the literature on mental health in relation to such experiences. Similarities have been noted between psychosis and mystical experience (Clarke, 2001),

suggesting the possibility of a positive correlation between psychoticism (or some of its facets) and scores on scales to assess mystical experience. The dimensional model of mental illness implies that if such phenomena can be interpreted as mild signs of premorbid illness states, psychoticism is likely to be heightened in people who report transpersonal experiences. This area has led to a wider body of literature than that on nonclinical traits and transpersonal experience. Reviews of this literature should be careful to consider the possibility, proposed by some researchers, that those who report transpersonal experiences may be of *higher* than average mental health status.

Studies of the mental health status of recipients on transpersonal experiences have assessed a wide range of experiences, including peak experiences (Mathes, Jevons, Joerger & Roter, 1982), glossolalia (Smith & Fleck, 1981), diabolical experiences (Spanos & Moretti, 1988) and mystical unitive experiences (Hood, 1975). It is therefore unsurprising that different conclusions have been reached regarding whether such experiences are associated with elevated or reduced mental health status. Spatial constraints prevent a full review of this wide field here, and the review that follows will be limited to three areas:

1. Early psychometric studies (especially those influenced by humanistic theory) of mental health status and transpersonal experience in nonclinical, typically student, populations;
2. Glossolalia, a form of transpersonal experience which has, in the past, been seen as symptomatic of psychosis;
3. Hearing voices.

Defenders of the view that transpersonal experiences are associated with *higher than average mental health status* include Levin (1993), who cited Greeley (1975; cited in Levin, 1993) as having declared that no other psychological variable correlated as strongly with psychological well-being as mystical experience; and Hay (Hay, 1990; Hay & Morisy, 1978; Hay & Nye, 1998). Theoretical rationale for linking at least some forms of transpersonal experience to increased mental health status was offered by Maslow (1954; 1968). His hierarchy-of-needs model of motivation implied that peak experiences should be more common in individuals who have reached the apex of this hierarchy, that of self-actualisation. Complications to this theoretical position include:

- (1): Maslow's position only implies that those intensely blissful experiences that he termed "peak experiences" should be correlated with increased mental health status, not that all transpersonal experiences should be so correlated;
- (2): Maslow did not hold that all self-actualisers had "peak experiences", suggesting that high mental health status may be a necessary but *not sufficient* condition for the onset of transpersonal experience;
- (3): Maslow claimed that peak experiences may actually be common, but not always recognised as such.

The third point highlights a need to study cognitive frameworks attached to transpersonal experiences, as well as raw measures of experiences per se. The development of the "Attitudes to Mysticism" scale in Chapter Five exemplifies a tool designed to measure such a framework.

Complications in Literature on Mental Health and Transpersonal Experience

One complication in this literature is that mystical experience has been related to various disorders, perhaps most commonly schizophrenia and epilepsy, but occasionally Graves' disease (Hellpach, 1907; cited in Wulff, 1997) and manic-depressive psychosis (Zachner, 1957). Associations between pathology and transpersonal experiences have had a long history, as many of the world's great mystics, including Eckhart and Hildegard of Bingen, were viewed as insane even among their contemporaries (Stifler, Greer, Sneck & Dovenmuehle, 1993). Questions have been asked as to whether Biblical figures such as Ezekiel or St. Paul were epileptic. Attributions of epilepsy were made to the medieval Englishwoman Margery Kempe (1373-1430) within her own lifetime (Freeman, Bogard & Skolomskas, 1990). Freeman et al. have criticised the more recent scholarship which has depicted Kempe as a sufferer of postpartum psychosis, and argued that if pathology were to be attributed to Kempe, manic-depressive psychosis would be a more appropriate diagnosis.

Definitive evidence that figures such as Kempe or Eckhart really were suffering from schizophrenia, manic-depressive psychosis or other psychosis would provide obvious theoretical rationale for predicting mystical experience to be positively correlated with psychoticism, but evidence that such diagnoses were appropriate for such figures remains highly speculative. Similar comments must be made in response to claims that key religious visionaries were epileptics. Against the view that religious experiences are signs of epilepsy, it has been noted that frequency counts of reports of religious experiences in the

general population exceed those for epilepsy (Beit-Hallahmi & Argyle, 1997). More detailed arguments against associating transpersonal experiences with epilepsy in general and with left temporal lobe epilepsy in particular have been reported by Tucker, Novelly and Walker (1987).

A second complication to this literature is that, as with the term *transpersonal experience*, the term *mental health* itself invites diverse interpretations. Absence of psychiatric symptoms, freedom from worry and guilt, appropriate social behaviour, personal competence and control, open-mindedness, personality unification and self-actualisation each represent seven distinct ways of defining "mental health" (Batson et al., 1993). Of these, absence of psychiatric symptoms and appropriate social behaviour relate directly to psychoticism and to five-factor conscientiousness. Lower levels of psychoticism may be expected in individuals for whom records of psychiatric symptoms are absent than for schizophrenics, and compliance with appropriate social behaviour may be expected to relate positively to five-factor model conscientiousness, negatively with psychoticism. If creativity, MBTI intuitive function or five-factor openness can be taken to be facets of psychoticism, specific facets of this trait may correlate *positively* with one of the definitions of mental health listed by Batson et al., that of open-mindedness.

3.3.1 Early Psychometric Assessments of Mental Health Status of Respondents Reporting Transpersonal Experiences

Considerable literature exists on the mental health status of people who do versus those who do not report transpersonal experiences among non-clinical populations (Hood, 1974; Larsen, 1979; Mathes et al., 1982; Spanos & Moretti,

1988). Hood (1974) found that higher R.E.E.M. scores were associated with reduced ego strength as assessed by the Barron Ego Strength Scale; however, as Hood himself noted, certain items on the Barron Ego Strength Scale contain an anti-religious bias (this negative correlation was reduced to non-significance after Hood re-analysed his data following elimination of such items). Hood also found higher R.E.E.M. scores to be associated with greater psychological strength as assessed by Stark's Index of Psychological Inadequacy, but the brevity of the latter scale, coupled with Hood's rather arbitrary sub-division of high and low psychological strength participants according to raw scores rather than use of a median split, render this latter finding questionable. These early studies, despite their psychometric problems, at least demonstrated how psychometric tools may have considerable use in attempting to assess levels of mental health among recipients of transpersonal experiences in nonclinical populations.

Larsen (1979), basing arguments on both Maslovian theory and Glock and Stark's (1965) taxonomy of religious experiences as confirming, responsive, ecstatic and revelational, collected psychometric data to test the hypotheses that (a) among religious individuals, frequency of religious experiences would be positively correlated with self-actualisation; (b) range of religious experiences would correlate positively with self-actualisation and (c) the progressive pattern of religious experiences implied by the Glock and Stark taxonomy would be more evident among high self-actualisers. Using measures of inner-directedness and time-competence on Shostrom's Personal Orientation Inventory as operational measures of self-actualisation, Larsen found that inner-directedness correlated significantly *negatively* with frequency of religious experiences, and

that time-competence correlated significantly positively with range (but not frequency) of religious experience. The former finding appears to suggest that religious experience is associated with reduced mental health status, but is questionable insofar as the scale on Shostrom's Personal Orientation Inventory that assesses inner-directedness includes items such as "I don't feel guilty when I am selfish" (Ryckman, 1997), suggesting that *rejection* of the altruistic values deemed central in many religions could elevate scores on this sub-scale.

Mathes et al. (1982) designed a new scale, the Peak Experiences Scale (P.E.S.) to research peak experiences, and examined relationships between scores on the P.E.S. and on Shostrom's Personal Orientation Inventory (unlike Larsen, they used all sub-scales from the latter scale). P.E.S. scores correlated significantly positively with inner-directedness, self-actualising value and self-acceptance in women and with self-regard and constructive nature of man in men.

While similarities have been noted between psychosis and transpersonal experience by authors such as Clarke (2001), such studies have examined a different possibility, namely that a variable indicative of *high* mental health status (self-actualisation) may relate to transpersonal experience. Evident from these studies is that self-actualisation appears to be multi-faceted. That similar complications may exist in the case of a trait linked with vulnerability to disorder, psychoticism, justifies using additional personality measures to psychoticism in assessments of this trait's relationship to transpersonal experience.

3.3.2 Glossolalia and Psychoticism

More direct assessments of the relationship between psychoticism and transpersonal experience relationships are evident in studies of glossolalia, which has been defined as "the supposed divinely inspired ability of an individual to express linguistic ability unknown to that person" (Smith & Fleck, 1981, p209). Francis and Kay (1995) listed four different possible theoretical perspectives on glossolalia:

- (a) It is symptomatic of psycho-pathology such as psychosis or dissociation;
- (b). It indicates good psychological health and ego integration;
- (c) It is a learnt phenomenon (this may be understood as the social constructivist perspective when applied to this particular form of transpersonal experience);
- (d) It is a form of regression to infantile states.

These divergent theoretical perspectives have been tested in numerous empirical studies (Francis & Kay, 1995; Holm, 1987, 1991; Lovekin & Malony, 1977; Smith & Fleck, 1981; Spanos, Cross, Lepage & Cristine, 1986).

Different theoretical orientations, as Francis and Kay (1995) observed, have different implications as to whether glossolalia should be associated with increased or reduced levels of psychoticism. Most obviously, (a) and (b) contrast in predicting higher and lower levels of psychoticism in glossolalics respectively, but (c) also predicts that inverse relationships should be observed between experience of glossolalia and psychoticism (at least among samples where glossolalia is highly valued). Francis and Kay (1995) argued that the fourth of the above theoretical positions relates specifically to scores on the Lie-scale of the Eysenck Personality Questionnaire (if the Lie-scale is a measure of psychological immaturity, then claims that glossolalia is regressive imply

respondents who have had experience of glossolalia should produce higher Lie-scale scores); such arguments can also be extended to the psychoticism dimension of the E.P.Q. if psychosis is to be understood as a form of regression.

Little evidence exists to support the view that glossolalia is associated with increased psychoticism. Indeed, the evidence that male Pentecostal ministry candidates may score lower than average on psychoticism (Francis & Kay, 1995) is ground for supposing that clergy candidates sympathetic to such experience may actually be of better than average mental health. Relationships between mental health and glossolalia were explicitly addressed in Lovekin and Malony's (1977) longitudinal study. These authors assessed participants attending a seven-week Life in Spirits Seminars in California and in New Mexico, in which Christian-based experiences such as glossolalia were highly encouraged. Participants who had experienced glossolalia prior to the seminar were found to be higher in ego strength than those who had not. Respondents who never experienced glossolalia, either prior to or during the seminar, scored higher on a composite measure of anxiety, depression and hostility than did those who, after the conclusion of the seminar, reported glossolalic experiences. Such data suggest that glossolalia is associated with increased, not decreased, mental health status, giving grounds for predicting inverse relationships between psychoticism and spiritual experiences in the case of this particular experience. Such an inverse correlation would also support the third of the above theoretical positions presented by Francis and Kay (1995), for which empirical support exists (Holm, 1987, 1991; Spanos et al., 1986).

3.3.3 Hearing Voices and Psychoticism

Famous cases of religious experiences, including those of St. Paul, St. Peter, St. Joan of Arc, St. Francis of Assisi, Baha'ullah and Malcolm X, have featured hearing voices. The positive symptoms of schizophrenia can take the form of auditory hallucinations, and thus research into hearing voices provides an obvious literature for explorations of potential links between transpersonal experiences and mental health status. This phenomenon is certainly not confined to schizophrenics, nor to psychiatric in-patients generally (Chadwick & Birchwood, 1996; Fenwick, 2001). World Health Organization data from the 1970s suggested that 73% of patients diagnosed with acute schizophrenic episodes reported hearing voices, but similar experiences continue to be reported by those who have never been diagnosed with any psycho-pathology (Haddock & Slade, 1996; Romme & Escher, 1996).

Literature on hearing voices has not, as yet, been tied quite as systematically to the Eysenckian P-E-N model as has the literature on glossolalia. One possibility, consistent with the quasi-dimensional model of psychoticism as outlined by Claridge (2001), is that the phenomenon of hearing voices in apparently healthy participants may actually be a very subtle form of premorbid schizophrenic states; this would imply that higher psychoticism scores may be expected in any respondents who report hearing voices. However, if the theoretical premises about glossolalia outlined by Francis and Kay (1995) can all, by analogy, be extended to the study of hearing voices, the possibility is raised that people who hear voices, if raised in religions where reports of such experiences are valued and common place, may actually show *reduced* psychoticism scores (heightened conditionability will be linked with

increased tendency to experience this phenomenon).

Good theoretical and empirical grounds exist for challenging the position that hearing voices is inevitably symptomatic of pathology. Chadwick and Birchwood (1996), using a specially constructed Beliefs about Voices Questionnaire (B.A.V.Q), found that depression was more closely associated with post hoc beliefs people had about voices heard during apparently hallucinatory experiences than it was with the content of such messages. McDonald and Luckett (1983) found schizophrenia to be a more common diagnosis among patients with no religious affiliation, suggesting that hearing voices in schizophrenic episodes and during religious experiences are quite separate phenomena. Jaynes (1990) has even proposed an intriguing, if admittedly highly speculative, theory, relating to brain bilaterality, that hearing voices may have characterised normal states of functioning in early human evolutionary history.

Summarizing literature in this area, there is currently little empirical evidence to suggest that hearing voices represents either heightened or reduced mental health status. Chadwick and Birchwood's (1996) work suggests that what does correlate with mental health status is how people *respond to such experiences*. Most literature in this field has studied participants who have all had the experience of hearing voices, and compared those who have and have not coped well with this phenomenon (Romme & Escher, 1996). A detailed comprehensive literature comparing participants who have and have not heard voices on subclinical traits such as psychoticism, or indeed variables associated with elevated mental health status such as self-actualisation, is needed to correct a major limitation of research in this field. However, the conclusions that may

be drawn from those studies that have addressed this phenomenon are informative insofar as they suggest that mental health may be more closely associated with post hoc interpretation of an experience than experience per se (cf. Spanos & Moretti, 1988).

3.3.4 Summary and Implications of Section 3.3

Early psychometric data suggested that transpersonal experiences correlate positively with some, but not all, facets of self-actualisation. A specific form of transpersonal experience, glossolalia, has been found to be linked with elevated rather than reduced mental health status. However, the literature on hearing voices offers an important qualification to inferences that may be drawn from research in this broad field. Both respondents high and low in mental health status may have experiences which are phenomenologically very similar; what may differentiate such respondents is the cognitive framework they attach to their experiences. Applied to the study of mystical experience, this implies that well-planned research studies should assess research variables such as attitudes to mysticism as well as experiences per se.

3.4 Summary and Implications of Chapter Three

A review has been given in this chapter of previously published literature on transpersonal experience in relation to personality, religious orientation and mental health status. Doctrinal and ritual dimensions of religion have consistently been found to correlate negatively with psychoticism, but this finding has not been replicated for the experiential dimension of religion (Section 3.1). Problems with treating psychoticism as a broad concept,

however, are particularly sharp in efforts to assess psychoticism's relationship to self-reported mystical experience, as different facets of this trait may bear diametrically opposed relationships to mystical experience. Those facets indicative of socially unconventional and liberal views may be *positively* correlated with mystical experience, whereas those indicative of reduced impulse control and heightened conditionability may be predicted to be *negatively* correlated with mystical experience (at least in groups that value such experiences) if a meta-theoretical perspective based on social constructivism is endorsed. These divergent relationships between different facets of psychoticism and mystical experience may explain the apparent orthogonality of psychoticism and mystical experience found in published literature.

Literature on religious orientation has consistently found intrinsic rather than extrinsic orientation to be associated with transpersonal experience, but Maltby's (1999b) findings suggest that quest may also be of relevance to transpersonal experiences. Maltby's data have provided preliminary evidence religious experiences may be more common among religious liberals than religious conservatives.

Good reasons exist for researchers interested in how psychoticism relates to transpersonal experiences to learn from the literature on mental health and transpersonal experience. Research reported in the literature on hearing voices has suggested that levels of mental health may have less to do with experience *per se* than with the cognitive frameworks individuals attach to such experiences. A question can be asked as to whether a subclinical trait such as psychoticism correlates with the cognitive framework attached to an experience rather than to transpersonal experience *per se*.

From this summary of the literature, it becomes evident that certain questions have not received the attention in previously published literature that they deserve. These include:

- (a) Does research into the personality correlates of transpersonal experience need to consider distinguishable facets of psychoticism, not just psychoticism as a global trait?
- (b) Are quest religious orientation and transpersonal experiences both more common among religious liberals than religious conservatives, and if so, does this help us to understand the positive associations between quest and transpersonal experience found by Maltby (1999b)? Furthermore, if the observed correlation between quest and psychoticism reported by Watson et al. (1986) arose through both variables being related to openness to experience, does this challenge any efforts researchers may make to assess psychoticism as a global trait in studies of personality's relationship to transpersonal experience?
- (c) Even if psychoticism is found to bear little relationship to transpersonal experience per se, could it still relate to cognitive frameworks attached to experiences, such as the attitudes people adopt towards mysticism?
- (d) Have sampling issues been inadequately considered in this field? The corollary question that may be asked here is whether the precise pattern of personality correlates found for both mystical experience and attitudes towards such experiences may differ for religious groups taking positive versus negative attitudes towards mysticism.

These questions form the foundation for the empirical studies reported in Chapters 4-6 inclusive. Chapter 4 will present an empirical study assessing whether mystical experiences are indeed more common among religious

liberals, while Chapter 5 introduces a new psychometric tool to assess attitudes to mystical experience as distinct from mystical experience per se.

The major empirical study reported in this thesis is in Chapter 6. Here, assessments of attitudes to mysticism, mystical experience, psychoticism and FFM traits will enable testing of whether measurements of the latter improve upon an understanding of the correlates of mystical experience obtainable when psychoticism is merely assessed as a global trait. Assessments of attitudes to mysticism, and the sampling of creeds predicted to be both high and low on this variable, will address the third and fourth of the above questions.

CHAPTER FOUR

A PILOT INVESTIGATION OF MYSTICAL EXPERIENCE

IN LIBERAL AND CONSERVATIVE WINGS OF THE

JUDEAO-CHRISTIAN TRADITION

One of the questions presented at the close to Chapter Three was that of whether religious liberalism, which may be associated with being high in some but low in other facets of psychoticism, is associated with mystical experience. Any data suggesting that mystical experience is more prevalent among religious liberals than religious conservatives would therefore offer strong grounds for questioning the value of overly broad assessments of psychoticism in studies of the personality correlates of such experiences.

The purpose of this chapter is to report on an empirical investigation into whether mystical experience (in the Stacean sense) is more common among liberal rather than conservative members of the Judeao-Christian tradition (Hypothesis 4.1). The question of whether self-reported mystical experience correlates significantly positively with quest religious orientation as described by Batson (1976) will also be considered (Hypothesis 4.3). This study will also assess whether this can be replicated for a more generic measure of religious experience (Hypotheses 4.2 and 4.4.) The fifth and final aim of the empirical study reported in this chapter is to assess whether, as Paloutzian's (1996) interpretation of quest implies, quest scores will be higher for members of liberal wings of the Judeao-Christian tradition than for a more evangelical-fundamentalist wing (Hypothesis 4.5).

4.1 Hypotheses

The purpose of the empirical study reported here was to test the following hypotheses:

Hypothesis 4.1: Religious liberals will score significantly higher on a measure of mystical-unitive experience as described by Stace (1960) than will religious conservatives;

Hypothesis 4.2: Religious liberals will score significantly higher on a generic measure of religious experience than will religious conservatives;

Hypothesis 4.3: There will be a statistically significant and positive correlation between quest religious orientation and mystical-unitive experience as described by Stace (1960) in a population that combines religious liberals and religious conservatives;

Hypothesis 4.4: Quest religious orientation will correlate significantly and positively with a generic measure of religious experience in a population that combines religious liberals and religious conservatives;

Hypothesis 4.5: Religious liberals will score significantly higher on measures of quest religious orientation than will religious conservatives;

4.2 Method

4.2.1 Design

This study took the form of a survey. A between-groups design was employed, with one independent variable at three levels (religious group: Quakers vs. Unitarians vs. Evangelicals) and three dependent variables (quest religious orientation, mystical experience and general religious experience).

Data were also analysed using correlational statistics to test Hypotheses 4.3 and 4.4.

4.2.2 Participants

Thirty-eight people participated in this study, of whom four had to be excluded due to insufficient completion of questionnaires, leaving 34 participants who had completed enough items on administered scales to produce scores that could be used for the final data analyses. Of these 34 participants, 16, comprising seven Quakers and nine Unitarians, represented liberal movements within the Judeo-Christian tradition. (The term "liberal movements within the Judeo-Christian tradition" is preferred here to "liberal Christians", for, as informal conversations with Unitarian participants indicated, not all Unitarians would see themselves as Christians; Chryssides (1998) has also noted diversity among Unitarians as to whether their religion should be labelled "Christian"). Eighteen represented the evangelical wing of Christianity, being members of an evangelical Christian Fellowship group that met in a locality known to the researcher, and which had regular weekly meetings as well as Sunday services based upon evangelical doctrinal teachings.

Of the nine Quakers whose responses were analysed in the study, all were aged over 60, two were male, six were female and one respondent did not record gender. Of the seven Unitarians, two respondents were in the age-range 21-40, one respondent was in the age range 51-60 and four respondents were over 60; the Unitarian sample consisted of two females, four males and one respondent for whom gender was not given. Of the 18 evangelicals, nine respondents were aged 21-40, six respondents were aged 41-50, one respondent

was aged 51-60 and two respondents were over 60; the evangelical sample consisted of ten females, seven males and one respondent for whom gender was not given.

Convenience sampling was employed, and volunteers from each of these three groups acted as participants. Responses from participants from the initial sample of 38 who had failed to complete more than two items on any of the questionnaires were excluded from the data analysis. Responses from one of the evangelicals, two of the Quakers and one of the Unitarians could not be included for this reason. This left a final sample of 34 respondents who had satisfactorily completed the materials distributed to them, and whose responses were used in the final data analyses.

4.2.3 Materials

Three questionnaires, presented to respondents stapled together in a single A4-sized four-page booklet, were used to measure the dependent variables being assessed in the study. The front sheet of the booklet was headed "Doctoral Research Survey" and assured participants of anonymity and their right to withdraw from the study at any time. The introductory instruction sheet is presented in Appendix A. Each questionnaire used in this study is also presented in this appendix.

Respondents were asked to indicate their gender by circling either "Male" or "Female", and to indicate their age-group by circling one of six age-ranges ("Under 20", "21-30", "31-40", "41-50", "51-60", "Over 60"). The researcher's name, address and contact telephone numbers (home and work) appeared on the front sheet so that participants could contact the researcher for

more information on the findings of the study following analyses of the data. At no stage was it possible for the researcher to learn identifiable details about any respondent, thus upholding British Psychological Society ethical guidelines on confidentiality and anonymity. Respect for the ethical principles of informed consent, of allowing participants to withdraw from the study at any time, and of providing respondents with the opportunity to receive information regarding the rationale and findings of a study following data analysis were therefore evident from details supplied to respondents on the initial instruction sheet.

Mystical experience, quest religious orientation and general religious experience were the three dependent variables assessed in this study. Each was assessed in a different section of the booklet presented to respondents as follows:

- i. Mystical experience was assessed by Hood's (1975) M-Scale, which appeared in the first section of the booklet, headed Section A. This is a 32-item scale that has been used to assess mystical experience as described by Stace (1960). The 32 items on the M-Scale corresponded to the eight criteria of mystical experience, based on Stace (1960) - unitive quality, ineffability, noetic quality, sacred quality, space-time transcendence, objectivity (a sense of living things coming alive), ego loss and positive affect. Each of these dimensions of mystical experience is assessed by four questions on the M-Scale. Factor analysis of this scale, reported in Hood's first paper on the M-Scale (Hood, 1975), indicated that the scale is assessing two factors - mystical experience and religious

interpretation. The religious interpretation factor appears to be connected with those items designed by Hood to assess the dimensions of sacred quality, positive affect and noetic quality, while other items load on the mystical experience factor. More recent factor analytic study (Hood, Morris & Watson, 1993) has suggested that, at least when subject to oblique factor analysis, the scale may be assessing religious interpretation and the two distinct forms of mystical experience outlined by Stace (1960), introvertive and extrovertive mystical experience.

Cronbach's alpha coefficients reported by Hood et al. (1993) for each factor were .69 for introvertive mysticism and .76 for both extrovertive mysticism and religious interpretation.

- ii. Quest religious orientation was assessed by the quest sub-scale of the Religious Life Inventory (R.L.I.) of Batson et al. (1993). This appeared in the second section of the booklet, headed Section B. This sub-scale is a twelve-item questionnaire which assesses quest religious orientation as described by Batson and which has improved validity and reliability over earlier measurements of quest (Batson & Schoenrade, 1991a; 1991b). Each of the three dimensions of quest religious orientation - existential crisis, willingness to see religion as changing and appreciation of religious doubt - described by Batson is assessed by four items on the scale.
- iii. Religious experience was assessed by the questions presented to respondents in the third section of the booklet, headed

Section C. This series of questions was constructed for the purpose of the current study and was based upon the findings of Hay and Heald (1987), following their study using Gallup omnibus survey questions to assess the incidence of a variety of religious experiences within a general population. These authors, following careful analyses of over 5,000 written reports of religious experiences sent in to the Alister Hardy Research Centre, concluded that eight types of religious experience were most commonly reported in response to open-ended survey questions asking about religious experiences. Six of these were used as a basis for questions used in Section C. Two of these experiences were omitted from this section. A sense of oneness with all things was omitted because this was already being assessed by the M-Scale, while a sense of a guiding presence not called God was omitted because of the explicitly religious nature of the populations being sampled. As this measure of religious experience was not to be regarded as a questionnaire, but rather as an ad hoc list of survey-type questions replicating those used by Hay and Heald (1987), data were not available on its reliability or validity.

4.2.4 Procedure

Contacts were made with someone in authority, either by telephone or in person, representing each of the three religious groups, to gain permission for the study. The minister of the evangelical group collected questionnaires

from the researcher in person, and subsequently distributed them to the evangelicals at one of their weekday evening meetings, later collecting them for return to the researcher. The Quakers were given the questionnaires by a Quaker with whom the researcher was personally acquainted, who later returned them to the researcher by post. (Although this Quaker was a personal acquaintance of the researcher, at no time did the Quaker disclose any identifiable details about Quaker respondents). The researcher distributed questionnaires to Unitarians at one of their services, after attending a service at their church, and collected completed questionnaires (all collected anonymously) after attending two further services there. Prior to the study, the researcher had not attended any services at this church. All participants were blind to the hypotheses being tested in the study.

Scoring was by five-point Likert-type scales on each of the three scales. Thus, scores on the M-Scale could range from 32 (least mystical) to 160 (most mystical), scores for quest could range from 12 (lowest quest) to 60 (highest quest), and scores for the general measure of religious experience could range from 6 (lowest religious experience) to 30 (highest religious experience), with 96, 36 and 18 being the theoretical mid-range scores for each scale.

4.3. Results

For respondents who had failed to enter an item on a questionnaire but whose total number of missed items on a questionnaire did not exceed 2, a method of correcting for missing data was employed whereby "3" (the theoretical mid-range response for an individual item) was entered for missing items. This method of data correction was utilised for three of the Unitarians

and two of the evangelicals, and thus for comparable numbers of participants drawn from the liberal and conservative populations.

Rationale for Use of Parametric Statistics

In the data analyses that follow, a reasonably conventional practice of treating scores on Likert-type scales as interval data was adopted, contributing to the justification for the use of parametric tests. Scores on the M-Scale have reasonably consistently been treated as interval data in studies such as Hood (1975), Hood, Morris and Watson (1993) and Hood et al. (2001), while scores on the quest sub-scale of the R.L.I. have frequently been treated as interval data in studies such as Batson and Schoenrade (1991a; 1991b). The relatively small size of the sample also meant that it was considered especially important to adopt a powerful statistical test to detect for possible effects. As indicated in Table 4.1, skewness and kurtosis fell within boundaries which, according to received statistical convention, justify analysis by parametric statistical tests (between -1 and +1 for skewness and between -3 and +3 for kurtosis). Skewness and kurtosis are not displayed for three groups separately but for each individual group, fell within the boundaries of -1/+1 for skewness and -3/+3 for kurtosis on each dependent variable. It was therefore considered appropriate to analyse data using parametric tests.

Table 4.1. Kurtosis and skewness for M-Scale score, Quest and Religious Experience Score

	M-Scale	Quest	Religious Experience
Skewness	.462	.111	-.225
Kurtosis	-.249	-.730	.606

4.3.1 Descriptive Statistics

The means and standard deviations for each of the three groups on each of the three assessed dependent variables are displayed in Table 4.2:

Table 4.2 Means, Standard Deviations and Ranges of Scores on M-Scale, Quest and Religious Experience for Evangelicals, Quakers and Unitarians

Variable: Group:	M-Scale			Quest			Religious Experience		
	Mean	S.D.	Range	Mean	S.D.	Range	Mean	S.D.	Range
Evangelicals (N = 18)	89.89	15.61	62-116	32.16	6.72	21-46	21.89	3.36	15-29
Quakers (N = 9)	112.89	15.89	91-137	46.11	6.85	39-60	19.00	3.34	14-26
Unitarians (N = 7)	114.71	34.86	69-156	48.43	4.23	44-55	21.43	6.27	10-30
Total (N = 34)	101.09	23.53	62-156	39.20	9.80	21-60	21.03	4.17	10-30

These figures indicate how data were in the predicted direction for at least two of the dependent variables, M-Scale score and quest. Those groups that had been taken as representing liberera l wings of the Judeao-Christian (Quakers and the Unitarians) obtained higher mean scores on both quest and mystical experience than did the Evangelicals. However, the data did not support the hypothesis that liberal religious groups would score higher on a

measure of general religious experience, as the means for the measure of religious experience were similar for each group.

4.3.2 Inferential Statistics

Hypotheses 4.1, 4.2 and 4.5 were tested using a between-groups MANOVA, with one independent variable at three levels (Religious Group: Evangelical vs. Quaker vs. Unitarian) and three dependent variables (M-Scale score, Quest score and general religious experience score). Statistically significant main effects were found for quest ($F = 15.93; p < 0.001$) and M-Scale ($F = 4.90; p < 0.02$) but not for general religious experience score ($F = 1.44; n.s.$). Comparisons between groups using independent samples t-tests indicated that these differences occurred because of the higher Quest and M-Scale scores of the two liberal religious groups than the Evangelicals. The Quakers and Unitarians did not differ significantly from each on either Quest score ($t = 1.02; d.f. = 13; n.s.$) or M-Scale score ($t < 1; n.s.$). However Quakers were significantly higher than Evangelicals on both quest ($t = 4.92; d.f. = 22; p < 0.001$) and M-Scale score ($t = 3.59; d.f. = 22; p < 0.001$). Unitarians also scored significantly higher than evangelicals on quest ($t = 5.87; d.f. = 21; p < 0.001$) and M-Scale score ($t = 2.47; d.f. = 21; p < 0.03$). Checks that these findings really did reflect elevated scores on both quest and M-Scale on the part of the religious liberals were taken by re-assigning all the Quakers and all the Unitarians to one group, Religious Liberals ($N = 16$), and comparing them with the Evangelicals ($N = 18$). Independent samples t-tests revealed that, as a group combined, these two groups obtained significantly different scores on both quest ($t = 6.97; d.f. = 32; p < .001$) and M-Scale score ($t = 3.29; d.f. = 32; p < .004$),

and the mean scores for the Religious Liberals on both the M-Scale (113) and Quest (47) was higher than those for the Evangelicals' respective mean scores of 89.89 and 32.16. T-test comparisons between the liberals combined and the evangelicals for the scores on the general religious experience scale were non-significant ($t < 1$; n.s.).

Such analyses indicated how the data collected during this study supported Hypotheses 4.1 and 4.5, which had predicted that religious liberals would score higher on measures of mystical experience than will religious conservatives, but did not support Hypothesis 4.2, which had predicted that religious liberals will score higher on a more generic measure of religious experience.

Hypotheses 4.3 and 4.4 were assessed by analysis of data from the combined sample ($N = 34$) using Pearson's Product moment. (Due to the small number of participants in each group, it was not considered appropriate to calculate correlation coefficients between dependent variables for the groups independently). Quest correlated significantly with M-Scale score ($N = 34$; $r = +.549$; $p < 0.01$) but not with the measure of general religious experience ($N = 34$; $r = -.152$; n.s.). Hence, Hypothesis 4.3 was supported but Hypothesis 4.4 was not. A low correlation was observed between M-Scale score and the generic measure of religious experience ($N = 34$; $r = .106$; n.s.). Although this could be interpreted as grounds for questioning the criterion-related validity of this measure of religious experience, it should be recalled that it had been designed as a general measure of religious experience rather than as a measure of specifically unitive-mystical experiences. The most parsimonious interpretation of this would be an assertion that findings regarding general measures of

transpersonal experience may not replicate entirely those for measures of specific types of transpersonal experience, such as mystical-union experience. Data from this study, for example, were evidence that liberal and conservative members of the Judaeo-Christian tradition differ in their experiences of mystical union but not in their experiences of transpersonal experiences in general.

Since the scale used to assess general religious experience was an ad hoc measure for which validity data were not available, ambiguity of certain possible scores on this scale invites comment. Scores close to the possible mid-range of 18 were ambiguous as to whether they were better interpreted as measures of confidence that one had had certain experiences, or as measures of the range of experiences one felt one had had. A score of eighteen, for example, could have meant strong confidence in having had three of the experiences, accompanied by strong disagreement that one had the remaining three experiences, but, equally possibly, ambiguity about each of the six experiences. Although similar ambiguity exists with mid-range scores on the M-Scale, this point is seldom appreciated in published research papers that have employed this scale.

Scrutiny of responses to the ad hoc measure revealed that mid-range to higher scores were better interpreted as measures of confidence than as measures of range, for the same narrow range of experiences tended to be acknowledged by those respondents who did express agreement to having had at least some of the listed experiences. It was more typical, for example, to see agreement or strong agreement ticked by any of the first three experiences listed than to see acknowledgement of experience of the dead being present (most respondents expressed either disagreement or strong disagreement to

having had this particular experience, and those who did acknowledge this experience tended to obtain higher scores overall). Scores were never below fourteen in both one of the liberal religious groups (the Quakers) and in the Evangelicals (see Table 4.2), indicating how, in these two groups, no respondent had disagreed or strongly disagreed to having had all six experiences. The wide range of scores on this scale for the Unitarians, and the high standard deviations achieved by Unitarians on both the M-Scale and the general measure of religious experience (see Table 4.2), could be taken as evidence of the diversity of the Unitarian-Universalist movement.

4.4 Discussion

The strong between-groups differences observed for quest and M-Scale scores suggested that the highly statistically significant and positive correlation between quest and M-Scale in this study occurred due to between-group differences. Although this may seem consistent with Maltby's (1999b) findings on quest, it should be remembered that Maltby found quest to correlate with a wider variety of transpersonal experiences. The data in the study reported here also differ from Maltby's in coming from a cross-denominational population, in which quest and mystical experience appeared to share around 25% variance. This is slightly greater than the correlation reported by Maltby ($r = 0.44$) between quest and transpersonal experience; Maltby used a sample drawn from a single denomination (Anglicans), and the greater heterogeneity of the sample in the current study is likely to have elevated this correlation.

Given the higher scores of the groups designated as Religious Liberals than the Evangelicals, the current study provided evidence that mystical

experience may be higher among the former than the latter. Grounds have been sketched in Chapter Three for associating religious liberalism with a particular personality pattern indicative of being high in some facets but low in other facets of psychoticism; thus, an initial tentative conclusion may be acceptance of the value of separating components of psychoticism in researching attributes associated with transpersonal experiences. A number of criticisms, however, may be applied to the current study before it is too readily followed with such a conclusion.

The study may be criticised because no measurements of psychoticism were given to the three groups sampled. The only indication that the Religious Liberals would score higher on a certain element of psychoticism was their higher scores on quest, a religious orientation found by Watson et al. (1986) to be positively correlated with psychoticism, but this religious orientation could be said to relate to only one aspect of psychoticism, namely unconventional social views. The study may also be criticised for only offering evidence for greater likelihood of mystical experience among liberals in the Judeo-Christian tradition. Such criticisms are addressed in the study reported in Chapter Six, in which not only Jews and Christians, but also two creeds that can be considered as religious liberals insofar as they are unconventional creeds somewhat distinct from mainstream religion in the United Kingdom, are assessed on a measure of mystical experience, on psychoticism as described by Eysenck, Eysenck and Barrett (1985) and on the five-factor model, enabling investigation of how these groups score on distinguishable facets of psychoticism.

A further criticism of the study reported above is that no pilot study had been done to assess how clear respondents would find the M-Scale. During the

process of data collection, informal communications with the Evangelicals revealed that ordinary lay people may have difficulty understanding certain items on this scale. In subsequent studies to be reported in this thesis, a clearer, more accessible measure of mystical experience, the Francis-Louden Mystical Orientation Scale (Francis & Loudon, 2000a) will be used as the preferred measure of mystical experience.

A final criticism that may be levelled against this study, and one which means that one should look with caution at any attempt to interpret the findings from the study as evidence that mystical experience is a prescriptive norm for liberals but not conservatives within the Judeo-Christian tradition, is that the M-Scale is a measure of mystical experience, and not of attitudes to mysticism. As argued in earlier chapters, conceptual distinctions are possible between these two variables. As the M-Scale is a measure of mystical experience and not a measure of attitudes to mysticism, the data from this study were only really evidence that mystical experience is more common among liberal than conservative adherents of the Judeo-Christian tradition, and did not actually suggest that mystical experience is more likely to be regarded as a prescriptive norm among the former.

Assessments of conventional and unconventional religious adherents in efforts to discover whether mystical experience is more likely to be a prescriptive norm for the latter clearly need to assess such respondents on attitudes to mysticism as well as well as mystical experience per se. To test such a proposition requires construction of a new scale to assess this concept. A study based upon construction of such a scale will be presented in Chapter Five.

CHAPTER FIVE
CONSTRUCTION OF A SCALE TO ASSESS ATTITUDES
TO MYSTICISM

5.1 Introduction

Arguments presented thus far in this thesis, challenging assessments of psychoticism as a broad trait when psychometric research is conducted into the personality correlates of transpersonal experience, can now be said to be supported by both a review presented of published literature and the data, original with the current thesis, which were presented in Chapter Four. Reviews of past literature, empirical as well as theoretical, in Chapter Two made it explicit that good grounds exist for viewing psychoticism as heterogeneous. In Chapter Four, empirical data were offered as evidence that increased liberalism, which, following the findings of Heath and Martin (1990), may be viewed as one, but only one particular facet of psychoticism, is associated with mystical experience. However, it is argued here that, in addition to personality and mystical experience, research into transpersonal experience should assess the attitudes people hold towards mysticism.

Reasons will be given in due course as to why, on both conceptual and empirical grounds, this can be declared a distinct construct from mystical experience. Here, it will be explained why research into the personality correlates of mystical experience will benefit from consideration of this as a distinct variable in its own right.

Research into potential correlation between mystical experience and personality traits is of more than purely descriptive interest. Knowledge of such

correlations may contribute to skilled debate on important theoretical issues, such as whether mystical experience is socially constructed or whether such experiences are pathological. A fully considered response to these issues demands that the cognitive frameworks attached to these experiences, as well as such experiences per se, are studied.

The first of these two issues relates to Forman's (1998) distinction between his own perennial psychology and earlier versions of perennial philosophy. Forman's position implies that mystical experience is not related to traits connected with readiness to learn social norms, but does not imply quite the same lack of an association for the attitudes people hold towards mysticism. The second issue is germane to how research into attitudes to mysticism may help to clarify whether pathology is more heavily associated with beliefs and attitudes than with experience. Since psychoticism may be associated with adaptive traits such as creativity, assessments of the cognitive frameworks people attach to mystical experiences, such as their attitudes to mysticism, enables one to determine whether such adaptive traits relate more closely to the attitudes, beliefs and styles of thinking people adopt in connection with mystical experience than they do to experience per se.

Sampling issues present further grounds for considerations of attitudes to mysticism. Whether psychoticism or other traits indicative of learning potential will correlate negatively or positively with mystical experience may depend upon whether the sample being assessed does or does not regard the experience of mystical union as a prescriptive norm. This may be decided by measurements of the attitudes to mysticism held by a particular religious group.

In this chapter, a report will be presented based upon construction of a new scale to assess attitudes to mysticism as a distinct construct from mystical experience. Such a scale has the potential to make original contributions to knowledge in the psychology of religion. The compendium of religiosity measures of Hill and Hood (1999) does not include any reference to a scale to assess this variable, which indicates how previous psychometric scale development in transpersonal psychology has not been based explicitly upon attempts to assess this construct. The theoretical background to this scale was outlined in the concluding sections of Chapter Two, in which (a) Pagans and Buddhists and (b) Christians and Jews were presented as religious groups which, respectively, may be predicted to take positive and negative attitudes towards mysticism.

5.2 Aims and Hypotheses

The aims of this study were to assess the internal consistency, criterion-related validity and construct validity of a new scale. To understand how criterion-related validity and construct validity were assessed, it is helpful to present these aims in the form of testable hypotheses. Construct validity of the new scale was assessed by examination of how strongly this new scale correlated with scores on the Francis-Louden Mystical Orientation Scale of Francis and Loudon (2000a), as indicated by Hypothesis 5.1. Criterion-related validity was assessed by observations of whether groups predicted to take pro-mystical attitudes would score significantly more highly on the new scale than would a convenience sample of students, as indicated by Hypotheses 5.2 and 5.3. A further hypothesis being tested in the study was that two groups

influenced by Buddhism would score higher on a measure of mystical experience than would a convenience sample of students (Hypothesis 5.4).

Hypothesis 5.1: Scores on an "Attitudes to Mysticism" scale will correlate significantly positively with scores on a measure of mystical experience;

Hypothesis 5.2: Reichi healers and Nichiren Daishonen Buddhists will both score significantly higher on an "Attitudes to Mysticism" scale than will a convenience sample of students;

Hypothesis 5.3: Members of Mensa Paranormal will score significantly higher on an "Attitudes to Mysticism" scale than will a sample of students;

Hypothesis 5.4: Reichi healers and Nichiren Daishonen Buddhists will both score significantly higher on a measure of mystical experience than will students.

5.3 Method

5.3.1 Design

The study was conducted as a between-groups design with the one independent variable of group at four levels (Student vs. Reichi vs. Buddhist vs. Mensa Paranormal) and the two dependent variables of Attitudes to Mysticism and mystical experience. As Hypothesis 5.1 was correlational and efforts were being made to assess the validity of the new scale, correlations between the variable of attitudes to mysticism and that of mystical experience were also assessed.

5.3.2 Participants

An initial pool of ninety-three participants completed questionnaires for Study Two. Forty-one were students who were given questionnaires during lectures at a college in the East Midlands, where they were all enrolled as students in Higher Education. All students were doing at least one module in Psychology as part of their degree programme and were handed questionnaires during Psychology lectures. Twenty-four of the participants were members of a Reichi healing group; 12 were members of a local Buddhist group, specifically Nichiren Daishonen Buddhists; and 16 were members of Mensa Paranormal. Two of these participants had to be eliminated because they had completed only one of the two scales administered for this study, and a further participant was eliminated for not having completed a sufficient proportion of the Attitudes to Mysticism Scale to allow for data collection (one Buddhist and two Reichi healers), leaving an *N* of 90 for data analysis.

The student sample consisted of 33 females and eight males, 24 respondents aged 19-21, 11 respondents aged 21-30, two respondents aged 31-40 and four respondents aged over 40 (mean average age = 24.36; standard deviation = 9.14; range = 19.5-56.90). Ten indicated religious affiliation as atheist or as having no religion, seven as agnostic, four as Roman Catholic, six as Anglican, six as adhering to some other Christian denomination, two as Hindu, one as Sikh, one as Islamic, one as the Korean religion Chun Do So Bop and three as personal religion.

The Reichi sample consisted of sixteen females, six males and two respondents who did not record gender; two were aged 21-30, three aged 31-40, four aged 41-50, seven aged 51-60, three were over 60 and five did not record

age (mean average age, where given ($N = 19$) was 48.63; s.d. = 12.65; range = 22-69). Religious affiliations indicated by the Reichi group were Anglican (six respondents), Roman Catholic (three respondents), "Other Christian" (three respondents), Buddhist (two respondents), spiritualist (one respondent), agnostic (two respondents) and multi-faith (five respondents); two respondents did not record religious affiliation.

The Nichiren Daishonen Buddhists consisted of eight females, three males and one respondent who did not record gender; two were aged 31-40, seven aged 41-50, two aged 51-60 and one respondent did not record age (mean average age, where given ($N = 11$) was 46.51, s.d. = 6.24; range = 35-55). The specific form of Buddhism sampled, the Nichiren Daishonen, can, along with Zen, be regarded a particularly pro-mystical form of Buddhism (Chapter Two, this thesis).

The Mensa Paranormal group comprised eight males and eight females, of whom one was aged 21-30, one aged 31-40, two aged 41-50, five aged 51-60, one aged 61-70, three were over 70 and three did not record age (mean average, where given ($N = 13$) was 54.69; standard deviation = 14.19; range = 29-78). All 16 members of the Mensa Paranormal group answered a question asking about their personal religious affiliation, but their replies were often highly idiosyncratic. The responses that Mensa Paranormal participants gave to a question asking them to name their religious affiliation were Anglican (three participants), Roman Catholic (two participants), Quaker (one participant), lapsed Anglican (one participant), Buddhist (one participant), agnostic (one participant), atheist (one participant), animist (one participant), "New Age" (one

participant), Pagan (one participant), Druidic-pantheistic-"The Tao" (one participant), monotheist (one participant) and "God within" (one participant).

Rationale for Sampling of Populations

Buddhism, as explained in Chapter 2 Section 2.3, can be viewed as a religion that supports pro-mystical attitudes. Criterion-related validity of an Attitudes to Mysticism Scale would therefore be supported if Buddhists were found to obtain significantly higher scores on the scale than a student sample. Reichi healing, a broadly "New Age" approach to healing, is frequently related to New Age preoccupations such as spiritual energy, crystals, chakras and Zen Buddhism (Shuffrey, 1998; Parkes & Parkes, 1998). Zen Buddhism was a major influence on Reichi's founding father, the Japanese healer Mikao Usui, who spent part of his time in a Zen monastery in Japan (Parkes & Parkes, 1998). These two groups were expected to obtain significantly higher scores on both the Francis-Louden Mystical Orientation Scale and the Attitudes to Mysticism Scale than the sample of students.

Mensa Paranormal, a sub-group within the high-intelligence society Mensa, can be regarded as a group whose members share intellectual interests rather than discussions of personal experiences. Respondents from this population were therefore expected to obtain significantly higher scores on the Attitudes to Mysticism Scale than students, but not necessarily higher scores on the Francis-Louden Mystical Orientation Scale. Presentation of hypotheses in this way emphasises conceptual distinctions between attitudes to mysticism and mystical experience, and helps to clarify how construction of the new scale

should not be regarded as construction of a redundant scale, but of a scale with potential to make an original contribution to knowledge.

5.3.3 Materials

The two major dependent variables being assessed in this study were:

- 1) **Mystical Experience.** This was assessed by the Francis-Louden Mystical Orientation Scale (Francis & Loudon, 2000a). As informal conversations with participants in Study One had indicated that some respondents had had difficulty with the more obscure questions of the M-Scale, the Francis-Louden Mystical Orientation Scale was chosen in preference to Hood's (1975) M-Scale due to its greater clarity. This is a 21-item scale to assess mystical experience based on Happold (1963), and has been observed to have good internal reliability with a Cronbach's alpha reliability coefficient of +0.94 (Francis & Loudon, 2000a; Bourke, Francis & Robbins, 2004). This scale is presented in Appendix B.
- 2) **Attitudes to Mysticism.** This was assessed by the newly constructed Attitudes to Mysticism Scale in its initial, 32-item version. This scale is also presented in Appendix B.

Construction of the Attitudes to Mysticism Scale

The initial version of the "Attitudes to Mysticism" scale consisted of 32 items. These items were devised by the researcher, and were used to assess each of eight content categories, with four items in each category. This was done to ensure that the new scale was measuring an adequate range of attitudes

and opinions that could be deemed "pro-mystical". These eight themes, and the sources which inspired them, are displayed in Table 5.1.

Table 5.1 Categories of Items in the Initial Version of the Attitudes to Mysticism Scale

ITEM CATEGORY	SOURCE AND BACKGROUND
1. Items assessing whether religious experience is valued over religious ritual	Glock and Stark (1965); Smart (1989)
2. Interest in mystical literature	Keller (1978)
3. Items assessing whether religious experience is valued over intellectual dimension of religion	Glock and Stark (1965)
4. Valuing mysticism as opposed to Lutheran theology of sola fideism	Various
5. Perceptions of mysticism as non-pathological experiences	Various
6. Valuing perennialism in mysticism	Forman (1998); Huxley (1946)
7. Valuing mysticism over social dimensions of religion	Smart (1989)
8. Valuing mystical experience over doctrinal dimensions of religion	Glock and Stark (1965); Smart (1989)

The first category of items included four items assessing whether respondents valued the experiential dimension of religion more highly than the ritual. These were:

Item 1. If I were to think of a prototypical religious person, I would think of a mystic or some one who reports religious experiences, rather than some one who attends religious services regularly.

Item 20. The practices of the mystic are a more true path to God than regular attendances at religious services.

Item 26. To have had a religious or mystical experience indicates more commitment to one's faith than whether one goes to one's place of worship regularly.

Item 32. If I were a religious person, I would see regular attendance at a church, mosque, synagogue or other place of worship as being more central to my faith than whether I had ever had a "mystical" or "religious" experience. (Negatively loaded).

The second item category assessed respondents' attitudes to mystical literature. The central place given to discussion of mystical literature in the volume of essays edited by Katz (1978), discussed in detail in Keller's (1978) chapter, provided a foundation for supposing this to be an important and worthwhile category. Furthermore, as one may read mystical literature and feel drawn towards or moved by it without feeling that one has had oneself had a mystical experience, inclusion of this category further clarified how this scale was a measure of attitudes to mysticism and not of self-reported mystical experience. The scale could therefore be seen to be serving a different function to scales such as Hood's (1975) M-Scale. The four items in this category were:

Item 2. Some of the most moving literature ever written has been the work of world's great mystics.

Item 12. I find that people who write about their so-called mystical experiences contradict themselves - they claim to have received revelations, but to me, their experiences hardly reveal anything at all. (Negatively loaded).

Item 17. I get excited when I read accounts of mystical, religious or spiritual experiences.

Item 24. I would get rather annoyed if I had to read mystical literature, as most of it would be quite incomprehensible to me. (Negatively loaded).

Item 12 above was based upon a quote by Luther. Luther disliked the Biblical text of "The Revelation of St. John the Divine", holding that a

revelation should be revealing, not couched in the rather esoteric language in which the final book of the Biblical canon is written.

The third item category was based upon Glock and Stark's (1965) inclusion of an intellectual dimension of religiosity in their scheme. Items in this category were designed to assess whether respondents valued the intellectual dimension of religion more highly than the experiential. Items in this category were:

Item 3. Possession of a great deal of factual knowledge about one's faith (e.g. about its history, literature or ritual) is really a very poor shadow of the great insights that can be obtained during mystical experience.

Item 9. If one wants to know about one's faith, one should apply lots of academic study to its history, texts and theology, rather than engage in practices that may or may not bring about mystical experiences. (Negatively loaded).

Item 13. Theologians are more important figures in the world religions than are mystics. (Negatively loaded).

Item 21. One can learn at least as much about God from those who report religious or mystical experiences as one can from theologians.

Inspiration for the fourth category came from the observation that different religions, and indeed, different denominations within the same religion, have taken different attitudes towards mysticism due to different doctrinal foundations relating to the power of the individual's efforts to obtain Divine grace. More specifically, items in this category had been designed to assess similarity between respondent's beliefs and Luther's doctrine of *solafidianism*, which today continues to be espoused by some forms of Christian fundamentalist Protestantism. This doctrine teaches that we are justified by faith

in God alone and that, therefore, our own self-initiated attempts at the spiritual quest are to be proscribed - thus, clashing head-on with the implications of certain mystical teachings that a self-initiated, on-going quest can help one to bear spiritual fruit. The former position was taken to be one that would offer doctrinal foundations for being suspicious of mystics; the latter position one likely to lead to more sympathetic attitudes towards mysticism. Items in this category were included to assess the extent to which respondents leaned towards the former or latter viewpoint. The four items in this category were:

Item 4. Our sins are justified through faith, that is, through belief that God alone can save us from our sins - we are not likely to get very far by constant reliance on our own efforts at the spiritual quest. (Negatively loaded).

Item 6. God alone is the fountainhead of all religious revelations, so mystics deceive themselves to think that they can obtain union with God by their own efforts. (Negatively loaded).

Item 8. The mystical quest for union with the Divine is one which - partly thanks to the mystic's own efforts - is often likely to prove extremely fruitful.

Item 11. The mystical viewpoint that life is like a ladder, and that by appropriate spiritual journey, one may ascend this ladder to reach the realms of God, is one which deserves a lot of respect.

The fifth item category was based upon the conservative premise that another reason why some respondents may have negative attitudes towards mysticism may be less to do with lay theology than with lay psychology, specifically, the possibility that mysticism may be perceived as psychopathology by some people. The four items in this category were designed to

assess the extent to which respondents equated the experiences reported by mystics with psychiatric illnesses or conditions. They were:

Item 5. I can really understand why many people (including religious leaders such as the clergy or rabbis) have perceived mystics as mad. (Negatively loaded).

Item 14. Major and important differences exist between the hallucinations of psychotics and the experiences of mystics.

Item 19. It would not surprise me if it turned out that the vast majority of those who claim to have had mystical experiences turn out to be suffering from some type of psychiatric illness. (Negatively loaded).

Item 23. Established religious authorities - such as the Christian church - are wrong if they think that the experiences reported by mystics should be seen as pathological.

The sixth category of item statement was based upon the likely possibility that those who take a positive attitude towards mysticism may be more sympathetic to the perennialism that has characterised some of those, such as Huxley (1946), who have written favourably about mysticism. It was assumed that respondents scoring high on these items would be those with beliefs in a "perennial philosophy" of mystics of many different spiritual traditions; whereas respondents who scored low would be more likely to take the viewpoint that only specific theologies are defensible, and - by implication - that doctrine should be given more respect than experience. The four items in this category were:

Item 7. Mystics of all faiths, creeds and indeed, of no traditional religion are all involved in the same spiritual journey.

Item 18. There are cases in many different religions where earnest seekers have had an experience of union with the Divine, or at least, glimpses of God.

Item 22. One should never trust any one who claims to follow a religion, but who takes a deep interest in the mystical teachings of religions or creeds other than the one he or she claims to profess. (Negatively loaded).

Item 30. I am rather suspicious of those who would have us believe that mystical experiences in all of the world religions are more or less the same. (Negatively loaded).

The seventh item category was based upon a dimension of religion from Smart's (1989) scheme, rather than Glock and Stark's (1965), namely the social dimension. Items in this category assessed whether respondents valued the mystical and experiential element in religion more highly than the formal, institutional or social. High scorers were expected to be those who valued private and personal mystical experience; low scorers those with more interest in formal, administrative bodies associated with religious denominations and who offered more respect to public figures occupying formal positions in the world's religions than they did to mystics. The four items in this category were:

Item 10. Religious authorities, such as church leaders, the Pope or rabbis, have every right to be suspicious of mystics. (Negatively loaded).

Item 15. Religious people should put more trust in formally designated religious authorities (e.g. vicars in Christianity, rabbis in Judaism) than in mystics or those who claim to have had religious or mystical experiences. (Negatively loaded).

Item 25. The mystic is some one often far closer to God than are those with formally designated religious authority (e.g. bishops, rabbis).

Item 28. The mystical path is a more sure path to God than that taken by hierarchically organized structures in the world religions.

The eighth and final category of belief statement was based upon contrast between the experiential dimension of religion and the doctrinal dimension, as described in models such as those of Glock and Stark (1965) and Smart (1989). It was assumed that high scorers on this category would value a heart-felt, personal experience of Divine union more highly than creedal assent, whereas the opposite would be true for low scorers. Items in this category were:

Item 16. To agree with the doctrines of a particular creed does not really matter in the long run - what really matters is to have had, in one's heart, experience of the Divine.

Item 27. The revelation awarded to one during a mystical experience is an important experience for any one, regardless of whatever he or she believes.

Item 29. Divine providence and the sovereignty of God imply that mystics cannot achieve true union with God. (Negatively loaded).

Item 31. One should pay special scrutiny to what those reporting religious or mystical experiences really believe in, especially if they come from a religious background different to one's own. (Negatively loaded).

The separation of the items into the above categories was done to ensure that the scale would assess an adequate range of opinions and beliefs related to mysticism. These eight classes of belief statement are not totally discrete. In particular, the final category shares considerable thematic overlap with those in the fourth and sixth categories. Such overlap is, however, to be expected, for the scale is intended as a measure of a homogeneous construct.

Attitudes to mysticism is a construct distinct to mystical experience, but as a self-contained construct, can be expected to be reasonably homogeneous. The presentation of all 32 items in the scale in numerical order can be found in Appendix B. Scoring for both scales was done by Likert-type five point scales, respondents expressing their level of agreement or disagreement with each item by circling a number ranging from 1 ("Strongly Disagree") to 5 ("Strongly Agree").

5.3.4 Procedure

Participants were presented with a booklet in two parts - one, the Francis-Louden Mystical Orientation Scale, measuring mystical experience, the other, the 32-item scale that had been designed to assess attitudes to mysticism. To control for order effects, half of the participants received the Francis-Louden Mystical Orientation Scale as the first scale in the booklet and the other half received the scale to assess attitudes to mysticism as the first scale.

The students were given questionnaires during a lecture presented by the researcher, who lectured at the college where the students studied. They were asked to return completed questionnaires to a box outside the researcher's office. The Reichi healers were given the questionnaires by a Reichi healing instructor, who later collected the questionnaires and returned them to the researcher by post. The Buddhists were given the questionnaires by a member of a local Buddhist group, who subsequently returned completed questionnaires to the researcher in person at the college where the researcher worked. The Mensa Paranormal members received questionnaires, via post, at a hotel where they were staging one of their conventions. They completed them at the

convention, where the convenor collected them in person and returned them to the researcher via post.

Ethics

Attached to the front of the booklet was a sheet assuring respondents of anonymity, and advising respondents that if they felt that the questions were getting either too difficult or too personal, they could return questionnaires uncompleted, thus allowing participants the chance to withdraw from the study at any time. The frontsheet also included the researcher's contact details, so that participants could contact the researcher for further information and to receive a breakdown of the study's rationale and findings following analysis of the data.

Analysis of Data. Analyses of kurtosis and skewness for all 90 participants revealed that, for the combined participant pool of $N = 90$, kurtosis and skewness for both attitudes to mysticism and mystical experience fell within the limits generally accepted as statistically acceptable for analyses by parametric statistical tests (for attitudes to mysticism, skewness = 0.173 and kurtosis = -.309, and for mystical experience, skewness = -.111 and kurtosis = -.926). Figures for both kurtosis and skewness, for both dependent variables, were therefore within the bounds of +1 to -1 and +3 to -3 judged by conventional statistical fiat to be within the boundaries of skewness and kurtosis respectively to suppose homogeneous distribution of data. Thus, analysis of the data by a parametric inferential test was considered defensible. Although the Likert-type scales used meant that data were ordinal in the strict sense, a common practice of treating scores on Likert-type scales as interval was adopted for the purpose

of analysis. Statistical analyses revealed that there were no significant differences between the scores of respondents who had been presented with the Francis-Louden Mystical Orientation Scale first, and respondents who had been presented with the Attitudes to Mysticism Scale first. Consequently, order of presentation of scales was not entered into the final data analyses.

5.4 Results

Note: A means of correcting for missing data was employed if a respondent had omitted two items or less on a scale. A mid-range response of 3 was entered in such cases. This method of correcting for missing data was employed for five respondents from the Reichi group and three respondents from the Buddhist group. Respondents who had omitted responses to more than two items on a scale were eliminated for purpose of analysis, ensuring that only respondents who had completed at least 90% of both scales were used for the final data analyses. Since one Buddhist respondent and two Reichi healers had omitted more than two items from the Attitudes to Mysticism Scale, their scores were not entered into the final data analyses, leaving an *N* of 90 for this purpose.

5.4.1 Internal Consistency of the Attitudes to Mysticism Scale

The Cronbach's Alpha of the new scale was satisfactory at .847. The loadings of individual items on the whole scale are displayed in Table 5.2. All items had a loading of at least .2 on the scale except:

Item 5: I can really understand why many people (including religious leaders such as the clergy or rabbis) have perceived mystics as mad.

Item 14: Major and important differences exist between the hallucinations of psychotics and the experiences of the mystics.

Item 29: Divine providence and the sovereignty of God imply that mystics cannot achieve true union with God.

Item 31: One should pay special scrutiny to what those reporting mystical or religious experiences really believe in, especially if they come from a religious background different to one's own.

5.4.2 Items Distinguishing High and Low Scorers on the Attitudes to Mysticism Scale

Item analysis was also performed on the new scale by a MANOVA, with one independent variable at two levels (range of score: above median versus below median) and treating the 32 items on the scale as dependent variables (see Table 5.3). This largely corroborated the results of the Cronbach's alpha statistics. As with the Cronbach's alpha, this method suggested elimination of Items 5, 14, 29 and 31. This method also suggested elimination of Item 6 ("God alone is the fountainhead of all religious revelations, so mystics deceive themselves if they think that that they can obtain union with God by their own efforts").

Construction of a 24-item version of the Attitudes to Mysticism Scale

Following item analyses, 24 items from the Attitudes to Mysticism scale were selected to produce a revised version, from which unreliable items had been discarded but which still included at least two items from each item content category. This maintained a high Cronbach's Alpha of .854. All

individual items had loadings of at least .29 on this version of the scale except Item 2, "Some of the most moving literature ever written has been the work of the world's great mystics", which had a loading of .18 on the 24-item version of the scale, and Item 30, "I am rather suspicious of those who would have us believe that mystical experiences in all the world religions are more or less the same", which had a loading of .19 on the 24-item version. No items had negative item-to-scale loadings. Items 5, 6, 14, 29 and 31, all of which either had low item-to-scale correlations or low discrimination between high and low scorers on the scale, as indicated in Tables 5.2 and 5.3, were discarded from this version of the scale. However, in the interest of shortening and sharpening the questionnaire to make it more accessible to respondents, three other items were also eliminated. These were Item 1 ("If I were to think of a prototypical religious person, I would think of a mystic or some one who reports religious experiences, rather than some one who attends religious services regularly"), which was eliminated due to its rather long-winded wording that may have reduced the accessibility of the questionnaire for some respondents; Item 4 "Our sins are justified through faith, that is, through belief that God alone can save us from our sins - we are not very likely to get very far by constant reliance at our own efforts attempts at the spiritual quest"), which was found to have a low item-to-scale correlation (below .2) on a 28-item version of the scale; and Item 26 ("To have had a religious or mystical experience indicates more commitment to one's faith than whether one goes to one's place of worship regularly"). It can be observed from Tables 5.2 and 5.3 that, with the exception of Item 26, none of the items eliminated had a loading on the initial version of the scale that exceeded .3 or produced significant differences

Table 5.2. Loadings of Items on the Initial 32-item version of the Attitudes to Mysticism Scale

Note: All items in right-hand column are positive loadings.

Item	Scale Loading
1	.26
2	.20
3	.48
4	.23
5	.12
6	.27
7	.39
8	.42
9	.36
10	.39
11	.40
12	.43
13	.50
14	.15
15	.42
16	.39
17	.40
18	.52
19	.34
20	.53
21	.47
22	.28
23	.35
24	.63
25	.42
26	.33
27	.53
28	.29
29	.17
30	.24
31	.07
32	.43

Table 5.3. Items on 32-item version of Attitudes to Mysticism Scale Distinguishing High and Low Scorers According to Results of MANOVA

Item	F-ratio
1	6.08*
2	3.99*
3	20.81**
4	8.71*
5	0.71
6	2.33
7	11.36**
8	6.05*
9	14.72**
10	15.74**
11	8.38*
12	20.23**
13	14.42**
14	0.56
15	6.82*
16	14.25**
17	20.28**
18	21.06**
19	16.18**
20	29.86**
21	14.16**
22	6.49*
23	6.59*
24	33.72**
25	15.32**
26	8.82**
27	19.94**
28	14.90**
29	2.42
30	6.30*
31	0.75
32	14.59**

* = $p < 0.05$ ** = $p < 0.01$

between high and low scorers. However, Item 26 was eliminated as it was considered to overlap in meaning with Item 32. Reduction of the scale to 24 items was considered a means of increasing the scale's accessibility, and

therefore improving chances of good return rates from future empirical work with the scale.

Of the eliminated items, two were from the category asking about whether the ritual dimension of religiosity was more highly valued than the experiential; two were from the category asking about attitudes to solafidianism; two were from the category asking whether the doctrinal dimension of religion is valued more highly than the experiential; and two items were from the category asking whether participants equated pathology with mysticism. This meant that an even spread of items had been discarded from four of the scale's eight item categories. Elimination of these eight items was therefore considered to leave a scale which still assessed a good range of opinions and beliefs about mysticism. It was assumed that this would not create substantial problems for assessments of its construct validity.

5.4.3 Comparisons of Students, Reichi Healers, Nichiren Buddhists and Mensa Paranormal Members on the Francis-Louden Mystical Orientation Scale and Attitudes to Mysticism Scale

Mean scores on the Francis-Louden Mystical Orientation Scale and the 24-item version of the Attitudes to Mysticism Scale are displayed in Table 5.4. As the Attitudes to Mysticism used a 24-item scale on which respondents placed Likert-type 1-5 responses, scores on this scale could range from 24 (most negative attitudes to mysticism) to 120 (most positive attitudes to mysticism), with a theoretical mid-range of 72. As the Francis-Louden Mystical Orientation Scale is a 21-item questionnaire and 1-5 Likert responses had been employed

for this scale, scores could range from 21 (least mystical) to 105 (most mystical) with a theoretical mid-range of 63.

Table 5.4 Mean Scores of Students, Reichi Healers, Nichiren Buddhists and Mensa Paranormal Members on Francis-Louden Mystical Orientation Scale and 24-item version of Attitudes to Mysticism Scale

Scale:	Francis-Louden Mystical Orientation Scale			24-item version of Attitudes to Mysticism Scale		
	Mean	S.D.	Range	Mean	S.D.	Range
Group:						
Students (<i>N</i> = 41)	54.17	15.31	23-88	77.41	15.31	55-118
Reichi Healers (<i>N</i> = 22)	75.45	17.57	28-103	89.00	13.17	64-108
Nichiren Buddhists (<i>N</i> = 11)	72.09	19.70	41-99	91.27	12.34	72-109
Mensa Paranormal (<i>N</i> = 16)	66.88	22.20	26-100	84.31	12.66	51-103
Total (<i>N</i> = 90)	63.82	20.80	23-1103	83.17	14.90	51-118

It can be observed from Table 5.4 how differences in means were in the predicted direction on both the Francis-Louden Mystical Orientation Scale and the new scale to assess attitudes to mysticism. Reichi healers and Nichiren Daishonen Buddhists, as predicted, scored higher on average than students on both scales. Members of Mensa Paranormal also scored higher on average than did students, although the differences here were not as great as were those between Buddhists and students or between Reichi healers and students.

5.4.4 Inferential Statistics to Test Formal Hypotheses

Although the central aims of this study were to assess the psychometric properties of the new scale, means of assessments of this new scale's construct validity and criterion-related validity had been presented in the form of testable hypotheses (Hypothesis 5.1 to test construct validity and 5.2 and 5.3 to assess

criterion-related validity). As explained below, these hypotheses were tested using parametric inferential tests.

5.4.5 Assessment of Construct Validity of Attitudes to Mysticism Scale:

Testing of Hypothesis 5.1

Hypothesis 5.1 was tested by analysis of the magnitude of correlation between the Attitudes to Mysticism scale and the Francis Louden Mystical Orientation Scale, using Pearson's Product Moment Correlation. Correlations between the Attitudes to Mysticism Scale and both the Francis-Louden Mystical Orientation Scale and its seven sub-scales are presented in the Table 5.5. All these correlations reached significance at the level of $p < 0.001$. Of the seven sub-scales on the Francis-Louden Mystical Orientation Scale, the 24-item version of the new scale correlated most strongly with that assessing unitive nature of experience. As the correlation between scores on the new scale and scores on the Francis-Louden Mystical Orientation Scale was highly significant ($r = 0.538$; $N = 90$; $p < 0.001$), data for the combined sample of 90 participants supported Hypothesis 5.1, indicating high construct validity for the new scale. The highest of these correlations was that between attitudes to mysticism and the unitive sub-scale of the Francis-Louden Mystical Orientation Scale. This indicated how confidence in the construct validity of the new scale could be strengthened if mystical experience were taken specifically to mean unitive experience.

Table 5.5 Correlations between Attitudes to Mysticism and Francis-Louden Mystical Orientation Scale and its Seven Sub-Scales (N = 90)

ME	I	N	T	P	U	TI	TE
.523	.327	.452	.394	.355	.518	.454	.483

Note: All of above coefficients significant at $p < .001$.

M.E. = mystical experience (total score on Francis-Louden Mystical Orientation Scale); I = ineffability (items from this scale assessing ineffability of experience); N = noetic quality (items from this scale assessing noetic quality of experience); T = transiency (items from this scale assessing transiency of experience); P = passivity (items from this scale assessing passivity of experience); U = unitive experience (items from this scale assessing whether experience is unitive); TI = time transcendence (items from this scale assessing whether experience is perceived as transcending ordinary time); TE = true ego (items from this scale assessing ego loss).

5.4.6 Comparisons of Scores of Reichi Healers, Buddhists, Mensa

Paranormal and Students on Francis-Louden Mystical Orientation Scale and Attitudes to Mysticism Scale: Testing of Hypotheses 5.2 to 5.4.

Assessments of criterion-related validity of the new scale were achieved by comparing the responses of students, the Buddhists, the Reichi healers and the Mensa Paranormal members on the new scale. Statistical tests were applied to the data to test Hypotheses 5.2 and 5.3. As the fourth hypothesis, 5.4, had predicted that the Reichi healers and Buddhists would score more highly on the Francis-Louden Orientation Scale than would the students, the scores of these four groups on this scale were also compared. Data were analyzed by a between-groups MANOVA with the one independent variable of group at four levels (Students vs. Reichi vs. Buddhist vs. Mensa Paranormal) and the two dependent variables of attitudes to mysticism and mystical experience. The resulting *F*-ratios are displayed in Table 5.6.

Table 5.6 F-ratios for Attitudes to Mysticism and Mystical Experience For MANOVA comparing responses of Students, Reichi Healers, Buddhists and Mensa Paranormal Members

Scale	Degrees of Freedom	F-ratio
Attitudes to mysticism	3	4.392 $p < 0.007$
Mystical experience	3	7.162 $p < 0.001$

Tukey's Honest Test of Statistically Significant Differences was selected as an appropriate post hoc test, as it was not considered that the number of pairings being tested was sufficiently high to demand use of Bonferroni's post hoc test. Results of these post hoc comparisons are presented in Table 5.6.1.

Nichiren Buddhists and Reichi healers both scored significantly higher than did the students on both the Francis-Louden Mystical Orientation Scale and the scale to assess attitudes to mysticism. Mensa Paranormal respondents did not, however, score significantly differently from any of the other three groups on either scale, occupying an intermediate level between the means of the students and those of the Buddhists and Reichi healers. The Buddhists and Reichi healers did not differ significantly from each other on either scale. In support of the new scale's criterion-related validity were the strong between-group differences observed between the students and the Reichi healers and Buddhists, offering support to Hypothesis 5.2. However, Hypothesis 5.3 was not supported. Although the difference in means between Mensa Paranormal members and students on the new scale to assess attitudes to mysticism was in the predicted direction, it was not strong enough to reach statistical significance.

Finally, Hypothesis 5.4 was supported, as both the Reichi healers and the Buddhists, as predicted, scored significantly higher on the Francis-Louden Mystical Orientation Scale than did the students.

Table 5.6.1 Post hoc comparisons as Assessed Using Tukey's H.S.D.

Note: Negative numbers indicate higher mean score of second group listed.

Scale	Difference in Group Means
Attitudes to Mysticism	Students versus Reichis -11.3415*
	Students versus Buddhists -13.6142*
	Students versus Mensa 6.900
	Reichis versus Buddhists 2.273
	Reichis versus Mensa -4.688
Mystical Experience	Mensa versus Buddhists -6.960
	Students versus Reichis -17.921*
	Students versus Buddhists -21.284*
	Students versus Mensa 12.704
	Reichis versus Buddhists 3.364
	Reichis versus Mensa 8.580
	Mensa versus Buddhists -5.216

* = $p < 0.05$.

5.5 Discussion

The data collected for the study reported in this chapter provided evidence that the newly devised Attitudes to Mysticism Scale is: (i) high in

internal consistency; (ii) high in construct validity; and (iii) high in criterion-related validity. Hypotheses 5.1, 5.2 and 5.4 were each supported by the data. As predicted by Hypothesis 5.1, statistically significant correlations were observed between scores on the Attitudes to Mysticism Scale and scores on the Francis-Louden Mystical Orientation Scale, indicating the construct validity of the new scale. As predicted by Hypothesis 5.2, Reichi healers and Buddhists scored significantly higher than did the students on the Attitudes to Mysticism Scale, indicating that the new scale had good criterion-related validity. Hypothesis 5.4, predicting that Nichiren Buddhists and Reichi healers would score significantly higher on a measure of mystical experience than would students, was also supported.

The only hypothesis that was not supported was Hypothesis 5.3, which had predicted higher scores for members of Mensa Paranormal than for students on the new scale to assess attitudes to mysticism. However, the difference between this group and students, while not statistically significant, was in the predicted direction. The Mensa Paranormal group, on both variables, occupied a mid-range position between the students and the Reichis and the Buddhists. That these latter two groups should have scored higher than Mensa Paranormal on both scales is unsurprising if Buddhism is considered a pro-mystical religion, Reichi healing itself being a largely Zen-influenced therapy. This aspect of the results therefore poses no substantial challenges to the criterion-related validity of the new scale.

Attitudes to mysticism and mystical experience appeared to share about 25% variance, suggesting enough unshared variance to be treated as separate concepts. This meant that, although correlations between this new scale and the

Francis-Louden Mystical Orientation Scale were high enough to judge the new scale as having adequate construct validity, they were not so high as to lead to decisions that the new scale was redundant. Thus, the new scale could be declared to be capable of contributing new information in the psychology of religion, assessing a construct related to but nevertheless distinct from those assessed by scales, such as the Francis-Louden Mystical Orientation Scale, that assess personal mystical experience.

5.6 Summary and Implications of Chapter Five

This chapter has reported on the design and evaluation of a new scale for use in research into transpersonal psychometrics, to assess attitudes to mysticism. After elimination of certain items from the scale, the scale maintained high internal consistency in its revised, 24-item version. Between-groups comparisons suggested that, as predicted, two groups for whom taking positive attitudes to mysticism is likely to be a prescriptive norm scored significantly more highly on this scale than did a convenience sample of students. Attitudes to mysticism can therefore be seen as a variable that may meaningfully be assessed by psychometric scaling.

The size of the correlation between attitudes to mysticism and mystical experience provided evidence that these two variables are related, but not identical. Attitudes to mysticism can therefore be considered to be both a variable that can be meaningfully assessed using psychometric scaling, and a worthwhile new concept to explore in transpersonal psychometrics. Use of a scale to assess this concept could prove to have importance in establishing, for

example, precise patterns of correlations between personality traits and variables more immediately related to mystical experience.

In Chapter Six, application of the Attitudes to Mysticism Scale to four groups distinguished by the taxonomy outlined in Chapter Two will be a focal concern, to assess the extent to which empirical data support this taxonomy. Continuing with the theme that psychoticism may be too broad a trait to meet adequate assessments of correlations between transpersonal experience and personality, as argued throughout Chapters Two to Four inclusive, Chapter Six will also provide information on how transpersonal experience relates to both psychoticism and more narrow-band personality traits. The study reported in Chapter Six aims to assess potential relationships between personality and mystical experience, but also potential relationships between personality and attitudes to mysticism. Questions about the heterogeneity of psychoticism and whether this complicates research in transpersonal psychometrics can be applied to assessments of attitudes to mysticism just as much as attitudes to mysticism.

CHAPTER SIX

EMPRICAL ASSESSMENTS OF MYSTICAL EXPERIENCE ,

PSYCHOTICISM AND RELATED TRAITS IN GROUPS

DIFFERING IN ATTITUDES TO MYSTICISM

6.1 Introduction

This chapter will present the results of a study which assessed the extent to which psychoticism correlates with mystical experience. However, in addition to assessments of psychoticism on the Eysenck Personality Questionnaire, measurements of the FFM (five-factor model) traits were taken in this study. This enabled assessments of the extent to which apparent links between psychoticism and mystical experience related to mediated links that both variables may have with traits which represent distinguishable facets of psychoticism.

In Chapter Four, evidence was presented for linking mystical experience to one particular facet of psychoticism, namely liberalism. That unconventionality represents a particular facet of psychoticism has been well-argued in papers such as Heath and Martin (1990) and Thalbourne et al. (1997). It is therefore clear that if mystical experience is linked with psychoticism through a link with this particular facet of this broad trait, the FFM trait with which mystical experience should share a particularly strong relationship is openness to experience.

Another important aim of the study reported in this chapter concerns sampling issues. Positions such as those of Francis (1992a), representing psychoticism as a variable that is associated with reduced levels of

conditionability, imply that if mystical experience is a learnt construct, negative correlations between mystical experience and psychoticism will be more prominent in those groups where this particular form of religious experience is valued. An assessment of respondents from both pro-mystical and anti-mystical religious groups has an advantage over assessments of respondents from only one such population in such research. It offers a more adequate psychometric assessment of the social constructivism of authors such as Katz (1978).

A further important aim of the study to be reported in this chapter concerns the variable of attitudes to mysticism. In Chapter Five, development of a new scale to assess this construct was outlined, and it was observed that a 24-item version of this scale had high internal consistency as well as good construct validity and good criterion-related validity. For the study to be reported in the current chapter, predictions were made that Pagans and Buddhists would score higher on this variable than would Christians or Jews. The study reported in Chapter Four provided evidence that liberal members of the Judeo-Christian tradition may score higher on measures of mystical experience than conservative adherents of this tradition, but did not assess either group on attitudes to mysticism. The study to be reported in this chapter will go further, comparing the responses of two groups that may be said to reflect a rather unconventional form of spirituality (Buddhists and Pagans) with two religious groups exemplifying more conventional forms of religion in the United Kingdom (Christians and Jews) on both mystical experience and attitudes to mysticism.

The Buddhists assessed in this chapter are Buddhists from a Western population, raised in the United Kingdom, but for such people Buddhism is still

popularly perceived as an example of teachings, philosophy and religion imported from the East that has inspired many Americans and Europeans. Mere comparisons of Buddhists with Christians and Jews would therefore be open to charges that any observed differences between pro-mystical and anti-mystical groups on attitudes to mysticism may relate to differences between Eastern and Western modes of thinking, rather than to attitudes to mysticism. Use of a group supposedly equally pro-mystical but whose traditions and language are thoroughly "Western" (Pagans) defends the study reported here against such charges.

As with attempts to examine the correlates of mystical experience, use of the FFM as a model which represents distinguishable facets of psychoticism was considered important in examination of the personality correlates of attitudes to mysticism. An important reason for assessment of how the FFM traits (and the Little Thirty facets of these traits) relate to attitudes to mysticism is that to do so provides information on whether empirical data support conceptual distinctions between attitudes to mysticism and mystical experience. Data indicating that FFM correlates of mystical experience and attitudes to mysticism differ would provide reasonably solid evidence for treating these variables as distinct constructs. Important information on how the precise personality correlates of these two variables may differ could be lost if only global assessments of psychoticism were taken.

Forman's (1998) perennial psychology, in associating cultural learning with belief rather than experience, implies that significant statistical relationships may be observed between traits such as psychoticism and attitudes to mysticism rather than, as the social constructivism of Katz (1978; 1983)

implies, between mystical experience and psychoticism. It is important to highlight how this means that the nature of the sample studied needs to be considered in making predictions about the likely correlates of attitudes to mysticism. Both the social constructivism of Katz (1978; 1983) and the particular form of perennialism espoused by Forman (1998) imply that significant positive and significant negative correlations will be found between traits indicating heightened conditionability and attitudes to mysticism respectively in groups that value mysticism and those that are suspicious of mysticism.

Additional Data to Test Whether Mystical Experience is a Learnt

Construct

Francis (1992a) has made a clear case that inverse correlations between religiosity and psychoticism are evidence that religiosity is associated with how readily people are conditioned to hold tender-minded attitudes. Implicit in such an assertion is the view that assessment of psychoticism can help to assess whether a variable's ontogenetic development relates to social learning, and indeed, Francis' position has helped to signify how assessment of psychoticism may be one means of doing this. However, as noted in earlier chapters, other possible ways to assess whether a variable such as mystical experience has an ontogenesis arising through learning are possible. In the psychology of religion, assessments of age and of length of time with which one has been a member of one's religious group may be an additional important means to achieve this end.

In the empirical study reported in this chapter, the ages of participants, and the length of time with which they had been affiliated with their religious

group, were assessed. If religious experience is a learnt construct, theoretical foundations exist for predicting that longer periods of exposure to the teachings of in-groups that value particular forms of transpersonal experience will increase the probability that members of such groups will report experiences valued by such groups. This means that, for groups which value mystical experience, age and length of affiliation with such groups should be significantly positively correlated with mystical experience, providing theoretical rationale for Hypotheses 6.11 and 6.12.

6.2 Hypotheses

As a large number of hypotheses were being tested in this study, it is of some help to introduce this section by noting how these hypotheses fall into three basic categories. The first four hypotheses tested in this study related to predictions about the personality correlates of mystical experience, and how these were likely to vary in accordance with whether a pro-mystical or anti-mystical group were being assessed (Hypotheses 6.1 to 6.4). Hypotheses 6.5 to 6.10 were connected with the attitudes people take towards mysticism. Finally, Hypotheses 6.11 and 6.12 were connected with age and the length of time with which one has affiliated with one's current religion.

Hypotheses on Mystical Experience and Personality

The study to be reported in this chapter tested the following hypotheses about the relationships between mystical experience and personality:

6.1 Mystical experience will be significantly negatively correlated with psychoticism, and with the impulsivity facet of NEO neuroticism;

- 6.2 There will be a statistically significant and positive correlation between NEO conscientiousness and mystical experience;
- 6.3 There will be a statistically significant and positive correlation between NEO openness to experience and mystical experience;
- 6.4 Negative correlations between psychoticism and mystical experience, and positive correlations between FFM conscientiousness and mystical experience, will be stronger in two pro-mystical religions (Pagans and Buddhists) than in two groups likely to hold less positive attitudes towards mysticism (Christians and Jews).

Hypotheses Related to Attitudes to Mysticism

Hypotheses related to attitudes to mysticism may be considered exploratory insofar as the scale being tested in the study reported here represents a new scale. The hypotheses related to this variable may be stated formally as:

- 6.5 Pagans and Buddhists will score significantly higher on a measure of attitudes to mysticism than will Christians or Jews;
- 6.6 In all religious groups, mystical experience will be significantly positively correlated with attitudes to mysticism;
- 6.7 Psychoticism will be significantly negatively correlated with attitudes to mysticism in Buddhists and Pagans;
- 6.8 Psychoticism will be significantly positively correlated with attitudes to mysticism in Christians and Jews;
- 6.9 FFM conscientiousness will be significantly positively correlated with attitudes to mysticism in pro-mystical Pagans and Buddhists;

6.10 FFM conscientiousness will be significantly negatively correlated with attitudes to mysticism in non-mystical Christians and Jews.

Additional Hypotheses to Test for a Possible Learnt Basis to Mystical Experience

The final hypotheses being tested were based upon the position that assessments of age and length of affiliation with religious group provide an additional means to assess the extent to which mystical experience arises through social learning:

6.11 Age will be significantly positively correlated with mystical experience in pro-mystical, but not in anti-mystical, religions.

6.12 Length of affiliation with one's current religion will be significantly positively correlated with mystical experience in pro-mystical, but not anti-mystical, religions.

6.3 Method

6.3.1 Design

This study took the form of a psychometric survey. As certain hypotheses were predictions about relationships between variables, this study was, in part, a correlational design. The study also employed a between-groups design, with one between groups variable at four levels (Religious Group: Buddhist vs. Christian vs. Pagan vs. Jew) and eight dependent variables - mystical experience, attitudes to mysticism, and the six personality traits of psychoticism, extraversion, agreeableness, neuroticism, conscientiousness and openness to experience.

6.3.2 Respondents

The sample comprised 214 respondents, selected via convenience sampling. These were recruited either by contacts with the churches, synagogues or other religious organisations with which these people affiliated, or through putting advertisements in journals. The participants comprised four groups as follows:

(a) Christian Protestant respondents ($N = 66$).

The Christian respondents in the sample comprised 42 females, 23 males and one participant who did not record gender. The ages of Christian respondents ranged from 17 to 82 (mean = 54.67, *s.d.* = 14.69).

These respondents were mainly United Reformed Church, Congregationalist and Salvation Army respondents recruited from the East Midlands. The majority were approached after the researcher had written to United Reformed Churches listed in the *East Midlands Synod of the United Reformed Church Yearbook* for 2000-2001. Five churches listed in this handbook for the Derbyshire region, four churches from the Leicestershire region and four from the Nottinghamshire region were contacted by post and asked whether they would be willing to participate in the study. This enabled contacts to be made with the churches in the East Midlands likely to have the larger congregations, as indicated by the number of members quoted in the *Yearbook* for each individual church.

People at one church from Derbyshire, one church from Leicestershire and two churches from Nottinghamshire contacted the researcher and consented to take part. The researcher also contacted one church from the Milton Keynes

region and six churches from the Northamptonshire region listed in the *Yearbook* by post, in person or telephone. People from five of these churches consented to take part. Thus, respondents from a total of ten United Reformed Churches from the East Midlands agreed to participate in the study, representing fifty per cent of the twenty churches contacted and six per cent of the total 156 churches listed in the *East Midlands Synod of the United Reformed Church Yearbook* for 2000-2001. A Congregationalist Church in Leicestershire and a Salvation Army church in Northamptonshire provided additional respondents for this sample. To increase the total number of Christian Protestant participants, a small number of respondents (Methodist, Anglican and evangelical Christian) were collected either via snowball sampling, or as a convenience sample from a population of students from the college where the researcher worked. This gave a total of 66 for the whole body of Christian Protestants in the sample.

Thirteen of the Christian Protestants were drawn from Salvation Army population, and 53 were United Reformed, Congregationalist, Methodist or Anglican. The Christians comprised approximately 30% of the total sample assessed.

(b) Jewish respondents ($N = 32$).

The Jewish respondents in the sample comprised 16 females, 14 males and two respondents for whom gender was not given. Age had been given by 27 of these respondents, and where given, ages ranged from 17 to 78 (mean age of respondents indicating age ($N = 27$) = 54.85; $s.d.$ = 16.18). Efforts to recruit Jewish respondents initially involved placing an advertisement in a Jewish publication, but this method of recruiting respondents resulted in a very

low response rate. Snowball sampling and recruiting through a local radio station and a student population known to include Jewish students were therefore employed to obtain an initial set of Jewish respondents. The researcher subsequently wrote to 53 synagogues in the United Kingdom. Seven gave consent to participation in the study, stating that several people at their synagogues would be willing to complete questionnaires. Questionnaires were subsequently sent to these synagogues by the researcher for return following completion. One of these synagogues later returned all questionnaires uncompleted due to time constraints. Thus, the number of contacted synagogues who successfully responded to request to participate in the research study by post represented 11.3% of the synagogues contacted in this way. The researcher also contacted a number of Masorti Synagogues through use of the Masorti Synagogue web-site via e-mail, representing all of the Masorti Synagogues listing e-mail addresses on this web-site. Staff at one of these Masorti Synagogues responded to the researcher's request by giving consent to take part in the study. The synagogues contacted were in geographical areas ranging from the South-East (London and Essex) through East Anglia and the Cotswolds up as far north as Cheshire. The Jews comprised approximately 15% of the total sample assessed.

(c) Pagan and New Age respondents ($N = 63$).

The Pagans in the sample comprised 36 females and 27 males. Age was not given by one respondent; for the 62 respondents who had indicated age, ages ranged from 17 to 68, mean average age = 41.92; $s.d.$ = 11.83. Pagan respondents were recruited largely from advertisements in journals circulated in Pagan circles - *Silver Wheel*, *Third Stone*, *The Little Red Book* and

Destiny/Sphere. Advertisements in *Touchstone*, and on the Cornish Pagans' web-site were also used to recruit participants. Further Pagan participants were recruited after contacts were made with five Pagan organizations. These were Pagan Elders, an organization devoted to practitioners of contemporary Paganism over fifty; the London Earth Mysteries Society; the Pagan Federation of the United Kingdom; and two local groups (one in Nottinghamshire and one in Northamptonshire) known to be regular meeting venues of Pagan adherents. Questionnaires were distributed to participants from these organizations after contacts via e-mail or telephone had confirmed that at least some members of these groups would be willing to participate in the study. Contacts with these organizations brought the total number of Pagans and New Agers in the sample up to 63. Responses from Pagan organizations and magazines were generally positive; only two of the Pagan journals contacted refused to advertise for participants for the study.

Of the Pagan participants, 21 indicated their particular form of Paganism as "Druid", although three of these participants qualified this by self-descriptions such as "Wiccan Druid" or "Druidic knight". Of the remaining forty-two Pagan participants, seven left their description of their religious affiliation as generally "Pagan" and did not specify affiliation to any particular form of Paganism; eight specified their particular form of affiliation of Paganism as Wiccan (qualified in one instance as "Dianic Wiccan"); three indicated "New Age" or healing forms of Paganism; five indicated affiliation with a form of witchcraft (qualified in one instance by assertions of influence of both Native American traditions and Cornish myths); five indicated Pagan affiliation as being to do with kinship with nature and two to do with pantheistic

beliefs; and four indicated Pagan affiliation as being "hedgewitch" or "solitary". No other responses were frequent enough to justify their own category; other self-identifications were those given by one respondent only, including "Celtic", "Western Mystery Tradition", "Norse Tradition", "magickian" (sic. - such spelling was used by one respondent intentionally to draw a sharp distinction between Pagan magic (= "*magick*") and stage conjuring) and shamanism. These categorisations, based upon Pagan participants' responses to an open-ended question on religious affiliation set to all respondents (see "Procedure") were problematic in the case of Pagan participants, who would frequently describe themselves in ways suggesting an eclectic mix of Pagan influences. For example, one self-identification was as "Wiccan - mostly solitary" - indicating influences of both Wiccan and Hedgewitch forms of Paganism. One participant indicated a blend of Wiccan and Quaker beliefs, and at least two of the participants who indicated affiliation with a form of witchcraft linked this with Celtic spirituality, in one case describing this as influence from the Welsh pantheon. The most extreme form of this "multiple self-identification" was the case of one participant who described form of religious affiliation as "Nature/ Ancestors/ Hindu/ Pagan/ Person-centred - you don't have to be one thing" in response to the open-ended question set to all participants on religious affiliation. The Pagans represented approximately 30% of the total sample assessed.

(d) Buddhist respondents ($N = 53$).

The Buddhist respondents comprised 26 male and 23 female respondents, and four respondents for whom age and gender were not given. Ages of Buddhist respondents who had indicated age ($N = 50$) ranged from 21

to 73, mean 42.4, *s.d.* 12.16. Buddhist respondents were recruited from the following populations:

Zen Buddhists. International Zen Association U.K., an organization based in Britain largely orientated around Zen Buddhism from the Soto Zen tradition, and the Western Ch'an Fellowship, were the organizations approached by the researcher via e-mail, post or telephone. Western Ch'an Fellowship and several branches of International Zen Association U.K. consented to take part in the study, and the researcher mailed questionnaires to them. A total of 27 of the Buddhist participants, representing approximately 50% of the Buddhists in the total sample, were representatives of the Zen or Ch'an tradition. (In this particular sample, Zen can be understood as equivalent to Soto Zen rather than Rinzai Zen, as International Zen Association U.K. is a Soto Association, and those participants who had specified the particular form of Zen/ Ch'an Buddhism to which they adhered referred only to Soto Zen).

Nagarjuna Buddhists. These Buddhists were contacted after contact with the Nagarjuna Buddhist Centre which, at the time of data collection, was situated in Leicestershire; permission was sought from a representative leader of the centre, who consented to the centre's participation in the study. Three of the Buddhists used in the sample were recruited from this centre.

Friends of the Western Buddhist Order (F.W.B.O.). The researcher contacted the Birmingham branch of the F.W.B.O., which consented to participation in the study, and a member of the F.W.B.O. based in Essex known to a personal contact of the researcher also took part in the study. Six of the Buddhists in the sample were members of F.W.B.O.

Tibetan Buddhists. Several organizations representing Tibetan Buddhism were

contacted, two in London, one on a retreat in the North-West of England, and gave their consent to have questionnaires mailed to them and to return them to the researcher via post upon completion. Seventeen of the Buddhists in the sample were Tibetan Buddhists recruited from one of these centres. The Tibetan Buddhists on a retreat in the North-West were especially associated with the New Kadampa Tradition (N.K.T.).

In recruiting participants for the study, two additional Buddhists were contacted from membership of the Scientific and Medical Network, an organization devoted to complementary and alternative health issues, to bring the total number of Buddhists in the sample up to 53, representing approximately 25% of the sample. These respondents were contacted after the researcher had checked the membership list of the Scientific and Medical Network in its electronic form, and done a search for all such respondents who had listed their religious affiliation as being "Buddhist". The electronic presentation of the S.M.N. membership list, which is open to S.M.N. members, permitted easy access to such a search procedure, after typing in the appropriate keyword "Buddhist". Care was taken not to write to individuals who the researcher knew were being contacted in other ways; access to e-mail or address of potential respondents in this way allowed the researcher to e-mail or to write to such respondents. These respondents were assured that their names and contact details would not be passed on to any one - a point that needed to be stressed especially sensitively in making contact with respondents this way, as the S.M.N. membership list is only accessible by S.M.N. members. Although the researcher was himself a member of S.M.N., the participants contacted by the researcher using this method did not include any individuals formerly

personally known to the researcher.

Respondents contacted by use of the S.M.N. list who agreed to consent to take part in the study were sent the appropriate questionnaires. Responses to the demographic questions at the end of the questionnaires listed by such participants indicated that such respondents were either affiliated with F.W.B.O. or were practitioners of the Zen/Ch'an tradition of Buddhism. Thus, rather than assign these respondents to a separate category, such respondents were assigned to either the Zen/ Ch'an group or the F.W.B.O. group as appropriate in making the numerical assessments of each type of respondent in the above breakdown of the four types of Buddhist membership sampled in the study. The Buddhists comprised approximately 25% of the total sample assessed.

6.3.3 Materials

Dependent variables of mystical experience, attitudes to mysticism, psychoticism and the five FFM traits were assessed in the study. Respondents completed one scale to assess whether they themselves had had a mystical experience; one scale to assess their attitudes to mysticism; one scale to assess psychoticism; and one scale to assess the five traits of extraversion, neuroticism, openness to experience, conscientiousness and agreeableness. The longer, 240-item version of the NEO-PI-R was used to ensure that comparisons could be made involving individual facets of the broad traits (see Chapter Three). The dependent variables of age and length of affiliation with religious group were also assessed.

The questionnaires used in the study were as follows:

- 1) Mystical experience was assessed by the Francis-Louden Mystical

Orientation Scale (Francis & Loudon, 2000a). This 21-item scale assesses mystical experience using the seven criteria of mystical experience as specified by Happold (1963), consisting of seven three-item sub-scales to assess *ineffability*, *noetic quality of experience*, *transiency*, *passivity*, *unitive nature of experience*, *time-transcendence* and loss of false ego as *true ego* is uncovered. Research has suggested that this scale has a satisfactory Cronbach's alpha of 0.94 (Francis & Loudon, 2000a). Factor analyses of the scale have revealed a first basic factor accounting for 45.1% of variance in the scale, whereas a second factor accounts for a mere 7.3% (Francis & Loudon, 2000a). This scale could therefore, in spite of its use of seven distinct sub-scales, be viewed as assessing mystical experience as a homogeneous construct. Rationale for choice of this scale rather than Hood's (1975) M-Scale was partly founded on informal observations during data collection for the study reported in Chapter Four, which indicated that respondents may have difficulty understanding the wording on the latter scale (cf. Thalbourne & Delin, 1999). The Francis-Louden Mystical Orientation Scale has been observed to have a high Cronbach's alpha of 0.94 (Bourke, Francis & Robbins, 2004; Francis & Loudon, 2000a). This is higher than the Cronbach's alpha typically reported for the M-Scale, and so the Francis-Louden Mystical Orientation Scale can therefore legitimately be judged as having better internal consistency and to be assessing a more homogeneous construct.

- 2) Attitudes to Mysticism was assessed by the 24-item version of the Attitudes to Mysticism Scale presented in Chapter Five, for which the

Cronbach's alpha had been found to be .854;

- 3) Psychoticism was assessed by the 32-item version of the Psychoticism sub-scale of the Eysenck Personality Questionnaire, or E.P.Q. (Eysenck, Eysenck & Barrett, 1985).
- 4) The FFM traits were assessed by the NEO- PI, Form S (Costa & McCrae, 1992a). The 240-item version of this scale was used in the current study, enabling valid and reliable assessment of both the five traits in the five factor-model of personality and specific facets of each trait. High criterion-related validity and good Cronbach's alpha coefficients, ranging from .89 (for agreeableness) to .92 (for neuroticism), have been reported for this scale (Costa & McCrae, 1992a). Use of re-usable booklets, administered to participants who were also sent separate hand-scoring answer-sheets to record their responses, were also sent out to participants. Mean norms for the five traits of the NEO questionnaire, in both student and general adult populations, are available in Costa and McCrae (1992a).

After the four scales, a final sheet of A4 paper headed "Some final questions" asked the respondents the following questions:

- Demographic information on age and gender;
- With which religion they affiliated;
- Whether they had always been adherents of this religion, and if not, how long they had adhered to it;
- Whether they considered that any types of spiritual, religious or mystical experience were central to their creed;

- The Alister Hardy question: "Have you ever felt as if you were influenced by a Power or Presence, whether you call it "God" or not, that was different to your everyday self? (Hardy, 1979);
- The David Wuthnow question: "Have you ever felt as if you were in close contact with something sacred or holy?" (Wuthnow, 1976; cited in Hay, 1982).

Respondents indicated their answers to the Alister Hardy and David Wuthnow questions by marking one of three possible options, *Yes*, *No* or *Don't Know*. In asking for questions on religious affiliation, participants were invited to write a little more about their religious affiliation, such as, for example, the particular type of Judaism or particular Christian denomination to which they subscribed. All questions on demographic details were worded in a way that enabled respondents to write their answers without supplying any identifiable details. It was also made clear to respondents that responses to the above questions on demographic information were optional. Following the questions on demographic details, participants were left with space for them to write, in their own words, qualitative comments about any personal religious or spiritual experiences they believed they had had if they wished to do so. Information in response to these demographic questions enabled assessments of the dependent variables of age and length of affiliation with religious group, as well as offering respondents the chance to add open-ended comments about their creed and spiritual experiences.

6.3.4 Procedure

Following initial contacts with the churches, synagogues, organizations or individuals who had consented to take part in this study, the researcher posted envelopes containing the questionnaires as specified in the section on "Materials". All respondents were sent four questionnaires; however, only 188 of these respondents completed all four scales. Listwise comparisons involving all variables assessed on these scales therefore involve an N of 188. Respondents were sent stamped addressed envelopes for return of scales to the researcher. Each envelope contained an instruction sheet, headed "Religious Experience/Spirituality Survey". This explained how the purpose of the survey was to research spiritual experiences. It also emphasised that all questionnaires could be completed anonymously, that participants could stop questionnaire completion at any stage, and provided the researcher's name, address, e-mail and telephone number contact details, so that participants could contact the researcher for a debriefing on findings. The instruction sheet explained to respondents that they did not have to do all four questionnaires at one sitting, and also included a note to encourage respondents to respond within a fortnight of receipt of the scales. The instruction sheet therefore complied with British Psychological Society Ethical guidelines on confidentiality, right to withdraw from a study at any time and the right of participants in a study to be debriefed. Presentation of materials distributed is given in Appendix C.

The tester's presence is required in some NEO studies, but Costa and McCrae (1992a) have pointed out that the test has frequently been administered in studies in which the participants have undertaken the project at home in the absence of a tester (as was the case with the current study). Hand-written

answer sheets, on which respondents could record their responses, were sent out with the booklet in the current study. This meant that respondents could complete their answers on the answer-sheet and return the original NEO question booklet when returning their responses to the researcher.

Answer-sheets provided with NEO re-usable booklets include a space on which respondents are asked to record their names, but Costa and McCrae (1992a) allow for modification of this standard procedure in situations where anonymity of respondents is needed. In the current study, comments were written in the space for name to indicate that respondents could complete answer-sheets anonymously.

The psychoticism sub-scale of the E.P.Q. employs 32 items and, for each item, respondents could answer "Yes", "No" or "Don't Know". Scores for this scale could therefore range from 32 (lowest in psychoticism) to 96 (highest in psychoticism), with 64 as the theoretical mid-range. Likert-type five-point scales were used on the other questionnaires. Scores on the 21-item Francis-Louden Mystical Orientation Scale could therefore range from 21 (least mystical) to 105 (most mystical) with a theoretical mid-range of 63. Scores on the 24-item Attitudes to Mysticism Scale could range from 24 (most negative in attitudes to mysticism) to 120 (most positive in attitudes to mysticism) with a theoretical mid-range of 72. NEO scores could range from 48 (lowest on trait assessed) to 240 (highest on trait assessed) with a theoretical mid-range of 144.

6.3.5 Analysis

Results were analysed using Multivariate Analysis of Variance (see "Results" section). Kurtosis and skewedness were checked for the sample as a

whole and for each of the four specific creedal groups. In only two cases did these exceed +1 to -1 for skewedness and +3 to -3 for kurtosis, i.e. data could be considered normally distributed according to conventional fiat. Skewedness for Pagans and Christians for psychoticism was 1.248 and 1.289 respectively, slightly over 1 but near enough to this figure to justify treating the data as fulfilling the assumptions behind parametric tests. Skewedness of both groups revealed greater distribution of scores at the lower end of the psychoticism scale. Although this is typical of the skewed nature of psychoticism commonly found in research, many published research papers on religiosity-personality correlates have used parametric statistics to observe correlations between psychoticism and religiosity-related variables.

Parametric tests have typically been described as more powerful than nonparametric tests (Siegel & Castellan, 1988), and the small number of participants for one of the groups being studied (the Jews, for whom $N = 32$) made it especially important that powerful tests were applied to the data. Use of parametric tests also permitted a greater choice of post hoc comparisons, whereas nonparametric tests would have limited the choice of post hoc comparison to Bonferroni's test as adapted for application to nonparametric data. Increased power of parametric tests may invite accusations of increased risk of Type One error, but application of parametric tests to interval data that violate one or more assumptions of such tests is unlikely to lead to major deviations from results obtained using non-parametric tests (Sheskin, 2000).

Qualitative Interview Data

In addition to collection of quantitative data for the study, a

representative of each creed studied was interviewed on the topic of religious experience, either in person or by telephone. This enabled a more in-depth analysis of how the four religions studied were likely to respond to concepts such as "mystical experience". Reference to observations made during these interviews will be given in the discussion of the findings presented in the next chapter.

6. 4 Results

Results of the study are presented in three sections. Descriptive data on mystical experience and attitudes to mysticism are presented in 6.4.1. Inferential statistical tests to test Hypothesis 6.1 to 6.12 are presented in 6.4.2. Cross-creedal comparisons on each of the assessed personality traits are presented in Section 6.4.3.

6.4.1. Descriptive Data on Attitudes to Mysticism and Mystical Experience

The psychoticism sub-scale of the E.P.Q. employs 32 items and, for each item, respondents could answer "Yes", "No" or "Don't Know". Scores for this scale could therefore range from 32 (lowest in psychoticism) to 96 (highest in psychoticism), with 64 as the theoretical mid-range. Likert-type five-point scales were used on the other questionnaires. Scores on the 21-item Francis-Louden Mystical Orientation Scale could therefore range from 21 (least mystical) to 105 (most mystical) with a theoretical mid-range of 63. Scores on the 24-item Attitudes to Mysticism Scale could range from 24 (most negative in attitudes to mysticism) to 120 (most positive in attitudes to mysticism) with a theoretical mid-range of 72. NEO scores could range from 48 (lowest on trait

assessed) to 240 (highest on trait assessed) with a theoretical mid-range of 144.

Mean scores and standard deviations for each group on attitudes to mysticism, mystical experience and each of the personality traits assessed are displayed in Table 6.1, while ranges of scores for each group on mystical experience and attitudes to mysticism are displayed in Table 6.2. Buddhists and Pagans both obtained, on average, higher scores than the Christians or the Jews,

Table 6.1 Mean Scores of Christians, Jews, Buddhists and Pagans on Mystical Experience (M.E.) and Attitudes to Mysticism (A.M.)

Group:	Christians		Jews		Buddhists		Pagans		Total:	
Variable:	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
M.E. N = 210 for Total	61.67	17.72	47.35	18.41	70.15	18.40	82.64	14.97	67.54	20.61
A.M. N = 206 for Total	68.87	13.24	69.52	20.41	89.89	12.60	97.75	9.74	82.40	18.64

Note: Values of N for mystical experience and attitudes to mysticism in the above table differ because the figures are based on pairwise data. N values for specific groups are displayed in Table 6.2.

Table 6.2 Ranges of Scores for Christians, Jews, Buddhists and Pagans on Mystical Experience (M.E.) and Attitudes to Mysticism (A.M.)

Group:	Christians	Jews	Buddhists	Pagans	Total:
M.E.	23-99 (N = 66)	21-87 (N = 31)	25-105 (N = 52)	42-105 (N = 61)	21-105 (N = 210)
A.M.	41-105 (N = 65)	31-108 (N = 31)	60-116 (N = 49)	80-119 (N = 61)	31-119 (N = 206)

corresponding exactly with theoretical predictions. The scores on the Francis-Louden Mystical Orientation Scale followed a similar pattern, with the Buddhists and Pagans scoring higher than either the Christians or the Jews.

6.4.2 Inferential Statistical Tests

Hypotheses 6.1, 6.2 and 6.3 were tested by the calculation of correlation coefficients, using Pearson's Product Moment Correlation Coefficient. The correlation coefficients between mystical experience and each of the assessed personality traits were calculated for the whole sample to test these hypotheses; equivalent correlation coefficients were calculated for each religious group to test Hypothesis 6.4. However, before testing for statistically significant correlations, an important preliminary assessment of data was considered necessary, as each group comprised people coming from different wings or forms of each creed. Preliminary checks to determine whether data were complicated by in-group heterogeneity were therefore deemed necessary.

Statistical Checks of Groups for In-Group Homogeneity

Christian Protestants had been drawn from two main populations, the Salvation Army and the United Reformed Church (the latter group also included some Methodist participants, as at least one of the churches in the sample had been a mixed Methodist and United Reformed congregation). Data from these respondents were assessed by a between-groups MANOVA employing one independent variable at two levels (Denomination: U.R.C. vs. Salvation Army) and the eight dependent variables of mystical experience, attitudes to mysticism, psychoticism and the five traits assessed on the NEO-PI. Only for agreeableness did the F-ratio reach statistical significance ($F = 8.66, df = 1, 62; p < 0.01$).

U.R.C. respondents ($N = 51$) had a higher mean score for agreeableness (187.35 ; $s.d. = 12.89$) than did Salvation Army respondents ($N = 13$; $X = 173.76$; $s.d. = 16.30$).

The Pagan participants were divided into two basic categories, "Druid" ($N = 21$) and "other" ($N = 38$), for the 59 of the Pagan participants who had completed all four scales. Such a grouping represented respectively the "Establishment" and "radical" wings of contemporary Paganism. This binary split of the Pagan sample was considered to be an acceptable means to classify the Pagans in the sample. (Non-Druidic Pagans gave various self-identifications in response to the open-ended question asking about particular form of religious affiliation of a respondent, but none were given frequently enough to merit its own category). A between-groups MANOVA employing two levels of one independent variable (Pagan group: Druid versus Other) and the eight dependent variables of scores for mystical experience, attitudes to mysticism, psychoticism, conscientiousness, agreeableness, openness to experience, neuroticism and extraversion was used to assess potential differences within the Pagans in the sample. No statistically significant between-group differences were found for any of these dependent variables. The F-ratio for agreeableness approached statistical significance ($F = 3.70$; $p < 0.07$) with the Druids scoring slightly higher, on average, than non-Druidic Pagans (Druid mean = 171.95 ; non-Druid mean = 160.79). More fine-toothed analyses for agreeableness revealed the Druids to be significantly higher than the non-Druidic Pagans on two of the six agreeableness sub-facets - trust and tender-mindedness. Apart from a slightly higher Druidic mean (86.57) than non-Druidic mean (80.60) score on the Francis-Louden Mystical Orientation Scale, which only marginally

approached significance ($F = 3.14$; $p < 0.09$), these two groups of Pagans obtained similar scores on each of the remaining variables. Treatment of all Pagan participants in the sample as a homogeneous group was therefore considered defensible.

Analysis of the Buddhist respondents was conducted by a between-groups MANOVA with one independent variable at four levels (type of Buddhism: Tibetan vs. Zen/ Ch'an vs. Nagarjuna vs. F.W.B.O.) and the dependent variables of mystical experience, attitudes to mysticism, psychoticism and the five traits assessed on the NEO-PI. No statistically significant differences were found across membership group on any of the eight dependent variables.

From these MANOVAs, it was considered appropriate to treat the Buddhists, Christians and Pagans in the sample as three reasonably homogeneous groups, and not to perform more detailed statistical analyses of break-down of data according to sub-group within each creed. The small number of Jews in the sample made attempts of statistical checks of in-group homogeneity impractical for the Jews.

Inferential Statistical Tests of Hypotheses

A statistically significant negative correlation between psychoticism and mystical experience had been predicted by Hypothesis 6.1. This was tested using Pearson's Product Moment Correlation Coefficient. Correlations between mystical experience and each of the six assessed personality traits appear in the intercorrelation matrix presented in Table 6.3. It was considered instructive to display a full intercorrelation matrix for both mystical experience and all of the

six assessed personality traits, so that relationships between psychoticism and the five FFM traits could be identified.

It can be seen from Table 6.3 that data supported neither Hypothesis 6.1, which had predicted a statistically significant and negative correlation between psychoticism and mystical experience, nor 6.2, which had predicted a statistically significant and positive correlation between FFM conscientiousness and mystical experience. In fact, for the sample taken as a whole, psychoticism correlated *positively* with mystical experience. However, the predicted link between openness to experience and mystical experience, predicted by Hypothesis 6.3, was found.

As Hypothesis 6.1 had predicted that mystical experience would not only be significantly negatively correlated with psychoticism but with the impulsivity facet of NEO neuroticism, the correlations between each of the "Little Thirty" facets of the FFM traits and mystical experience were calculated using Pearson's product moment correlation coefficient. As Powell, Shahabi and Thoresen (2003) have noted, risk of Type One error increases when making statistical inferences from sub-scales after whole scales, due to increase in number of comparisons. A protocol was therefore followed where a conventional significance level of p is divided by number of comparisons made. Thus, the new significance value became 0.05 divided by 30 (the number of correlation coefficients), that is, 0.00167, or, to three decimal places, 0.002.

It can be seen from Table 6.4 that neither Hypothesis 6.1 nor 6.2 were supported by the calculations of correlations between the Little Thirty FFM facets and mystical experience. Against Hypothesis 6.1, a significant negative correlation between the impulsivity facet of neuroticism and mystical

Table 6.3 Intercorrelation Matrix for Mystical Experience (M.E.) and the Personality Traits of Psychoticism (P.), Neuroticism (N.), Extraversion (E.), Openness to Experience (O.), Agreeableness (A.) and Conscientiousness (C.)

	M.E.	P.	N.	E.	O.	A.
P.	.334** N = 207 p < .0001					
N.	-.127 N = 198 p = .063	.024 N = 198 p = .738				
E.	.110 N = 198 p = .112	-.054 N = 198 p = .451	-.365** N = 201 p < .001			
O.	0.419** N = 198 p < .001	.505** N = 198 p < .001	-.022 N = 201 p = .761	.255** N = 201 p < .001		
A.	-.122 N = 198 p = .08	-.49** N = 198 p < .001	-.159* N = 201 p = .024	.089 N = 201 p = .277	-.268** N = 201 p < .001	
C.	-.025 N = 198 p = .724	-.386** N = 198 p < .001	-.279** N = 201 p < .001	.077 N = 201 p = .277	-.197** N = 201 p = .003	.179** N = 201 p = .006

* = $p < .05$ ** = $p < .01$

experience was not observed. Against the implications of Hypothesis 6.2, correlations between mystical experience and the six facets of FFM conscientiousness were not strong enough to reach significance. However, in support of Hypothesis 6.3, four of the six facets of FFM openness to experience correlated significantly with mystical experience. Although the liberal values facet of openness correlated with mystical experience at a level which would have been judged significant by conventional fiat ($r = .167$; $N = 198$; $p = .019$), this did not reach statistical significance with the new p value. This suggested

Table 6.4 Correlations between Mystical Experience and Little Thirty Facets of Five-Factor Model (N = 198)

Little Thirty Facet	Correlation with M.E.	
Fantasy	.324*	$p < .001$
Aesthetics	.375*	$p < .001$
Feelings	.409*	$p < .001$
Ideas	.259*	$p < .001$
Actions	.207	$p = .003$
Values	.167	$p = .019$
Competence	.138	$p = .052$
Order	-.096	$p = .177$
Dutifulness	-.082	$p = .250$
Achievement-striving	.043	$p = .544$
Discipline	.015	$p = .834$
Deliberation	-.100	$p = .159$
Anxiety	-.155	$p = .029$
Angry Hostility	-.091	$p = .201$
Depression	-.086	$p = .049$
Self-consciousness	-.140	$p = .049$
Impulsivity	-.099	$p = .167$
Vulnerability	-.050	$p = .485$
Trust	-.050	$p = .485$
Straightforwardness	-.131	$p = .066$
Altruism	-.119	$p = .095$
Pliability	-.053	$p = .468$
Modesty	-.191	$p = .007$
Tender-mindedness	.019	$p = .790$
Warmth	.061	$p = .393$
Gregariousness	-.077	$p = .281$
Assertiveness	.096	$p = .177$
Activity	.045	$p = .531$
Excitement-seeking	.042	$p = .554$
Positive Emotions	.333*	$p < .001$

* = $p < 0.002$, used as significance level to control for risk of Type One error.

Note: Fantasy, aesthetics, feelings, ideas, actions and values are facets of NEO openness to experience; competence, order, dutifulness, achievement-striving, deliberation and discipline of NEO conscientiousness; anxiety, angry hostility, depression, self-consciousness, impulsivity and vulnerability of NEO neuroticism; trust, straightforwardness, altruism, compliance, modesty and tender-mindedness of NEO agreeableness; warmth, gregariousness, assertiveness, activity, excitement-seeking and positive emotions of NEO extraversion.

that mystical experience's link to psychoticism and to openness to experience is mediated by shared links with creativity rather than with social liberalism.

To test Hypothesis 6.4, the correlations between mystical experience and each of the six assessed personality traits were calculated for each separate religious group. The results are displayed in Table 6.5.

Data did not support Hypothesis 6.4. Neither conscientiousness nor psychoticism correlated significantly with mystical experience in either the Buddhists or Pagans. A significant *positive* correlation between mystical experience and psychoticism was observed for one of the two anti-mystical groups, the Jews; however, this appeared to be a function of both relating to openness to experience for Jewish respondents. Indeed, this correlation was reduced to non-significance after partialling for NEO openness to experience ($r = .104$; $N = 23$; $p = .311$).

For each of the four religious groups, correlation coefficients were calculated using Pearson's Product Moment Correlation between mystical experience and each of the FFM "Little Thirty" facets, again adopting 0.002 as the significance level of p . Thus, a number of correlation coefficients that initially looked large, such as that between mystical experience and the altruism facet of agreeableness for Jewish respondents, were reduced to non-significance adopting the new p value. Results are displayed in Tables 6.6.1 to 6.6.4.

Table 6.5 Correlations between Mystical Experience and Psychoticism, Neuroticism, Extraversion, Openness to Experience, Agreeableness and Conscientiousness for Christians, Jews, Buddhists and Pagans

Group: Trait:	Christians	Jews	Buddhists	Pagans
Psychoticism	-.155 (<i>N</i> = 65; <i>p</i> = .219)	.449 (<i>N</i> = 29; <i>p</i> = .014)*	-.107 (<i>N</i> = 52; <i>p</i> = .450)	.218 (<i>N</i> = 61; <i>p</i> = .092)
Neuroticism	-.128 (<i>N</i> = 64; <i>p</i> = .075)	-.158 (<i>N</i> = 28; <i>p</i> = .421)	-.133 (<i>N</i> = 48; <i>p</i> = .366)	-.183 (<i>N</i> = 58; <i>p</i> = .169)
Extraversion	.157 (<i>N</i> = 64; <i>p</i> = .217)	.281 (<i>N</i> = 28; <i>p</i> = .147)	.138 (<i>N</i> = 48; <i>p</i> = .349)	.075 (<i>N</i> = 58; <i>p</i> = .576)
Openness to Experience	.078 (<i>N</i> = 64; <i>p</i> = .542)	.453 (<i>N</i> = 28; <i>p</i> = .016)*	.168 (<i>N</i> = 48; <i>p</i> = .254)	.260 (<i>N</i> = 58; <i>p</i> = .048)*
Agreeableness	.288 (<i>N</i> = 64; <i>p</i> = .021)*	-.402 (<i>N</i> = 28; <i>p</i> = .034)*	.105 (<i>N</i> = 48; <i>p</i> = .477)	.018 (<i>N</i> = 58; <i>p</i> = .895)
Conscientiousness	.295 (<i>N</i> = 64; <i>p</i> = .018)*	-.168 (<i>N</i> = 28; <i>p</i> = .393)	.224 (<i>N</i> = 48; <i>p</i> = .477)	.169 (<i>N</i> = 58; <i>p</i> = .206)

* $p < .05$

It can be seen from Tables 6.6.1 to 6.6.4 that for Pagans, the correlation between the positive emotions facet of extraversion and mystical experience, and for Buddhists, the correlation between the competence facet of conscientiousness and mystical experience, were close to statistical significance at $p < 0.003$. This correlation for Buddhists may have appeared to support Hypothesis 6.3 in the case of Buddhist respondents, but other facets of conscientiousness were not significantly correlated with mystical experience for Buddhist respondents. Relevance of agreeableness to mystical experience was lost through adoption of these highly specific measurements, as in none of the

four groups did any facets of this trait correlate significantly with mystical experience.

6.6.1 Correlations between Mystical Experience (M.E.) and FFM "Little Thirty" Facets for Jewish Respondents (N = 28)

Little Thirty Facet	Correlation with M.E.
Fantasy	.345 $p = .072$
Aesthetics	.462 $p = .013$
Feelings	.560* $p = .002$
Ideas	.239 $p = .220$
Actions	-.045 $p = .841$
Values	-.067 $p = .733$
Competence	.006 $p = .976$
Order	-.261 $p = .118$
Dutifulness	-.137 $p = .487$
Achievement-striving	-.056 $p = .777$
Discipline	-.122 $p = .295$
Deliberation	.205 $p = .295$
Anxiety	-.362 $p = .059$
Angry Hostility	-.141 $p = .475$
Depression	-.125 $p = .527$
Self-consciousness	-.140 $p = .049$
Impulsivity	-.243 $p = .167$
Vulnerability	-.011 $p = .955$
Trust	-.218 $p = .265$
Straightforwardness	-.381 $p = .045$
Altruism	-.460 $p = .014$
Pliability	-.124 $p = .529$
Modesty	-.367 $p = .055$
Tender-mindedness	.299 $p = .122$
Warmth	.319 $p = .099$
Gregariousness	.047 $p = .813$
Assertiveness	.454 $p = .021$
Activity	.019 $p = .975$
Excitement-seeking	.208 $p = .288$
Positive Emotions	.137 $p = .486$

* = $p < 0.002$, used as significance level to control for risk of Type One error.

6.6.2 Correlations between Mystical Experience (M.E.) and FFM "Little Thirty" Facets for Christian Respondents (N = 64)

Little Thirty Facet	Correlation with M.E.
Fantasy	-.064 $p = .613$
Aesthetics	.225 $p = .074$
Feelings	.267 $p = .033$
Ideas	.023 $p = .860$
Actions	.100 $p = .431$
Values	-.204 $p = .105$
Competence	.257 $p = .040$
Order	.080 $p = .530$
Dutifulness	.282 $p = .024$
Achievement-striving	.376* $p = .002$
Discipline	.243 $p = .053$
Deliberation	.067 $p = .602$
Anxiety	-.016 $p = .899$
Angry Hostility	-.090 $p = .479$
Depression	-.063 $p = .621$
Self-consciousness	.032 $p = .804$
Impulsivity	.268 $p = .032$
Vulnerability	.102 $p = .422$
Trust	.176 $p = .164$
Straightforwardness	.279 $p = .026$
Altruism	.179 $p = .157$
Pliability	.247 $p = .049$
Modesty	.121 $p = .339$
Tender-mindedness	.210 $p = .096$
Warmth	.242 $p = .054$
Gregariousness	-.005 $p = .969$
Assertiveness	.100 $p = .432$
Activity	.240 $p = .056$
Excitement-seeking	-.233 $p = .076$
Positive Emotions	.255 $p = .042$

* = $p < 0.002$, used as significance level to control for risk of Type One error.

6.6.3 Correlations between Mystical Experience (M.E.) and FFM "Little Thirty" Facets for Buddhist Respondents ($N = 48$)

Little Thirty Facet	Correlation with M.E.
Fantasy	.031 $p = .837$
Aesthetics	.148 $p = .314$
Feelings	.345 $p = .016$
Ideas	.082 $p = .580$
Actions	.027 $p = .857$
Values	-.167 $p = .257$
Competence	.416 $p = .003$
Order	.013 $p = .929$
Dutifulness	.057 $p = .698$
Achievement-striving	.188 $p = .202$
Discipline	.148 $p = .315$
Deliberation	.166 $p = .259$
Anxiety	-.042 $p = .776$
Angry Hostility	-.133 $p = .366$
Depression	.018 $p = .905$
Self-consciousness	-.105 $p = .479$
Impulsivity	-.383 $p = .007$
Vulnerability	-.118 $p = .426$
Trust	.081 $p = .584$
Straightforwardness	-.061 $p = .679$
Altruism	.327 $p = .024$
Pliability	-.002 $p = .991$
Modesty	-.127 $p = .391$
Tender-mindedness	.251 $p = .085$
Warmth	.211 $p = .151$
Gregariousness	.118 $p = .425$
Assertiveness	.265 $p = .069$
Activity	-.059 $p = .692$
Excitement-seeking	-.195 $p = .185$
Positive Emotions	.239 $p = .103$

6.6.4 Correlations between Mystical Experience (M.E.) and FFM "Little Thirty" Facets for Pagan Respondents ($N = 58$)

Little Thirty Facet	Correlation with M.E.	
Fantasy	.111	$p = .407$
Aesthetics	.315	$p = .016$
Feelings	.221	$p = .095$
Ideas	.179	$p = .179$
Actions	.165	$p = .216$
Values	.099	$p = .458$
Competence	.159	$p = .233$
Order	.257	$p = .052$
Dutifulness	.086	$p = .519$
Achievement-striving	.114	$p = .396$
Discipline	.195	$p = .142$
Deliberation	-.125	$p = .350$
Anxiety	-.164	$p = .218$
Angry Hostility	-.083	$p = .538$
Depression	-.187	$p = .160$
Self-consciousness	-.222	$p = .094$
Impulsivity	-.009	$p = .948$
Vulnerability	-.195	$p = .142$
Trust	-.003	$p = .980$
Straightforwardness	.084	$p = .531$
Altruism	-.029	$p = .827$
Pliability	-.048	$p = .722$
Modesty	-.068	$p = .612$
Tender-mindedness	.145	$p = .278$
Warmth	.075	$p = .574$
Gregariousness	-.173	$p = .195$
Assertiveness	.103	$p = .440$
Activity	-.021	$p = .877$
Excitement-seeking	-.037	$p = .783$
Positive Emotions	.382	$p = .003$

Inferential test of Hypotheses 6.5: Comparing Creeds on Attitudes to Mysticism

The four groups were compared on both scores on the Attitudes to Mysticism Scale and the Francis-Louden Mystical Orientation Scale, using a between-groups MANOVA with one independent variable at four levels (Religious Group: Jews vs. Pagans vs. Buddhists vs. Christians) and the two

dependent variables of attitudes to mysticism and mystical experience. Main effects for religion were found on both mystical experience ($F = 31.602$; $p < .0001$) and attitudes to mysticism ($F = 64.639$; $p < .0001$). Results of post hoc tests are displayed in Table 6.7.

Table 6.7 Between Group Comparisons on Mystical Experience (M.E.) and Attitudes to Mysticism (A.M.): Mean Differences as Assessed by Tukey's Honest Test of Significant Differences

Pairing	M.E.	A.M.
Buddhists versus Christians	5.89	20.39*
Buddhists versus Jews	19.99*	23.43*
Buddhists versus Pagans	-15.85*	-8.17*
Christians versus Jews	14.11*	3.04
Christians versus Pagans	-21.74*	-28.57*
Pagans versus Jews	35.84*	31.61*

* = $p < 0.01$.

Note: Negative figures indicate higher mean for second group listed in pairing.

Pagans and Buddhists, exactly as predicted, scored significantly higher on the Attitudes to Mysticism Scale than did Christians or Jews, who did not differ significantly from each other in mean scores on this scale. However, an unpredicted finding was that the Pagans scored significantly more highly on this scale than did the Buddhists. Although the Pagans scored significantly more highly than all the three other groups on mystical experience, and the Jews scored significantly less high on this variable, the Buddhists and Christians did not differ significantly from each other on this scale. The significant F -ratio found for Attitudes to Mysticism was in support of Hypothesis 6.5.

Inferential Tests of Hypotheses 6.6 to 6.10

A Pearson's Product Moment Coefficient was calculated to predict the correlation between Attitudes to Mysticism, as measured on the Attitudes to Mysticism Scale, and mystical experience, as measured on the Francis-Louden Orientation Scale, to test Hypothesis 6.6. Statistically significant positive correlations between these two variables were observed for both the whole sample for each specific religious group (see Table 6.8).

Table 6.8 Correlations between Mystical Experience and Attitudes to Mysticism

Religious Group	Correlation between Attitudes to Mysticism and Mystical Experience
Jews ($N = 30$)	.668 ($p < .01$)**
Christians ($N = 65$)	.341 ($p < .01$)**
Buddhists ($N = 48$)	.359 ($p < .05$)*
Pagans ($N = 60$)	.368 ($p < .01$)**
Total Sample ($N = 203$)	.606 ($p < .0001$)**

* = $p < 0.05$ ** = $p < 0.01$

These statistically significant correlations left some ambiguity about whether mystical experience and attitudes to mysticism should be seen as distinct constructs. For each specific religious group except the Jews, these two variables shared less than 16% of variance, suggesting enough variance for conceptual distinctions, but for the sample as a whole, the correlation between these two constructs was over .5, allowing for a case that the two concepts were closely enough related to be considered near-equivalent if considerable unshared variance were to be attributed to error variance. A systematic effort

was therefore made to examine how closely the personality correlates of attitudes to mysticism replicated those that had been found for mystical experience. This enabled assessments of whether any case for making a conceptual distinction between two variables sharing 36% variance could be strengthened by observations of non-identical correlates. The correlations between attitudes to mysticism and the six assessed personality traits, for both the total sample and for each religious group, are displayed in Table 6.9. Calculations of these correlation coefficients also tested Hypotheses 6.7 to 6.10, which had made predictions about the relationships which attitudes to mysticism would bear to psychoticism and FFM conscientiousness in pro-mystical and anti-mystical religious groups. These hypotheses were not supported, as among neither the anti-mystical Christians nor the pro-mystical Buddhists were any statistically significant correlations observed between attitudes to mysticism and any of the assessed personality traits. However, it was of some note that attitudes to mysticism correlated significantly with personality traits in two religious groups, the Jews and the Pagans. In the former, attitudes to mysticism correlated significantly negatively with conscientiousness and significantly positively with psychoticism and with openness to experience. In the latter, attitudes to mysticism correlated significantly positively with FFM conscientiousness and significantly negatively with FFM extraversion.

It can be seen from Table 6.9 that, both for the whole sample and for each religious group, correlates of attitudes to mysticism did not replicate those found for mystical experience. In neither Pagans nor Jews, for example, did

Table 6.9 Correlations between Attitudes to Mysticism and Personality Traits of Psychoticism (P), Agreeableness (A), Conscientiousness (C), Extraversion (E), Neuroticism (N) and Openness to Experience (O)

Group:	Jews	Christians	Buddhists	Pagans	Total
Trait:					
P	.481** (N = 29 ; p=.008)	.218 (N = 64; p =.083)	.131 (N = 49; p = .371)	-.003 (N = 61; p = .981)	.525** (N = 203; p < .001)
N	.210 (N = 28; p=.282)	-.115 (N = 63; p =.371)	.218 (N = 45; p =.083)	.005 (N = 58; p =.967)	.012 (N = 194; p =.083)
E	-.004 (N = 28; p =.983)	.057 (N = 63; p =.656)	-.091 (N = 45; p = .552)	-.266* (N = 58; p =.044)	.007 (N = 194; p =.464)
O	.581** (N = 28; p=.001)	.229 (N = 63; p =.092)	.229 (N = 45; p =.188)	.188 (N = 58; p =.158)	.591** (N = 194; p < .001)
A	-.147 (N = 28; p=.455)	-.001 (N = 63; p =.993)	.022 (N = 45; p =.888)	-.002 (N = 58; p =.988)	-.267** (N = 194; p < .001)
C	-.394* (N = 28; p=.038)	.183 (N = 63; p =.152)	-.016 (N = 45; p =.916)	.345** (N = 58 p =.008)	-.199** (N = 194; p =.003)

* = $p < .05$

** = $p < .01$

conscientiousness correlate significantly with mystical experience.

As with mystical experience, correlations, using Pearson's Product Moment Correlation, were conducted between the "Little Thirty" facets of the FFM and attitudes to mysticism. To control for making a Type One error in making multiple comparisons, $p < .002$ was chosen as the level for a correlation to be judged to have reached statistical significance. Results are displayed in Tables 6.10, and in Tables 6.10.1 to 6.10.4 for each religious group.

Correlations between Mystical Experience and Psychoticism After Controlling for Openness to Experience and Religion

Mystical experience, while significantly positively correlated with psychoticism, correlated significantly with only one of the three FFM traits representing distinguishable facets of this trait, namely openness to experience. Thus, the correlation between mystical experience and psychoticism was explored further by calculating the correlation between psychoticism and mystical experience after controlling for openness to experience. Partialling for openness to experience reduced the magnitude of the correlation between these two variables ($r = .156$; $N = 195$; $p < 0.05$) to a level where the correlation was only significant at a liberal p value of 0.05. This was clearly different to the case with the correlation between psychoticism and attitudes to mysticism, which remained significantly correlated after partialling for NEO openness to experience ($r = .292$; $N = 188$; $p < .001$).

Correlations between mystical experience and psychoticism after controlling for religion were also calculated. Religions were arranged so that Jews were given 1, Christians 2, Buddhists 3 and Pagans 4, reflecting ascending order of means on the Francis-Louden Mystical Orientation Scale. The correlation between psychoticism and mystical experience, re-analysed after controlling for religion, was then reduced to non-significance ($r = 0.046$; $N = 204$; n.s.). However, the correlation between attitudes to mysticism and psychoticism was not reduced to non-significance after controlling for religion in this way ($r = .282$; $N = 200$; $p < 0.01$).

Table 6.10 Correlations between Attitudes to Mysticism (A.M.) and FFM**“Little Thirty” Facets (N = 194)**

Little Thirty Facet	Correlation with A.M.
Fantasy	.518 $p = .001^*$
Aesthetics	.383 $p = .001^*$
Feelings	.386 $p = .001^*$
Ideas	.348 $p = .001^*$
Actions	.267 $p = .001^*$
Values	.505 $p = .001^*$
Competence	-.056 $p = .437$
Order	-.164 $p = .022$
Dutifulness	-.230 $p = .001^*$
Achievement-striving	-.103 $p = .153$
Discipline	-.156 $p = .030$
Deliberation	-.164 $p = .023$
Anxiety	-.073 $p = .312$
Angry Hostility	-.008 $p = .912$
Depression	.042 $p = .557$
Self-consciousness	-.027 $p = .710$
Impulsivity	.138 $p = .055$
Vulnerability	-.002 $p = .977$
Trust	-.190 $p = .008$
Straightforwardness	-.262 $p = .001^*$
Altruism	-.256 $p = .001^*$
Pliability	-.143 $p = .046$
Modesty	-.256 $p = .001^*$
Tender-mindedness	-.023 $p = .724$
Warmth	-.074 $p = .308$
Gregariousness	-.153 $p = .033$
Assertiveness	-.048 $p = .510$
Activity	.002 $p = .973$
Excitement-seeking	.160 $p = .026$
Positive Emotions	.183 $p = .011$

*= $p < .002$, i.e. correlation significant at the adopted level of statistical significance

Table 6.10.1 Correlations between Attitudes to Mysticism (A.M.) and FFM**“Little Thirty” Facets for Jewish Respondents (N = 28)**

Little Thirty Facet	Correlation with A.M.	
Fantasy	.566	$p = .002^*$
Aesthetics	.534	$p = .003$
Feelings	.370	$p = .052$
Ideas	.197	$p = .314$
Actions	.048	$p = .809$
Values	.241	$p = .217$
Competence	-.281	$p = .976$
Order	-.418	$p = .020$
Dutifulness	-.430	$p = .022$
Achievement-striving	-.275	$p = .157$
Discipline	-.344	$p = .073$
Deliberation	-.172	$p = .383$
Anxiety	.025	$p = .025$
Angry Hostility	-.071	$p = .720$
Depression	.337	$p = .079$
Self-consciousness	.236	$p = .228$
Impulsivity	.204	$p = .297$
Vulnerability	.228	$p = .243$
Trust	-.105	$p = .595$
Straightforwardness	-.166	$p = .399$
Altruism	-.281	$p = .148$
Pliability	-.055	$p = .782$
Modesty	-.207	$p = .291$
Tender-mindedness	.049	$p = .805$
Warmth	.201	$p = .304$
Gregariousness	.129	$p = .512$
Assertiveness	-.101	$p = .610$
Activity	-.384	$p = .044$
Excitement-seeking	.241	$p = .217$
Positive Emotions	-.163	$p = .407$

*= $p < .002$, i.e. correlation significant at the adopted level of statistical significance

Table 6.10.2 Correlations between Attitudes to Mysticism (A.M.) and FFM**“Little Thirty” Facets for Christian Respondents (N = 63)**

Little Thirty Facet	Correlation with A.M.	
Fantasy	.096	$p = .452$
Aesthetics	.048	$p = .706$
Feelings	-.051	$p = .693$
Ideas	.134	$p = .295$
Actions	.195	$p = .126$
Values	.401	$p = .001^*$
Competence	.169	$p = .185$
Order	.134	$p = .294$
Dutifulness	.078	$p = .544$
Achievement-striving	.192	$p = .131$
Discipline	.128	$p = .318$
Deliberation	.107	$p = .405$
Anxiety	-.128	$p = .317$
Angry Hostility	-.077	$p = .546$
Depression	.020	$p = .877$
Self-consciousness	-.017	$p = .897$
Impulsivity	-.245	$p = .053$
Vulnerability	-.102	$p = .426$
Trust	-.070	$p = .585$
Straightforwardness	.005	$p = .966$
Altruism	-.047	$p = .713$
Pliability	.065	$p = .611$
Modesty	.007	$p = .956$
Tender-mindedness	.025	$p = .844$
Warmth	.148	$p = .248$
Gregariousness	.102	$p = .424$
Assertiveness	.219	$p = .084$
Activity	.072	$p = .573$
Excitement-seeking	-.134	$p = .294$
Positive Emotions	.012	$p = .923$

*= $p < .002$, i.e. correlation significant at the adopted level of statistical significance

Table 6.10.3 Correlations between Attitudes to Mysticism (A.M.) and FFM**“Little Thirty” Facets for Buddhist Respondents (N = 45)**

Little Thirty Facet	Correlation with A.M.	
Fantasy	.084	$p = .582$
Aesthetics	.201	$p = .185$
Feelings	.009	$p = .009$
Ideas	.062	$p = .685$
Actions	-.036	$p = .813$
Values	-.055	$p = .719$
Competence	.090	$p = .558$
Order	.056	$p = .714$
Dutifulness	.065	$p = .673$
Achievement-striving	.008	$p = .958$
Discipline	-.131	$p = .390$
Deliberation	-.136	$p = .373$
Anxiety	.232	$p = .125$
Angry Hostility	.086	$p = .576$
Depression	.143	$p = .340$
Self-consciousness	.404	$p = .404$
Impulsivity	.084	$p = .585$
Vulnerability	.147	$p = .334$
Trust	-.265	$p = .079$
Straightforwardness	.011	$p = .944$
Altruism	.057	$p = .712$
Pliability	-.002	$p = .992$
Modesty	.133	$p = .384$
Tender-mindedness	.145	$p = .340$
Warmth	-.035	$p = .821$
Gregariousness	-.137	$p = .370$
Assertiveness	-.174	$p = .254$
Activity	-.017	$p = .913$
Excitement-seeking	-.105	$p = .491$
Positive Emotions	.145	$p = .342$

Table 6.10.4 Correlations between Attitudes to Mysticism (A.M.) and FFM**“Little Thirty” Facets for Pagan Respondents (N = 58)**

Little Thirty Facet	Correlation with A.M.	
Fantasy	.165	$p = .215$
Aesthetics	.131	$p = .328$
Feelings	.242	$p = .067$
Ideas	.099	$p = .461$
Actions	.016	$p = .904$
Values	.124	$p = .354$
Competence	.101	$p = .450$
Order	.327	$p = .012$
Dutifulness	.341	$p = .009$
Achievement-striving	.299	$p = .023$
Discipline	.242	$p = .067$
Deliberation	.056	$p = .674$
Anxiety	-.054	$p = .689$
Angry Hostility	.096	$p = .476$
Depression	.022	$p = .867$
Self-consciousness	.115	$p = .389$
Impulsivity	-.095	$p = .477$
Vulnerability	-.086	$p = .523$
Trust	-.125	$p = .349$
Straightforwardness	.013	$p = .921$
Altruism	-.056	$p = .675$
Pliability	-.009	$p = .948$
Modesty	-.012	$p = .927$
Tender-mindedness	.277	$p = .035$
Warmth	-.215	$p = .105$
Gregariousness	-.381	$p = .003$
Assertiveness	-.180	$p = .177$
Activity	.126	$p = .348$
Excitement-seeking	-.326	$p = .013$
Positive Emotions	-.012	$p = .929$

Inferential Tests of Hypotheses 6.11 and 6.12: Testing Hypotheses on Age and Length of Affiliation with Religious Group

Significant positive correlations between age and length of affiliation with current religion group had been predicted for the two pro-mystical groups (Pagans and Buddhists) but not the two non-mystical groups (Christians and Jews) by Hypotheses 6.11 and 6.12. Pearson's product correlation coefficients

were calculated to test these hypotheses. Intercorrelation matrices for age, reported length of affiliation with current religion, mystical experience and attitudes to mysticism are displayed in Tables 6.11.1 to 6.11.3. Data from Jewish respondents were not analysed in this way due to frequent equation between length of affiliation with current religion (Judaism) and age found for many Jewish respondents. 29 of the 32 Jewish participants had provided data on both current age and length of affiliation with current religion. 79.31 % (23 out of 29) indicated that they had always adhered to Judaism, if sometimes adding qualifiers such as "More orthodox when younger" "more so in the past 15 years" and "Always - previously was not member of a religious household". The latter comment indicated belief that Judaism should not be viewed as a social rather than religious movement, providing social rather than spiritual identity.

Age varied from length of affiliation to Judaism for several respondents who indicated affiliation with a specific movement (Reform Judaism, progressive Judaism or the Jewish Renewal movement) within Judaism. The high percentage of Jews who equated age with length of affiliation suggested that little value, in the case of Jewish respondents, of separate analyses of correlations with mystical experience for age and length of affiliation to Judaism. Neither mystical experience nor attitudes to mysticism correlated significantly with age for Jewish respondents.

Table 6.11.1 Intercorrelation Matrix Displaying Correlations between Length of Affiliation (L.A.), Age, Mystical Experience (M.E.) and Attitudes to Mysticism (A.M.) for Christian Participants

	A.M.	Age	L.A.
M.E.	.290* (<i>N</i> = 64; <i>p</i> = .020)	.269* (<i>N</i> = 64; <i>p</i> = .030)	-.045 (<i>N</i> = 59; <i>p</i> = .730)
A.M.		.007 (<i>N</i> = 63; <i>p</i> = .958)	-.278* (<i>N</i> = 57; <i>p</i> = .037)
Age			.583** (<i>N</i> = 59; <i>p</i> < .0001)

* = $p < 0.05$ ** = $p < 0.01$

Table 6.11.2 Intercorrelation Matrix Displaying Correlations between Length of Affiliation (L.A.), Age, Mystical Experience (M.E.) and Attitudes to Mysticism (A.M.) for Buddhist Participants

	A.M.	Age	L.A.
M.E.	.359* (<i>N</i> = 48; <i>p</i> = .020)	.141 (<i>N</i> = 49; <i>p</i> = .166)	.288* (<i>N</i> = 47; <i>p</i> = .025)
A.M.		.176 (<i>N</i> = 47; <i>p</i> = .118)	.220 (<i>N</i> = 45; <i>p</i> = .074)
Age			.463** (<i>N</i> = 48; <i>p</i> < .0001)

* = $p < 0.05$ ** = $p < 0.01$

These data did not support Hypotheses 6.11, which had predicted significant positive correlations between age and mystical experience in pro-mystical but not anti-mystical religions. Age correlated significantly positively with mystical experience in Pagans but not in Buddhists, and also correlated significantly positively with age among the non-mystical Christians.

Table 6.11.3 Intercorrelation Matrix Displaying Correlations between Length of Affiliation (L.A.), Age, Mystical Experience (M.E.) and Attitudes to Mysticism (A.M.) for Pagan Participants

	A.M.	Age	L.A.
M.E.	.320* (<i>N</i> = 60; <i>p</i> = .006)	.218* (<i>N</i> = 60; <i>p</i> = .047)	.304* (<i>N</i> = 51; <i>p</i> = .015)
A.M.		.227* (<i>N</i> = 59; <i>p</i> = .042)	.193 (<i>N</i> = 50; <i>p</i> = .090)
Age			.427** (<i>N</i> = 52; <i>p</i> < .0001)

* = $p < 0.05$ ** = $p < 0.01$

Hypothesis 6.11 therefore had to be rejected. However, these data were in support of Hypothesis 6.12, which had predicted significant positive correlations between mystical experience and length of affiliation in pro-mystical but not anti-mystical religions. Such a correlation was observed for both Buddhists and Pagans but not for Christians.

A possible objection to analysis of data in this way for Christian respondents is that the Francis-Louden Mystical Orientation Scale includes sub-scales which are really assessing religious experiences which are readily consistent with Christian teaching, specifically those based on James (1902/1960). For Christians, a Pearson's Product Moment Correlation was therefore calculated to assess how strongly length of affiliation to current religion correlated with the unitive and noetic sub-scales of the Francis-Louden Mystical Orientation Scale. These two sub-scales were taken as representing, respectively, a form of religious experience alien to and a form of religious experience accepted by Christian orthodoxy.

Neither of these sub-scales correlated significantly with length of affiliation to Christianity, challenging any suggestion that length of affiliation with Christianity would only correlate significantly with specifically "Christian" forms of experience among such respondents. Correlation coefficients between length of affiliation with Christianity and unitive quality and noetic quality were respectively .036 ($p = .392$) and $-.092$ ($p = .244$). For Christians, age correlated positively with both unitive quality ($r = .261$; $p = .018$) and noetic quality ($r = .213$; $p = .044$) at a level reaching significance at the five per cent level. To adopt protocol to control for Type One error when making multiple comparisons, that is, to adopt .025 as the new significance level after dividing 0.05 by the number of coefficients, meant that only the former reached significance. Of interest is that a significant negative correlation between length of affiliation to current religion and attitudes to mysticism was found for Christian respondents.

6.3 Cross-creedal Differences in Personality

Data were explored further by a MANOVA at four levels (Religion: Jews vs. Christians vs. Buddhists vs. Pagans) comparing these religions on the dependent variables of each of the six assessed personality traits. Although creedal personality differences had not been predicted by Hypotheses 6.1 – 6.12, these comparisons enabled further exploration of potential personality differences between two pro-mystical religions (Pagans and Buddhists) and two anti-mystical religions (Christian Protestantism and Judaism).

Mean scores and ranges of scores on each trait for each group are displayed in Tables 6.12 and 6.12.1 respectively. F-ratios are displayed in Table

6.13. Pairwise comparisons as assessed by Tukey's Honest Test of Significant Differences are displayed in Table 6.14.

The two groups designated as "pro-mystical" did not differ significantly from one another on psychoticism, but both obtained significantly higher mean scores on this trait than the two groups designated "anti-mystical" (which again, did not differ significantly from each other on this trait). Main effects for religion were found on each of the NEO traits representing distinguishable psychoticism facets (conscientiousness, agreeableness and openness to experience). For conscientiousness and for agreeableness, these between-group differences related respectively to the high scores obtained by Jews and by Christians on these two traits. For openness to experience, the pattern of between-group differences resembled that found for attitudes to mysticism, with Pagans scoring significantly higher than all other groups and Buddhists scoring significantly more highly than the Christians or Jews, but the latter two groups not differing significantly from each other.

Table 6.12 Mean Scores of Christians, Jews, Buddhists and Pagans on Psychoticism, Agreeableness, Conscientiousness, Neuroticism, Extraversion and Openness to Experience

Group:	Christians		Jews		Buddhists		Pagans	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Trait:								
Psychoticism	38.60	4.95	40.80	6.47	48.85	5.37	48.92	7.06
Neuroticism	140.01	21.30	135.55	22.78	138.61	26.37	135.81	28.09
Extraversion	147.70	20.14	155.34	19.43	154.12	19.52	152.31	22.08
Openness to Experience	156.60	17.54	165.00	19.20	179.12	13.60	187.17	17.09
Agreeableness	184.59	15.34	173.57	22.60	164.20	13.59	164.20	20.48
Conscientiousness	166.53	17.16	177.75	23.44	155.04	18.64	160.44	16.73

Table 6.12.1 Ranges of Scores for Christians, Jews, Buddhists and Pagans on Psychoticism, Agreeableness, Conscientiousness, Neuroticism, Extraversion and Openness to Experience

Group:	Christians	Jews	Buddhists	Pagans	Total:
Variable:					
Psychoticism	32-58 (N = 65)	32-57 (N = 30)	37-58 (N = 53)	38-74 (N = 63)	32-74 (N = 211)
Neuroticism	78-202 (N = 64)	92-174 (N = 29)	83-198 (N = 49)	78-202 (N = 59)	78-202 (N = 201)
Extraversion	89-198 (N = 64)	114-194 (N = 29)	103-198 (N = 49)	89-193 (N = 59)	89-198 (N = 201)
Openness to Experience	123-198 (N = 64)	131-207 (N = 29)	154-219 (N = 49)	126-217 (N = 59)	123-219 (N = 201)
Agreeableness	149-219 (N = 64)	98-197 (N = 29)	139-215 (N = 49)	104-203 (N = 59)	98-219 (N = 201)
Conscientiousness	117-208 (N = 64)	120-213 (N = 29)	109-202 (N = 49)	122-205 (N = 59)	109-213 (N = 201)

Table 6.13 F-ratios comparing Jews, Pagans, Christians and Buddhists on Traits of Psychoticism, Agreeableness, Conscientiousness, Neuroticism, Extraversion and Openness to Experience

Trait	F-ratio
Psychoticism	36.951* $p < .0001$
Agreeableness	12.852* $p < .0001$
Conscientiousness	10.340* $p < .0001$
Neuroticism	.388 $p = .762$
Extraversion	1.553 $p = .202$
Openness to Experience	36.986* $p < .0001$

* = $p < .001$

Table 6.14 Mean Differences as Assessed by Tukey's Honest Test of Significant Differences Distinguishing Religious Groups on Personality Traits for which F reached significance (Negatives = Higher Mean of Second Group Listed)

Pairing:	Variable			
	Psychoticism	Openness	Agreeableness	Conscientiousness
Buddhists versus Christians	<i>8.40*</i>	<i>21.58*</i>	<i>-9.80*</i>	<i>-12.25*</i>
Buddhists versus Jews	<i>6.80*</i>	<i>14.19*</i>	1.25	<i>-23.85*</i>
Buddhists versus Pagans	-1.46	<i>-9.56*</i>	<i>9.81*</i>	-6.33
Christians versus Jews	-1.59	-7.39	<i>11.05*</i>	<i>-11.61*</i>
Christians versus Pagans	<i>-9.86*</i>	<i>-31.14*</i>	<i>19.61*</i>	5.92
Pagans versus Jews	<i>8.26*</i>	<i>23.75*</i>	-8.56	<i>-17.53*</i>

* = $p < 0.05$; italicised figures are those for which $p < 0.01$.

Heterogeneity of Psychoticism

Appendix D provides some more detailed analyses statistical analyses of data obtained from the Psychoticism sub-scale. To apply Cronbach's alpha to a scale used in a non-pilot investigation, especially an established sub-scale used in extensive research, may seem somewhat odd. However, results of the Cronbach's alpha that are detailed in Appendix D show how data collected for the current thesis can be used to strengthen an argument that has been defended in this thesis, namely that psychoticism is not univocal (see Appendix D). Data presented in the current chapter and Appendix D jointly serve to illustrate the FFM's superiority in investigations of personality and mysticism.

6.5 Discussion

Three of the four hypotheses which made direct predictions about links between personality and mystical experience, Hypotheses 6.1, 6.2 and 6.4, were not supported by the data reported in this chapter. A statistically significant negative correlation was not found between mystical experience and psychoticism; mystical experience did not relate significantly with either FFM conscientiousness or with the impulsivity facet of FFM conscientiousness; and no easy contrast was discernible between the two pro-mystical and the two anti-mystical religious groups in terms of personality correlates with mystical experience. Of the four hypotheses that had made a direct prediction about the personality correlates of mystical experience, only Hypothesis 6.3, predicting a statistically significant and positive correlation between mystical experience and FFM openness to experience, received support from the data.

Psychoticism, assessed as a global trait for the whole sample, correlated significantly positively with mystical experience; however, controlling for openness to experience suggested that this was best interpreted as evidence for linking mystical experience to creativity. The non-significant correlations observed between mystical experience and both FFM agreeableness and conscientiousness reinforced this interpretation of the data.

Hypotheses 6.5 and 6.6 had predicted that Pagans and Buddhists would score higher on a scale to assess Attitudes to Mysticism than would Christians and Jews, and that this variable would correlate significantly positively with mystical experience. Both hypotheses were supported. The correlation between mystical experience and attitudes to mysticism was statistically significant for both the combined sample and for each religious group analysed separately.

This improved confidence that this correlation was not due to a Type One error, and provided evidence for the cross-creedal applicability of the new Attitudes to Mysticism Scale.

The magnitude of the correlation between attitudes to mysticism and mystical experience left some ambiguity about whether these constructs should be viewed as distinct. Observations of personality correlates, for example, the fact that opposite patterns of correlation were found between Jews and Pagans between attitudes to mysticism and conscientiousness but not between mystical experience and this trait, strengthened the case for a conceptual distinction. This issue will be discussed more fully in the final two chapters.

Absence of any statistically significant correlations between attitudes to mysticism and personality in the Christians and Buddhists formed the basis for rejection of Hypotheses 6.7 to 6.10, which had made predictions about the personality correlates of attitudes to mysticism in pro-mystical versus anti-mystical religions. However, of some note was that FFM conscientiousness correlated significantly positively with attitudes to mysticism among the pro-mystical Pagans and significantly negatively in Jewish respondents. Although psychoticism correlated significantly positively with mystical experience in the Jews, this appeared to result from both variables sharing a relationship with FFM openness to experience among Jewish respondents.

Questions emerge here as to why this asymmetry of correlation between FFM conscientiousness and attitudes to mysticism was not also observed in Buddhists and Christians. A plausible explanation is that attitudes to mysticism is a variable that relates to learning potential, and thus, will relate in different ways to traits which may be linked to learning capacity, such as FFM

conscientiousness, in pro-mystical versus anti-mystical religions; but that this effect can only be observed in groups taking very strong or very negative attitudes to mysticism. In support of this explanation is that the Pagans scored, on average, higher on the Attitudes to Mysticism Scale than the other three groups; also of note is how the Pagans scored significantly higher than, the Jews significantly lower than, the Christians and Buddhists on the Francis-Louden Mystical Orientation Scale. Attitudes towards the specific form of unitive-mystical experience assessed in this study may therefore have been more extreme for Pagans and Jews than for Buddhists and Christians.

Hypotheses 6.11 and 6.12 had respectively predicted significant positive correlations between age and mystical experience and length of affiliation with current religion and mystical experience in pro-mystical but not anti-mystical religions. Of these two hypotheses, only the latter was supported by the data reported in this chapter. Length of affiliation with current religion was significantly and positively correlated with mystical experience for both Pagans and Buddhists, but only in the former was age correlated significantly and positively with mystical experience. An unpredicted finding was the significant and positive correlation between age and mystical experience in one of the groups *not* designated as "pro-mystical", the Christians.

6.5.1 Implications of Findings

Data presented in this chapter strongly imply that continued assessments of broad measures of psychoticism in future research into the personality correlates of mystical experiences should be conducted alongside assessments of more specific traits, such as the FFM traits. Analyses based on

the "Little Thirty" facets of the five-factor model, and personality comparisons between the pro-mystical and anti-mystical religious groups, reinforced this argument.

The data from the study presented here were taken to imply that a conceptual distinction *can* be made between mystical experience and attitudes to mysticism. These variables correlated significantly positively for the whole sample. However, for each specific religious group except the Jews, correlations between these variables, although statistically significant, still fell below .5, suggesting enough unshared variance for a conceptual distinction.

Stronger arguments for distinguishing attitudes to mysticism from mystical experience lay in the manner in which the between-group differences and correlates of these two constructs differed in important ways. For example, whereas both Pagans and Buddhists obtained higher scores for attitudes to mysticism than did either Christians or Jews, significant differences were *not* observed between Buddhists and Christians on mystical experience. Correlates of attitudes to mysticism and of mystical experience in Jews and in Pagans suggested that these two variables bear different relationships to traits indicative of conditionability. Asymmetrical relationships between FFM conscientiousness and attitudes to mysticism observed for Pagans versus Jews were not replicated for mystical experience, implying that of these two variables, attitudes to mysticism is more immediately relevant to conditionability into tender-minded attitudes (and thus to social learning).

Evidence that mystical experience *does* relate to learning came from the data on length of affiliation with current religious group, which correlated significantly positively with mystical experience among Pagans and Buddhists.

This presents the question as to why mystical experience was not significantly negatively correlated with psychoticism in these two groups. Social constructivist attributions of this failure to a need to assess more finely graded traits than psychoticism would be hard to defend, as in neither group was FFM conscientiousness significantly related to mystical experience.

A parsimonious response would be rejection of any simple endorsement of social constructivism. Data on religious affiliation length for Buddhists and Pagans provided evidence that mystical experience is a socially conditioned construct, but similar inferences could not be made from assessments of personality. It is possible that conditioning into tender-minded attitudes, interpreted by Francis (1992a) as explaining inverse relationships between non-experiential dimensions of religion and psychoticism, is a qualitatively different form of learning to that that underlies transpersonal experience onset. This observation highlights the limitations of using psychoticism assessments alone to infer that variables relate to learning propensity.

The implications of the data as sketched here may be summarized by stating that future research into the personality correlates of transpersonal experiences should aim to disentangle different facets of psychoticism, and that distinctions between attitudes to mysticism and mystical experience are defensible. Superficially, these two issues may sound quite separate. However, they relate insofar as consideration of both issues helps to make an informed decision on whether it could be that global assessments of psychoticism are appropriate for certain dimensions of religiosity, such as attitudes to mysticism, but not for mystical experience. These issues will be discussed more fully in the final two chapters.

CHAPTER SEVEN

ADDITIONAL DATA ANALYSES AND DISCUSSION OF EMPIRICAL FINDINGS

7.1 Summary

Conclusions drawn from the empirical study reported in Chapter Six suggest that several issues merit further attention in transpersonal psychometrics. These are:

- (i) A need for research into transpersonal experience to disentangle different facets of psychoticism;
- (ii) The possibility that apparent relationships between mystical experience and psychoticism may be largely due to variance that both share with openness to experience;
- (iii) The importance of researching attitudes to mysticism as a distinct concept from transpersonal experiences per se. That these two variables may correlate with different personality attributes, especially with regards to their relationship to psychoticism and its facets, should be considered in future research in transpersonal psychometrics.

Use of the NEO as well as the Psychoticism sub-scale of the Eysenck Personality Questionnaire in the study reported in the previous chapter provided evidence for the first two of the above points. The importance of attitudes to mysticism was evident in the higher scores of the two groups that had been designated as "pro-mystical" (Buddhists and Pagans) than the Christians or Jews on this variable. The relationship of attitudes to mysticism to psychoticism and

to NEO conscientiousness was not an exact replication of those found for mystical experience, providing evidence for distinguishing these two constructs.

These issues will be discussed and placed in a wider context throughout this chapter. This will follow an initial commentary on how two additional aspects of data, collected during the process of data collection for the study reported in Chapter Six, implied both reinforcements of and qualifications to the conclusions drawn, namely data collected using the Alister Hardy and David Wuthnow questions, and data collected from qualitative interviews with a representatives of each of the assessed creeds.

A general discussion of the findings of all three empirical studies reported in this thesis will be presented in Section 7.7, and their implications for the question of whether mystical experience should be viewed as socially constructed are reviewed in Section 7.8. A discussion of consistencies and inconsistencies between these findings and those reported in previous literature, and attempts to respond to potential criticisms of these studies, are reported in Section 7.9 and Section 7.10.

7.2 Responses to the Alister Hardy and David Wuthnow Questions

Percentages of respondents who had ticked (i) "Yes", (ii) "No" and (iii) "Don't know" in response to the Alister Hardy question: "Have you ever felt as if you were influenced by a Power or a Presence, whether you call it God or not, that was different to your everyday self?" and the David Wuthnow question: "Have you ever felt as if you were in close contact with something sacred or holy?" were tabulated for each of the four groups. Distributions of figures for these two questions are displayed in Tables 7.1 and 7.2.

Table 7.1 Distributions of Responses to Alister Hardy Question "Have you ever felt as if you were influenced by a Power or a Presence, whether you call it God or not, that was different to your everyday self?" among Buddhists, Christians, Pagans and Jews (Raw figures are given in parentheses)

	YES	NO	DON'T KNOW	NO RESPONSE GIVEN
Buddhists	49.05% (26)	30.19% (16)	11.3% (6)	9% (5)
Christians	78.79% (52)	9.09% (6)	6.06% (4)	6.06% (4)
Pagans	84.13% (53)	1.59% (1)	6.35% (4)	7.94% (5)
Jews	25% (8)	62.5% (20)	6.25% (2)	6.25% (2)

Table 7.2 Distributions of Responses to David Wuthnow Question "Have you ever felt as if you were in close contact with something sacred or holy?" among Buddhists, Christians, Pagans and Jews (Raw figures are given in parentheses)

	YES	NO	DON'T KNOW	NO RESPONSE GIVEN
Buddhists	69.81% (37)	20.75% (11)	1.89% (1)	7.54% (4)
Christians	80.03% (53)	10.61% (7)	3.03% (2)	6.06% (4)
Pagans	92.06% (58)	1.59% (1)	1.59% (1)	4.76% (3)
Jews	37.5% (12)	53.13% (17)	3.13% (1)	6.26% (2)

As the number of responses recorded in some cells in the above tables fell below five, it was not possible to perform chi-square analysis to offer a detailed comparison of differences in frequency of response distribution across creed. However, it was still considered important to compare the above figures with the affirmative response rate of around 33% typically found when these questions are set to more generic samples (Hay & Morisy, 1978; Hay, 1990). Whereas for Jewish respondents, the number of affirmative responses to these questions was slightly below this figure for the Alister Hardy question and approximated this figure for the David Wuthnow question, percentages of affirmative responses greatly exceeded this figure the other three groups. This high rate of affirmative responses from Christian, Buddhist and Pagan

respondents indicated that the reporting of transpersonal experiences may be a feature that different religions have in common. This point is reinforced by noting how affirmative response rates for Jews, while smaller than those for the Pagans, Buddhists or Christians, were still considerably over 0% of the total number of Jewish respondents. This suggests the possibility of transpersonal experience in a religion where at least certain forms of transpersonal experience, such as mystical-unitive experience, are neither encouraged nor highly valued. Although prophecy as described in the Hebrew Bible may be cited as a form of transpersonal experience that is valued in Jewish tradition, to assign both this category of experience and unitive-mystical experience to the broader category of "transpersonal experience" indicates how the reporting of transpersonal experiences can still be found in different religions.

To cite the reporting of transpersonal experiences as a feature which different creeds have in common may seem to contradict earlier evidence, presented in this thesis, that different creeds, and different denominations within the same faith tradition, do obtain significantly different scores on measures of the mystical-unitive experience described by Stace (1960). The data presented in Chapter Six provided evidence that Pagans, for example, are more likely to have had such experiences than Jews, while statistical data presented in Chapter Four were evidence that, at least within the Judeo-Christian tradition, the liberal wings rather than the conservative wings are more likely to have had this specific type of transpersonal experience. An immediate response to these apparently divergent findings would be to state that whether statistical data will support perennialists such as Forman (1998) or constructivists such as Katz (1978) will depend upon how specific a definition of transpersonal experience is

being adopted in research, with general definitions likely to lead to support for Forman and specific definitions likely to lead to support for Katz.

A different position is defended here. This is that, although at a very global level, people in different creeds do experience a state of being that is so qualitatively different to normal waking consciousness that it can be called a "transpersonal experience", precise post hoc cognitive representations of such experiences vary across creed. This is not a simple replication of Stace's (1960) argument that unitive experience is interpreted in different ways in different religions. What is proposed here is that a more generic form of "transpersonal experience" is accompanied by different sets of cognitive representations in different creeds.

Evidence for these cross-creedal differences in cognitive representations of experiences were implied by Pagans' responses to the Alister Hardy question, "Have you ever felt as if you were influenced by a Power or a Presence, whether you call it "God" or not, that was different to your everyday self?" Pagans would often respond affirmatively, but in a number of instances, deleted the word "God" in the question and replaced it with the word "Goddess". This indicates how Pagans are likely to differ from Christians or Jews in their representations of such experiences, being more likely to rely upon feminine concepts (in none of the other three groups did responses imply a similar substitution of terms).

Buddhists gave a higher percentage of affirmative responses to the Alister Hardy and David Wuthnow questions than is typically found in research using these questions, but their rate of affirmative responding was still below that of the Pagans and Christians. Informal communications with some of the

respondents indicated a likely reason why. Doctrinal atheism endorsed by some Buddhists may have inhibited their willingness to respond to concepts referring to concepts such as "God". That adherents of this particular tradition may not relate their experiences to monotheistic theology is further evidence for cross-creedal variation in cognitive representations of transpersonal experiences.

The possibility that a qualitatively different type of experience of a somewhat general nature is experienced in different religions, but is attached to different cognitive representations in different faiths raises the question of whether lay understandings of such experiences do actually imply that such experiences should be regarded as "religious experiences". This possibility was explored in a series of qualitative interviews with one representative from each of the creeds sampled in the study reported in Chapter Six. Although these interviews did not form a major part of the data collection exercise for the study reported in Chapter Six, they did enable a closer inspection of the lay representations of transpersonal experiences of at least one Pagan, one Christian, one Buddhist and one Jew, and the attitudes to mystical experience expressed by a member of each of these faith traditions.

7.3 Data from the Qualitative Interviews

Four people were approached to take part in these interviews. All gave their consent. They were assured that their responses recorded during interviews would be treated as confidential. Respondents were also assured written reports of their interviews would not enable their identification. Three of the respondents had supplied their names and addresses when returning questionnaires for the quantitative study reported in Chapter Six. These

respondents comprised one Jew, one Zen Buddhist and one Pagan. A fourth (Christian) respondent had not completed questionnaires for the study, but had heard about it from people at her church who had completed questionnaires for it.

One of these respondents lived in the same locality as researcher, and was therefore able to meet the researcher and to be interviewed in person. This participant agreed to the interview being tape-recorded. The other participants lived considerable distances away from the researcher, and were therefore telephoned. Notes were taken of their responses.

7.3.1 The Interview

A semi-structured interview format was employed. The same questions were set to all respondents (see Appendix E) but enough flexibility was allowed by the researcher to respond to each respondent's particular points in an appropriate manner. These questions were devised to gain a further in-depth insight into the lay person's understanding of concepts such as "religious experience", and also to explore the attitudes that people held towards specific types of experiences. They also enabled investigation of whether each representative considered certain dimensions of faith to be more central to his or her faith tradition than the experiential dimension.

7.3.2 Results of Interviews

Data from these interviews provided evidence, from an idiographic viewpoint, that at least one adherent of Judaism and one adherent of Christianity held less favourable attitudes to mystical experiences than did a follower of

Paganism and a representative of Buddhism. Quotes from the interviews with the Christian, Jewish and Pagan respondents also indicated how such differing attitudes may be placed within a broader context of an individual's attitudes and beliefs. (A full transcript of the interview which took place in person, and fuller notes from the interviews that took place by telephone, can be obtained from the researcher; here, quotes will only be offered to illustrate salient points).

The Christian gave the following responses when asked to define the terms religious experience and mystical experience:

Christian respondent's definition of religious experience: A deeper sense of being touched. I think that the church would define religious experience in pretty much the same way. A religious experience is when - you realize that there is something special.

Christian respondent's definition of mystical experience: I think that "mystical experience" is different to "religious experience". I am a bit skeptical about "mystical experience". It is not something I would personally wish to get involved in. However, I do know people who have had "mystical experiences". And at the time, I have believed them.

Prima facie, the most obvious implication of this part of the interview is that a Christian was drawing a distinction between the terms *religious experience* and *mystical experience*. A sceptical reaction might be that this was because the use of both terms in the question set to the respondent prompted the respondent to think about different ways of defining these terms. However, on

closer analysis, this respondent appeared to be taking negative attitudes towards mystical rather than religious experience. There was nothing in the way the questions were worded to suggest that, when asked for a definition of mystical experience, one should have taken a negative position on it; but, quite spontaneously, the respondent did express some negative attitudes here ("I am a bit sceptical about mystical experience. It is not something I would personally wish to get involved in"). Yet, during the interview, the Christian respondent readily spoke about other forms of religious experience, such as healing experiences, adding the comment that "They are not talked about as much as they should".

A similar set of negative attitudes towards mystical experiences, and arguably towards transpersonal experiences in general, were expressed by the Jewish respondent. This participant's responses suggested that Judaism, at least in its mainstream forms, is not a religion taking pro-mystical attitudes. He depicted the Lubavitch school of Hasidism as holding more pro-mystical attitudes than is common in Judaism:

Jewish respondent: And the religions of the Lubavitch - one sect within Hassidism - their chief was Rabbi Menachem, who died, I suppose, three or four years ago. And when he died, his believers, actually believed he was going to be resurrected. They really did believe that he was going to be resurrected. That he - um, the Hassidic who are in this country, the Lubavitch who are in this country, really did believe that he would be resurrected, and fly across the planet and come back and see them. Now to accept that, you have to have a very (long pause) - a very strong and

positive religious belief. You have to have a real belief in mystical experiences, if you like.

The respondent then quickly contrasted this with the less mystical elements of mainstream Judaism:

Jewish respondent: And in religion and experience. Now, most Jewish people would have frankly laughed at the idea, and they would have been right, of course.

During the interview, the Jewish respondent related a personal account of an experience of a transpersonal nature that he had had, but tried to offer a rational explanation for it. He described a transpersonal experience he and some friends and relatives had had in Eastern Europe, when they visited a site of importance in Judaism's history and saw visions of, to use the respondent's own term, "Chagall-like figures". A certain amount of skepticism and suspicion about such experiences formed part of his description:

Jewish respondent: Um, that was inspired, if you like, by the surroundings, by what we had seen that day, in fact, probably by too much wine. And that is the closest I've ever come in my life to actually having what I might term a "spiritual experience".

In contrast to these rather negative attitudes towards mysticism expressed by the Christian and Jew, the Pagan's responses suggested strongly

pro-mystical attitudes. The Pagan described the likely consequences, for a Pagan, of having a mystical experience as follows:

Pagan respondent: Among Pagans, it (the experience) would be discussed. But other people would not believe it.

This suggests that not only did the Pagan present contemporary Paganism as a pro-mystical religion. It also suggests that to identify oneself as a Pagan, almost by definition, means adopting more sympathetic attitudes towards mystical experience than is typically found in the general lay public.

The interview with the Buddhist respondent indicated how quiet sitting (*dashen*) is a likely trigger for experiences in Zen Buddhism, and how many Zen Buddhists would see themselves as atheists, suggesting a sharp distinction between the doctrinal and experiential dimensions of religion. This suggests that more specifically that commitment to a creed's set of doctrines cannot be, and should not be, seen as a necessary condition for religious experience

7.3.3. Attitudes to Mysticism in a Wider Context

These interviews provided qualitative evidence that a Pagan, a Christian, a Buddhist and a Jew did differ in their attitudes to mystical experience. However, when viewed in their entirety, these interviews provided more information than mere indication that the four religions studied could be rated in a purely quantitative sense on the variable of attitudes to mysticism. They indicated likely reasons for the divergent attitudes to mystical experiences found within each faith tradition. The full set of interview responses from the Jewish respondent suggested that Judaism emphasises the ethical teachings of

religion, and also solidarity with one's family (including respect for forebears) rather than engagement in activities that may promote mystical experience. The Christian respondent stressed the importance of fellowship, noting how people at the church the participant attended shared the same cup for Holy Communion. Such emphases suggest focus on the social aspects of religion rather than the experiential, and a willingness to engage with others in a manner too collective to allow for more personal, individual forms of experience.

The Pagan respondent indicated that Pagans have a general belief in factors that are popularly described as "occult", holding the term *mystical experience* to refer to matters unseen. This participant drew attention to a sense of community with Nature gained from Paganism. This gave grounds for interesting future research questions, based on hypothesised links between ecological concern sympathies and pro-mystical attitudes. Recent scholarship has considered links between theological liberalism and increased environmental concerns (Bloch, 1998; Tarakeshwar, Swank, Pargament & Mahony, 2000). The evidence that a member of a somewhat unconventional creed, found to score high on mystical experience, placed the tenets of this faith tradition within a context of ecological concern suggests a future avenue of research, examining relationships between religious liberalism, mystical experience and pro-environmental sympathies.

The Buddhist respondent indicated that quiet sitting, or *dashen*, a practice likely to promote experiences such as *satori*, is an important feature of Soto Zen Buddhism. The Buddhist's acknowledgement of beliefs that are technically atheistic endorsed by many Zen Buddhists provided evidence that Buddhism stresses the experiential dimension of religion more than the

doctrinal.

The small sample of participants interviewed makes over-generalisation difficult. Moreover, to cite sections of these interviews as evidence that Christianity and Judaism take less positive attitudes towards mystical experience than do Buddhism or Paganism invites criticism that such an approach is tantamount to holding a priori beliefs in a proposition, and then merely collecting data to demonstrate what one already knows to be true, rather than testing any hypotheses. A considered effort was therefore made to detect evidence that the interview data offered for important qualifications that needed to be made to the conclusions drawn from the statistical study reported in Chapter Six.

An important finding here concerned differences between Judaism and Christianity. The Jewish respondent expressed general skepticism about the experiential dimension of religion, and suggested that this was a feature common to mainstream Judaism, as was implied by this respondent's comments on the Lubavitch. However, it should be recalled that while the Christian respondent had expressed scepticism about what she termed "mystical experience", she did not appear quite as negative when using the more global term "religious experience".

In terms of the taxonomic schemes of Glock and Stark (1965) and Smart (1989) outlined in Chapter One, this suggests that, in spite of the negative attitudes towards specifically mystical experience taken by both Christianity and Judaism, the former religion places more emphasis than the latter on the experiential dimension of religion in general. As with the analysis of the responses to the Alister Hardy and David Wuthnow questions, this suggests that

transpersonal psychometricians need to consider very carefully whether they are pitching their definitions of transpersonal experience at an appropriate level of specificity in continued work in this area. Contrary to the suggestion by Stark and Glock (1968) that, of dimensions of religion, all give predominant emphasis to the dimension of belief or doctrine, the Buddhist's responses suggested that this is *not* the case in Buddhism, which appears to treat the doctrinal dimension of religion as being secondary to the experiential.

Important suggestions are implied here for future research. An obvious implication of the point just made about Judaism and Christianity is that research which looks at transpersonal experience as a global term may not replicate that which has looked at more specific types of transpersonal experience. Heterogeneity of psychoticism has been suggested as one potential reason as to why studies of the personality correlates of religious experience have failed to replicate findings obtained from studies of personality correlates of other religious dimensions. Another reason suggested here, that could prove worthwhile to explore in future research, is that of whether appropriately specific or indeed, general measures of religious experience have been taken in the former field of research. The possibility that cross-creedal representations of transpersonal experiences will become more visible when more specific forms of transpersonal experience become the focus of attention merits attention in future research.

7.4 The Need for Study of Attitudes to Mysticism

Personality traits, religious orientation and mental health status were the three classes of intrapsychic variable, outlined in connection with their

relationship to transpersonal experience, considered in the review presented in Chapter Three. Reference was made to how demographic variables, such as age (Levin, 1993), gender (Carroll, 1983) and socio-economic status (Back & Bourque, 1970; Hay & Morisy, 1978), have also been researched in connection with assessments of transpersonal experience. A fourth class of potential correlate of transpersonal experience, attitudes to mysticism, was not considered, because considerations of this variable have been absent from the published literature.

Empirical studies presented in this thesis have suggested that this variable merits attention in future research. Previous scholars such as Kūng (1991) or Ghose (1993) have presented theoretical arguments that certain religious groups can be regarded as "pro-mystical" or "anti-mystical", as is explicit in Kūng's (1991) taxonomy of religions as being religions-of-prophecy, religions-of-mysticism or religions-of-harmony. Whereas such scholars have based such distinctions on purely theoretical grounds, this thesis has made an original contribution by providing questionnaire-based statistical evidence, supported by qualitative interview data, that certain religious groups such as Judaism can be regarded as "anti-mystical" and others such as Buddhism as "pro-mystical".

Results from the study reported in the previous chapter certainly challenge any efforts to link "pro-mystical" and "anti-mystical" religions with Eastern and Western spirituality respectively. Such associations can be found in the work of scholars who have based taxonomies largely on theoretical grounds, in the absence of statistical data. Kūng's (1991) equation of religions-of-prophecy and religions-of-mysticism with those of respectively Semitic and

Indian origins is an excellent case in point. The finding that, of the four groups assessed in the study reported in Chapter Six, the Pagans obtained highest mean scores on both the Attitudes to Mysticism Scale and the Francis-Louden Mystical Orientation Scale provides an empirically-based challenge to this viewpoint. Spirituality of this diverse group has been based largely upon Western mystery tradition. Qualitative responses to the question on religious affiliation indicated how Pagans would sometimes explicitly refer to North American or European influences, such as the Welsh pantheon, Celtic spirituality, or Native American tradition, in influencing their spirituality. Here, therefore, is a form of spirituality for which description of "pro-mystical" can be defended on empirical grounds, and which very much forms part of Western, not Eastern, spirituality.

Post hoc comparisons between Jews and Pagans reported in Chapter Six indicated very clearly that these two groups, designated respectively as "anti-mystical" and "pro-mystical", could be distinguished in terms of both self-reports of mystical experience and attitudes to mysticism. However, comparisons between the Buddhists and the Christians indicated how these two groups only differed (at least at a level that reached statistical significance) on attitudes to mysticism. This suggests that a taxonomy which distinguishes religions into "pro-mystical" and "anti-mystical" should be regarded as primarily one of how creeds differ in their attitudes to mysticism, and only secondarily in terms of whether individual practitioners of a creed do themselves report cases of mystical experience. It should also be emphasised that the fact that Buddhism and Christianity differed at a level reaching statistical significance on only one of these two variables strongly implies

treating attitudes to mysticism as a distinct construct to mystical experience.

A key theoretical issue that may benefit from a more informed knowledge of psychometric research into the correlates of transpersonal experiences is, as has been argued in this thesis, that of whether mystical experience arises through social conditioning, as has been defended in works by Katz (1978) and Proudfoot (1985). In making his case, Katz (1978) attempted to present contrasts between Judaism and Buddhism as evidence for his position. However, rather absent from his discussion was a detailed consideration of whether such distinctions relate to attitudes to mysticism rather than to mystical experience *per se*. Significant correlations with psychoticism or other traits indicative of learning potential may relate to the former rather than the latter if it is differences in learning of attitudes to mysticism that really distinguish faith traditions.

Counter-arguments can be presented to this attempt to draw a distinction between attitudes to mysticism and mystical experience. It seems conservative to predict that groups that score higher on attitudes to mysticism will also, on average, score higher on questionnaire-based measures of mystical experience. Observations of the Pagan participants certainly supported this prediction, as this group scored significantly higher on both of these variables than did any of the three other groups. Accepting a potential relationship between attitudes to mysticism and mystical experience, this again emphasises how a religion drawn from the Western tradition can legitimately be classified as a "pro-mystical religious movement", thus stressing the independence of distinctions of religion into Eastern and Western from distinctions of religion into pro-mystical and anti-mystical kinds. An issue that must be addressed here, however, is that of

whether the data presented in this thesis have provided defensible grounds for distinguishing these two constructs.

Attitudes to mysticism and mystical experience were consistently observed to be significantly and positively correlated, at the level of $p < 0.01$, but at no point did the absolute magnitude of the correlation between these two variables emerge as being greater than around $+0.5$ to $+0.6$, indicating that these variables share around 25-36% variance. The correlation between these two variables was slightly over $+0.6$ for the Jewish respondents in the study reported in Chapter Six, but for the other three groups, the Pagans, the Buddhists and the Christians, the correlation was slightly in excess of $+0.3$. These groups had higher N values than the Jews, and so such correlations still reached significance at the level of $p < 0.01$. These figures indicated how these variables were not found to share more than 36% variance, implying a consistent finding of at least 64% *unshared* variance.

The magnitude of the correlation found between the Francis-Louden Mystical Orientation Scale and the new Attitudes to Mysticism Scale as reported in Chapter Five, around about $+0.5$, is comparable to that found by Francis and Greer (1990) between the Francis Scale of Attitudes to Christianity and measured church attendance in a Northern Ireland sample. Francis and Greer took a correlation of this magnitude (approximately $r = +0.5$) as evidence of the validity of their scale, but a correlation of this magnitude also permits the conclusion that the Francis Scale of Attitudes to Christianity is assessing something over and above a purely behavioural-based measure of religiosity. In terms of the Glock and Stark (1965) model, measures of church attendance frequency only assess the ritual side of religiosity, whereas the Francis Scale of

Attitudes to Christianity can legitimately be regarded as assessing at least the doctrinal and ritual dimensions. Francis and Greer's (1990) data suggested considerable *unshared* variance between a purely behavioural measure of religiosity and a questionnaire-based measure, providing evidence that the latter form of measurement reveals new information beyond mere frequency counts of church attendance. In the same way, the considerable unshared variance detectable between attitudes to mysticism and mystical experience, while not so high as to invalidate the scale, allows the conclusion that the attitudes to mysticism scale was providing new information beyond a measure of mystical experience.

Observations of other correlates and of between-group differences strengthened the case for this distinction. Without introducing the measure of attitudes to mysticism, important information about the correlates of psychoticism, of NEO conscientiousness and significant differences would not have been detected.

7.4.1 Theoretical Reasons for Distinguishing Concepts

Good theoretical reasons exist for viewing attitudes to mysticism and mystical experience as conceptually distinct. An individual who has read a wide body of literature on mysticism and feels positively drawn to mystical teachings, or alternatively has been influenced by his/ her creed in such a way as to honour mystics, may still feel that s/he has never personally had a "mystical experience". Conversely, individuals who strongly believe that they *have* had such experiences may still treat them with suspicion, attributing them to pathology or to Satanic forces, as is evident in Teresa of Avila's attribution of

some of her visions to Satan (Mavrodes, 1978; Pike, 1978).

This distinction has an important implication for one of the cardinal concerns of the current thesis, that of how transpersonal variables relate to the personality trait of psychoticism and its facets. It is quite possible that future research will reveal that one of the most important reasons for distinguishing between attitudes to mysticism and mystical experience is that these two variables are correlated with different sets of personality attributes. Indeed, data presented in Chapter Six can rightly be regarded as the commencement of such research. In terms of their relationship to psychoticism, this provides an increased understanding of why research into the experiential dimension of religion has failed to replicate that found for other religiosity dimensions.

Francis (1992a) presented psychoticism as a global trait related inversely to measured religiosity. Throughout this thesis, it has been maintained that this inverse relationship is more typically found for the doctrinal and ritual dimensions of religiosity than the experiential. Attitudes to mysticism can be categorised, along with religiosity's doctrinal dimension, as a variable that connects to cognition, intellect and belief, as opposed to those features of religion that are more directly associated with affect and experience, such as mystical experience itself. Scrutinised carefully, data from the study presented in Chapter Six suggested that global assessments of psychoticism are more adequate for assessments of attitudes to mysticism than they are for mystical experience.

Arguments presented in this thesis have challenged attempts to use global measurements of psychoticism to assess the personality correlates of mystical experience. Statistical evidence for confidence in this position was

achieved through assessments of the NEO traits germane to psychoticism in the study reported in Chapter Six. The apparent correlation between mystical experience and psychoticism reported in this chapter was reduced when controlling for the effects of openness to experience and religion. However, such partialling did not have such a major impact on the significant and positive correlation observed between attitudes to mysticism and psychoticism. In some ways, *low* scores on the attitudes to mysticism scale could be taken as evidence of endorsement of mainstream Church or synagogue teachings, at least in a culture where predominant state religion (the Church of England) has not been especially "pro-mystical" (see Chapter Eight). This is therefore consistent with the regularly found inverse relation between psychoticism and religiosity's doctrinal dimension found in previous literature. This suggests that future research into *attitudes to mysticism* can legitimately continue to focus on psychoticism as a global variable, even if different strands of psychoticism need to be distinguished when researching *mystical experience*.

Implications are raised here for theory. If Francis (1992a) is right to link an inverse relationship between religion and psychoticism as evidence for linking both to conditioning into tender-minded attitudes, this suggests that particular attitudes to mysticism may arise, in part, through social conditioning even if mystical experience does not. Comparisons between Jews and Pagans on the NEO trait which, of all the NEO traits representing recognisably distinct facets of psychoticism, has most conceptual relevance to low impulsivity and heightened conditionability, namely NEO conscientiousness, strengthened this argument. This trait correlated positively with attitudes to mysticism in the pro-mystical Pagans, negatively with attitudes to mysticism in the anti-mystical

Jews. Absence of a similar asymmetry between these two groups for mystical experience is exactly as would be expected if it were the case that attitudes to mysticism is a variable which arises in large part through social learning, whereas mystical experience does not.

7.5 Psychoticism and Openness to Experience: Is Psychoticism a Trait Too Far?

Different answers now appear to be needed in deciding whether separate facets of psychoticism should be disentangled in transpersonal psychometrics, depending upon whether the focus of attention is mystical experience or attitudes to mysticism. An affirmative answer may be required for the former but not the latter. Francis' (1992a) question "Is psychoticism really a dimension of personality fundamental to religiosity?" may be qualified to read "Is psychoticism really a dimension of personality fundamental to religious experience and its specific manifestations?" A reasoned answer would be that, at least in the case of mystical experience, psychoticism is not a trait fundamental to mystical experience per se, but may still be relevant to beliefs about and attitudes towards such phenomena.

If psychoticism is not fundamental to an understanding of mystical experience, the question emerges as to which traits are. Data presented in Chapter Six were evidence that NEO openness to experience is such a trait. This was supported by the reduced correlation between mystical experience and psychoticism when partialling for this trait.

This link between NEO openness to experience and mystical experience raises the question as to whether, as argued in Chapters Three and Four,

mystical experience should be associated with increased liberalism. It is important to acknowledge a finding from the study reported in the previous chapter, which gave ground for questioning this assertion. Examinations of how strongly each of the "Little Thirty" facets of the five basic factors correlated with mystical experience revealed how a weaker correlation was found between the liberal values facet of NEO openness to experience and mystical experience than was the case for most other facets of this trait, suggesting that creativity rather than social liberalism is germane to mystical experience.

Far from affecting arguments that research into mystical experience must use more finely graded measurements of traits than global psychoticism assessments, this observation reinforced such arguments. The three NEO traits of openness to experience, agreeableness and conscientiousness can all be viewed as more specific than psychoticism. If global measures of these traits obscure the precise personality correlates of mystical experience, the implications are that psychoticism assessments must, *ipso facto*, be too global to obtain maximal findings from research in this field.

Implications are raised here for the question of mystical experience and pathology. Superficially, a positive correlation between mystical experience and psychoticism for a generic sample would seem to provide evidence that mystical experience is a form of pathology, linked at least to vulnerability to the psychotic class of disorders. However, through assessments of NEO traits, reasons became clearer as to why data from the study reported in the previous chapter challenge this viewpoint. An apparently positive correlation between mystical experience and psychoticism in a study such as that reported in the last chapter could be evidence that those who have had such experiences are more

creative, rather than more prone to pathology.

Francis' (1992a) question may be re-phrased by asking: "Is openness to experience really a personality trait fundamental to the more mystical forms of religion?" Data presented in Chapter Six suggest that the answer is yes.

7.6 Attitudes to Mysticism: Empirical Justification for a Taxonomy of Religion

The taxonomy in Chapter Two, which distinguished Christianity and Judaism from Buddhism and Paganism on their standing of the variable of attitudes to mysticism, has now received empirical support, from the data presented in Chapter Six, and the interview data presented in this chapter. A possible counter-argument here is that because religions differ on many variables, the higher mean scores of Buddhists and Pagans on Attitudes to Mysticism than those found for Jews and Christians should not hastily be followed with conclusions that *the prime difference* between these two religious groupings lies in their different attitudes to mysticism. Higher mean scores obtained by Pagans and Buddhists on psychoticism compared with Christians or Jews, for example, readily invites the skeptical response that these religious groupings could be placed in the two categories of "psychotic" and "non-psychotic" religions just as easily as they could be designated to the categories of "pro-mystical" and "anti-mystical" religions.

Such allegations can be answered by observations that the strongest main effect reported for religion in Chapter Six was for Attitudes to Mysticism, and that this greatly exceeded that found for all other dependent variables, including self-reported mystical experience, as well as that for psychoticism.

This suggested that, of the dependent variables assessed in Chapter Six, Paganism and Buddhism belong to a different category of religion to Christianity and Judaism primarily through differing attitudes to mysticism. However, further reasons exist as to why it would be misleading to describe the former as "psychotic" religions, the latter as "non-psychotic" religions. These relate to a theme that has been argued so consistently in this thesis, the need to take greater cognizance of the heterogeneity of psychoticism in research in this field.

In the study reported in Chapter Six, a pattern that replicated the statistically significant differences found for the four religious groups on attitudes to mysticism was found for only one of the five NEO traits. This was openness to experience. Pagans scored higher on this trait than did any of the other three groups, although the difference between Buddhists and Pagans was less great than that between the Abrahamic faiths and the Pagans; and Buddhists scored higher on this trait than did the Abrahamic faiths. Although significant differences between these four creeds were found for NEO conscientiousness and NEO agreeableness, patterns of between-group differences for these two traits did not match the distinction that is defended here between pro-mystical and anti-mystical religions. Jewish respondents scored significantly more highly than representatives of the two pro-mystical religions on conscientiousness, but also scored significantly higher on conscientiousness than did representatives of the other non-mystical religion (Christianity). Similarly, Christians scored higher on agreeableness than representatives of the two pro-mystical religions, but also scored significantly higher on this trait than did the Jews. Distinctions of pro-mystical and anti-mystical religions in terms of the personality traits that

are likely to characterise representatives of either group should therefore focus on openness to experience rather than psychoticism. It is also note-worthy that whereas all three traits from the five-factor model related to psychoticism clearly resulted in between-groups differences for religion, the highest *F*-ratio found for any of these variables was for openness to experience. Indeed, this variable produced the highest main effect for religion for any assessed between-groups variable after attitudes to mysticism.

Critiques of taxonomies which distinguish religions along a single variable should consider other variables which, at least as general tendencies, may distinguish faiths occupying different wings of this variable, insofar as this helps to establish the heuristic value of such taxonomies by suggesting potential correlates of such variables. Certain variables may be expected to characterise anti-mystical and pro-mystical religions other than the standings these faiths hold on the variable of attitudes to mysticism itself. Arguments have already been presented as to why the assumption, implicit in some scholarship, that the former can be linked to Western religion, the latter to Eastern religion, should be challenged. A far more credible statement appears to be that openness to experience is likely to distinguish between pro-mystical and anti-mystical religions, with members of the former tending to score higher than members of the latter.

Such a claim poses important research questions. One concerns direction of causality. The question remains as to whether membership of a religion that takes more positive attitudes to mysticism contributes to increased creativity, or whether such a link arises through more creative people seeking out and joining religions that are more "pro-mystical". A third possibility, that pro-mystical

attitudes and creativity are both linked with an additional variable or set of variables, should also be considered.

Another important question stems from the fact the study reported in the previous chapter took place in a culture (the United Kingdom) where neither of the two pro-mystical religious groups constituted either the State or the predominant religion. This leaves open the question of whether similar links between positive attitudes to mysticism and creativity will be found in cultures where a religion such as Buddhism predominates. Further data are needed to answer such questions, but the fact that they can be posed at all demonstrates the considerable heuristic value of the variable of attitudes to mysticism.

7.7 Overall Implications of Empirical Data presented in Chapters Four to Six

Taken together, the three studies reported in Chapters Four to Six inclusive consistently point towards several important conclusions. These relate to associations between religious liberalism and mystical experience, to sampling issues and to the question of whether any intrapersonal variables are significantly and positively correlated with mystical experience in all religious groups. Each issue will now be discussed in turn, drawing on how the data presented in this thesis have provided empirical support for these assertions. Implications for continued assessments of psychoticism in research into the intrapersonal correlates of transpersonal experience will be considered in discussions of each issue.

(i) Religious liberalism and mysticism

The first and third studies provided evidence for linking religious liberalism to mystical experience, the first in finding that religious groups that scored higher on Quest religious orientation also scored higher on mystical experience, the third in finding that scores on mystical experience were higher for religions that could be judged somewhat liberal and apart from mainstream (Pagans and Buddhists) than more "conservative" religions (Christian and Jews). It is true that close analysis of the six facets of NEO openness to experience reported in Chapter Six gave some grounds for caution here, as the liberal values facet of this trait correlated less strongly with mystical experience for the sample taken as a whole than did other facets of this trait. Nevertheless, viewed in their entirety, the studies reported in this thesis suggest that those who are sympathetic towards more liberal rather than conservative religious movements are those who are more likely to score high on measures of assessed mystical experience.

It is as well to acknowledge that the liberal values facet of NEO openness to experience is assessed by several questions indicative of secular rather than religious liberalism. Two items used to assess the liberal values facet of openness to experience, one asking whether religious leaders should be seen as guardians of morality and one asking whether today's permissive morality is really no morality at all, could both be taken as implying a tacit assumption that liberalism is to be equated with endorsement of secular values. Distinctions between religious and secular liberalism and the possibility that mystical experience is more common only among *religious* liberals (those who value religious commitments but in an unconventional way) are issues that certainly

merit attention in work in transpersonal psychometrics.

Important implications are raised here for attempts to assess psychoticism as a global trait in research into transpersonal experience's personality correlates. If, as Heath and Martin's (1990) data imply, endorsement of radical social values is a facet of psychoticism, the question can be raised of whether psychoticism is associated with endorsement of secular values, especially in the wake of findings such as Francis (1992a) linking reduced psychoticism to heightened religiosity. If this is so, it may not be enough to report on potential relationships between mystical experience and psychoticism. Rather, research will need to consider carefully variables which relate specifically to liberalism within a religious context, such as Batson's concept of quest religious orientation.

(ii) Sampling Issues

Studies such as that reported by Francis and Thomas (1996) examined exclusively Christian samples; data from the study reported in Chapter Six suggested important reasons for considering the religions from which samples are drawn. With one important exception, the variables found to correlate with mystical experience were not identical for each religious group. Theoretical reasons have been presented in this thesis as to why this is exactly the pattern that social constructivism predicts. However, the divergent patterns of correlation did not match exactly those that would be predicted by social constructivism, that is, mystical experience correlating positively with NEO conscientiousness and negatively with psychoticism among Pagans and Buddhists but not in Christians and Jews. Indeed, the only group for which

NEO conscientiousness was significantly positively correlated with mystical experience was one of the two anti-mystical groups (the Christians).

It is the comparisons between the specific religious groups studied that really amplify the necessity of breaking down psychoticism into component parts. Any evidence that psychoticism is found to correlate positively with mystical experience in a sample drawn from a generic population should be treated with caution. Data from Chapter Six suggest that this could merely be because adherents of faiths which score higher on mystical experience are also adherents of faiths which score higher on psychoticism; and that this, in turn, arises purely because such people also score higher on openness to experience.

(iii) The common correlate of transpersonal experience

The one variable that was found to correlate significantly and positively with mystical experience in all four groups studied was attitudes to mysticism. Acknowledging that grounds have been made for drawing distinctions between these two constructs, it is nevertheless held here that this suggests that any correlates of mystical experience common across different religions relate to social cognitions of such experiences rather than to personality traits.

Within each religion sampled, these two variables appeared to be related, but reasons have been offered above for treating them as distinct constructs. Assessments of psychoticism as a global trait may be more defensible when assessing personality correlates of attitudes to mysticism than when assessing personality correlates of mystical experience. Controlling for religion and openness to experience did not have such major impact on the positive correlation, observed for the whole sample in Chapter Six, between

attitudes to mysticism and psychoticism as between mystical experience and psychoticism. Interesting questions for further research attention are raised here (see Chapter Eight).

7.8 Implications for Debate on Whether Mystical Experience is a Learnt Construct

Data presented in Chapter Six on mystical experience and psychoticism should be placed within the wider context of the literature, reviewed in detail in Chapter Three, on personality and general religiosity. Studies that have employed assessments of the doctrinal and ritual dimensions of religion have generally reported negative correlations between psychoticism and assessed religiosity. Such negative correlations have typically been attributed, as by Francis, Pearson, Carter and Kay (1981) and Francis (1992a; 1992b), as due to the associations between low psychoticism and greater conditionability into tender-minded attitudes. The underlying assumption behind such attributions, therefore, is that of the importance of social learning in acquisition of allegiance to religious doctrines and practices. Absence of a negative correlation between mystical experience and psychoticism among pro-mystical Buddhist and Pagan samples can be interpreted most parsimoniously as evidence against the view that social learning affects mystical experience. Prima facie, this appears to render Forman's (1998) perennialism more plausible than the social constructivism of Katz (1978). However, one element of the data reported in Chapter Six *did* offer support for at least a moderate version of social constructivism.

This was the finding that length of affiliation with one's religious group

correlated positively with mystical experience in the two pro-mystical groups. The most parsimonious explanation of this finding is that longer affiliations with groups promoting mysticism will increase the likelihood of learning and incorporating the teachings of such a movement, thereby increasing the chances that one will oneself have a personal experience of the mystical states promoted by such a group. Problematic with such an explanation is that direction of causality cannot be inferred from a correlation. A defensible alternative explanation would be that people who are prone to have mystical experiences are more likely to stay in religious groups promoting such experiences for longer periods of time, if social constructivists may defend their rival explanation in terms of having greater parsimony.

To present length of affiliation with religious group as having causal primacy implies that mystical experience, if not entirely a learnt phenomenon, may be affected by learning processes. What is then raised is the question of why mystical experience did not, among the two pro-mystical groups, show an inverse relationship with psychoticism.

One possibility is that psychoticism is too broad a trait to make such an inference, as has been argued at length in this thesis, and that only by looking at more finely focussed traits such as conscientiousness on the NEO-PI will the correlations predicted by social constructivist accounts of mystical experience be detectable. Against this viewpoint, NEO-PI conscientiousness was not found to be positively correlated with mystical experience in either of the two pro-mystical groups. A rather different thesis, that mystical experiences and other forms of religiosity are influenced by social learning but in different ways, is advocated here.

Personality correlates of both attitudes to mysticism and mystical experience presented in the previous chapter imply that learning patterns related to the former have more in common with patterns of learning related to doctrinal and ritual elements of religion than do any patterns of learning that underlie mystical experience. Attitudes to mysticism was found to correlate positively with conscientiousness as measured on the NEO in a pro-mystical group (the Pagans), whereas a significantly negative correlation between these variables was observed for the Jews. In Chapter Two, the personality trait of NEO conscientiousness was presented as the key facet of psychoticism most immediately relevant to conditionability levels. These different relationships between attitudes to mysticism and NEO conscientiousness are therefore to be expected if (a) acquisition of the prescriptive norms of one's group reflects conditionability level and (b) attitudes to mysticism exemplifies a prescriptive norm that is learnt. Absence of a similar asymmetry between the Jews and Pagans did not exist for broad measures of psychoticism. However, this finding can still be taken as evidence that attitudes to mysticism are more influenced socio-cultural conditioning processes that may influence other forms of religiosity than is mystical experience per se. Absence of such an asymmetry for psychoticism merely suggests that very sensitive measures (defined in this context as traits more narrow-band than broad psychoticism) are needed to observe this.

Taken in conjunction with the findings on mystical experience, this observation means that attitudes to mysticism does appear likely to have a similar pattern of ontogenetic development to other forms of religiosity sensitive to socio-cultural learning, whereas mystical experience does not.

Implicit in this assertion is that if social learning does affect mystical experience, it does so in a qualitatively distinct way from its influence on other religiosity-related variables. Thus, an important distinction between attitudes to mysticism and mystical experience could be that these variables have different patterns of ontogenesis. Attitudes to mysticism may be sensitive to the same conditioning processes that underlie conditioning of tender-minded attitudes, acquisition of religious doctrinal teachings and allegiance to ritual; mystical experience may be influenced by learning, but by a distinct pattern of learning to any form of learning that underlies these variables. This premise is reinforced by the observation that length of affiliation with one's current religious group, in the two pro-mystical groups, did *not* correlate significantly and positively with attitudes to mysticism.

7.9 Consistencies and Apparent Inconsistencies with Previously Published

Findings

The finding of a positive correlation between psychoticism and mystical experience appears, *prima facie*, inconsistent with a number of previous studies (Caird, 1987; Francis & Loudon, 1996). Close inspection of such studies, however, reveals their use of samples which were more homogeneous with respect to religious membership group than was the case with the combined sample used for the study reported in Chapter Six. Such inconsistency is therefore to be expected if this apparently positive correlation between psychoticism and mystical experience is attributed to between-groups differences on both variables. Indeed, when religious groups were analysed separately, a positive correlation between psychoticism and mystical experience

was found for only one religious group (the Jews), and this appeared to have been a function of both variables relating to the NEO trait of openness to experience. The data reported in Chapter Six are, therefore, actually consistent with data reported by Francis and Thomas (1996), who limited their sample to Anglican clergy and found no evidence of either a positive or negative correlation between psychoticism and mystical experience.

The apparently positive correlation between psychoticism and mystical experience, reported for the whole sample in the study reported in Chapter Six, was almost certainly a between-groups difference. Buddhists and Pagans obtained higher mean scores for psychoticism and also for mystical experience than did Christians or Jews. The implications of Section 7.6 are that the apparently elevated scores for psychoticism of the former groups only emerged due to their increased scores for openness to experience. Although these two groups scored higher on this trait than did Christians or Jews, an equivalent pattern of between-groups difference was not found for NEO conscientiousness or NEO agreeableness. This underlines how essential it is for research in this area to investigate components of psychoticism rather than to continue to report correlations between mystical experience and psychoticism when the latter is portrayed as a broad trait.

An apparently positive relationship between psychoticism and mystical experience is consistent with the findings of Thalbourne and Delin (1999). These authors found that mystical experience correlated positively with three traits - manic experience, depressive symptoms and hypomania - indicative of psychotic symptomatology. However, the arguments above suggest caution in interpreting the findings from the current study as totally consistent with those

of Thalbourne and Delin (1999). Early research into the personality correlates of mystical experience (Hood, 1975; Hood et al., 1979) did not find mystical experience to be correlated with any Minnesota Multiphasic Personality Inventory measurements indicative of psychosis-proneness, but did find mystical experience to correlate with openness to experience (Hood, 1975); and, as noted in Chapter Three, found mystical experience to be negatively correlated with value orthodoxy as measured on the Jackson Personality Inventory, at least among female respondents (Hood et al., 1979). Close scrutiny of the data presented in Chapter Six reveals how they are more consistent with the findings of Hood than with those of Thalbourne and Delin, for such scrutiny reveals how, in opposition to Thalbourne and Delin (1999) but in common with Hood (1975), such data suggested that mystical experience is linked to openness to experience rather than psychoticism.

This observation is important, for it clarifies important limitations not considered by Thalbourne and Delin in reporting their data. In noting inconsistencies between their data and those of Hood (1975), Thalbourne and Delin claimed that there may have been important differences between Hood's sample ($N = 29$) and their own sample of over 100 participants. Aside from mentioning the obvious size difference, however, Thalbourne and Delin failed to cite reasons why their sample was likely to have differed from Hood's. Hood had drawn his sample from a population of students at a fairly conservative Christian Protestant college, which may have led to homogeneity of the religious population being sampled; whereas religious heterogeneity characterised Thalbourne and Delin's sample. Christian theist, non-Christian theist, atheist and agnostic participants all took part in Thalbourne and Delin's

study. As Thalbourne and Delin did not report on whether statistically significant correlations existed for any of these four groups taken alone, their data were uninformative as to whether the links they found between traits related to psychosis-proneness and mystical experience were really between-groups differences, with certain groups scoring significantly higher on both sets of variable, rather than a universal association found in different creeds.

Findings of orthogonality between NEO assessments of neuroticism and mystical experience in the study reported in Chapter Six, both for the combined sample and for each specific religious group, challenged any attempt to link mystical experience with psycho-pathology of a neurotic rather than psychotic kind. This can certainly be declared inconsistent with the correlation observed by Thalbourne and Delin between depression and mystical experience, if not with their apparent correlation between mystical experience and two more psychosis-related forms of potentially pathological trait (manic experience and hypomania). Consistencies between the current study and those of Thalbourne and Delin (1999), therefore, may be more apparent than real. This lack of a relationship between neuroticism and mystical experience is, however, consistent with what has been found in previous studies that have used the EPQ rather than the NEO-PI-S to assess neuroticism (Caird, 1987; Francis & Thomas, 1996).

The absence of a significant negative correlation between psychoticism and mystical experience for any of the four groups assessed in the study reported in Chapter Six may appear inconsistent with the literature, reviewed in Chapter Three, suggesting that religiosity is negatively correlated with psychoticism. Indeed, failure to find a negative correlation between

psychoticism and mystical experience is sometimes taken, as by Francis and Thomas (1996), as inconsistent with previous findings. These findings are merely taken here to refer to a need to disentangle different dimensions of religion, however, and an acceptance that what is true of the experiential dimension of religion may not be true of the doctrinal or ritual dimensions.

7.10 Criticisms of Empirical Studies

A review of the empirical studies outlined in this thesis invites potential criticisms, especially in terms of sampling issues and those that relate to psychometrics and statistics. These criticisms, beginning with those relating to sampling issues, will now be addressed. Potential answers to such criticisms will give grounds for defending the conclusions that have been drawn from these studies.

7.10.1 Sampling Issues

While the first empirical study reported in this thesis is open to the charge of using a relatively small sample, the sample was at least comparable in magnitude to that used in Hood's (1975) study with the M-Scale, which used a sample of 29 students in assessing relationships between the MMPI and mystical experience. Deeper problems related to sampling concerned age ranges of the samples studied. The Quakers and Unitarians in the study reported in Chapter Four generally came from older age ranges than did the evangelicals, who included a substantial number of participants under the age of forty. If quest and mystical experience, therefore, are really both indicative of spiritual maturity, as claimed by Maltby (1999b), the elevated scores for quest and

mystical experience found for Unitarians and Quakers may have been due to age variation across group, rather than to differences in conservatism-liberalism. Similarly, as students in the study in Chapter Five were, on average, younger than participants from the other groups, one could argue that the variations found in scores on the Attitudes to Mysticism scale were due to age-based differences, not to ideological differences of groups sampled.

In responding to such criticisms, it should be remembered that the two groups who scored highest on mystical experience in the study reported in Chapter Six, Pagans and Buddhists, were, on average, younger than the other two groups sampled. Between-groups differences in mystical experiences reported throughout this thesis can therefore be interpreted more consistently as being due to differences in group ideology than due to age.

To attribute the higher quest scores of the Quakers and the Unitarians to their higher age status is somewhat odd. Accepting Maltby's (1999b) claim that both mystical experience and quest may indicate greater spiritual maturity, it still seems somewhat strange to suggest that attitudes are likely to grow more rather than less liberal with age. Such a premise contradicts the popular, if often anecdotal, observation that social attitudes generally grow more conservative with age. There is also evidence that quest scores decline with age (Wulff, 1997), making it difficult to defend any allegations that quest differences in Chapter Four were due to age variations in the groups studied.

Considerations of age bias in the samples used in the study reported in Chapter Five should keep in mind that the group which were, on average, of highest age status, Mensa Paranormal, did *not* obtain significantly higher scores than the youngest group, the students. Explanation of differences on the scales

observed in terms of age-based differences would only be defensible, therefore, if one genuinely considered there to be a curvilinear relationship, rather than a simple linear correlation, between age and both mystical experience and attitudes to mysticism. Interpretation of the data as support for a curvilinear relationship between age and these variables would be to suggest that both mystical experience and attitudes to mysticism peak in the 30s and 40s (the mean average ages of the Reichi healers and Buddhists), and decline after the age of fifty. Empirical research in the psychology of religion has not, typically, found this pattern of curvilinear relationship between age and religion. Indeed, an early review of studies of development of religiosity over the lifespan suggested that when a curvilinear relationship between age and religion is found, the trend follows exactly the opposite pattern. This review suggested that religiosity shows a gradual decline in the 30s and 40s and subsequent rise again after the age of fifty (Argyle, 1958).

The fact that respondents who participated in the studies reported in this thesis had given informed consent to take part in questionnaire-based studies of mystical experience, and that people who do this may themselves constitute a select sample of respondents, is another sampling issue that merits consideration. As noted in Chapter Six, only a small percentage of synagogues contacted responded to requests to participate in the study, and a mere 50% of contacted United Reformed Churches in the East Midlands offered such consent. This suggests considerable selectivity of the Jews and Christians that were prepared to answer questions on spiritual experiences for the purpose of the study. The large membership numbers of many of the East Midlands churches which were contacted, coupled with the fact that only a relatively

small number of participants per church agreed to complete questionnaires, further suggested that the Christians in the sample were a select sample with respects to likely interests in mysticism and spiritual experiences.

This bias acknowledged, it should be clarified that, if anything, it is likely to have underestimated the main effect sizes found for religious group. A very conservative conjecture is that the Jewish sample, for example, was biased insofar as it included Jews who, having given consent to take part in a study on spiritual experience, had above average levels of interest in the experiential dimensions of religion compared with Jewish populations in general. Yet, Jews still scored significantly lower on attitudes to mysticism than Buddhists and Pagans, and significantly lower on mystical experience than did all three other religious groups. If this assumption about the particular Jews who consented to participate in the study is correct, it is likely that assessment of a more generic sample of Jews would have resulted in even stronger between-groups differences. (Obviously, obtaining such a sample would have been difficult without violation of the ethical principle of informed consent). Between-groups differences reported in Chapter Six can therefore be viewed as consistent with the taxonomy presented in Chapter Two of some religions as "anti-mystical" and others as "pro-mystical", and if anything, are likely to have underestimated these differences.

A final point about sampling concerns methodology used to recruit Pagan participants. These participants were collected chiefly by recruitment after seeing advertisements for research in journals, unlike participants recruited for the other three religious groups. This therefore begs the question of whether any observed differences between the Pagans and the other groups may have

related less to religious group differences than to possible differences between people who respond to advertisements in research journals and those who agree to participate in research following alternative sampling methods.

This is a defensible criticism in terms of scores on the Francis-Louden Mystical Orientation Scale. Of the Pagans who saw advertisements asking for respondents interested in participating into spiritual experiences, only those Pagans who personally believed that they themselves had had such experiences may have responded. This may have accounted for the Pagans' significantly higher scores on mystical experience than were found with the three other religious groups. However, in the case of the Attitudes to Mysticism Scale, the use of another pro-mystical group, the Buddhists, who were not recruited through use of magazine or journal advertisements, can be regarded as use of a control group whose presence in the sample addressed this criticism. As with Pagans, the Buddhists scored significantly higher on the "Attitudes to Mysticism" scale than did either the Christians or Jews. This suggests that the taxonomy outlined at the end of Chapter Two is valid, and that the fact that the Buddhists and Pagans both scored significantly higher on the scale than did the Christians or Jews really did relate to differences in the ideological commitments of the religious groups sampled, rather than to differences between people who do versus those who do not read specialist journals or publications related to their creed.

It should also be emphasised that initial attempts to recruit Jewish participants by placing an advertisement in a Jewish publication had to be abandoned, following a zero response rate. There therefore appears to be no guarantee that placing of an advertisement in a journal will necessarily attract

all those followers of a creed who believe that they have had a "mystical" or "spiritual" experience.

7.10.2 Psychometric and Statistical Issues

(i) Psychometric issues

Issues of reliability and validity of the scales used for empirical data collection have already been addressed throughout the previous two chapters. The new "Attitudes to Mysticism" scale, the Francis-Louden Mystical Orientation Scale and the NEO all have high enough Cronbach's alpha coefficients to be judged high in internal consistency. The EPQ psychoticism sub-scale has lower internal consistency (Eysenck et al., 1985; Heath & Martin, 1990; see also Appendix D of the current thesis). However, this should not be taken as a challenge to the use of this sub-scale for research in this particular thesis, as the very heterogeneity of psychoticism implied by this low internal consistency has been part of the rationale for this research.

The central psychometric issue that will be addressed here is that of whether the questionnaires used have been equally appropriate for all religious groups studied. Potential sources of bias in questionnaires in researching transpersonal issues were addressed in a paper by the author of this thesis (Edwards, 2003). Two of these are particularly relevant to the study reported in Chapter Six:

- (a) The "monotheistic bias" of certain questionnaires. Questions that specifically address respondents to think about "God" may be difficult for atheistic religions, such as certain forms of Buddhism;
- (b) The "patriarchal bias". References to "God" on certain questionnaires may

create problems for some respondents, such as certain neo-Pagans, who typically think of a "Goddess" rather than "God".

Both categories of bias indicate the problems that were found for Pagan and Buddhist respondents during in collecting data for the study reported in Chapter Six, a process which itself inspired Edwards' (2003) paper. That both forms of bias may operate in the Francis-Louden Mystical Orientation Scale, which includes items referring to "God", suggests the possibility that the scale carries an inherent bias towards a vocabulary that will be understood by Christian respondents. Use of this scale can be defended against charges that it is only measuring an exclusively Christian type of experience, for the Pagans obtained highest scores on the scale, and the Buddhists obtained slightly - if not significantly - higher scores on the scale than the Christians. Nevertheless, these potential sources of bias in the questionnaire carry important implications for its use in future research, suggesting amendments (such as allowing participants to substitute the word "Goddess" for "God" on certain items) may be needed for respondents from religious populations such as Wicca.

(ii) Statistical issues

Powell, Shahabi and Thoresen (2003), in reviewing studies on health and religion, point out that if a study is to use a number of multiple measures of religion, chances of a Type One error will increase. Their recommendation is, therefore, to make adequate controls when multiple measures are employed, such as decreasing the value of p set for judgment of an effect as significant.

In response, it should be recalled that, for the study reported in

Chapter Six, p values were adjusted accordingly when looking at how strongly each of the "Little Thirty" correlated with mystical experience. The consistency of certain findings should also be stressed. Attitudes to mysticism was regularly found to correlate with mystical experience, both for each creedal group and for the whole sample, at a level of $p < 0.01$. Consistencies of such a finding at such a p value make it unlikely that relationship between these variables was ever due to a Type One error. A large number of statistical results may have been reported in Chapter Six; but the highly significant values of p for some of these findings reduces the chance that these arose due to Type One errors.

7.11 Summary and Implications of Chapter Seven

The key theme that may be inferred from empirical data presented in this thesis is that mystical experience is positively related to openness to experience rather than to psychoticism. An additional conclusion that may be drawn from data collected for this study is that a variable that has been under-researched in this area is that of attitudes to mysticism. Qualitative data presented in this chapter, as well as the quantitative data presented in Chapter Six, provided grounds for supposing that the four groups studied differ in their attitudes to mysticism.

The possibility that the relationship this variable bears to psychoticism differs from that that mystical experience bears to psychoticism has important implications as to which, of these two variables, can more readily be linked to propensity for conditioning into tender-minded attitudes. This in turn has important implications for a theoretical debate that has been cited in this thesis as one which should take greater cognizance of psychometric study of

personality correlates of mystical experience, that between perennialists such as Forman (1998) and constructivists such as Katz (1978). These issues, accompanied by considerations of whether global psychoticism assessments of psychoticism are more appropriate when studying attitudes to mysticism than mystical experience, will be considered more fully in the final chapter.

Katz's (1978) denial of unmediated experiences and Forman's (1998) claim for innate core "experiences" in different religions may both, paradoxically, be valid claims. This paradox may be resolved by reference to the variable of attitudes to mysticism. The qualitative data reported in this chapter indicated that a respondent from one of the two "anti-mystical" groups had had an experience that could be regarded as a "spiritual experience", even though skeptical attitudes towards mystical phenomena were expressed by the same respondent; and in none of the four groups studied was a total null response observed for frequency counts of responses to the Alister Hardy and David Wuthnow questions. This suggested that in each of the four groups, there had been at least some members who had experienced transpersonal experiences, supporting Forman's (1998) claim that transpersonal experiences can be cross-creedal. However, if attitudes to mysticism is another important variable to be addressed in this field, and the variations on this scale across religious group do arise because of socio-cultural learning differences between adherents of different creeds, important implications arise as for an original interpretation of Katz's (1978) statement that reports of mystical experiences are not unmediated, and for how best to present this argument in a way that is backed by empirical data. This issue will be addressed in the next and final chapter.

CHAPTER EIGHT

CONCLUSION

A major question behind this thesis, namely that of whether or not research into personality correlates of mystical experience should consider different facets of psychoticism as well as psychoticism as a broad trait, can now be answered affirmatively. In the main empirical study reported in this thesis, the more mystical creeds scored higher on psychoticism than the less mystical creeds, mystical experience related significantly to psychoticism for the whole sample, and mystical experience related significantly to psychoticism among Jewish respondents. Without the assessments of distinguishable facets of psychoticism achieved through use of the NEO, the reason for these findings would have been obscured. All three findings appeared to relate to potential links between openness to experience, a trait that was found to be significantly and positively correlated with psychoticism, and mystical experience. Mere assessments of psychoticism as a global trait would not have allowed for observation of this possibility. Effects of partialling for openness to experience strengthened this conclusion.

It has been consistently maintained throughout this thesis that an attempt to build up personality profiles of people who report mystical experiences should not be considered a purely descriptive exercise. To do so has major implications for theoretical questions. Two such theoretical questions are that of whether mystical experience is associated with pathology or with better-than-average mental health status, and that of whether mystical experience is a learnt or innate construct. Both may benefit from considered awareness of how mystical experience relates to specific facets of psychoticism, rather than simple

observations of how psychoticism as a broad trait may relate to mystical experience. Following a brief summary of the key findings obtained in this thesis, their implications for these questions will be considered. The importance of attitudes to mysticism as a construct to research in this field, and the issue of whether psychoticism has a different relationship to this variable to that found for mystical experience, will also be discussed.

8.1 Key Findings of Studies

To summarize the key findings of this thesis, quest orientation was found to be associated with mystical experience in Study One; attitudes to mysticism was found to be associated with mystical experience in Study Two; and in the main study reported in this thesis, Study Three as reported in Chapter Six, an *apparent* relationship between mystical experience and psychoticism was observed for a generic sample consisting of respondents drawn from four distinct creedal groups. The latter finding will be taken as a key psychometric finding from research prepared for this thesis; but the stress on the word "apparent" in the last sentence is important.

In this key study, scores on the Francis-Louden Mystical Orientation Scale were higher among respondents scoring higher on psychoticism as measured on the Eysenck Personality Questionnaire of Eysenck et al. (1985). Two groups, Buddhists and Pagans, scored significantly more highly than did Christians or Jews on psychoticism - and, at least in the case of the Pagans, higher on mystical experience than these latter two religious groups. This may appear to imply associations between mystical experience and the psychosis-linked forms of psycho-pathology. However, closer inspection of the data

revealed how this apparent correlation observed between psychoticism and mystical experience was reduced after controlling for openness to experience and religion (to non-significance after controlling for the latter).

Psychoticism, as argued in Chapter Two, is a broad, arguably over-broad, trait; included within its gamut are traits which could, indeed, be seen as positive. An example is creativity; to the list may be added readiness to question mores and convention, indicative of high levels of moral development in Kohlbergian models of moral reasoning. That apparent relationships between psychoticism and mystical experience may be explained by reference to such attributes implies that it may be wrong to interpret phenomena such as a sense of oneness with the Universe as incipient signs of latent psychotic tendencies. Rather, such experiences can be taken as evidence that a person has successfully achieved a level of creativity enabling him/ her to break with conventional and mundane patterns of thinking.

8.2 Is Mystical Experience Really Associated with Predisposition towards Psychosis?

Assertions that mystical experience could be symptomatic of pathology raise the question of whether or not such experiences are associated with any specific type of pathological disorder. At least at a covert level, an assumption behind empirical data collection for this thesis has been that the pathological disorders that most obviously share commonalities with mystical experience are the psychoses in general. Visions, hallucinations or hearing voices in schizophrenia, for example, give prima facie grounds for observing

how, at a surface level, certain psychoses and certain forms of transpersonal experiences may not be identical, but nevertheless share common features.

The data reported in this thesis are relevant to an increased understanding of relationships between mystical experience and psychoses insofar as psychoticism has been linked with psychoses at extreme levels (Eysenck & Eysenck, 1976). Assessments of a cross-creedal population, in which respondents from different creeds completed both a measure of mystical experience and a measure of psychoticism suggested that people who score higher on mystical experience also score higher on psychoticism. This trait's relationship to vulnerability to psychoses in Eysenckian theories may lead to conclusions from this finding that mystical experiences can be interpreted as premorbid symptoms of full-blown psychoses such as schizophrenia. However, closer inspection of the findings of this thesis challenges this rather oversimplistic conclusion.

The question "Is mysticism associated with psychoticism?" is given here the simple answer here: "Yes". However, the rather different question "Is mysticism associated with psychosis?" is answered here "No". A major limitation of both Eysenck's position and the theory of *Einheitspsychosen* upon which the concept of psychoticism is based is that as psychoticism is such a heterogeneous concept, assessments of psychoticism on their own are not fully informative as to the precise personality correlates of mystical and other transpersonal experiences. Such heterogeneity obscures how specific facets of psychoticism could be construed as *positive* traits. Links between psychoticism and mystical experience, such as those reported in this thesis, could therefore,

paradoxically, be taken as evidence that mystical experience is associated with *greater*, not lesser, than average mental health status.

8.2.1 Mystical Experience, Psychoticism and Creativity

That both FFM openness to experience and mystical experience were found to be associated with higher scores on psychoticism for a cross-creedal population suggests that an apparent association between mystical experience and psychoticism should not be taken as evidence that people who report mystical experience are more psychosis-prone, but rather, that they are more creative than the average person. Creativity has been defined as "a process in which two or more pre-existing elements - whether they be colours or forms, musical notes or words, or ideas in general - have been put into a relationship that is arrestingly unexpected, a relationship that may variously be regarded as aesthetically pleasing, mind-expanding, interesting and even useful, depending on the context" (Thalbourne & Delin, 1994, p4). Inferences of associations between mystical experience and psychoticism from the data presented in this thesis may be misleading if both are linked with elevated creativity. Creativity has been related to the psychoses, not just schizophrenia but also manic-depressive psychosis, as by Goodwin and Jamison (1990).

Both creativity and mystical experience, it is argued here, indicate preparedness to depart from rigid adherence to the conventional patterns of thinking learnt during the course of mundane activities. Indeed, this readiness to depart from conventional patterns of associative cognition may be the root cause of both. This readiness may be termed here as "*Capacity for Transcendence of*

Conventional Cognition". To associate such capacity presents, as will be articulated below, significant challenges to social constructivism (Section 8.6).

A model of religious experience that has important implications for how a readiness to depart from conventional structured patterns of thinking may be correlated with transpersonal experiences is that of Batson et al. (1993), termed by Edwards and Lewis (2001) the B.S.V. model of religious experience (as the model will be termed here). Based upon Wallas' (1926) four-stage model of creativity, Batson et al. presented this model as describing four stages that characterise the typical course of a religious experience. Firstly, there is a stage of self-abandonment, then of self-surrender, then of new vision and finally, a stage of new life.

The central feature of the model that is to be considered here is its implication that religious experiences involve cognitive restructuring. Edwards and Lewis (2001) criticised the B.S.V. model for too one-sided an emphasis on cognition and too little on affective aspects of transpersonal experiences, but it is important to see that Edwards and Lewis (2001) did not deny that cognitive processes, as well as affect, are important to an understanding of religious experiences. They merely called for increased attention to the power of affect in the process of religious experience. Both the BSV model and the reformulation offered by Edwards and Lewis (2001) suggest that cognitive restructuring is an important component of religious experience. Ability to enter into this cognitive re-structuring as a pre-requisite for mystical experience is exactly what is being argued here.

Edwards and Lewis' (2001) reformulation of the BSV model, partly through its greater attention to ascetic practices and to guilt in religious

experiences than was found in the original model, implied that increased conscientiousness may correlate with religious experience. Their reformulation therefore suggested that both a healthy component of low psychoticism (conscientiousness) and a healthy component of high psychoticism (openness to experience) will correlate significantly positively with increased mystical experience.

The most distinctive contribution that the senior author of the B.S.V. model, C. Daniel Batson, has made to the psychology of religion has probably been his presentation of quest as a form of religious orientation. This may be considered to be a variable linked with readiness to break with conventional cognition, and hence, according to arguments presented here, with increased tendency to mystical experiences. Quest has been found to be linked to cognitive flexibility (Batson & Raynor-Prince, 1983). If the arguments here are sound, quest can therefore be expected to be positively related to mystical experience, exactly as was found in the first study reported in this thesis.

A position advanced in this thesis after Study One, and somewhat more tentatively, after Study Three, is that mystical experience is associated with increased liberalism. This may seem diametrically opposed to the implications of the title of a widely cited piece by Katz (1983) "The 'Conservative' Character of Mystical Experience". However, it is important to appreciate that, when read in its entirety, Katz's essay does acknowledge radical as well as conservative elements in the onset of mystical experience. What Katz appeared to be saying in this essay is that apparently radical re-interpretations of traditional Scriptures of one's faith are used by mystics, in a covert way, to defend the importance of teaching derived from such Scriptures for their faith

tradition. Such claims imply considerable creativity on the part of the mystic. If even Katz (1983) is ready to attribute such creativity to mystics, it suggests that it is by no means misguided to link mystical experience with creativity, an association supported by the statistically significant associations between NEO openness to experience and mystical experience found in the study reported in Chapter Six.

8.2.2 Thalbourne's Concept of Transliminality and Implications for Creativity Research

A variable that may underlie both readiness to depart from conventional cognition and mysticism is transliminality (Thalbourne & Delin, 1994; 1999), proposed by these authors as "the common thread" (Thalbourne & Delin, 1994) that may underlie a number of inter-related variables. Although conceptual problems with this trait have been outlined earlier (Chapter Two), empirical findings upon which Thalbourne and Delin based their thinking may help to enhance an understanding of some of the correlates reported in this thesis.

Links between mystical experience, creativity and belief in the paranormal were implied by studies cited by Thalbourne and Delin (1994). At least in a nonclinical sample, Thalbourne and Delin found these three variables to be significantly and positively correlated. Among the student (nonclinical) sample these authors studied, the correlation between mystical experience and creativity was $r = .48$, suggesting that mystical experience and creativity share just over 23% variance in a nonclinical population. Although Thalbourne and Delin found that both schizophrenics and manic-depressives scored significantly

higher than did students on a measure of mystical experience, they nevertheless pleaded for caution about whether one should interpret this relationship as meaning that mysticism is pathological, "or is in fact an addition to the list of genuinely positive experiences, such as social ease, sexual intensity, productivity and so on, often reported by bipolar patients" (Thalbourne & Delin, 1994, p15).

It would be an over-simplification to say that the position taken here is a clear endorsement of the latter perspective. It is true that the data reported in this thesis have been correlational, so inferences about directions of causality between the related variables of psychoticism, mystical experience and creativity are difficult. Suppose, however, that a high level of creativity both resulted from increased psychoticism and took causal primacy in increasing probability of mystical experience. If this suggestion of direction of causality is accurate, what would then become defensible is a statement that creativity may be one of the positive consequences of psychosis cited by Thalbourne and Delin, and that increased psychoticism only indirectly increases likelihood of mystical experience by virtue of its associations with increased creativity. Other factors besides increased psychoticism may lead to increased creativity, and if such arguments are sound, these other factors should also increase probability of mystical experience.

8.3 Mystical Attitudes as Prescriptive Norms

Data reported in this thesis provided evidence for an odd possibility. This is that transpersonal experiences such as auditory hallucinations or senses of ego loss should not be taken as an incipient signs of latent psychoses, yet,

deep interest in and positive views on mysticism could be. Evidence for this was that partialling for openness to experience was found to have a less dramatic impact on the correlation observed between attitudes to mysticism and psychoticism than between mystical experience and psychoticism.

A declaration that positive attitudes towards mystical teachings indicate proneness to psychosis is not the only possible explanation for this finding. Two rather different explanations will be considered here. One relates to sampling issues; the other to criticisms of the social constructivism of Streng (1978).

(a) Nature of Population from Which Samples Were Drawn

All samples used for the study reported in Chapter Six came from a population in the United Kingdom. The dominant state religion of this nation, the Church of England, has not been classified in this thesis as a "pro-mystical" religion. Participants are likely to have been influenced, directly or indirectly, by this movement's values, whatever their current religion (indeed, at least one of the Druids stated having been raised in an Anglican background before turning to Druidry). This implies that these participants came from a population where Church-based *anti-mystical* suspicion formed the prescriptive norm.

This helps to explain why positive attitudes to mysticism correlated significantly positively with psychoticism, even after controlling for religion and openness to experience. Psychoticism is a trait that may be expected to be associated with rejection of conventional mores of one's society; therefore, those forms of religiosity that challenge the religiosity taught by the status quo may be those most readily associated with higher psychoticism scores. To

summarize, this positive relationship between psychoticism and attitudes to mysticism could be understood in terms of low psychoticism participants being more likely to endorse the values of mainstream religion in the United Kingdom. A fascinating follow-up would be to observe a culture where the mainstream religion is likely to be pro-mystical, as would be the case with certain Buddhist countries in the Orient, to assess whether this positive correlation between psychoticism and attitudes to mysticism still held.

(b) Attitudes to Mysticism as a Prescriptive Concept

The second interpretation relates to the fact that at least certain aspects of psychoticism relate to willingness to question norms. Questions such as "Should people always obey the law?" for which a negative answer means greater psychoticism, reflect the anti-authoritarian tendencies that may be observed in high psychoticism participants.

It is argued here that attitudes to mysticism is a prescriptive concept. This position is rather different to that of Streng (1978), who has argued that the language describing mystical experiences is, in reality, less descriptive and more prescriptive than is commonly realized. In opposition to Streng's claims, it is argued here that accounts of mystical experiences can indeed be couched in purely descriptive language. What is proposed here instead as being prescriptive are attitudes to mysticism, with certain religions prescribing against and others for mystical experiences.

If, as argued above, the general state religion of the population from which participants were drawn worked with a prescriptive norm that discouraged mysticism, it is of no surprise that those participants who are higher

in a trait marked (in part) by anti-authoritarian tendencies may score higher on attitudes to mysticism than those less high in this trait, precisely because the former are less likely than the latter to accept conventional prescriptions. Streng's position may therefore be criticised for failing to draw an adequate distinction between attitudes to mysticism and mystical experience.

8.4. Social Constructivism and Perennialism: Towards a Synthesis

Attitudes to mysticism and mystical experience did not bear identical relationships with the Eysenckian trait of psychoticism, which strengthens the case for their conceptual distinction. To be consistent with the stress on the heterogeneity of psychoticism that has been maintained throughout this thesis, such claims require consideration of whether the more specific facets of the five-factor model were found to be related in different ways to mystical experience and to attitudes to mysticism. Indeed this was so. FFM conscientiousness was found to share opposite patterns of relationship to attitudes to mysticism among Jews and Pagans, but this was not replicated for mystical experience.

Such observations suggest that, if one were to use assessments of psychoticism or of its facets to guide thinking on the extent to which a variable is associated with conditionability, it is attitudes to mysticism, rather than mystical experience, that arises through a process of learning related to the process of conditioning. A failure to make an important conceptual distinction between mystical experience and attitudes to mysticism has, it is declared here, resulted in failure to address a potentially illuminating rapprochement between social constructivism and perennialism.

Conceptual distinctions between mystical experience and the cognitive frameworks attached to them are certainly not original with the current thesis. They can be observed in Stace's (1960) attempts to distinguish mystical experiences from interpretations of them. Stace has, however, frequently been criticized for insufficient clarity in attempts to distinguish interpretation from experience (Payne, 1984).

Interpretation and attitudes to mysticism should not, by any means, be taken as identical. Interpretation need not involve any emotional evaluation of a state of being. Attitudes to mysticism does. This allows for the possibility, defended below, that mystical experiences may be both innate and cross-creedally invariant and yet still mediated in terms of their precise phenomenology, if the latter is described in terms of affective factors. Herein one can see exciting grounds for claiming that mystical experiences are, in important respects, both learnt and innate. It is true that these claims at this stage may sound speculative, but by presenting them as they are presented below it will become clearer that the grounds offered for reconciliation between social constructivism and perennialism are ones which can be evaluated in future psychometric study.

Stace's premise was based purely upon theory and did not stem from empirical research into transpersonal experience. When first put forth, his distinctions between mystical experience and post hoc interpretations of such experiences lacked any grounding in rigorous psychometrics. The development of a psychometric scale to assess Stace's (1960) position did not occur until some 15 years after the publication of *Mysticism and Philosophy*, in the form of Hood's M-Scale (Hood, 1975). Even this scale was not specifically designed as

a scale with two separate sub-scales, one to measure experience and one to measure interpretation. Factor analyses of the M-Scale have frequently been seen as evidence for this distinction (Hood, 1975; Hood et al., 1993), but such judgments have been post hoc considerations of the results of subsequent studies and were not built into initial considerations in design of the M-Scale.

A very different situation can be seen behind the distinction made here between attitudes to mysticism and mystical experience. The use of separate questionnaires to assess either construct in empirical research presented in this thesis has indicated how this distinction was put forth with psychometric considerations in mind. It is held here that not only do the data support conceptual distinctions between these two variables, but that a distinction between attitudes and experience offers clearer grounds for a possible rapprochement between social constructivism and perennialism than does one between interpretation and experience.

Interpretations of the M-Scale as assessing a mystical experience factor and a so-called religious interpretation factor are questionable. The religious interpretation factor is frequently related to its sub-scales assessing perceived bliss, perceived information gains and perceived religious quality in an experience. A case could be made that the first two of these sub-scales relate to experience directly, and not to interpretation. A plea is made here for transpersonal researchers to consider distinctions between attitudes and experience, rather than between interpretation and experience.

8.4.1 Mystical Experiences: Innate but Mediated?

It is argued here that attitudes to mysticism, being conceptually more similar to doctrinal assent than is mystical experience, more closely relate to learning of prescriptive norms than does mystical experience per se. Evidence for this proposition came from the fact that mystical experience was not, as was attitudes to mysticism, positively correlated with NEO conscientiousness in a pro-mystical group, and negatively correlated with NEO conscientiousness in an anti-mystical group. If psychoticism is to be defined in general as a trait of which the key feature is reduced conditionability, this could also explain why attitudes to mysticism was found to relate more strongly to psychoticism than was mystical experience, as was evident from how partialling for NEO openness had a less dramatic influence on the correlation between attitudes to mysticism and psychoticism than it had on the correlation between mystical experience and psychoticism.

Although learning and conditioning may have more of a direct effect on attitudes to mysticism than on mystical experience, the latter could still be influenced by social learning in a way that is mediated by learnt attitudes to mysticism. Mystical experiences may be innate, but still affected by the learning processes brought about by the learning of specific attitudes towards mysticism.

An analogy helps to clarify this point. Suppose that two people both watch a video of a wrestling match. Prior to seeing this video, one has received instructions that wrestling is a highly dangerous sport, the other that wrestling is exciting. Suppose, further, that these divergent instructions were successful in producing negative attitudes towards wrestling on the part of the first individual, positive attitudes towards wrestling on the part of the second. While

watching the wrestling match, both may be having an identical experience of increased adrenalin flow and heightened arousal. However, their divergent attitudes towards wrestling may lead to variations in whether such an experience is linked to fear or excitement.

Something similar may underlie the precise phenomenology of mystical experience. It may be correct to suppose, as argued by Forman (1998), that an identical experience can be experienced by all human beings; but equally correct to deny, as does Katz (1978), the possibility of unmediated experiences. People from different traditions may all experience a sense of unity, constituting mystical experience as described by Stace (1960); what their religion may have taught them is whether to view such experiences positively or negatively. Learning processes may therefore, in a manner mediated by attitudes to mysticism, produce emotions of opposite valence during otherwise identical experiences.

This can be illustrated by imagining a scenario where two people have both had the core unitive mystical experience as described by Stace (1960). One is from a background of pro-mystical Paganism; the other an anti-mystical Jew. Both individuals may be high in learning propensity. The former has learnt from his/ her co-religionists to value such experiences; the latter to regard such states with suspicion and disdain. Although the raw reports both individuals could provide on such an experience might reveal identical features, the precise emotions they attached to such experiences would vary in accordance with their divergent learning histories.

Social constructivists could challenge this statement, holding that the the higher scores obtained by Pagans and Buddhists than Christians and Jews on a

measure of mystical experience could more parsimoniously be interpreted as unqualified support for social constructivism. These between-group differences could be explained by arguments that continued exposure to the teachings of pro-mystical religions leads to greater probability of mystical experience, much as Argyle and Hills (2000) have attributed the greater frequency of religious experience found for church attendees than non-attendees to exposure to church teachings. However, as with correlational data, between-groups differences need not imply any particular direction of causality. Members of pro-mystical religions may report more mystical experiences because exposure to such groups increases chances of a mystical experiences; but it could also be that if certain individuals have had mystical experiences, and come from backgrounds not sympathetic to such experiences, they seek out religions that are.

An interesting case here is that of Miriam Soros, better known to many people as the neo-Pagan Starrhawk. As Greenwood (2000) has observed, Starrhawk was raised as a Jew, but turned to neo-Paganism after her mystical experiences. This was in no doubt partly due the latter religion being able to accommodate her mystical experiences more readily.

It is true that intense longitudinal study will be needed to further assess the confidence that one may take in either of two possible interpretations of Pagans and scoring higher on mystical experience than Christians or Jews. This could be taken as evidence that people who have had such experiences are likely to enter into movements such as neo-Paganism; or as evidence that the teachings of such movements enhance chances of mystical experience. Such longitudinal study is clearly needed before total confidence can be declared in the proposition that mystical experience is innate, but is affected by learning

insofar as the processes of learning that are likely to affect attitudes to mysticism have a mediated impact on such experiences. Nevertheless, if these claims about mystical experience and attitudes to mysticism having different relationships with conditionability are valid, traits linked to conditionability, such as psychoticism, should show non-identical relationships with these two variables. This is exactly as was found in this thesis.

8.4.2 Learning and Emotional Valence

It may seem self-contradictory to claim, as is being claimed here, that certain features of mystical experience could be innate, but that the emotional valence attached to such experiences may vary in accordance with one's learning experiences. Scrutiny should therefore be given to the social psychology experiment that inspired the constructivism of Proudfoot (1985), namely that of Schacter and Singer (1962). In this study, genuine participants were injected with adrenalin. All experienced increased arousal; whether this was experienced as excitement or anxiety depended on cues from actors participating in the experiment.

Proudfoot's (1985) claims that this experiment is evidence for the social construction of emotions, and that similar social constructions underlie religious experiences, are challenged here. Participants who experienced anxiety in this experiment had an identical experience to those who experienced excitement insofar as both groups experienced heightened arousal. What did differentiate participants was the emotional valence they attached to this experience.

It is proposed here that a similar set of processes happens with mystical experiences. Suppose that dancing around a fire in the night of a full moon had

the inherent potential to induce a state of consciousness marked by a sense of unity with the natural world, and that, further, this event resulted in the same sense of unity for every one, regardless of past learning experiences. Let us imagine a situation where both an individual from a background of Calvinist Christianity and a Wiccan Pagan are asked to perform this ritual, and both comply. If this activity really does result in a state of mystical union for every one, it would induce the same sense of mystical union in both individuals. However, if the former has been taught to link such experiences with Satanism, the latter to see such experiences more positively, emotional valence of such people would differ, resulting from their divergent attitudes to mysticism.

If there has been an argument which, *above all else*, is proposed here as being both an original contribution and well-supported by psychometric data collected for the current thesis, it is the necessity of distinguishing between attitudes to mysticism and mystical experience. The claim that mystical experiences may be mediated, and yet also responses to triggers that carry the inherent potential to arouse such states, is easier to defend after this distinction is made. Thus, attitudes to mysticism will be designated here as "the missing link" which has been overlooked in both previous psychometric study and in philosophical debate. This omission may have blinded scholars to potential grounds for a reconciliation between perennialism and social constructivism.

8.5 Attitudes to Mysticism and Mystical Experience in the Western

Mystery Tradition

An important finding relating to the variable of attitudes to mysticism is that it was very high among adherents of the Western Mystery tradition. High

scores for attitudes to mysticism were found for Druids, Wiccans and Native American sympathizers, challenging any efforts to link pro-mystical attitudes exclusively with Eastern religion.

Important questions for the social constructivist-perennialist debate are raised if pro-mystical attitudes are found in adherents of Western as well as Eastern religions. It may sound as if preceding arguments have attributed variance in attitudes to mysticism in large part to learning, but it should be clarified that at no point have learnt factors been viewed as the only factor determining the attitudes an individual takes towards mysticism. Tesser (1993) challenged the conventional social psychological wisdom of attributing attitude development exclusively to learning, holding that, because factors brought about by heredity may contribute to preferences for stimuli such as certain foods or music forms, heredity is likely to have an indirect influence on attitudes. In the same way, if pro-mystical attitudes result from private history of having had mystical experiences as well as exposure to teaching, it could be that Eastern and Western religions have both developed pro-mystical attitudes because an innate experience of mystical union has been reported in these diverse cultures.

Future research is needed to establish whether or not attitudes to mysticism can be the effect rather than cause of mystical experience, as is assumed by such a position. If it does point in such directions, strong challenges to social constructivism are implied, insofar as a very parsimonious way of accounting for mystical experiences arising in geographically separated communities would be to attribute such experiences to innate factors.

8.6 Individual Differences and Mystical Experience

Debates between perennialists and social constructivists on the nature of mystical experience have frequently overlooked an important point about such phenomena that should be obvious to any psychologist aiming to research the personality correlates of such experiences. This is that considerable individual differences may exist in the propensity people have towards such experiences, within creeds as well as between creeds. Forman (1998) acknowledged this in his declaration that, although a universal core experience exists, empirical data suggest that only a minority of people have had such experiences. However, he did not consider *what* the personality differences between people within a creed who do and do not experience such phenomena may be.

Rather than attribute such variations in mystical experience to individual differences in psychoticism, such variation may be attributable to individual differences in traits such as creativity, quest religious orientation or what has been termed above as "Capacity for Transcendence of Conventional Cognition". Data in this thesis have consistently suggested links between traits indicative of potential for cognitive flexibility and mystical experience. If variation in such traits is innate, as is consistent with behaviour genetic study of such traits, it would strengthen the case for supposing mystical experience to reflect an "innate capacity". However, this link between traits indicative of cognitive flexibility and mystical experience offers a more direct challenge to social constructivism. Similar to Forman's (1998) claim that mystical experiences involve *Vergessenheit* of learnt constructs, to attribute mystical experiences, in part, to cognitive processes that challenge conventional patterns of cognition acquired during day-to-day learning suggests that mystical

experiences are more readily experienced by those prepared to challenge, rather than endorse, conventional teachings.

Evidence for an association between a variable indicative of cognitive flexibility and mystical experience came from the links between quest and mystical experience observed in Study One, while Study Three provided further evidence for this association in its reported correlations between openness to experience and mystical experience. Larger samples may have been needed to defend proposed links between openness to experience and mysticism (significant and positive correlations between NEO openness to experience and mystical experience were not found, for example, for Christians and Buddhists when considered as separate groups, possibly because very large samples may be necessary to detect such associations when such samples are homogeneous), but the possibility that mystical experience relates more strongly to NEO openness to experience rather than psychoticism is evidence for a central claim that has been defended in this thesis. This is that psychoticism is too heterogeneous to be interpreted as having an unequivocal relationship with mysticism.

If this is so, it becomes quite plausible to suggest that people who have had mystical experiences (as distinct from psychotic breakdowns) will be those high in certain facets of broad psychoticism, low in other facets of this broad trait. Specifically, people high in creativity, cognitive flexibility or unusual patterns of associative thinking, but also high in capacity for discipline and conscientiousness may be precisely those most likely to report mystical experiences. This premise can explain a number of observations that have been made throughout the course of this thesis. One such observation is the fact that

apparent correlations between psychoticism and mystical experience appeared to be a function of a relationship both variables shared with NEO openness to experience. The links between heightened conscientiousness and mystical experience, and the supposition that this may be informative about innate factors in human psychology which carry the potential to promote mystical experiences rather than a vindication of social constructivism, emerged in the evidence that NEO conscientiousness was found to be positively correlated with mystical experience in one of the two anti-mystical groups, the Christians. Finally, literature reviewed in Chapter Three indicated that religious liberals may have elevated scores on conscientiousness as well as openness to experience. The argument presented here therefore implies associations between religious liberalism and mystical experience - exactly as was found in empirical work reported in this thesis.

8.7 Further Research

Future research will need to address potential reasons for an association between religious liberalism and mystical experience. Social constructivists may claim that people who are more likely to adopt radical views may join religious groups which, at least in the culture in which such people live, are conventionally judged as more "radical", for example neo-Paganism, and because these groups are more likely to teach people about mystical experiences, such an association arises. Perennialists may explain this association by arguing that both mystical experiences and greater liberalism are linked with an innate cognitive style predisposing one to cognitive flexibility. Mystical experience may be linked with such traits because it involves

temporary abandonment of one's conventional pattern of cognition (at least temporarily), liberalism because it also implies readiness to challenge conventional patterns of cognition. To test these rival hypotheses would make for an interesting future research study. Identification of the innate cognitive style that perennialists may hold is behind both increased liberalism and increased chance of mystical experience would certainly set an interesting agenda for future research.

Batson and Raynor-Prince (1983) found quest to be associated with greater cognitive flexibility. It is thus perfectly possible that increased cognitive flexibility contributes to both elevated quest scores and mystical experience, explaining correlations such as that reported in Chapter Four of this thesis. Future research is now needed to find out whether quest correlates with attitudes to mysticism as well as mystical experience per se. Critics of Batson such as Donahue (1985) have claimed that quest's failure to correlate in any meaningful way with any religiosity-related variable implies that quest should not be seen as a form of religious orientation. Attitudes to mysticism could be the very variable that is found to be both explicitly linked with religion and with quest in future studies.

One of the interesting findings about attitudes to mysticism was how its correlation with psychoticism remained significant after controlling for N.E.O. openness and also for religion. This raises the question of whether latent psychotic tendencies may be linked with increased interest in mystical phenomena rather than reports of such experiences. Such a possibility merits future research attention, and has implications for how to conceptualise

disorders such as the schizotypal personality disorder as described in *Diagnostic and Statistical Manual IV* (American Psychiatric Association, 1994).

Associations between liberalism and mystical experience lead to the question of whether or not social groups generally associated with less conservative attitudes report greater frequency of mystical experiences. This would imply, for example, that in highly oppressive societies where certain minority groups have been marginalised and are ready to challenge the status quo, it is members of such minority groups who may be more likely to report mystical experiences. This sounds at odds with studies such as Hay and Morisy (1978), which found greater frequency of mystical experiences among middle-class respondents; and also with historical evidence from cases such as the Buddha, whose rather well-to-do background in nobility does not appear to have prevented him from reporting transpersonal experiences. However, it may be that it is those respondents of middle-class status who also endorse liberal attitudes, and are sympathetic to plans to change the status quo, who are most likely to report mystical experiences. Future research is therefore needed to look at potential correlations between mystical experience and liberalism in conjunction with social and contextual factors.

Interesting future research into attitudes to mysticism could prove to yield seminal findings when using larger samples of each group studied in Chapter Six, big enough to allow for comparisons between sub-group within each creed. An interesting future research project would be to assess a group such as the Pentecostal/charismatic movement on this variable, which may value religious experiences but not mystical experiences. Predictions can be made that certain movements within the groups sampled will score higher than

average for their creed on the Attitudes to Mysticism Scale - a good example being that Hassidic Jews will score higher on this scale than mainstream Jews.

Assertions made throughout this thesis that attitudes to mysticism and mystical experience are both related to greater liberalism have always meant liberalism in a specifically religious context. Assessment of attitudes to mysticism and mystical experience in a more generic sample, including atheists, agnostics and secularists, may yield a different finding to a simple linear relationship between liberalism and mystical experience. Thus, liberalism may need to be viewed in conjunction with religious commitment if such correlations are to be found. It should also be remembered that the data in this thesis have been correlational. Future longitudinal research involving cross-lagged panel analysis could prove fruitful in assessing whether, for example, pro-mystical attitudes are better viewed as the cause or effect of mystical experience.

8.8 Conclusion

This thesis has made original contributions to transpersonal psychometrics, both by its attempts to elucidate how apparent links between psychoticism and mystical experience may best be interpreted with considerations of increased creativity in mind, and its stress on the differences between the relationships that mystical experience and attitudes to mysticism bear to psychoticism. Original contributions have also been made in exploring data from a cross-creedal population.

Such findings will be of value to philosophers of religion, helping them to consider important philosophical questions on the nature of mysticism, but are also of value to psychometrics itself. Thanks to the study of potential

correlates of mystical experience, psychometricians may gain a better understanding of how traits such as "psychoticism" may encompass both positive and negative elements.

The issues studied in this thesis have bearings on diverse fields of scholarship, philosophy and anthropology as well as psychometrics. Important findings emerging from this thesis should be pivotal in guiding future research in both psychometrics and the study of mysticism. Psychoticism may be so multi-faceted that whether one declares that mysticism is linked with pathology or not invites the response: "It all depends what one means by psychoticism". Mystical experience and attitudes to mysticism were found to correlate with rather different lists of variables, and thus appear to be distinct constructs. Precise correlates of attitudes to mysticism may depend upon whether one is examining a pro-mystical or anti-mystical religion, as comparisons of Pagans and Jews clarified. Through application of psychometric methodology to the study of transpersonal experiences, the scholar who wishes to study such states can be deemed wiser - if still on an on-going quest to learn more about this important aspect of human life.

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APPENDICES

Appendix A. Materials Used in Study One

Instruction Sheet Set to Respondents:

"The following is a booklet in three sections, looking at the topic of religious experience. Each section is a questionnaire - the first section is a questionnaire that should take about twenty to twenty-five minutes to complete, the second and third sections should take in total between five and ten minutes to complete.

It would be greatly appreciated if you could spare an odd thirty or thirty-five minutes to complete this booklet. The questionnaires should be completed in privacy and in your own time. Please note that ALL sections of this booklet are to be completed anonymously - at no point will you be asked to indicate any identifiable details about yourself other than your gender and age. However, you may find some of the questions to be highly personal ones. If, at any time, you feel the questions are getting either too personal or too difficult for you to answer, you may return the questionnaires uncompleted. Sections A and C relate to religious experience, while Section B relates to the manner in which people hold their religious beliefs; you may return the booklet now if you feel you would rather not be assessed on either topic. (N.B. data collected using this booklet will be used purely for academic purposes).

Questionnaires used in Study One.

Hood's M-Scale (Hood, 1975)

Section A

"Listed below are descriptions of experiences which people claim to have had. Please write by each statement whether you think each description is true of your own experience as follows:

- +2 if you think the description is definitely true of your own experiences;
- +1 if you think the description is probably true of your own experiences;
- 1 if you think the description is probably not true of your own experiences;
- 2 if you think the description is definitely not true of your own experiences;
- ? if you are uncertain or unsure about whether the description matches your own experiences (please try to avoid this option as much as possible)".

There then followed the 32 items of Hood's (1975) M-Scale as follows:

1. I have had an experience which was both timeless and spaceless
2. I have never had an experience which was incapable of being expressed in words
3. I have had an experience in which something greater than myself seemed to absorb me
4. I have had an experience in which everything seemed to disappear from my mind until I was conscious of only a void
5. I have experienced profound joy
6. I have never had an experience in which I felt myself to be absorbed as one with all things
7. I have never experienced a perfectly peaceful state
8. I have never had an experience in which I felt that all things were alive
9. I have never had an experience which seemed holy to me
10. I have never had an experience in which all things seemed to be aware
11. I have had an experience in which I had no sense of time or space
12. I have had an experience in which I realized the oneness of myself with all things
13. I have had an experience in which a new view of reality was revealed to me
14. I have never experienced anything to be divine
15. I have never had an experience in which time and space were non-existent
16. I have never experienced anything that I could call ultimate reality
17. I have had an experience in which ultimate reality was revealed to me

18. I have had an experience in which felt that all was perfection at the time
19. I have had an experience in which I felt everything to be part of the same whole
20. I have had an experience which I knew to be sacred
21. I have never had an experience which I was unable to express adequately through language
22. I have had an experience which left me with a feeling of awe
23. I have had an experience which was impossible to communicate
24. I have never had an experience in which my own self seemed to merge into something greater
25. I have never had an experience which left me with a feeling of wonder
26. I have never had an experience in which deeper aspects of reality were revealed to me
27. I have never had an experience in which time, place and distance were meaningless
28. I have never had an experience in which I became aware of a unity to all things
29. I have had an experience in which all things seemed to be conscious
30. I have never had an experience in which all things seemed to be unified into a single whole
31. I have had an experience in which I felt nothing is ever really dead
32. I had had an experience which cannot be expressed in words

Section B

Quest sub-scale of Religious Life Inventory (Batson et al., 1993)

"Here are twelve statements asking about your religious beliefs.

Please read each statement carefully and circle the appropriate option each time, ranging from 1 (indicating that you strongly disagree with a statement) to 5 (indicating that you strongly agree with a statement). Please be re-assured that responses on this questionnaire are to be kept anonymous and are only being used purely for academic research".

1. As I grow and change, I expect my religion also to grow and change

Strongly Disagree 1 2 3 4 5 Strongly Agree

2. I am constantly questioning my religious beliefs

Strongly Disagree 1 2 3 4 5 Strongly Agree

3. It might be said that I value my religious doubts and uncertainties
Strongly Disagree 1 2 3 4 5 Strongly Agree
4. I was not very interested in my religion until I began asking questions about the meaning and purpose of my life
Strongly Disagree 1 2 3 4 5 Strongly Agree
5. For me, doubting is an important part of what it means to be religious
Strongly Disagree 1 2 3 4 5 Strongly Agree
6. I do not expect my religious convictions to change in the next few years
Strongly Disagree 1 2 3 4 5 Strongly Agree
7. I find religious doubts upsetting
Strongly Disagree 1 2 3 4 5 Strongly Agree
8. I have been driven to ask religious questions out of a growing awareness of the tensions in my world and in my relation to my world
Strongly Disagree 1 2 3 4 5 Strongly Agree
9. My life experiences have led me to re-think my religious convictions
Strongly Disagree 1 2 3 4 5 Strongly Agree
10. There are many religious issues on which my views are still changing
Strongly Disagree 1 2 3 4 5 Strongly Agree
11. God wasn't very important to me until I began to ask questions about the meaning of my life
Strongly Disagree 1 2 3 4 5 Strongly Agree
12. Questions are far more central to my religious experience than are answers
Strongly Disagree 1 2 3 4 5 Strongly Agree

Questions used to Assess General Religious Experiences in Study One**Section C, based on Hay and Heald (1987)**

Section C was headed by the instructions:

"Listed below are six different types of experiences. To the right of each experience, place:

A +2 if you feel that you have definitely had that type of experience;

A +1 if you feel that you have probably had that type of experience;

A ? if you are uncertain about whether you have had that type of experience;

A -1 if you feel that you have probably not had that type of experience;

A - 2 if you feel that you definitely have not had that type of experience".

A sense of order or patterning behind events in my life

A sense of the Presence of God

A sense of receiving help or guidance in answer to prayers

A sense of a sacred presence in Nature

A sense of the presence of the Dead

A sense of an evil presence

7. Being absorbed within the Divine

Never had this	1	2	3	4	5	Definitely had this
experience						experience

8. Feeling moved by a Power or Presence beyond description

Never had this	1	2	3	4	5	Definitely had this
experience						experience

9. Knowing that I was surrounded by a Presence

Never had this	1	2	3	4	5	Definitely had this
experience						experience

10. Transient visions of the transcendental

Never had this	1	2	3	4	5	Definitely had this
experience						experience

11. Being in a state of mystery outside my body

Never had this	1	2	3	4	5	Definitely had this
experience						experience

12. Feeling at one with all living things

Never had this	1	2	3	4	5	Definitely had this
experience						experience

13. Being conscious of only timelessness and eternity

Never had this	1	2	3	4	5	Definitely had this
experience						experience

14. Losing myself in a greater being

Never had this	1	2	3	4	5	Definitely had this
experience						experience

15. Being aware of more than I could ever describe

Never had this 1 2 3 4 5 Definitely had this
experience experience

16. Hearing God speak to me

Never had this 1 2 3 4 5 Definitely had this
experience experience

17. Passing moments of Divine revelation

Never had this 1 2 3 4 5 Definitely had this
experience experience

18. Being grasped by a Power beyond my control

Never had this 1 2 3 4 5 Definitely had this
experience experience

19. Sensing the unity in all things

Never had this 1 2 3 4 5 Definitely had this
experience experience

20. The merging of past, present and future

Never had this 1 2 3 4 5 Definitely had this
experience experience

21. Feeling myself absorbed in the depths of being

Never had this 1 2 3 4 5 Definitely had this
experience experience

Attitudes to Mysticism Scale

Please indicate how much you agree or disagree with each of the 32 statements listed below, by circling your appropriate response on the 1-5 scale each time, ranging from 1 ("strongly disagree") to 5 ("strongly agree").

1. If I were to think of a prototypical religious person, I would think of a mystic or some one who reports religious experiences, rather than some one who attends religious services regularly

Strongly Disagree 1 2 3 4 5 Strongly Agree

2. Some of the most moving literature ever written has been the work of the world's great mystics

Strongly Disagree 1 2 3 4 5 Strongly Agree

3. Possession of a great deal of factual knowledge about one's faith (e.g. about its history, literature or ritual) is really a very poor shadow of the great insights that can be obtained during mystical experience

Strongly Disagree 1 2 3 4 5 Strongly Agree

4. Our sins are justified through faith, that is, through belief that God alone can save us from our sins - we are not likely to get very far by constant reliance on our own attempts at the spiritual quest

Strongly Disagree 1 2 3 4 5 Strongly Agree

5. I can really understand why many people (including religious leaders such as the clergy or rabbis) have perceived mystics as mad

Strongly Disagree 1 2 3 4 5 Strongly Agree

6. God alone is the fountainhead of all religious revelations, so mystics deceive themselves to think that they can obtain union with God by their own efforts
Strongly Disagree 1 2 3 4 5 Strongly Agree
7. Mystics of all faiths, creeds and indeed, of no traditional religion are all involved in the same spiritual journey
Strongly Disagree 1 2 3 4 5 Strongly Agree
8. The mystical quest for union with the Divine is one which - partly thanks to the mystic's own efforts - is often likely to prove extremely fruitful
Strongly Disagree 1 2 3 4 5 Strongly Agree
9. If one wants to know about one's faith, one should apply lots of academic study to its history, texts and theology, rather than engage in practices that might or might not bring about mystical experiences
Strongly Disagree 1 2 3 4 5 Strongly Agree
10. Religious authorities such as church leaders, the Pope or rabbis have every right to be suspicious of mystics
Strongly Disagree 1 2 3 4 5 Strongly Agree
11. The mystical viewpoint that life is like a ladder, and that by appropriate spiritual journey, one may ascend this ladder to reach the realms of God, is one which deserves a lot of respect
Strongly Disagree 1 2 3 4 5 Strongly Agree
12. I find that people who write about their so-called mystical or religious experiences rather contradict themselves - they claim to have received revelations, but to me, their experiences hardly reveal anything at all
Strongly Disagree 1 2 3 4 5 Strongly Agree

13. Theologians are more important figures in the world religions than are mystics
 Strongly Disagree 1 2 3 4 5 Strongly Agree
14. Major and important differences exist between the hallucinations of psychotics and the experiences of mystics
 Strongly Disagree 1 2 3 4 5 Strongly Agree
15. Religious people should put more trust in formally designated religious authorities (e.g. vicars in Christianity, rabbis in Judaism) than in mystics or those who claim to have had religious or mystical experiences
 Strongly Disagree 1 2 3 4 5 Strongly Agree
16. To agree with the doctrines of a particular creed does not really matter in the long run - what really matters is to have had, in one's heart, experience of the Divine
 Strongly Disagree 1 2 3 4 5 Strongly Agree
17. I get excited when I read accounts of mystical, religious or spiritual experiences
 Strongly Disagree 1 2 3 4 5 Strongly Agree
18. There are cases in many different religions where earnest seekers have had an experience of union with the Divine, or at least, glimpses of God
 Strongly Disagree 1 2 3 4 5 Strongly Agree
19. It would not surprise me if it turned out that the vast majority of those who claim to have had mystical experiences turn out to be suffering from some type of psychiatric illness
 Strongly Disagree 1 2 3 4 5 Strongly Agree
20. The practices of the mystic are a more true path to God than regular attendance at religious services
 Strongly Disagree 1 2 3 4 5 Strongly Agree

21. One can learn at least as much about God from those who report religious or mystical experiences as one can from theologians
- Strongly Disagree 1 2 3 4 5 Strongly Agree
22. One should never trust any one who claims to follow a religion, but who takes a deep interest in the teachings of religions or creeds other than the one he or she claims to profess
- Strongly Disagree 1 2 3 4 5 Strongly Agree
23. Established religious authorities - such as the Christian church - are wrong if they think that the experiences reported by mystics should be seen as pathological
- Strongly Disagree 1 2 3 4 5 Strongly Agree
24. I would get rather annoyed if I had to read mystical literature, as most of it would be quite incomprehensible to me
- Strongly Disagree 1 2 3 4 5 Strongly Agree
25. The mystic is some one often far closer to God than are those with formally designated religious authority (e.g. bishops, rabbis)
- Strongly Disagree 1 2 3 4 5 Strongly Agree
26. To have had a religious or mystical experience indicates more commitment to one's faith than whether one goes to one's place of worship regularly
- Strongly Disagree 1 2 3 4 5 Strongly Agree
27. The revelation awarded to one during a mystical experience is an important experience for any one, regardless of whatever he or she believes
- Strongly Disagree 1 2 3 4 5 Strongly Agree

28. The mystical path is a more sure path to God than that taken by hierarchically organized structures in the world religions

Strongly Disagree 1 2 3 4 5 Strongly Agree

29. Divine providence and the sovereignty of God imply that mystics cannot achieve true union with God

Strongly Disagree 1 2 3 4 5 Strongly Agree

30. I am rather suspicious of those who would have us believe that mystical experiences in all of the world religions are more or less the same

Strongly Disagree 1 2 3 4 5 Strongly Agree

31. One should pay special scrutiny to what those reporting religious or mystical experiences really believe in, especially if they come from a religious background different to one's own

Strongly Disagree 1 2 3 4 5 Strongly Agree

32. If I were a religious person, I would see regular attendance at a church, mosque, synagogue or other place of worship as being more central to my faith than whether I had ever had a "mystical" or "religious" experience

Strongly Disagree 1 2 3 4 5 Strongly Agree

24-item version of Attitudes to Mysticism Scale

Note: Figures in parentheses refer to number of corresponding item in the original 32-item version of the scale.

1. I get excited when I read accounts of mystical, religious or spiritual experiences (17)
2. Possession of ample factual knowledge about one's faith is really a very poor shadow of the insights that can be gained during mystical experience (4)

3. Religious people should put more trust in formal religious authorities (e.g. vicars, rabbis) than in mystics or those who claim to have had religious experiences (15)
4. Some of the most moving literature ever written had been that of the world's great mystics (2)
5. Mystics of all faiths, creeds and indeed of no traditional faith are all involved in the same spiritual journey (7)
6. Theologians are more important figures in the world religions than are mystics (13)
7. I would get annoyed if I had to read mystical literature, as most of it would be quite incomprehensible to me (24)
8. The mystical quest for union with the Divine is one which - partly thanks to the mystics own efforts - is likely to prove extremely fruitful (8)
9. To gain knowledge of one's faith, one should do lots of academic study of history, texts and theology, rather than engage in practices that might or might not bring about mystical experiences (9)
10. Religious authorities (e.g. vicars, rabbis) have every right to be suspicious of mystics (10)
11. To agree with the doctrines of a particular creed does not matter in the long run - what really matters is to have had, in one's heart, experience of the Divine (16)
12. Mystical practices are a more trustworthy spiritual path than are attendance of religious services (20)
13. Those who report mystical experiences provide at least as much religious knowledge as do theologians (21)

14. It is wrong for established religious authorities (e.g. the Christian church) to think that those who report mystical experiences are mentally ill (23)
15. I am rather suspicious of those who claim that mystical experiences in all the world religions are more or less the same (30)
16. If I were a religious person, I would see regular attendance at a church, mosque, synagogue or other place of worship as being more central to my faith than whether I had ever had a "mystical" or "religious" experience (32)
17. The revelations gained during mystical experiences are important to any one, regardless of what he or she believes (27)
18. People who report mystical experiences contradict themselves - they claim to have received revelations, but to me their reports reveal nothing (24)
19. There are cases in many faiths where seekers have experienced Divine union.
20. The mystical path is a more trustworthy spiritual path than the hierarchically organized structures in the world religions (28)
21. One should never trust any one who claims to follow a religion, but who takes a deep interest in the mystical teachings of creeds or religions other than the one he or she claims to profess (22)
22. The mystic is often some one far closer to God than are those with formally designated religious authority (e.g. bishops, rabbis) (25)
23. It would not surprise me if it turned out that the vast majority of those who report mystical experiences turn out to be suffering from some type of psychiatric illness (19)
24. The mystical viewpoint that life is like a ladder, and that by appropriate spiritual journey, one may ascend this ladder to reach new spiritual realms, deserves much respect (11)

Appendix C

Materials presented to participants for study reported in Chapter Six

Participants were presented with the following instruction sheet, headed "Religious Experience/ Spirituality Survey":

Religious experience - what is it, why do people have these experiences and how many people have had them? What is the nature of human spirituality? Pursuing these important questions may give us a fuller understanding of human nature. Anthony Edwards, Senior Lecturer in Psychology at University College Northampton, is researching this exciting topic. If you can help by completing the enclosed questionnaires, he will be most grateful for your participation.

There are four questionnaires that participants are being asked to complete for this study. The first two relate to spiritual experiences/ interests in this field, and may take 10-15 minutes or less to complete. There is then a 32-item questionnaire that may take 10 minutes or less, and a longer, 240-item personality inventory that may take around 30 minutes to complete. All scales may be completed anonymously. As total time taken for completion of these scales may take up to an hour, please DO NOT feel that you have to do all four questionnaires at one sitting - if you wish to take them away and spend twenty minutes on them on three consecutive evenings, that is fine, just so long as you can get them back within a fortnight of receiving them. (If you don't think you will have time to complete them, please return them now in the stamped addressed envelope provided. All help, will, however, be much appreciated!)

N.B. VERY IMPORTANT: PLEASE DO NOT WRITE IN THE BOOKLET HEADED NEO-PI. This questionnaire is an expensive and copyright booklet and must be returned to the researcher unmarked. Instead, please write your

answers in the answer-sheet (the document with "Hand-Scoring Answer sheet" in the top right-hand corner) provided. There is NO need to write your name/ initials in the spaces on this answer-sheet - all these scales may be completed anonymously (at the end, you will be asked to complete some optional questions on your age, gender and religious affiliation, but at no point will you be asked to offer any identifiable detail about yourself). You may like to look through these booklets before deciding whether you wish to go ahead with this study. If, at any time, you feel the questions are getting too difficult/ too personal, or have other reasons for not wishing to complete these scales, you may return the scales uncompleted in the envelope provided (you need not state a reason for doing this).

You may like to note that all data being collected in this research are being used purely for academic purposes. If you do decide you wish to participate in this research (in the stamped addressed envelope provided) to Anthony Edwards, Division of Psychology, University College Northampton, Park Campus, NORTHAMPTON, NN2 7AL. PLEASE remember to include the NEO-PI question booklet!

Should you have further queries about this study, or wish to learn more about developments in my research programme in general (including information on forthcoming publications in this area), please write to Anthony Edwards, at the above address, or contact me on e-mail on anthony.edwards@northampton.ac.uk or via telephone on (01604) 7335500 x2411. I shall happily give a full explanation as to the aims of this research as

soon as I have collected an adequate pool of data. Thank you for your time.

Anthony Edwards

P.S. It would help if you could return your responses within a fortnight. Thank you.

There then followed the following scales:

- (a) The Francis-Louden Mystical Orientation Scale and 24-item version of the Attitudes to Mysticism Scale as presented in Appendix B;
- (b) The 24-item version of the Attitudes to Mysticism Scale as presented in Appendix B (iii);
- (c) The 32-item Psychoticism sub-scale of the Eysenck Personality Inventory-Revised (Eysenck, Eysenck & Barrett, 1985);
- (d) The 240-item version of the NEO-PI (Costa & McCrae, 1992a).

The final sheet presented to respondents was as follows:

Some final questions.

Thank you for your help. The following questions are optional, but your completion of them will be useful for demographic research purposes:

Your gender (please circle): MALE FEMALE

Age:.....yearsmonths

Religious Affiliation.....

It would help if you could say a little more about the particular form of religion (e.g. particular Christian denomination or particular form of Judaism to which you adhere) in the lines below):

.....

Have you always adhered to this religion or to this particular form of this religion, and if not, how long have you adhered to it?

.....

Would you say that there are any particular forms of religious experiences (e.g. mystical experiences, healing experiences) that are held as particularly central to your faith, and if so, which?

.....

Have you ever felt as if you were influenced by a Power or a Presence - whether you call it God or not - that was different to your everyday self?

Yes No Don't Know

Have you ever felt as if you were in close contact with something holy or sacred?

Yes No Don't Know

Thank you. You may - if you so wish - use the remaining space to describe any religious experiences that you feel you have personally had, continuing overleaf if necessary.

APPENDIX D. Evidence for the heterogeneity of psychoticism

The Eysenck Personality Questionnaire-Revised is available in the public domain in Eysenck, Eysenck and Barrett (1985). Work for the current thesis found the Cronbach's alpha of the psychoticism sub-scale to be $+0.73$, similar to that reported by Eysenck et al. (1985); however, as clarified by the table below, individual item-to-scale correlations were often low, highlighting the heterogeneity of psychoticism. Despite the widespread practice of psychoticism assessment in religiosity-personality studies, future research is therefore advised to introduce alternative personality measures, exactly as has been done in this thesis.

Cronbach's Alpha and the Psychoticism sub-scale of the E.P.Q.-R.

Item	Cronbach's Loading on Scale	Item	Cronbach's Loading on Scale
1	.1636	17	.3368
2	.1604	18	.2611
3	.2363	19	.1938
4	.2270	20	.2912
5	.1671	21	.0926
6	.1560	22	.3230
7	.4606	23	.1524
8	.3257	24	.2200
9	.3214	25	.2622
10	.4475	26	.2858
11	.0975	27	.2804
12	.2247	28	.2551
13	.2689	29	.2175
14	.2791	30	.2858
15	.4089	31	.2832
16	.1819	32	.2485

APPENDIX E

Questions set to respondents during qualitative interviews reported in Chapter Seven.

1. One thing this research is trying to find out is how different religions define the terms "mystical experience" and "religious experience". So would you like to say in your personal opinion whether you think (your religion) has any particular way of defining these terms?
2. How would you personally define the terms "mystical experience" and "religious experience"?
3. In your questionnaire data, a question that you and other respondents were asked was whether there are any religious experiences held central by your faith. I wondered whether, in responding to this question, you thought there were some types of religious experience that were particularly important in your religion.

NOTE: This particular question was adapted, in keeping with the semi-structured nature of the interview, when presented to different respondents in responding to the questionnaire data. Precise wording was adapted in the case of the Christian respondent, who attended a church had completed for the study but had not actually completed the questionnaires herself.

- 3a. Are there any other dimensions of religion (ethical, ritual, belief) that you think are more important to your religion than the experiential?
4. When people in your religion do report a "religious experience", do they - in your view - show the influence of your creed, and if so, how?

5. In your personal opinion, what might be the effect of some one having had a religious experience in your religion? Feel free to talk about any consequences that you deem likely, positive or negative.
6. What activities, if any, are associated with your religion that might also be associated with "religious experience"?
7. Did you wish to say anything about how your religion may have influenced your life in general, not necessarily to do with "experience"?