

CONTENTS

	Page
1. INTRODUCTION	1
1.1. Research question	4
1.2. Methodology	7
1.2.1 Literature study	7
1.2.1.1 Primary sources	8
1.2.1.2 Secondary sources	8
1.2.2 Correspondence with a family member	8
1.2.3 Application of Beyondism	8
1.2.4 Theoretical orientation	9
1.3 Structure of the dissertation	11
1.4 Biography	12
1.4.1 Cattell's early years	12
1.4.2 The change to a career in psychology	13
1.4.3 Cattell the person	15
1.5 Cattell's reception and influence	16
1.6 Beyondism – background to the focus of this study	19
1.7 Historical perspective	22
2. CATTELL'S VIEWS ON RELIGION	25
2.1 Animism, taboo and morality	25
2.2 The evolutionary path of religion	30
2.2.1 The scapegoat	30
2.2.2 Soul and immortality	32
2.2.3 Evolution of the idea of God	33
2.3 Psychoanalysis and the religious illusion	35
2.3.1 The importance of the early years of childhood	36
2.3.2 Prayer	39
2.3.3 Immortality	40
2.3.4 Sudden religious conversion	40
2.4 Emotional meaning of religion	42
2.5 A new functional religion?	44

	Page
3. EPISTEMOLOGY	47
3.1 Revealed religion, the “moral morass” and science	47
3.2 The cognitive and emotional qualities of intuition and truth	49
3.3 Wilber’s argument for the integration of truth and meaning	54
3.4 Scientism?	57
3.5 Paradigm shift or wild goose chase?	58
3.6 Intellectual censorship and new high-water marks	61
4. ONTOLOGY	64
4.1 Cosmology	64
4.2 Evolution	64
4.2.1 Freedom/Forced choice	66
4.2.2 Evolutionary Goal/Purpose	67
4.2.3 Views in relation to other systems of thought	70
4.3 Humanity	72
4.3.1 Individual within the group	73
4.3.2 Natural selection	73
4.3.3 Cooperative competition	75
4.3.4 Evolutionary advance	77
4.4 Theopsyche	78
4.4.1 Group mind towards Theopsyche	79
4.4.1.1 Individual mind and group mind	79
4.4.1.2 The properties and characteristics of the group mind	81
4.4.1.3 Immortality	83
4.4.1.4 In this idealistic group mind, what about evil?	85
4.4.1.5 “Divine” qualities of the group mind	86
4.4.2 Theopsyche: Concept of the Divine	90
4.4.2.1 Service: To God or to fellow-men?	90
4.4.2.2 Beyond the Theopsyche: The universal reality	97
4.4.2.3 The physical and psychological vindication of mysticism	101
5. ETHICS AND MORALITY	110
5.1 A citizen (individual) in a society	114
5.1.1 Ego strength	116
5.1.2 Culturo-genetic adjustment gap (CAG)	123

	Page	
5.1.3	Moral rules and actions	125
5.1.3.1	Sexual morals	125
5.1.3.2	Social engineering, birth control, abortion	127
5.2	Government of a group	134
5.2.1	Race	134
5.2.2	Evolutionary ethics	137
5.2.3	Democracy	141
5.2.4	Economic values	142
5.2.5	Education	142
5.2.6	Equality, justice and freedom	145
5.3	Other group governments/world government	146
5.3.1	Ecological environmental issues	154
5.3.2	Militancy or pacifism?	156
5.4.	The goal of evolution/Evolutionary Purpose	161
6.	BEYONDISM: WHY AND HOW CAN SCIENCE BE RELIGION AS WELL?	165
6.1	What is religion?	165
6.2	Dimensions of religion	168
6.3	Religious qualities of Beyondism	169
6.3.1	Mythic aspects	169
6.3.2	Exterior aspects	173
6.3.3	Interior functioning	174
6.4	Does Beyondism meet certain criteria for religion?	178
6.4.1	Krüger's criteria for evaluating a religion	179
6.4.1.1	Clarity and comprehensiveness	179
6.4.1.1.1	Coherency	180
6.4.1.1.2	Simplicity	182
6.4.1.1.3	Linking up with existing thinking	184
6.4.1.1.4	Covering the facts	191
6.4.2	Transcending/penetrative power	194
6.4.2.1	Perspectival, relative and historical truth aspects	195
6.4.2.2	Authority and force	196
6.4.2.3	Fruitful and stimulating?	198
6.4.2.4	The difference it makes for the better	200

	Page
7. EVALUATION IN CONTEMPORARY CONTEXT AND CONCLUSION	203
7.1 Thorny issues	203
7.1.1 Religion	204
7.1.2 Evolution	206
7.1.3 Genetics and eugenics	206
7.1.4 Intelligence	207
7.1.5 Individuality	208
7.2 Destined to obscurity? A return to the research question	209
7.2.1 Questions of a more external nature	210
7.2.2 Question pertaining to Cattell's religious thinking	213
7.3 Conclusion	218
 BIBLIOGRAPHY	 220
 APPENDIX A: The Four Quadrants	 225
APPENDIX B: Integrated Great Nest and Four Quadrants	226
APPENDIX C: The Rose Diagram – Ethical rule subsystems developing from a Beyondist principle	227

LIST OF FIGURES

	Page
Figure 1.1: Wilber's basic holon: Four Quadrants	10
Figure 1.2: Great Nest of Being	10
Figure 3.1: The Big Three	55
Figure 3.2 The Great Nest with the Four Quadrants	56
Figure 4.1 Percentage distribution of cases in a normal curve	92
Figure 7.1 Thorns of the tree <i>Ziziphus mucrunata</i>	203

LIST OF TABLES

	Page
Table 5.1 Sixteen personality factors (16 PF)	118



The thorns of the tree *Ziziphus mucronata* are spaced along the length of every branch in pairs.

One of the pair points robustly outward and forward while the other curves back and inwards in the opposite direction.

The Nguni African legend says the thorns tell us something about ourselves – that we must look ahead to the future ... but we must never forget where we come from (McCallum 2005:3).

CHAPTER 1

1. INTRODUCTION

Theology is currently studied alongside science of religion/religious studies in an intellectual climate of inter-faith and inter-disciplinary dialogue, including the developments and issues in both the natural and social sciences.

As a public librarian and information specialist, I function in an intellectually stimulating environment that is characterised by the flow of a great variety of “digested” presentations of current trends in popular thought as represented in magazines, popular non-fiction, fiction and even children’s books. In the same way the Internet, as an occupational tool in serving a growing information society, is constantly adding perceptions to deal with. My way of integrating my occupational environment, personal interest and life orientation is formal study.

My discovery of the term *Beyondism*, as coined by Raymond Bernard Cattell, spontaneously led to challenging reading and resulted in the theme for the research contained in this dissertation, namely *Beyondism: The thinking of Raymond B Cattell (1905–1998) on religion, and his religious thought*.

In 1933, which was early in his career in psychology, Cattell wrote *Psychology and social progress*. In 1972, an active forty years later, he is still convinced that a solution to ethics lies in science. With regard to existing moral structure, Cattell argues as follows:

[...] the religious and intuitive systems which gave sanction to these values themselves belong to a pre-scientific, dogmatic era. Shocking as it may seem, the traditional, revered values may themselves be wrong. Indeed we may be engaged in the very dangerous process of pouring the new wine of science in the old bottles of ‘revealed’ theology. The movement must be in the opposite direction (Cattell 1972:xiii).

This study is an endeavour to follow the “opposite direction” with Cattell and to meet the challenge of reading Cattell with the necessary *epoche*¹ in an open-minded science of religion context.

When the three primary sources chosen for this investigation are studied more closely, one can follow the linear structure of his thoughts on the relationship between science and religion over a period of forty years. Cattell calls his first publication on this topic a “devoted work of late adolescence”. It appeared in 1933 as a journal article entitled *Psychology and social progress*.

Psychology and the religious quest (1938) was his first complete book taking on science, religion and morality. He experimented with his views, testing them in the prevailing academic climate. In this book he sketched the religious and scientific background that is characteristic of the twofold view of reality. He clearly identified the diminishing role played by traditional religious authority and the growing foothold by the upcoming science of psychology. Having identified much of religion as illusionary, and having traced the evolutionary path of perceptions of gods/God and the development of morals and ethics, he endeavoured to explain and recreate ways and perspectives in socio-psychological terms that could be part of an evolutionary advancing humanity.

According to Cattell, only two “brief eruptions” of the “subterranean heat of the original conviction that brought [him] from chemistry to psychology” broke out – once in 1944 as an ethics chapter in a symposium on science and social reform, entitled *The place of religion and ethics in a civilisation based on science*, and once in 1950, in an article baldly defining the concept of Beyondism, entitled *The scientific ethics of “Beyond”*, which was published in the *Journal of Social Issues* (Cattell 1972:xii).

¹ “Because phenomenology insists on penetrating to the core of things, it refuses to take anything for granted. The observer therefore suspends all his/[her] previous assumptions concerning the phenomenon in question. In phenomenological language this is called *epoche*” (Krüger 1982:18).

In more than 30 years of active involvement in the domain of social psychology he increasingly experienced that the social sciences were not attending to the ethics problem in the fundamental way he considered necessary. This compelled him to write *A new morality from science: Beyondism*, published in 1972. By systematically illustrating that morality developed *out of* science, he aimed to contradict the idea that morality could be brought *into* science, as was argued at the time. In an intensely formulated preface he motivates his decision to put forth ideas not generally accepted and not thoroughly researched, while expressing the anticipation that his work was realistic probing into the not far-off future of humanity (Cattell 1972:xv).

In the first part of this extensive exposition of his ideas, he explains the basic principles of evolutionary ethics. He addresses the basic epistemological questions regarding knowledge and truth with reference to science, art and religion, explains the basic logic of Beyondist ethics and morality based on evolutionary advance and inter-group/cooperative competition, and investigates the impact on individuals as well as groups. The second part explores the possible impact of Beyondist principles, admittedly conjectural: Psychological problems in human adjustment to the new ethics, a comparative look at traditional and current ethical systems, and their impact on current socio-political practices are considered. Finally he looks at the integration of the emotional life of the individual with progressive research institutions² and the emotional meaning of Beyondism for the individual, which is traditionally a function of religious institutions.

The last publication in the Beyondism trilogy, *Beyondism: Religion from science*, follows in 1987. It builds on the historical and explanatory foundations laid by the previous publication and Cattell explores new steps arising from new analytical thought and new data. He identifies at least twenty progressive writers whose work proved to be compatible with the Beyondist idea, and mentions the names of 29 “eminent psychologists” who shared

² The main concern of these research institutes will be to reveal what everyday inter-individual life values and actions are the best, i.e., contribute maximally to evolution at each point in the history of a society and under each condition of the social and physical environment (1972:407).

ideas and acted as soundboards even if they did not fully endorse the final positions taken in the book. In this book he advocates the planning of an initial social organisation of Beyondism as a movement. He takes on practical questions, such as the following:

- Where do we go for the source of moral values?
- What has group competition to do with ethics?
- How do biological and cultural evolution interact?
- Six targets of ethical responsibility
- What parallelisms and differences exist between the emotional life of Beyondism and the revealed religions?
- What are the created spiritual values of Beyondism?
- What are Beyondism's implications for genetic social policies and actions?

A concise twenty-point Beyondist catechism follows, where main features, such as the acceptance of evolution as the prime process visible in the universe, are accepted and where it is claimed that research and social action could, in various ways, follow the natural principles in guiding conscious evolution towards the evolutionary goal of human progress. In conclusion, he appeals to Beyondists to get together in a "fellowship of discussion" (Cattell 1987:261).

1.1 Research question

Raymond Bernard Cattell was a British-born American psychometrist and social psychologist,³ whose life and work spanned the twentieth century. He

³ Concerning a "new science of morality" that has traditionally been the area of historians, sociologists, economists and of many writers "of no fixed abode", Cattell believes that the scientist taking on this area should be "an experimental researcher, to get the full discipline of a scientific tradition; but, obviously, he must also be a psychologist experienced in social phenomena as viewed in history, sociology and cultural anthropology if his work is to have contact with social data and issues involved. [...] It is with deep embarrassment that I, as a social psychologist, have had to fall back in tackling this broad field on findings of so incomplete a nature and theories so close to mere surmise that I may be accused of having a split personality,

experienced the physical, social and psychological shattering of two world wars, the birth of a technological society and the watershed between two epochs: high modernism and postmodernism. A well-read man, he was an avid researcher, mainly in the field of intelligence and personality, and made a major contribution towards psychology as a field of study. It is, however, interesting to note that among his many published and frequently quoted works (55 books, 500 articles) there are the three less applauded books mentioned above that are of a different nature. These works address ethics, morality and religion, reflecting his active interest in society and how it functions, and venturing the application of research results to benefit humanity as a whole.

In this dissertation I wish to explore the structure and relevance of Cattell's thinking on religion, as well as his own religious thought. This central research problem unfolds a number of interrelated questions:

1. Was his 1938 book a typical reflection of the intellectual climate of his time?
2. He started his psychological venture at a time when Freud and Jung were established names in the field of psychoanalysis; how did he relate to them?
3. With three books so widely spaced, was there development in his thought?
4. Was his religious thinking compatible with the demands of the times? Was there internal consistency in his ideas?
5. What was behind the negativity and disparagement of the psychological establishment with regard to his religious thinking?
6. Is the dichotomy between the Beyondism trilogy and his formal research internal or a matter of perception?
7. Can his religious thinking and his thinking on religion be seen as pioneering?

8. Setting aside the political prejudices of his time, is it feasible to give him a contemporary hearing on religion? Keeping in mind his socio-psychological assumption that the views and practices of society are generally between ten and a hundred years behind the enlightened thought of the time (Cattell 1938:13).
9. With a lifetime's work concluded, is it possible to trace *emotional intuition* in what he proposed? (When arguing on science's two tests of truth, namely that concerning predicted facts and that concerning internal logic or syntax, Cattell distinguishes between cognitive intuition and emotional intuition. The first can be brought to explicitness and fully communicated if required, whereas emotional truth gained through emotional intuition cannot be transmitted reliably.) Could this be a key to the disparity in the acceptance of his work? Even if the presentation were intelligible, could it be communicated to an audience not ready to receive?
10. What is the relevance of his religious thinking? Did he make a contribution to religious thinking?
11. Do we have here the expressions of a truly searching mind concerned with humanity or those of someone possessed with a singular idea?
12. Were his ideas lost in the void between the discourse of psychology and the discourse of religion?

Hereward S Cattell knew his father as critical and appreciative, as only a son could. In a eulogy, Hereward shared the following in conclusion of a life dedicated to his field of research:

Although Dad could be fairly called an 'agnostic', there is a biblical passage which I feel constrained to quote, and I feel best characterises his life as concisely as possible.

Do all you can to present yourself in front of God as a man who has come through his trials, and a man who has no cause to be ashamed of his life's

work, and has kept a straight course with a message of the truth.

(II Timothy 2:15)

I will close with a poem that he knew by heart by England's poet John Masefield in the middle part of this century:

*I must go down to the seas again, to the lonely sea and the sky
 And all I ask is a tall ship and a star to steer her by;
 And the wheel's kick and the wind's song and the white sail's shaking,
 And a grey mist on the sea's face, and a grey dawn breaking.
 I must go down to the seas again, for the call of the running tide
 Is a wild call and a clear call that may not be denied;
 And all I ask is a windy day with the white clouds flying,
 And the flung spray and the blown spume, and the sea-gulls crying.
 I must go down to the seas again, to the vagrant gypsy life,
 To the gull's way and the whale's way, where the wind's like a whetted knife;
 And all I ask is a merry yarn from a laughing fellow-rover,
 And quiet sleep and a sweet dream when the long trick's over.*

Dad, fair winds and a following sea (Hereward Cattell in Cattell, Gorsuch & Hammer 1998).

Was Raymond Cattell a lone sailor sensing an epochal tide?

In order to unravel the puzzle of the seeming anomaly of the selective acceptance of his work, the following themes in the three works dealing with religion will be investigated:

1. Epistemology
2. Ontology
3. Morality and ethics

1.2. Methodology

1.2.1 Literature study

An introduction of the primary and secondary sources used in this research follows.

1.2.1.1 Primary sources

Since the purpose of this study is to understand the thinking of Cattell on science and religion, the main sources of information will be the Beyondism trilogy – his three publications dedicated to that topic, namely:

- *Psychology and the religious quest; an account of the psychology of religion and a defence of individualism* (1938). New York: Nelson.
- *A new morality from science: Beyondism* (1972). New York: Pergamon.
- *Beyondism: Religion from science* (1987). New York: Praeger.

1.2.1.2 Secondary sources

Book reviews and relevant journal articles will be consulted to evaluate Cattell's reception by contemporaries and understand the climate in which he functioned.

1.2.2 Correspondence with a family member

Contact was established with his daughter, Dr Heather EP Cattell, a psychologist who serves on the Board of Directors of IPAT (Institute for Personality and Ability Testing, established by Cattell in 1949). Although she reacted positively to enquiries about Cattell as a person, the idea of an exploration of Beyondism was met with the kind of avoidance and negativity detected in writings of former colleagues; all more appreciative of his work in personality and intelligence research (Cattell 2002).

1.2.3 Application of Beyondism

No direct application or active support for Beyondism could be traced. It is interesting to note that, despite regular searches on the internet over a period of six years, only two independent references relating to Beyondism appeared in 2008, which will be used in the final discussion.

1.2.4 Theoretical orientation

As Beyondism is essentially evolutionary, it will be evaluated in the light of the acceptance, development, application and reception of the theory of evolution, both in the natural sciences and humanities.

The systems theory of prolific contemporary author Ken Wilber will serve as a measure in the evaluation of Cattell's Beyondist theory. The important congruence between Cattell and Wilber is that both accept the process of evolution as an undeniable aspect of the universe and human reality. Both started their careers as natural scientists – Cattell in chemistry and Wilber in microbiology – and both were concerned about the relationship between empirical science and religion.

By representing world views approximately fifty years apart and placing emphasis on different aspects of religion as such, I will endeavour to bring Cattell's views into the "holon" of Wilber's systems theory. Ken Wilber started writing in the 1970s. Disillusioned by the empiricist concerns dominating Western thought, he started conducting his own research, hoping to resolve whether empirical science could be harmonised with religion. Interesting to note is that Cattell had already embarked on the same quest in the 1930s – forty years earlier. Wilber committed himself to an in-depth study of Buddhism. He developed a theory of everything whereby he brings together all philosophies and all religions in one, in what he calls "the holon".

Wilber's holon is unique in human thought in that it claims that all forms of reality have an "inner", an "outer", an individual and a social aspect. Wilber's basic holon with its four quadrants representing the above aspects follows in Figure 1.1 below:

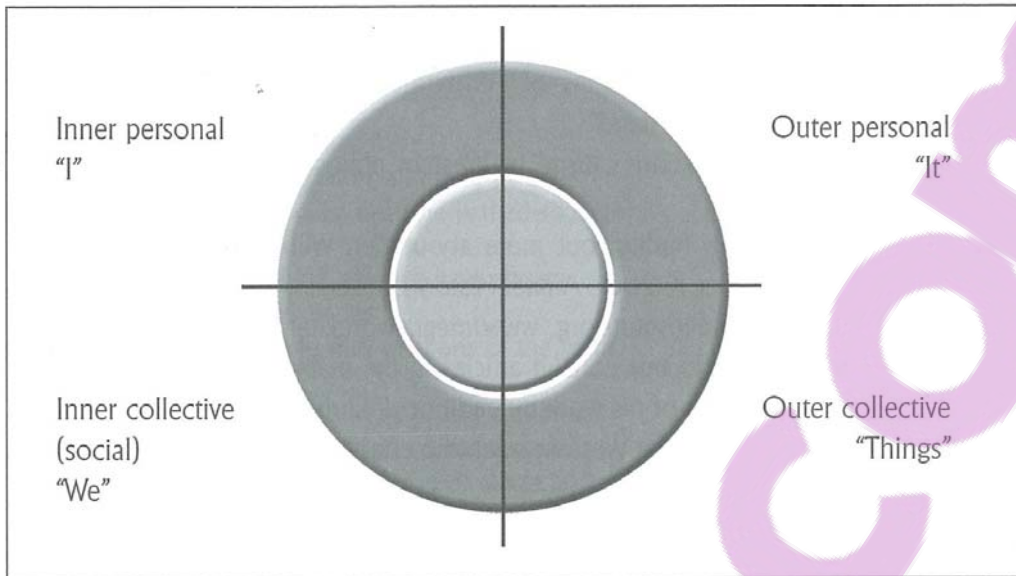


Figure 1.1: Wilber's basic holon: Four Quadrants (Higgs & Smith 2006:83).

The four quadrants of this basic holon can be completed and combined with different hierarchies as in the diagrams and applications that will follow in the course of this study.

Wilber starts off with the hierarchy found in the traditional *Great Nest of Being*, most accurately portrayed as a series of concentric circles, as illustrated in Figure 1.2 below:

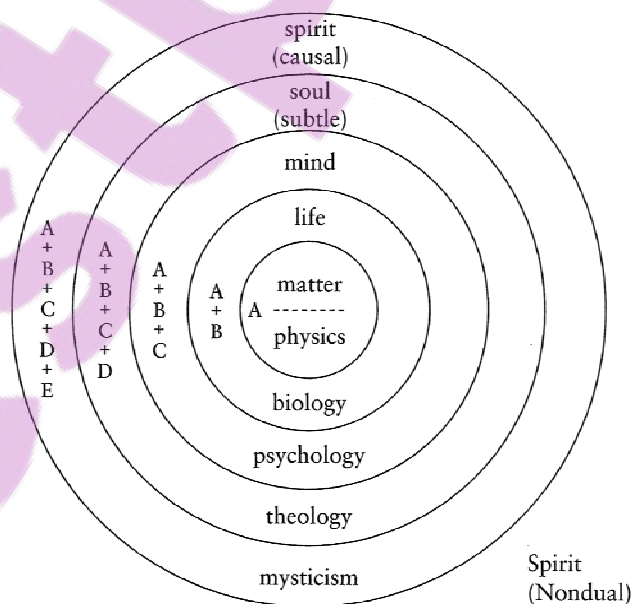


Figure 1.2: Great Nest of Being (Wilber 2000:444).

In Figure 1.2 above, “spirit” indicates both the highest level (causal) and the nondual *ground* of all levels (Wilber 2000:444). Spirit transcends but includes soul, which transcends but includes mind, which transcends but includes the vital body, which transcends but includes matter. Wilber has determined that both premodern religion and modern science have a defining hierarchy, and both of them are composed of enveloping nests of increasing embrace (development that is envelopment).

Wilber’s research on several hundred existing hierarchies in both fields culminated in four major types of hierarchies, which he calls the four quadrants (refer to Figure 1). Wilber expanded on the four quadrants, resulting in Figure A in Appendix A. Figure A depicts a simple schematic sampling of the four major hierarchies that will form the main reference when investigating Beyondism with Wilber’s system as a comparative view on reality.

1.3 Structure of the dissertation

The extended frame of reference and detail contained in Cattell’s Beyondism trilogy, as well as the unorthodox line of thinking, will be explored in the following manner:

Chapter 1 will look at the life of Raymond Bernard Cattell; his personal history, personality, achievements, general acceptance and historical position as a prominent social scientist of the twentieth century.

Chapter 2 will consider Cattell’s view of the history and psychology of religion. Chapters 3 (Epistemology), 4 (Ontology) and 5 (Ethics and Morality) will allow for an investigation of the exposition of Cattell’s thoughts on fundamental issues and social matters.

In Chapter 6, the idea of *Beyondism* as religion from science will be investigated, measured according to requirements for a theory of religion, and evaluated in comparison with religion as it is known and accepted in some established world religions.

In conclusion, Chapter 7 will evaluate Cattell's ideas in a contemporary context, considering developments in thought on evolution, genetics and the ever-present science and religion debate.

1.4 Biography

1.4.1 Cattell's early years

Raymond Bernard Cattell was born in England on 20 March 1905 and grew up in a seaside Devonshire town, where he enjoyed the freedom of the outdoors, learnt to sail at seven and spent much time exploring the coast in sun and rain. Alongside the imaginative and experimental exploration of the historically rich immediate surroundings with his brothers and friends, he read widely. At ten he discovered HG Wells, Verne, Mee's Encyclopaedia, Conan Doyle and others (Cattell 1973:62).

Both his father and grandfather were independent engineer designers and could be considered Victorian middle-class liberals. Cattell (Cattell 1973:61) recalls hearing his father talk about the virtues of Bentham, Free Trade, Darwin, Huxley, National Non-conformism, Gladstone and scientific progress.

On the maternal side, the Field family was more conservative, successfully running an industry, but Cattell recalls his uncle Bob whose "heart stayed in timbered houses, thoroughbred horses and the way of life of a conservative yeoman" (1973:61).

Cattell's childhood experience of the social impact of World War I shaped his view of life. "Silently there came an abiding sense of seriousness into my life, compounded of a feeling that one could not be less dedicated than these [wounded soldiers], and of a new sense, for a boy, of the brevity of life and the need to accomplish while one might" (1973:63).

Cattell distinguished himself at high school and earned a county scholarship to attend London University, where he was drawn to the burgeoning field of

chemistry and was awarded first class honours with his BSc in chemistry at the age of 19. During those years of intellectual and cultural upheaval, he read widely and attended public lectures by young freethinkers such as Bertrand Russell, George Bernard Shaw, HG Wells, and Aldous Huxley (Cattell 1973:64).

1.4.2 The change to a career in psychology

It was, however, a lecture by Sir Cyril Burt on the work of Sir Francis Galton that directed his hovering thoughts and confirmed his conclusion that, to get beyond human irrationalities, one had to study the workings of the mind itself. He thus took the “irrational” step to change to a career in psychology with no secure prospects. “But, after 15 lean years, my choice seemed to me justified. It proved exactly what I had to have – a means of contributing more fundamental solutions to social problems, along with the intellectually aesthetic fascination of pursuing a science” (Cattell 1973:64).

Cattell worked on his PhD (1929) with Charles Spearman, where he was involved in creating the new method of factor analysis in the study of Spearman’s unitary factor theory of intelligence. Combining this new research tool with contemporary thought on covariation (John Stuart Mill) and his own experience and insight, he stage designed at that point most of a strategy that was to take a lifetime to execute (Cattell 1973:65).

He went into clinical work for five years, establishing a school psychological service where, in daily practice, he noticed the “depressing correlation of lower intelligence and larger family” (Cattell 1973:67). He gained the experience needed to balance experimental factor-analytic methodology with a feeling for the real issues in personality. Characteristically he was caught in a three-cornered competition between wanting to make a success of the first school psychological service, giving some steady time to continue the basic research in personality dynamics, and working on the social reform problems that had been a major component in his shift to psychology.

By the age of 32, his health and domestic life suffered from the results of years of overwork. Over and above changing his lifestyle and coping with divorce, he had to consider leaving his native country for better opportunities in America.

In 1937, he accepted an invitation to join EL Thorndike's research staff at Columbia University for a year, where he worked closely with adherents of the opposing multiple-factor theory of intelligence. This mix of viewpoints was important in developing his own theory of intelligence.

Instead of returning to England in 1938, he accepted the G Stanley Hall professorship at Clark University. On invitation of Gordon Allport, Cattell joined the Harvard University faculty in 1941, where he regained his creative vigour and benefited from the stimulating environment of creative personologists such as Henry Murray, Robert White and Gordon Allport.

He clarified his theory of fluid versus crystallised intelligence, which he presented at the 1942 American Psychological Association (APA) convention; one of his most important contributions to present-day psychology (Child in Gilles [n.d.]).

During World War II, Cattell worked as a civilian consultant to the Personnel Research Division, developing tests for officer selection. This exposure to real-life applications, the need for research results and the way tests were conducted away from the academic set-up served as an incubation for later action to form the Society of Multivariate Experimental Psychology and the independent university Institute for Research on Morality and Adjustment.

Around his fortieth year, he married Karen Schuettler, a mathematician, who shared in his research interests by applying her mathematical skill. During the following decade they raised and enjoyed four children.

In 1945, Cattell accepted a research professorship at the University of Illinois where he was in a position to organise his life around research. During the

nearly 30 years as Director of the Laboratory of Personality and Group Analysis, he worked with research associates from around the world. It was also the time during which the first electronic computer, the Iliac I, was developed, which made it possible for the first time to do large-scale factor analyses.

He retired from the University of Illinois in 1973 and did research in Colorado for five years. He moved to Hawaii in 1978, where he took on the position of professor and advisor at the University of Hawaii and later taught at the Hawaii School of Professional Psychology, now the American School of Professional Psychology. He kept a lively interest in developments in psychology, writing books and articles practically up to his death in February 1998.

For the last eighteen years of his life, Cattell was married to Heather (Birkett), of British origin and also a psychologist. She co-authored one of his last publications.

1.4.3 Cattell the person

Cattell was a committed and industrious worker. In addition, each of the marriage relationships that he had at different stages in his life had a quality of its own. His two sons and three daughters were born over a span of 20+ years and he delighted in sharing his love of sailing, poetry and music with them.

What kind of personality did the designer of the 16PF (Sixteen Personality Factor Analysis) have?

According to colleagues, friends and family, all familiar with the 16PF, the following personality traits could be descriptive of Cattell:

- People could experience him cool and aloof, but he was tender and warm towards friends. To his eldest son he was a delightful and imaginative friend. He loved his dogs.

- He was an intelligent man with great imagination, who spent a lot of time reading and writing. If he had followed what he wanted to be, he said, he would have been a poet. He would recite poetry from Shakespeare and other poets from memory. He loved singing.
- He was a dominant man – a leader, not a follower. An independent radical thinker, perhaps tough on people, but not intentionally unkind.
- He had high self-esteem and great self-confidence, though shy and not very talkative (Cattell, Gorsuch & Hammer 1998).

1.5 Cattell's reception and influence

It has been said, "Raymond Cattell can write faster than I can read" or "whenever you have an idea, Dr Cattell has already written a paper on it" (Gorsuch in Cattell, Gorsuch & Hammer 1998).

During the 70 years that he was active in his career, Cattell published some 55 books and around 500 articles and book chapters. His co-authorship amounts to more than 100 research associates. Although most of his writing reflects research projects, his general social interest shines through the diversity of areas he has investigated. Apart from the study of personality, he has conducted research on humour (in collaboration with Luborsky in 1947); music preferences (in collaboration Saunders in 1952); intelligence (in 1963); creativity (in collaboration with Butcher in 1968); leadership (in collaboration with Stice in 1954); psychopathology (in collaboration with Tatro in 1966); and also on motivation, anxiety, nations and culture, and inheritance.

Some of his earliest works were intended for more general reading, such as *Crooked personalities in childhood and after*, published in 1938, a popular book on child guidance work; and *Your mind and mine: A popular introduction to psychology*, published in 1934, which was, according to Cattell, the easiest and best-selling book he had ever written. His two books aimed at social reform and public conscience were *Psychology and social progress*, published in 1933, and *The fight for our national intelligence* published, in

1937. However, these publications did not receive the recognition that had been hoped for.

His “intrinsic fascination” with research and the problems involved in active research not only inspired his research, but through the labour of publication he “paid his tithe of help to the social and communicative processes that go with research” (Cattell 1973:89).

Cattell had been criticised for creating the need to learn a new academic psychological language by coining new terms for concepts in psychology. His defence in this regard was that the terms that were created enhanced communication among research colleagues by defining new concepts that needed to be demarcated from backgrounds that were vague and not operationally defined (Cattell 1973:90).

Despite the fact that his contributions were so far advanced as to be seldom examined in undergraduate texts aimed at a broad market, he was one of the top 10 or 15 most frequently cited psychologists for several decades. In a 1975 survey in which Sigmund Freud was ranked first, Raymond Cattell was ranked 11th among psychologists, living and dead, most indexed in professional journals and books (Cattell, Gorsuch & Hammer 1998).

Lewis Goldberg characterised him as psychology’s master strategist. He developed a theory of human behaviour rivalled in comprehensiveness only by the theory of Freud, and rivalled by no other theory in its adherence to evidence derived from empirical research (Cattell, Gorsuch & Hammer 1998).

A former student and colleague, Dr Richard Gorsuch, depicted him as –

a systematic explorer in the tradition of the great explorers of the past, mapping the terrain of psychology. The areas he mapped included abilities, personality, motivation, small groups, and large groups such as nations. He was dedicated to basic science but also dedicated to seeing the impact of science to benefit our species, through the development of scientific

approaches to areas ranging from those just named to ethics to the clinical care of people. Seldom has psychology seen such a diverse system builder, dedicated not only to the basic science's search for truth but also the need to apply science for the benefit of all (Gorsuch in Cattell, Gorsuch & Hammer 1998).

Among his many awards are the Darwin Fellowship, Wenner Gren Prize of the New York Academy of Science, distinguished foreign honorary membership in the British Psychological Society and President of the Society of Multivariate Experimental Psychology. He was identified as the 1997 recipient of the Gold Medal Award for Life Achievement in Psychological Science; however, it was withdrawn to be reviewed, days before the presentation of the award, because of objections concerning "academic racism" (Hilts 1997).

The official citation that accompanied the Gold Medal Award read as follows:

In a remarkable 70-year career, Raymond B Cattell has made prodigious, landmark contributions to psychology, including factor analytic mapping of the domains of personality, motivation, and abilities; exploration of three different medias of assessment; separation of fluid and crystallized intelligence; and numerous methodological innovations. Thus, Cattell became recognized in numerous substantive areas, providing a model of the complete psychologist in an age of specialization. It may be said that Cattell stands without peer in his creation of a unified theory of individual differences integrating intellectual, temperamental, and dynamic domains of personality in the context of environmental and hereditary influences (Gold Medal Award... 1997:797).

It was Cattell's enormous contribution to science that led the APF to select him for this prestigious award. Its (unfortunate) decision to withhold the award was made solely on political grounds – it was claimed that he "advocated the separation of the races" (Whitney 1997:99–124).

1.6 Beyondism – background to the focus of this study

Without any intention to debate the reasons for the withdrawal of the Gold Medal Award to a deserving candidate in his field of specialisation, this study will concentrate on the publications by Cattell (mentioned earlier in this chapter) that gave rise to this controversy. A few short extracts from reviews of the two latest Beyondist books may give additional perspective:

Alan McGregor of the Institute for the Study of Man reviewed Cattell's book, *Beyondism: Religion from science* (1987), as follows:

Cattell's long history of psychological research has enabled him to demonstrate that mankind is not in any way different from other biological organisms so far as the significance of heredity is concerned. Science is rooted in causality, and the limits of the behavioural potentiality of every individual are largely set by heredity at the time of conception. Environmental life-history will influence the subsequent behaviour of the living organism, and some scientists have attempted to evaluate the relative importance of environment and heredity in terms of statistical figures.

Conscious of the fact that any argument favouring eugenic concepts or stressing the importance of what is colloquially called "good inheritance" involves an excursion into the realm of ethics, Cattell attempts in this impressive work to penetrate the field of ethical philosophy and as a good scientist he asks: what can science tell us about ethics? How can we derive an ethic of human behaviour, a scale of values which might direct human enterprise, from scientific knowledge? Clearly, science has given us the power to understand many things, and to modify our environment even ourselves – in ways hitherto unimaginable. But in what way should this knowledge be used? How can science help us to create a sound ethical system which will enable us to act for the benefit of all those generations yet to come, to shape the future world "beyond" the span of our own lifetime?

Evolution is the prime process visible in the universe, and to survive mankind must develop a strategy, a culture or an “ethic”, if you will, which is in harmony with this basic set of conditions.

Richard Lynn reviewed *A new morality from science: Beyondism* (1972) by Cattell as follows:

A new book by Professor Cattell is always an exciting occasion, for he is certainly one of the most brilliant of contemporary psychologists. Beyondism! Whatever is it? It is a new system of ethics designed to bring about the improvement of the human species. We need a new system of ethics, Cattell begins by telling us, because the old ethics based on religion is so clearly breaking down throughout the world. The new ethics of Beyondism is based not on religion but on science. Its objective is the improvement of human beings and society: a better world. The means of bringing about this lie in the application of Darwin's law of evolution (Lynn 1974).

Jared Taylor reported as follows on an interview in 1995 with Cattell:

His 1987 book, *Beyondism: Religion from science*, was one of the first books by a main-stream publisher to break the post-war ban on discussions of eugenics and the biological bases for ethnic separation. Still available from Praeger Publishers, it laid much of the groundwork for recent books like Wilmot Robertson's *The ethnostate* and Richard McCullough's *The racial compact* (Taylor 1995).

As for modern influence, a literature search of journals devoted to social affairs and news articles identified only three references to Beyondism, two reviews of Cattell's book and a disparaging mention of Cattell in an article on eligibility requirements for college athletes! By contrast, a search of the terms Crystallised Intelligence or Fluid Intelligence turned up 465 references. The 465:3 ratio seems realistic, with the debate on his social and philosophic ideas encapsulated well (Hunt 1998).

In an open letter to Cattell dated September 1997, his former student and colleague, Prof John R Nesselroade, expressed his appreciation for Cattell's work in psychology and his positive influence as mentor. With equal honesty he criticised Cattell:

As you know from earlier interactions we have had, I do not accept the principal tenets of the philosophy known as Beyondism. [...] Concerning the matter of intellectual freedom it is my belief that, in the spirit of your fundamental commitment to the methods and practice of empirical science, Beyondism was presented as a set of concepts and ideas for debate and discussion. [...] It is regrettable that the ideas you consider worthy of debate were formulated and presented in a manner that is offensive and painful to so many (Gilles [n.d]).

In the reception and evaluation of Cattell's work, the science and religion aspect and interest are clearly overshadowed by his contribution to the field of empirical research and personality theory. It is however necessary to look at his motivation for risking his reputation by publishing and advocating such a controversial philosophy.

In the preface to *A new morality from science: Beyondism* (1972:xii), Cattell expressed concern about important laboratory work being set aside while pursuing his Beyondist ideas that may be "some speculative venture that may prove just one more of philosophy's wild goose chases".

The threefold motivation Cattell presented for pursuing this interest will be the loose structure for the approach that will be followed in this investigation of his ideas:

An accumulation of three bleak realisations eventually forced me to take painful leave of my good research companions. First, it became increasingly clear over the years that *no one in the social sciences was actually getting down to the ethics problem in the fundamental way that it seemed to me it required*. My 'asides' on the matter mentioned above, after some moments of puzzled discussion by a few colleagues, had been put aside as if they fitted

into no customary mode of thinking. Second, from observing that few men and fewer women could make any sense out of it, I perceived that *a much more systematic introduction and far more illustration to make the setting and the application more real in everyday life were necessary*. And granting that three score years and ten is a proper innings, I knew that a task of this large magnitude could not be postponed. Third, and more happily, I experienced those *quickenings in this area of thought which tell an author, as surely as a pregnant woman, that a live entity is ready to be born* (1972:xii). [My italics.]

1.7 Historical perspective

According to Cattell (1938), the views and practices of society are generally from ten to a hundred years behind the enlightened thought of the time. On reading *Psychology and the religious quest* more than sixty years after publication, certain issues that prevailed at the beginning of the 20th century are still recognisable in current topics; for example the active science-religion debate, religious education, evolution, and genetics, which is very current with the discovery of the human genome.

In the light of the APA decision in 1997, it is interesting to note that in the closing sentence of the foreword to the 1938 publication (*Psychology and the religious quest*), which developed to be quite radical, Cattell mentions an unidentified eminent theologian whom he “thought it best to release from a promise [to write a foreword], which obviously meant his accompanying me to perdition” (1938:viii). The sixty years that lie in between these two events are characterised by purposeful hard work. Part of the aim of this study will be to investigate whether his empirical research has served to support the development of his philosophical ideas and his implementation of those ideas, and, if so, to what extent.

Cattell lived in the era of the development of psychology as a science, and he proved himself –

a model of the complete psychologist in an age of specialisation. It may be said that Cattell stands without peer in his creation of a unified theory of individual differences integrating intellectual, temperamental, and dynamic domains of personality. *Overall, he must be considered among a very small handful of people in this century who have most influenced the shape of psychology as a science* (Cattell & Horn 1998). [My italics.]

To Cattell, knowledge could only be gained through science; if it could not be empirically tested, how could it be true knowledge? This approach can be traced back to Thales of Miletus (c.636–c.546 BC),⁴ the first recorded Western philosopher. It was from the Babylonians that Thales learned mathematics and astronomy, and geometry from the Egyptians; however, there was an immense difference between Near Eastern thought and the philosophy of Thales. As suggested by the Harvard biologist, historian and philosopher of science, Ernst Mayr in 1982, this initial difference can be regarded as characteristic of the two approaches to knowledge that has evolved with civilisation, namely the one that leads to science and the other that leads to authoritative dogma (Whitney 1997).

⁴ “The direction toward science traces to the first recorded Western philosopher, Thales of Miletus (c.636-c.546 BC). Thales maintained that to gain knowledge and understanding one should start with naturalistic observation, that is, descriptions of events as they exist in the real world. We should then seek natural explanations for natural phenomena. Gods, supernatural beings, and forces or events that were outside the system should not be invoked as explanations for events within the system. A third major position was that it is acceptable, even encouraged, to question existing explanations, to use criticism in order to improve knowledge and theories. These three principles that trace to the beginnings of recorded Western thought capture the essence of modern science; naturalistic observation, natural explanation, and criticism as a beneficial tool to advancing knowledge. Alas, from Thales’ time through today his approach has, on a worldwide basis, been a minority position under constant attack” (Whitney 1997).

The six-volume *Course on the positive philosophy* (1830–1842) by French philosopher and sociologist Auguste Comte (1798–1857) was largely overlooked during the Romantic Era, only to gain lasting influence after the swing to realism. Comte believed his new discipline of sociology would soon discover the eternal laws of human relations. Dismissing the “fictions” of traditional religions, Comte became the chief priest of the religion of science and rule by experts (MacKay 1992:923). Cattell studied and applied much of Comte’s thought.

Another advocate of evolution and sociologist and philosopher whose ideas had influenced Cattell was Herbert Spencer (1820–1903). He saw the human race as driven forward to ever greater specialisation and progress by the brutal economic struggle that efficiently determined the “survival of the fittest”; a phrase coined by Spencer.

Keeping the two ways of approaching knowledge in mind, and considering the way knowledge developed in the long history of conflict between science and religion, could it be possible that what Cattell is actually saying is not heard? Heredity and genetics are scientific facts that are to be investigated and applied with great caution and responsibility. But a responsibility derived from where? To my mind, Cattell’s idea of religion from science is an endeavour to answer this question, in particular.

CHAPTER 2

CATTELL'S VIEWS ON RELIGION

This chapter will be an endeavour to follow Cattell's line of thought regarding the human as evolutionary religious being. Cattell proposes that humanity has reached a state where conscious evolution is an inevitable challenge.

Cultural anthropology, sociology and psychology have traced religion back to misty beginnings in animism and magic. Cattell analyses the origins of complex functions that the great religions have typically performed throughout history. His findings are much in line with the approach of his time, linking up with writers such as Comte, Spencer, Durkheim and Weber. However, he is also reasoning towards his objective of proving that answers and guidance in social religious matters can be derived from science. In order to preserve his fervour for these arguments, much of his own formulation will be represented here.

2.1 Animism, taboo and morality

Animism, as a naive tendency to "project" our own modes of experience on the outer world, is a universal tendency of the untutored mind. Cattell (1938:17) states that this can be observed in children, in primitives, in unsophisticated agricultural communities – and in poets.

For much longer than history can account for, man has lived precariously between the incomprehensible thunders, earthquakes and floods of nature and the battle, murder, and insane cruelties of his fellow men. In fear he "projected" gods and demons, fetishes, and the ghosts of the departed (but still threatening) ancestors of his tribe. The way of dealing with them was by means of sacrifices, rituals and prayers.

A fair psychological perspective also recognises joy and veneration for the all-giving sun and whatever gods may be. In addition, these projections facilitated

comfort to the primitive human in his last pitiful clinging to loved ones as they passed over the verge of life into what he dreamed and desperately hoped would be a land of immortality.

Shamanistic and priestly rituals were representative, but could turn bold and coercive; they involved searching with strange rituals, magic stones and secret signs to gain some control over a weird and wonderful world that had been created by animistic projection. With more wilful control, that effort became magic. With growing power of reasoning and some initial gains in real control of the world, magic joined its forces with craft skills and folklore recipes, and became the dubious parent of science. Although religion and magic-as-science had shared explanatory myths and a map of the universe purporting to tell the underlying nature of the world of appearances, the religious approach became more emotional and less cosmic. The beginnings of a moral law regulating social life could be traced back to irrational taboos, totem laws and ancestor worship. Priests and churches offered purification from guilt and showed well-chosen but thorny paths to heaven. From this, Cattell draws the following conclusion:

[...] religions have had first, a function which may be broadly called 'emotional consolation', and only secondarily a task of explaining the cosmos and creation: and it is in this role that we still have to deal with them today (1972:14).

Cattell accepts the fact that historical observation and the consensus of anthropological opinion agree that religion, science and morality were greatly derived from the cultural matrix of animism, magic and taboo. In order to better understand the stuff of which they are made, he traces these features of our comparatively adult civilisation. Well-known ancillary religious practices such as holy water, holy wells and the tolling of church bells to keep evil spirits from the path of the departing soul can be identified as reminders of magic-like procedures of religion. This magic is recognised by psychoanalysts as manifesting an illusory "omnipotence of thought", the belief that to think of

a thing is to create it – a tendency also displayed by young children and neurotics.

Taboo as the precursor of morals may also be seen as the ancestor of manners. On the one hand, taboo has much the same relation to the supernatural powers of the animistic menagerie as morality has been considered to have to religion or belief in the deity. On the other hand, it also has the non-religious sanction of the group custom, and enforces itself through fear of ostracism from society, as customs and manners are enforced. The savage community is more closely bound in emotional solidarity than ours, and punishment presented by isolation is correspondingly severe – it can be argued that the savage obeys even his supernatural taboos more from fear than from love. (At least in the Christian religion and in modern times, the notion of obedience through love has tended to characterise moral obligation.)

A vicious circle of unrealistic thinking develops as the unsophisticated individual's fear, rage and supplication, addressed to demons, spirits, ancestral or natural, become group ceremonies and tradition to handle the powers of the unseen world. This socialisation of animism could have been a key to the real beginnings of religion. The early characteristic features of religion were dance and song and communal ceremony rather than broad philosophical conceptions – religion was “danced out, not thought out” (Cattell 1938:24).

Some of these developments, such as Hinduism and Chinese folk religion seem to have grown into elaborate rituals, firm moral laws, and even sacred writings without the intervention of any single, conspicuous “master founder”. They bear the stamp everywhere of “trial and error” evolution, their beginnings in folk customs, in disconnected proverbs and aphorisms, and in practical small-community ethics. They have also shown little systematic and logical “renovation” by reformers and codifiers.

Cattell quotes as follows from *Primitive culture* by EB Tylor: “Animism is the groundwork of the philosophy of religion, from that of savages up to that of civilised man” (1938:24).

In evolutionary terms we can locate this phase of religious development as Cattell depicts it on Wilber’s four quadrants in Appendix A. It correlates with numbers 10 and 11 on all four quadrants: the (physical/outer) individual human evolutionary phase being the first manifestation of the neo-cortex or triune brain, which is characteristic of the human brain’s ability to reasoning and logical thinking (upper right, exterior individual, behavioural). The collective outer comprises small communities and early states with a limited world view and basic survival needs (lower right, exterior-collective, social). The *inner we* find cohesion in shared myth and magic (lower left, interior collective, cultural), while the *inner I* creates and comprehends symbols and concepts relating to other similarly limited fields of experience (upper left, interior individual, intentional).

By drawing an imaginary circle through all the quadrants at these specific points of interest, this combination of Wilber and Cattell’s views could be like looking through an anthropological telescope. As Cattell rightly puts it, “a most salutary experience” and indispensable in grasping the meaning of religion, though we cannot “escape the conclusion that our religions are far from being an absolute truth in contrast to which all that went before was relative and spurious” (1938:29).

The acceptance of religion, in this way sprouting from growing human consciousness and ability, need not be an imploding dead end, since:

The growth from these dim and chaotic beginnings of the religious and moral systems that sustain us at the present moment is one of the most remarkable, though still poorly psychologically understood, aspects of history (1972:14).

When observing the historical manifestation of what may have been occurring in the human psyche, I find the divisions within Wilber’s holon a useful

measure to read and evaluate speculation on the different aspects of human consciousness and resulting actions, as depicted in the inner and outer quadrants. In order to allow Cattell to follow through with his argument, we must accept his point of departure and the area of human existence on which he focuses. He zooms in on human psychology, on that which can be observed and measured – if possible, without esoteric or philosophical pre-conditions and wider implications, at this stage. The final results can be evaluated within the complete holon.

We should take into account that animistic thinking must in most cases be labelled as regressive – pre-logical thought and behaviour – what psychoanalysts have called the “pleasure principle” of the unconscious, as opposed to the harder way of discipline of the reality principle, which imbues all conscious thinking, guiding us to attain our goals or master uncontrollable Nature. The reality principle could be an aspect of humanity functioning at the *rational centauric* levels (No. 12–13) and the higher structural functioning of the *complex neo-cortex* with an expanding world of operation in the hierarchies of Wilber’s holon. This aspect allows for what Cattell regards as the new way of looking at reality:

The new vision is an ordered drama: the setting a lonely star in the vast interstellar night, and the theme an amazing story of protoplasmic life struggling into being, to take place in a triumphant march of evolution (Cattell 1938:29).

However, psychologically there is still much to be uncovered and discovered as this “triumphant march” takes place along a slow and winding path, accommodating biological, cultural, individual and group evolution/involution,⁵ growth/decay and eventual selective survival to create and become the whole. So, let us follow the evolutionary path of religion in more psychological detail as Cattell highlights it.

⁵ Involution: the shrinkage of an organ in old age or when inactive.

2.2 The evolutionary path of religion

2.2.1 The scapegoat

One common theme that occurs widely and has developed in a similar manner across a wide range of groups is that of the scapegoat. From Stonehenge to Patagonia the solution of sacrifice served to propitiate or win the friendly approval of the supernatural powers. The very primitive Ibo of Southern Nigeria would dissolve a mood of guilt and depression by the device of finding a scapegoat, "a young man, strong and vigorous and well able to bear the sins of those on whose behalf he is to die" (Cattell 1938:24). This moved into sacrifice not only for avoiding displeasure but also for persuasion whenever a routine favour such as a successful harvest was desired. Cattell mentions the widespread sacrificial killing of the god or divine king, also occurring widely in Africa and Polynesia, citing from Frazer's comparative study of mythology and religion, published as the *Golden Bough* in 1890:

This illogical arrangement may well have gained ground because of the condensed expression given in a single act to a strong complex of warring psychological impulses, namely, the sense of guilt for transgressions, the desire to project the punishment upon another person, repressed hatred of the god, and the desire to possess his power (Cattell 1938:25). (See also Chapter 5.1.1 on page 116.)

The notion of sacrificing is elaborated on when the god is formally resurrected after his death. This widespread ceremony of the dying god could be interpreted to be symbolical of the death and resurrection of the year to have its main purpose as a fertility rite. Consider the Greek myth of Persephone⁶ in this regard.

⁶ The daughter of Zeus and Demeter, who was carried off by Hades, the king of the lower world, and made his queen, but allowed to spend part of each year on the earth. Her return to earth brings greenness and spring and summer, and her departure fall and winter.

Cattell takes note of the wide occurrence of the scapegoat phenomenon in primitive religion by mainly following the current anthropological approach, but also interpreting it more extensively as a “strong complex of warring psychological impulses” (1938:25) captured in a stage of the evolution of religious thinking. However, what he perhaps did not read behind this overall “illusion” is brought to light by the illuminating study of the scapegoat by René Girard (1986). Girard chooses to work on the hypothesis of the history of the killing of the scapegoat, indicating how violence eventually works towards peace and how peace among humans can be dependent on violence and that the pattern of collective violence crosses cultures and can be broadly outlined. By following and analysing historical persecution texts and the development of myth through ritual, Girard develops his theory that the phenomenon of persecution provided both the model and the counter model for every religious institution:

As religion and cultures are formed and perpetuated, the violence is hidden. The discovery of their secret would provide what must be called a scientific solution to man’s greatest enigma, the nature and origins of religion (Girard 1986:95).

Girard structures his theory of collective persecution around four stereotypes (in our context, this pattern could also be seen as a survival mechanism):

- a. Crisis: Could be a natural disaster, plague or break down of the order in society, which leads to:
- b. Lack of differentiation, which manifests in “crimes” such as breaking taboos – incest, ritual infanticide, religious profanation, bestiality, etc. The poisoning of food and water, and offences against influential citizens play a significant role.
- c. The victim(s) can be chosen randomly by the group, identified because of real crimes or merely since they belong to a class that is particularly susceptible to persecution – such as ethnic and religious minorities, or due to poverty, sickness, madness, genetic deformities or disabilities. The marginal insider, the rich and powerful could also be targeted.

- d. Violence: The crisis cannot be resolved without the release of violence, whether it is group against group, or group against individual, or the ritual enacting of violence up to the point that order is restored.

The victim, by being subjected to this violence, thus brings about the desired order and deserves due recognition.

Girard expands his theory by applying it to the Gospels and the history of Christ, which brings him to the conclusion that in understanding myths, as in the decoding of the role of scapegoats in every culture, the Gospel in its revealing role can no longer be accepted as yet another myth, since it is responsible for our understanding and the shaping of Western culture for the past two thousand years.

In future, all violence will reveal what Christ's Passion revealed, the foolish genesis of bloodstained idols and the false gods of religion, politics and ideologies (Girard 1987:212).

Along this line of thought, could Christianity be regarded as a great step forward on the evolutionary path of religion? Could a next evolutionary step be what is presented in Cattell's idea of evolutionary advance (survival as a species)? Through conscious scientific research and cooperative competition he presents Beyondist methods "as a safeguard against the comparatively heavy losses of existing methods" (Cattell 1987:220).

2.2.2 Soul and immortality

Anthropological survey makes possible a systematisation with regard to belief in the soul and in immortality. Inconsistent and fragmentary primitive ideas about the human soul are mainly derived from dreaming, hallucination and a little loose logic. Cattell deduces from comparative religion that primitives may be divided into two large groups according to whether they have a belief in an afterlife or not. Those believing in human immortality, being the larger group, can be again subdivided into those who anticipate a heavenly life on a higher plane and those who expect a continuation of the mode of life known on earth.

Compensation for injustices, sacrifices and the evaluation of the good and evil deeds of the individual's life on earth are still features of certain existing systems of belief (Cattell 1938:27).

We find dim and poorly defined ideas on an afterlife in the myth of Hades of the Greeks and the ancient Sheol of the Jews. Uncompensated and unmodified immortality is illustrated in the Happy Hunting Ground of the American Indian or the Valhalla of the Norsemen, in which the souls of men may continue the hunting, fighting, and feasting which comprised happiness for them here. "Compensated immortality appears in a somewhat anomalous form in Buddhism, and in more fully realised perfection in Islam and Christianity" (1938:27).

Throughout these gropings, an evolution is apparent towards a definite belief in immortality, a refined immortality in which only the spiritual life is continued. Morality in life is rewarded by everlasting bliss and wickedness by banishment or torment. At the latest stage, the nature of the life to be led in paradise becomes too spiritual to be defined in earthly terms – it is just 'dwelling in God' – whilst heaven ceases to be above the stars and is 'within you' (Cattell 1938:28).

It is unavoidable that the idea of immortality would evolve in line with the idea of God.

2.2.3 Evolution of the idea of God

The earliest historical religions have reflected the primitive mind hosting ideas of agile spirits and a legion of variegated devils. The rich pantheon of gods varied from less respectable specialists in intoxication and vengery, deities of war and guardians of agriculture. Cattell notes it could be possible to read the ideals and temperaments as well as the character and occupations of the ancient people in the faces of their gods: Zeus, Mars and Janus, Vishnu and Siva, and Pallas Athene. Simplifying religious mythology by condensing all the evil demons into one evil spirit and all the nobler and well-disposed spirits into

one benevolent Providence, was “the especial feat” (Cattell 1938:28) of the people who established the first civilisations in and around Persia and the Euphrates. So, for the Mithraic cult, a dual between a God of Light and a Prince of Darkness created the lively and dramatic terms to explain life.

Moving closer to the present and familiar frame of reference:

Islam and Christianity emphasised God and tended more and more to regard evil only as His absence. For the spadework in this last simplification towards monotheism we have to thank the philosophical genius of the Jews, or as some think, the stern and sterile monotony of the desert landscape. If animism is a delusion, they created the greatest of illusions; if it is an aspect of truth, they brought home to us the greatest of facts (Cattell 1938:28).

Comparative anthropology has revealed similarities between Christian rites and moral injunctions with primitive ceremonials, rites and taboos. That discipline also leaves no choice but to recognise the winding road that joins the child-like terrors and ecstatic fantasies of ignorant savages with the great religions of the day – Christianity, Buddhism and Islam, or whatever we profess.

In the modern era, animism and religious myths, including the biblical account of creation and miracles, in the view of physical and biological science, have become museum exhibits to be examined for archaeological interest and no more. However, “revealed religions”⁷ are a dominant part of modern culture and Cattell’s whole quest could be regarded as an effort to find a way of –

supplanting revealed religions and their tangled and frequently obstructive creeds by the general rationality of an evolutionary religion. [...] As Jung and others have pointed out, there is some kind of innate need for believing in the occult, the mysterious, and the supernatural. [...] The search for the magical and the transcendental will therefore always continue (Cattell 1987:232).

⁷ What Cattell calls “revealed religions” are established religions that have their main values established by intuitions, on the part of a few leaders, who experience such intense conviction that they believe it to be of divine origin. These beliefs are further shaped by “social verification” and over time stamped with the hallmark of pragmatic truth (Cattell 1972:15).

It is interesting to note that although Cattell mostly refers to Freud when dealing with the subconscious or unconscious, mostly concerning the Id and super ego, Jung is included in bibliographic references and even sparsely noted as in the above citation. This indicates that the Jungian dimension was included in Cattell's reasoning as well.

Cattell notes that an essential part of the pleasure we get from poetical similes or the vivid metaphor of prose, the personification of drama, or the projection of human personality in religion, arises from "the permitted relapse from harsh reality thinking" to more old-established primitive ways of thinking (1938:18). I find that Stanley Burnshaw in his study of language-thinking, creature-knowledge and art-experience, captured in *The seamless web* (1970), comments on the relation of poetry to religion in complete agreement with Cattell:

The phenomenon, whether widespread or not, can hardly astonish anyone familiar with archaic cultures, where poetry was inextricably part of prophecy and ritual of all kinds. The poet was possessed, God-smitten, a seer, filled with extraordinary knowledge. Gradually this personage split up into the specialised figures of the prophet, the priest, the soothsayer, the mystagogue and the poet as we know him. [...] as late as the 18th century, inspiration was widely believed to be drawn from outside the poet. (By now, as every English major can tell you it is securely located in the 'Unconscious'.) (Burnshaw 1970:129)

Up to now we have mainly been dealing with the lower left quadrant of Wilber's holon, although it should be kept in mind that there must be some overlapping on all sides, as this is a model of the whole. The focus will now move into the upper right quadrant.

2.3 Psychoanalysis and the religious illusion

In the light of the development of psychoanalysis, Cattell (1938:31) continues his fervour for "unmasking" religion and the firm hold it continues to have on

individuals and society. However this should not be viewed as deliberate undermining or fiendish “upsetting of the roundtable”, but rather a way of clearing the field and rearranging for the better according to scientific insight.

Yet the worst ignominy for the religious viewpoint was still to come with the development of psychology in the twentieth century. The older sciences having shown religious beliefs to be illusory this new science would demonstrate finally the particular mechanisms by which such a quaint illusion could have arisen from certain weaknesses in the human mind. Psychology would perform what is known as a ‘mopping up’ action upon the remnants of religious forces, hiding in the ruins of its once powerful system of philosophy (Cattell 1938:30).

Psychology took up the challenge to investigate the causes of the religious illusion that displays symptoms and stigmata that characterise the process of delusional thinking in the lunatic or the genesis of illusions in normal individuals. The psychologist primarily looks for the presence of some strong impulse that is debarred from finding satisfaction in the real world.

The old ontological argument for the existence of God, that somehow or other we have an idea of Him, and that the idea rises very persistently in the human mind, is challenged by deeper psychological arguments than examples of mirages and dreams.

2.3.1 The importance of the early years of childhood

In the search for methods of curing the neurotic, the perverted and the delinquent, the critical importance of the early years of childhood, both for normal and abnormal development, became evident. It was also discovered that human motivation roots in powerful primitive instincts or propensities towards certain kinds of satisfaction that we share with the higher mammals. Thus Darwin’s proof of the physical continuity of man with the animal world may have found the corollary of an equally definite mental continuity.

Early childhood experiences, and the general type of dynamic balance or integration achieved, are likely to persist in adult life, shaping the course of all later development of personality. The most powerful emotions of childhood are lived out in relation to parents, and Cattell (1938:33) traces the father/God correlation as expanded by Freud in the well-known Oedipus theory. He draws the conclusion that the frustrated drive that is seeking expression in this illusion is the desire for security and companionship. In humanity's conflict with Nature, from an emotional need and through an old animistic or anthropomorphic way of thinking, God emerges. Girard, as previously mentioned, insists that "the myth of Oedipus is not just a literary text, or a psychoanalytic text, but a persecution text and should be interpreted as such" (1986:27). Such multi-dimensional interpretation of myths may bring us even closer to the real function and truth of myths in the intriguing past of humanity – and guide us into the future.

With regard to Freud's observation of the resemblance between the behaviour of obsessional neurotics and some of the major activities in religious ritual, Cattell remarks as follows:

Freud has called the obsessional neurosis 'a private religion', and religion, 'the universal obsessional neurosis of humanity'. Two sidelights on religious psychology follow from this identification. First, since obsessional neuroses are among the most difficult to cure, the religious mode of thought will not be readily given up, even if reason disapproves of its objects. Secondly, if the group neurosis were to be forcibly dispelled, we should expect an increased eruption of individual neuroses (Cattell 1938:35).

This and the following three chapters will be an investigation of Cattell's views of altering the religious mode of thought mentioned above. Flowing from that, Chapter 6 will investigate the possibility of a psychologically sound religion, as proposed by Cattell.

Although religious writers have raised conscience on a pedestal as a divine gift to man, a close scrutiny of cultural inculcation and early childhood

development reveals a great variety of rights and wrongs that shape individual conscience. By the age of seven most children have acquired by imitation, through fear of loss of parental affection, a sense of guilt and the correlated notion of sin.

These reactions soon become buried too deep for conscious manipulation in later life, so that a convinced rationalist may be as much in awe of the Church as an 'emancipated' woman can be uncontrollably reluctant to appear at a nudist colony (Cattell 1938:36).

The creation of lasting spiritual values can be traced as the action of sublimation sometimes commencing with the depression accompanying near-total frustration from which rebirth occurs; recorded in terms like "the dark night of the soul" by saints such as St Francis, St Augustine and Loyola. In a different culture, the Buddhist conviction that individuality is no more than the individuality of a billion raindrops falling into the ocean, and the practice of the eight-fold path as taught by Gotama after he had attained Enlightenment are instances of spiritual authenticity. With reference to William James's *Varieties of religious experience* (first published in 1902), Cattell (1938) finds that what individuals call their spiritual values may be tied to their superstitions rather than the altruistic and ethical aspects of religion.

From the passages above it could be concluded that Cattell shared Freud's reductionism as far as religion is concerned, and with regard to spirituality he states the following: "Psychologically, the basic reality is that spiritual values are ergic⁸ drives sublimated and transformed" (1987:161). However, he places the whole issue of values in a wider context, as will become clear as Beyondism is more fully explained in Chapters 5 and 6.

⁸ An erg is a genetic predisposition to attend more to some classes of object than others, for example, for a young male to attend to girls rather than to logarithms; to experience a particular kind of emotion, for example, fear or sex; and to be impelled toward a certain goal (Cattell 1987:121).

2.3.2. Prayer

Cattell (1938:37) mentions two aspects of prayer. Belief in the *potency of special prayers* and the *efficacy of magic incantations* is greatly aided by a relapse into those early, uncorrected ways of regarding the real world, which the psychoanalysts refer to as the “omnipotence of thought” mentality. Prayer is a religiously suspect procedure, for example, to entreat success in business, while the modern-day advances in agricultural science and meteorology narrow the scope for special intervention on the part of the deity.

Cattell admits that psychology cannot deny the efficacy of prayer concerning the improvement of personality and the maintenance of personal or group morale, but it may nevertheless ascribe to it the harmful tendency of suggestive practices to increase the less informed or vulnerable individuals' general suggestibility.

In a Christianity-orientated study, *Integrating psychology and spirituality*, Gorsuch (2007) investigates the therapeutic practice and value of prayer. He finds that the scientific testing of *special prayers* involving “individual acts of God” is impossible because of the uniqueness of its involvement in the very personal histories of individuals, as everyone one of us lives an ideographic⁹ life.

As a practicing psychologist, Gorsuch is partly in agreement with Cattell when he considers different types of prayer such as thanksgiving, confession, and intercession, used in therapy and otherwise:

Each of these can be appropriate if used at a proper time. But how do we define ‘appropriate’? Is it defined as ‘useful’ because it may help the client adopt better coping mechanisms? Is it truly a spiritual response to the situation? Need it be one or the other? (Gorsuch 2007:132).

⁹ Ideographic is concerned with that which is unique and therefore not generalisable (Gorsuch 2007:50).

Cattell acknowledges that especially in education, the part to be played by the emotional experiences of ceremony and prayer is a matter for research (Cattell 1938:187).

2.3.3 Immortality

The psychological roots of the idea of immortality can be summarised as a return to illusory “pleasure principle” thinking, a consequence of primitive man’s experience of dreams and hallucinations and a necessity in the maintenance of morals, by punishing and rewarding in the hereafter the deeds which obviously escape human justice.

2.3.4 Sudden religious conversion

As far as the spectacular phenomenon of sudden religious conversion is concerned, Cattell’s psychological observation is that such experiences are comparatively rare, associated with some degree of temperamental abnormality, confined almost entirely to the age of adolescence, and prone to occur only in certain types of religious culture (1938:37).

The natural upsurge of sexual emotion at adolescence is met with the powerful inhibitions of a culture that attaches a strong sense of guilt to sexual expression.

At the cost of sublimation – converting sexuality into love of his fellows, and self-assertion into vicarious self-assertion through God – he thereby obtains peace of mind. To explain the process in terms of psychological forces is not to belittle its importance to society, for whether the process is sudden or gradual; it constitutes in moderation a desirable adjustment in civilisation. It would be better still if brought about without recourse to illusory ideas (Cattell 1938:38).

Cattell (1938:38) asserts that in view of all the main drives which sustain religious activities, psychologists have not yet seen any need to posit a

special “religious instinct”. The natural instincts or conduct regarding the emotions of fear, sexuality, gregariousness, self-assertion, appeal, and self-submission, account adequately for all the specific forms of behaviour observed.

With reference to the great role of sexual drives in religion Cattell refers to Leuba (Cattell 1938:38), noting the startling resemblance between descriptions of mystical union left by great mystics (e.g. St. Theresa) and the characteristics of normal sexual consummation. Cattell observes early psychological studies to find this more a detraction from the spirituality of religion than a proof of its sublimating power.

Wherever the physical or social environment occasions frustration, there will religion be found utilising the deflected energies in the interests of the great, systematised philosophy of life and living which it represents. [...] In some ages and conditions it has become more a consolation for the unsuccessful or exploited than a guiding star for the brilliant and enterprising (Cattell 1938:39).

With regard to the attitude of consolation as a means of adjusting to the unavoidable limitations of life, restrictions of sexual expression necessitated by the physical world or required for the good of society have often been overextended by religion, teaching men to tolerate also remediable shortcomings and abuses.

In conclusion of Cattell’s psychoanalytic investigation of religious phenomena, he states that –

[...] religious expression can be regarded as a pitiful accumulation of escapes and self-deceptions centring upon one major illusion. That major illusion is a reflection of childish attitudes, and persists through the continued emotional immaturity of most adult minds. On this view it may be at best condoned by those who can see it more clearly as a pathetic concession to the need for illusion arising from a kind of constitutional softening of the brain which few can escape (Cattell 1938:40).

A statement like the above is initiated by the observation that with individuals, penetrating questions concerning “Where am I?” and “Why am I?” tend to be set aside between the brief periods of adolescence (inquiring and experimenting) and the serenity of stocktaking in age. Cattell formulates his view as follows:

[...] the averagely intelligent majority find their early sensible and serious concern soon blunted and stultified by failure to get comprehensible answers. Later distracted by the drain of economic needs, professional ambition, and family cares, they are compelled to settle for ready-made, approximate solutions (Cattell 1972:6).

To me it is a challenge to dare accept the idea that, led by this investigation, we have to suspend all previous ideas about a deity or some omnipotent entity out there, since all we have to work with is a psychologically and socially well-sustained illusion to deal with.

This perhaps explains why, in the next section, we once again move back into the interior collective of the lower left quadrant of the holon while the whole remains elusive.

2.4 Emotional meaning of religion

In his continuous effort to reach an intellectual and psychological understanding of religion, Cattell is sensitive to different aspects of religious content and practice, and to how they replicate and differ in various systems. Apart from the list of similar functional elements in different religious orientations – prayers, belief in after life, procedures of expiating guilt, church organisations, priests and prophets, cosmogonies and gods – there is generally something important that is very particular to a specific religion. This can be recognised as the spiritual aim, the Weltanschauung, the orientation to life, the emotional perception.

The understanding of these differences of emotional meaning – which come out not only in such sharp contrasts as that of the Buddhist's Nirvana and the Viking's Valhalla, but also in the philosophical forms of religion, e.g. the goals of Stoicism and Epicureanism – lies, one suspects, more in innate temperament than anything else (Cattell 1972:17).

Cattell's emphasis on temperament is backed by a lifetime of quantitative study of the dimensions of temperament. Based on factor analytic research, he identifies three major existing "religious" value conglomerates. These rough groupings are partly based on genetic and partly on historical environmental causes, and are as follows (Cattell 1987:165):

- a. Buddhist religion, compatible with Confucian emphasis on social harmony and intelligent resignation to the inscrutable, in largely Mongolian countries.
- b. Judaic-Catholic-Christian complex derived from the Mediterranean (and having Islam as a tougher, still more ritual-bound offshoot).
- c. North-Atlantic conglomerate, partly Protestant Christian, partly rational sceptical (Russia), minimising the resignation to things as they are and the social dependence, which characterises the other religions.

Economics, conquest, climate and historical accidents play important parts too, but it is difficult to escape the conclusion from an open-minded investigation that biological temperament also plays a part in deciding the emotional quality of the religion which most readily prevails (Cattell 1972:29).

This synopsis of Cattell's views on religion provides us with a time-bound psychological anthropological view of the phenomenon of religion which, at the time of writing (the 1930s), may have been an adequate basis for viewing the social beginnings of religion. In his psychological research, Cattell advocated theory being backed up by research, and relating research to what is practically happening in society. Compared to the broader terms (covering all aspects of religion in all known religions) that religious studies have since developed for understanding the human search for meaning, that approach is very limited.

As this chapter mainly covered the historical psychological aspect of religion, some of the limitations in Cattell's approach may be overcome in what follows in Chapter 3 to 5.

Cattell builds his arguments for religion from science on the following elements of the above basic approach:

- a. That humanity has reached a stage to shed the remainders of the illusions of animism and taboo which prevails in religious belief and practice.
- b. That a mature humanity should be ready to dispel of childish dependency and fear, and accept variety and individuality in embracing the possibilities and responsibility of conscious evolution.

The individual and social aspects of religion are so closely interrelated that we cannot undertake to understand or evaluate Cattell's radical view, namely religion from science, without a structure that includes both aspects.

2.5 A new functional religion?

How can religion be defined or functionally measured? Having followed the evolutionary path of religion according to Cattell's interpretation, we can now draw on Wilber's exposition of dimensions of religion according to his evolution-based approach.

Ken Wilber (1983:55) emphasises that, when speaking about religion, it is important to determine what is meant by the term, since there are numerous meanings attached to it. He outlines nine aspects of religion that could occur in various combinations:

- i. Religion as non-rational engagement:* Deals with valid but non-rational aspects of existence, such as faith, grace, transcendence, Satori and such. This is an aspect of religion that Cattell is very critical about and Beyondism would definitely not fit into this meaning.

- ii. *Religion as extremely meaningful or integrative engagement:* Religion could be a functional activity on any given level – search for mana: meaning, truth, integrity, stability and subject-object relationship (exchange). Whether “secular” or “religious”, mana-searching can be seen as religious. Could Beyondism replace traditional religion in this sense in society?
- iii. *Religion as immortality project:* Religion is fundamentally a wishful, defensive, compensatory belief, created in order to assuage insecurity or anxiety. This function veils for the rational ego (science), the childish ego (myth) and the infantile ego (magic) the apprehension of ultimate and inescapable mortality by providing a belief system to “hang on to”. Would Beyondism thus just create another beyond?
- iv. *Religion as evolutionary growth:* All evolution and history are a process of increasing self-realisation – the transformative drive that leads to transcending mana-search (see (ii) above) to find increasingly higher structures of mana-truth, eventuating in God-realised adaptation itself. In Chapter 4.4 (on page 78) of this dissertation, Theopsyche is dealt with, and Beyondism will be brought into relation with this aspect (iv) in that chapter.
- v. *Religion as fixation/regression:* Religion is a childish illusion, magic, myth – pre-rational. Cattell would interpret some aspects of traditional belief systems with regard to (v).
- vi. *Exoteric religion:* Referring to the lower outward and/or preparatory aspects of any religion that has higher, inward, and/or advanced aspects of teaching and practice. Usually a form of belief system used to invoke or support faith. Acceptance of the Evolutionary Goal in Beyondism could support it being exoteric in the sense of being very satisfactory, as (ii) above.
- vii. *Esoteric religion:* Referring to higher, inward and/or advanced aspects of religious practice that has as goal mystical experience. In Beyondism this would link up with (iv) above.

viii. Legitimate religion: Religion that primarily validates translation – the more integrative religion will be defined to be more valid [e.g. (ii) above]. On a horizontal scale, more legitimate means more integrative meaningful at an operational level.

ix. Authentic religion: Religion that primarily validates transformation to a particular dimensional level deemed to be most centrally religious. On a vertical scale, more authentic means more capable of reaching a higher level – not merely integrating the present level.

Before we can evaluate Beyondism or any of its aspects as a proposed substitute for traditional religion, we have to become familiar with the world view that it will be based on. With the above points on religion in mind, the following chapters will thus probe into the ideas that may lead to confirming Beyondism as a religion that is *legitimate (thus integrative) and authentic (thus transformational)*. That will be the focus of Chapter 6.

CHAPTER 3

EPISTEMOLOGY

In the previous chapter we witnessed how Cattell practically “reduced” observable religion to illusion and psychological functioning, regarding it partly as neurosis and pathology. He also did not deny the primal shared roots of religion and science, which could be considered at the core of his view that religious and scientific truth have to be ultimately reducible to one truth.

The realisation of this one truth would likely take place by way of scientific discovery guided by scientific method. Science is concerned with knowing, and knowing recognises no artificial boundaries between the physical, biological and psychological domains, which, I will presume, allows for recognition and interaction between all four quadrants proposed by Wilber. We will follow Cattell’s complete argument before we compare it with Wilber’s model.

Cattell’s scientific views were shaped by the age of modernity in which he was born and educated, and, having an inquiring mind, he embraced the idea of science finding the answers and shaping the world. While specialising in the social sciences, he would strive for the precision of the natural sciences without completely denying the emotional and intuitive side of the humanities.

3.1 Revealed religion, the “moral morass” and science

Given that he was a dedicated scientist, Cattell’s shift from chemistry to psychology illustrates his interest, involvement and concern in the field of the humanities at a time when the West was caught up in an “age of anxiety”. In 1920, the French poet Paul Valéry (1871–1945) described the “crisis of the mind” in the Europe of that time as follows:

The storm has died away, and still we are restless, uneasy, as if the storm were about to break. Almost all the affairs of men remain in a terrible

uncertainty. We think of what has disappeared, and we are almost destroyed by what has been destroyed; we do not know what will be born, and we fear the future, not without reason. [...] Doubt and disorder are in us and with us. There is no thinking man, however shrewd or learned he may be, who can hope to dominate this anxiety, to escape from this impression of darkness (Valéry in McKay, Hill & Buckler 1992:1106).

In 1918 Oswald Spengler (1880–1936) published *The Decline of the West*, which became an international sensation. He depicted the West to be in the old age (facing death) phase of a cultural life cycle. Cattell argues that religion is much more than simply a method of pursuing truth. He reasons that many simple communities have satisfied virtually all needs for knowledge of the universe, ethical direction, social support and aesthetic experience in one institution. Around 1930 Cattell had already observed the breakdown of this important social and psychological human support system in all its variants and had expressed his concern in various writings. After forty years of intensive and valuable scientific work in social psychology, he remained convinced that with the decline of the moral authority of revealed religion we are in imminent danger of entering a “general moral morass”:

The mere advance of scientific knowledge about the workings of society cannot save us from that. No increase in general level of education – still less any rise in the noise level of mass communication – can be a substitute for the patient and creative pursuit of necessary, new ethical values (1972:6).

Cattell the scientist was confronted here with a critical problem – a crisis¹⁰ – which required a multidimensional application of scientific tools. In the midst of what Wilber (1998:11) calls modernist differentiation of the cultural value spheres, which especially means the differentiation of art, morals and science,

¹⁰ “So long as the tools a paradigm supplies continue to prove capable of solving the problems it defines, science moves fastest and penetrates most deeply through confident employment of those tools. The reason is clear. As in manufacture so in science – retooling is an extravagance to be reserved for the occasion that demands it. The significance of crises is the indication they provide that an occasion for retooling has arrived” (Kuhn 1970:76).

Cattell pursued the idea of religion/morality from science as a model for a new world view.

Cattell claims that science is not only concerned with answering and capable of responding to the questions “Who am I?” and “Where am I?”, but also with the “Why am I?” question.

He –

[...] aims to demonstrate that by paying full regard to logical consistency, and making constant appeal to scientific experiment and empirical observation, valid moral rules and a profoundly satisfying emotional relation to man and the universe can be reached on a scientific basis (Cattell 1972:9).

He starts his investigative journey by looking at the very instruments of knowing: our senses, our reasoning and our emotions, and by asking about the legitimacy and potency of intuition, logic, empirical evidence and “revealed” truth.

3.2 The cognitive and emotional qualities of intuition and truth

Cattell highlights the different operations of science, religion and the arts in the process of intuition becoming applied and verifiable knowledge. He distinguishes between *cognitive intuition*, an element that is shared by science, religion and art in some of their phases; *emotional intuition*, which is applied by religion and the arts; and the concept of *emotional truth*, which could be misguided in some instances, and if not, verification is drawn from *cognitive truth*.

Max Planck (in Burnshaw 1970:176) was of the opinion that the pioneer scientist must have a vivid intuitive imagination for new ideas; ideas not generated by deduction, but by artistically creative imagination. According to Burnshaw (1970:177), “the flash, the dazzling intuition, the dawning recognition must be exposed to the common light and verified, perfected: moved toward ‘completion’”.

According to Cattell, the scientific route requires that an intuitive notion be “researched experimentally, explained logically” and “communicated clearly” (1972:21-24), satisfying the need for *cognitive truth*. Through discipline, science deals with the incompleteness of the senses, inadequate logic, limitations of the known environment and probabilities that function as “laws”. It operates in a world that is forever changing, which poses a challenge for growth and creativity – nurturing a spirit of exploratory thinking. At the same time, science is subject to emotional biases ruling the general acceptability of the results of careful and laborious research and ground-breaking findings; think, for example, of Copernicus, Galileo and Bruno.

Cattell’s general view of how science functions corresponds with the depiction of Kuhn (1970) of normal science as functioning through the determination of significant fact, matching facts with theory and articulation of theory, as well as the way new ideas are generally accepted or rejected, that is, possibility of paradigm change.

This approach to the validity of knowledge is also basically in line with Wilber’s structure comprising what he calls the three strands of valid knowledge:

1. Instrumental injunction – the experiment; if you want to know this, do that.
2. Direct apprehension – immediate experience of the domain brought forth by the injunction.
3. Communal confirmation (rejection) – checking of the results or evidence with others who have adequately completed the injunctive and apprehensive strands (1998:155).

This threefold consensus is in accordance with the generally accepted method of approaching the natural sciences. In addition, Wilber argues that authentic spirituality (the contemplative core of religion) can be validated according to the same strands of valid knowledge. This approach creates the possibility of bringing another dimension of verifiable knowledge into scope,

allowing for the general scientific investigation of all four quadrants, with the interior bearing as much value for application as the exterior.

Cattell acknowledges the “pragmatic truth” of revealed religions, which –

[...] have their main values established by intuitions, on the part of a few leaders, who experience such intense conviction that they believe it to be of divine origin. Characteristically these beliefs are further shaped by what may be called a social verification. Cultural variation and natural selection – including the survival or non-survival of the groups that adopt the beliefs – stamp the revealed religions that survive with the hallmark of a pragmatic truth (Cattell 1972:15).

According to Cattell, the artistic and religious approach to truth will tend to be emotional and not specifically and clearly transmitted. Although the authenticity of the emotional attitude could be tested by the same empirical and rational tests as cognitive truth (would he comply with Wilber’s knowledge-strand argument¹¹?), emotional knowing remains a purely subjective conviction of truth *if not tested*. This way of nurturing an emotional attitude to fit the emotional norms of society leads to an eventual sharing of the same popular delusion.

Cattell distinguishes between *emotional truth*, which is verifiable as explained above, and *emotional intuition*. To the same effect, Wilber speaks of *contemplation as the science of spiritual experience*.

Emotional intuition is associated with states of mind, such as affective psychoses and intoxication induced by various drugs. The deluded, manic or depressed person is liable to expend energy towards eventual destruction, and the truths and insights – emotional knowing – derived from music, intoxication, art or religious mysticism¹² fail any realistic test that one can apply.

¹¹ Compare Wilber’s view (1998:155) on page 50 above.

¹² See Wilber’s perspective on authentic spirituality in Chapter 2 on page 46.

Emotional truth can be seen as the most appropriate emotional response for survival in a given species in relation to a given environmental situation; the unconscious but realistic and logical analysis of a long collation of life experiences. The touchstone for “truth” here is whether the behaviour is biologically adaptive and whether it is aiding survival optimally.

Cattell argues that everywhere in nature the higher organism releases its emotion only on the basis of vital cognitive discernments, either in love or war. He supports this by quoting Plato’s metaphor of the charioteer depicting the steeds of emotion directed by the cognitive reality-perceptions of the charioteer, emphasising that emotion not based on correct cognitive perception is the definition of madness. Why should the rules be different with regard to religion and morality?

Religion has the educational value of emotional adjustment for the individual while giving psychological meaning to *emotional truth* and providing emotional education in truths otherwise established.

We can gather from the above that Cattell respects and accepts certain intuitive knowledge and the place of religion as meaningful and integrating (Chapter 2, aspect (ii) on page 45), and therefore legitimate (Chapter 2, aspect (viii) on page 46) on an operational level. This could fit his ideal of religion coming from science instead of bringing revealed religion into science.

Working in the field of social psychology, Cattell observed society through the turbulence of two world wars and experienced the establishment of psychology as a science. He is not simply advocating the replacement of traditional religion by the novelty of new scientific discovery. He presents a condensed but thorough anthropological and psychological analysis of the complex functions great religions have typically performed throughout history. The purpose of this analysis is to establish a basis for later comparisons with the functions of other social institutions and to support his arguments for an ethical system of religion from science. When religion is approached in this

manner, Cattell's ideas function on three quadrants only: Upper right – exterior-individual; lower left – interior-collective; and lower right – exterior-collective.

Apart from the strong popular resistance to science trespassing on religion and doubts concerning the capacity of science to handle religious functions, the psychologist may doubt that science could ever perform the emotional functions of religion. Cattell, however, is convinced that science can create its own world of emotion, as the scientist “experiences in the fellowship and values of his scientific community all the emotional and aesthetic satisfaction that the typical religious community offers” (1972:10). He further acknowledges the fact that only a minority has this capacity, but since the scientist is right in saying that emotion not based on correct cognitive perception is the definition of madness, science has the real key to the “Why am I?” question: the question of emotional purpose.

We learn, in time, to attach our emotional responsiveness to the things which in fact have strong influence on our lives, regardless of their initial appeal or lack of appeal to our primal instincts (Cattell 1972:8).

Contemplation as the science of spiritual experience brings Wilber's fourth quadrant, upper left – interior-individual, into the picture.

For this argument, we accept Wilber's approach that the authentic core of religion can be scientifically verified through *instrumental injunction* (you want to know this, do that); *direct apprehension* (immediate experience of the domain brought forth by the injunction); and *communal confirmation* (rejection) (checking of the results or evidence with others who have adequately completed the injunctive and apprehensive strands).

As previously stated, Cattell accepts that emotional or pragmatic truth could and should be subjected to scientific method to escape the label of illusion or delusion, thus establishing real (authentic) truth. He does not deny the existence of the individual-interior or intentional aspect of humanity, which is

an important aspect of his views that will become clear in the following chapters. It is clear that Cattell's arguments against religion concern the mythic and dogmatic aspects which Wilber (1998:169) identifies as "bogus" religion.

3.3 Wilber's argument for the integration of truth and meaning

Wilber's argument for integrating science and religion rests on the interrelated functioning of all four quadrants, which is possible –

[...] if science can surrender its narrow empiricism for a broader empiricism (which it *already* does anyway) and if religion can surrender its bogus mythic claims in favour of authentic spiritual experience (which its founders uniformly did anyway) (Wilber 1998:169).

If both science and religion follow the three strands of valid knowledge, both can claim equal recognition of validity and be evaluated against bogus science (pseudo-science) and bogus religion (mythic and dogmatic religion).

We still remain with two spheres of knowledge, namely cognitive truth and emotional or intuitive truth. How do we rank them?

The modernist differentiation of the value spheres of arts (I), morals (WE) and science (IT) has been mentioned earlier. These value spheres could be regarded as the core of the world view of the modern era.

Wilber identifies the spheres as the "Big Three" – *I*, *WE*, *IT* – to be the expression of a concept developed by various other scholars, such as:

Karl Popper: Three worlds – subjective, cultural, objective

Habermas: Validity claims – subjective sincerity, inter-subjective justness, objective truth

Plato: Beautiful, Good and True

Buddhism: Buddha, Dharma, Sangha

Kant: Critique of pure reason (objective science), critique of practical reason (morals) and critique of judgement (aesthetic judgement and art)

Consider the schematic representation of Wilber's Big Three in Figure 3.1 below:

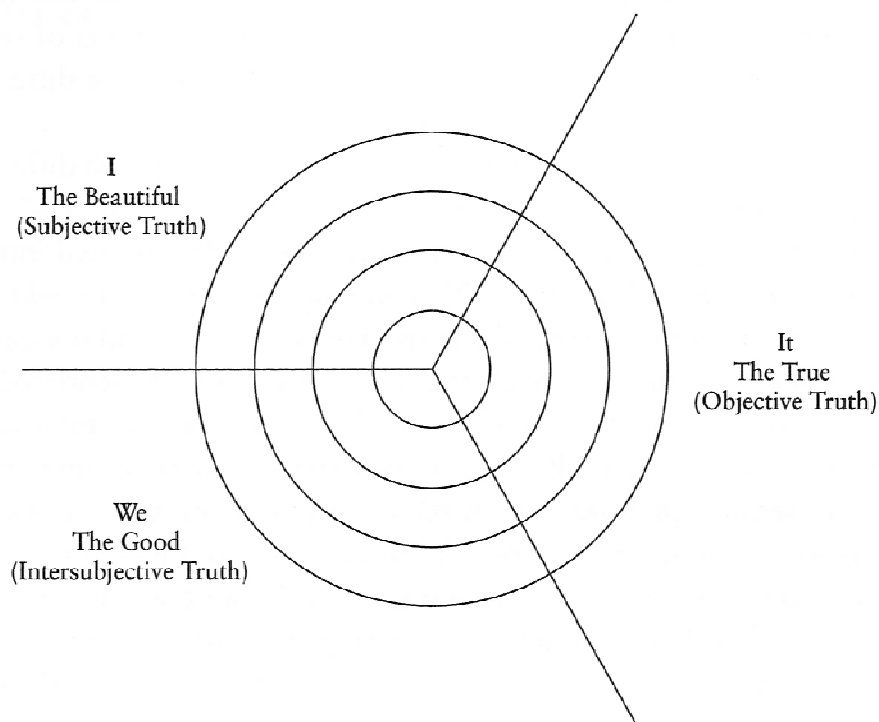


Figure 3.1: The Big Three (Wilber 2000:446).

At the core of all premodern thinking, Wilber identified the Great Chain of Being¹³: reality as a series of nests within nests within nests, reaching from *matter* to *mind* to *Spirit*. All beings and all levels are ultimately enfolded in the all-pervasive and loving embrace of an ever-present Spirit (1998:8).

This all-encompassing world view was lost through denial in the modern West after the Enlightenment, and “replaced” by the differentiation of art, morals and science, which could be identified as the core of the world view of modernity.

¹³ The Great Chain is a condensed form of The Great Nest of Being illustrated in Chapter 1 on page 10.

Wilber suggests that these two core claims, namely the spirituality of the Great Chain and the differentiation of value spheres of modernity, be synthesised in order to bring science and religion to function harmoniously on an equal basis in the whole of a shared reality. It could be presented as follows:

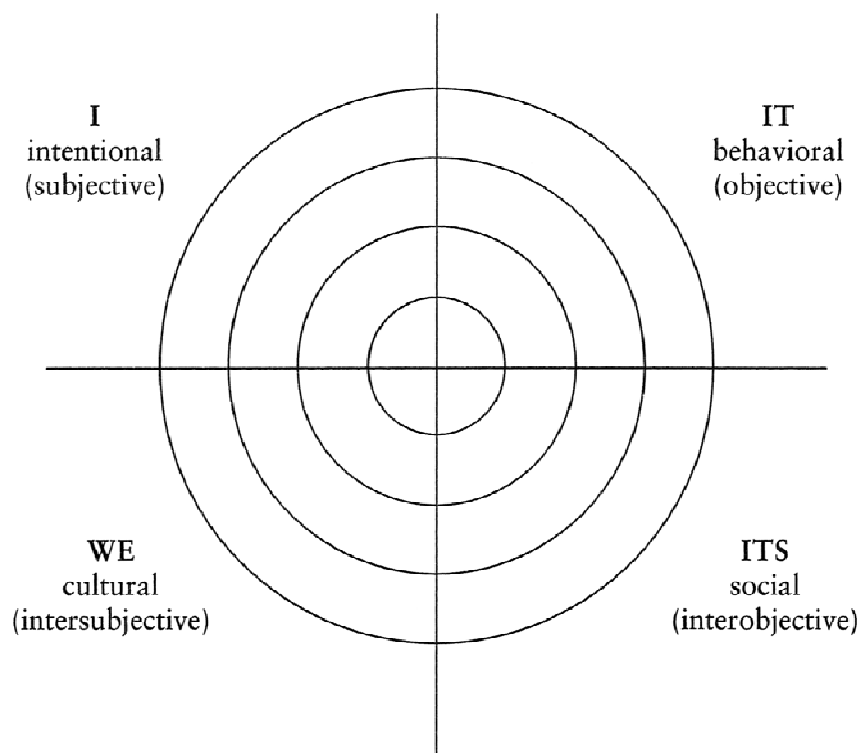


Figure 3.2: The Great Nest with the Four Quadrants (Wilber 2000:446).

We can now identify art and morals and science of the sensory realm; art and morals and science of the mental realm; and art and morals and science of the spiritual realm. This manner of bringing together truth and meaning holds the promise of integrating science and religion in such a way that science is not located at the bottom rung of existence, and where spirituality can be recognised at all levels.

3.4 Scientism?

Could the label of scientism be applied to Beyondism? In Wilber's view, empirical science evolved into scientism. It embodies the belief that there is no reality save that revealed by science, and no truth save that which science delivers (1998:56). This kind of scientific monological approach that defies the inner and "higher" dimensions of mankind is causing a "flatland" mode of existence. Cattell's pursuit of a new morality from science may be seen as an endeavour to apply the latest scientific knowledge not only to the physical, social and psychological levels of human functioning and existence, but also to a spiritual level of ultimate goals, responsibility, accountability and sacrifice towards an individual as well as universal evolutionary goal. These ideas will be tested on different levels of functioning as we advance.

Beyondism's outspoken scientific foundation and religious claim may superficially suggest association with the movement known as Scientology, a twentieth-century religion founded on the ideas set out in L Ron Hubbard's *Dianetics: the Modern Science of Mental Health*, which was published in 1950. The goal of Scientology is to make the individual capable of living a better life in his or her own estimation. Hubbard has been disclosed as one of the most bizarre characters (Miller 1987) of the twentieth century, his theories "fantastic and impossible" and more than twenty years after his death, his church still thrives through active proselytising and questionable techniques. From this it is very clear that Scientology functions on completely different principles than those proposed by Cattell for Beyondism. There can be no comparison between the characters or work of Cattell and Hubbard.

Beyondism is based on the acceptance of the principles of evolution and the application of those principles guided by scientific research. The research centres that Cattell envisaged would study individual and social trends and make available results that could influence decisions about the advancement and survival of humanity. Beyondism has however never reached a stage of an organised functioning movement.

3.5 Paradigm shift or wild goose chase?

Cattell's scientific thought was shaped during the first quarter of the twentieth century and he acknowledges his alliance with the main ideas of August Comte (1789–1857; positivist founder of sociology), John Stuart Mill (1806–1873; empiricist philosopher and utilitarian social reformer), Herbert Spencer (1820–1903; positivist social reformer) and TH Huxley (1825–1895; evolutionary epistemologist). Building on this socio-scientific background, through meticulous research in cooperation with other scientists, Cattell left a great legacy of published results in his own lifetime. He achieved being considered one of the half dozen greatest psychologists of the twentieth century.

Kuhn (1970:34) depicts normal science as functioning through determination of significant facts, matching facts with theory and articulating theory. Cattell functioned in a scientific field that is by nature different from the natural sciences and physics generally referred to in Kuhn's examples. However, his laboratory work and remarkable team leadership amount to notable observational tests. Cattell designed various personality tests, such as the 16 Personality Factor instrument (16 PF), High School Personality Questionnaire (HSPQ), Children's Personality Questionnaire (CPQ) and the Motivation Analysis Test (MAT), and presented a theory of fluid and crystallised intelligence, which is now widely applied.

The actual laboratory for social science is global, and experiments extended over generations and centuries of unrepeatable history. Cattell was well read in the classics and philosophy of the time and he loved poetry and English literature, which deepened his insight and aided in analyses of the human and society, although he always preserved an aloofness regarding this field of expression (here *emotional intuition* applies).

Richard Gorsuch, former student and colleague to whom Cattell was an important mentor, regards Cattell as "one of the most integrated scientists I

have known” (2007:28). Gorsuch uses Cattell as an example of personal integration, other than integration done within a Christian frame of reference.

RBC [Cattell] rejected all of the world's religions in favour of being a Darwinist and following an approach he calls 'Beyondism' (Cattell 1987). Hence he approached integration from a different angle and, while I strongly disagree with him in particular points, his work provides additional insight that can occur from 'seeing how someone outside the fold does it' (Gorsuch 2007:29).

This wide integration in observing evolutionary values had a huge impact on Cattell's approach to current socio-political practices. He is of the opinion that the real tasks and purposes of a modern society can no longer be met by political organisation and government, which, to him, is “a still hopelessly archaic game”. The changes envisaged by Beyondism are as radical as, say, the radical change from a four-legged to an upright posture in the hominids. However, there is hope for a shorter time span. A well-supported social science could possibly work itself out constructively in a generation (Cattell 1972:346). The Beyondist revolution Cattell proposes, which is to take place from above, would entail the substitution of the “normal” revolution from below, and would require the following:

- a. The shift of broad democratic decision to wants and of technical decisions to a democracy of specialists
- b. The training of political leaders in social science
- c. The shift of ethical and other values in social reform from a dogmatic revealed to an evolutionary scientific derived basis
- d. The setting up of a “ministry of evolution” to enable changes of evolutionary magnitude to be made by evolutionary methods (1972:346).

The lack of such scientific method from human social organisation lies behind a history of painful revolutions. Referring to Kuhn, Price and Riddle, Cattell states that changes of equal magnitude and suddenness have occurred in scientific “revolutions” (1972:346). He proposes a moral system change of

revolutionary magnitude to be made by evolutionary methods, mostly through continual research. His motivation is that where values change from above there is no need for rebellion.

Cattell's situation can be recognised in Kuhn's statement on paradigm change:

[...] the issue is which paradigm should in future guide research on problems many of which neither competitor can yet claim to resolve completely. A decision between alternate ways of practicing science is called for, and in the circumstances that decision must be based less on past achievement than on future promise. The man who embraces a new paradigm at an early stage must often do so in defiance of the evidence provided by problem solving. He must, that is, have faith that the new paradigm will succeed with the many large problems that confront it, knowing only that the older paradigm has failed with a few. A decision of that kind can only be made on faith (1970:158).

Fully aware of the fact that his ideas would not be accepted with ease and unconditional agreement, Cattell noted the following in the preface of his 1972 book:

My 'asides' on the matter mentioned above [social sciences getting down to the ethics problem] after some moments of puzzled discussion by a few colleagues had been put aside as if they fitted in no mode of customary thinking [...] from observing that few men and even fewer women could make any sense of it, I perceived that a much more systematic introduction and far more illustration to make the setting and the application more real in everyday life were necessary (Cattell 1972:xii).

Being an independent and innovative thinker, he had already experienced total misunderstanding of statements made in this regard in 1933 and 1944.

However, he remained convinced of his cause:

Admittedly, there are at intervals, reorganisations of ideas even in the field of science (Copernicus, Dalton, Harvey, Pasteur, Rutherford, Einstein) that demand revolution rather than evolution. Fortunately they do not demand social revolution, except in the ranks and hierarchies of learned societies, and here one is almost forced to accept as much as half a century's delay, in lieu of bloody executions, according to Kuhn's mordant but partly true statement that obsolete theories do not disappear from the field except with the retirement of those who hold them (Cattell 1972:419).

Since 1970, Cattell must have started realising that he would not outlive the generation of the "old paradigm". That realisation urged him to put forth his ideas despite (an acknowledged) lack of research backup in certain areas. Was he driven by an urgency to draw as complete a projection as possible of his Beyondist future at the time of writing? Why was this man, intent on sound scientific procedure, and seemingly appreciated among colleagues, alone in this quest?

My intuitive hypothesis at the beginning of this study was that even hardcore academics functioning in a dominantly Christian and religiously orientated community would not be inclined to go against the established belief system, especially in the field of ethics and morality. For that reason, the aim of this study is to evaluate Beyondism presented as a new religion from science, and the following chapters will concentrate on that aspect.

3.6 Intellectual censorship and new high-water marks

When discussing scientific validity and academic enterprise, there is something behind the withdrawal of the 1997 APA award to Cattell that cannot be ignored. It has already been mentioned that Cattell was accused of "academic racism" and many instances of wilfully wrong interpretation of his work can be identified. See Chapter 5.2.1 (on page 134) for a typical example.

Glayde Whitney of Florida State University, at the time, took up the matter in a lengthy article, analysing the event as “an instance of inquisitional attack on rational thought and inquiry, in the context of modern liberalism with radical egalitarianism” (Whitney 1997:99). He identifies the withdrawal as a Fourth Inquisition,¹⁴ noting that the psychological and social sciences are lagging the physical sciences by a few centuries and that they are still suffering attempts at suppression and censorship, which characterise the inquisitional approach.

Whitney identifies a radical egalitarianism, characteristic of modern liberalism, which has become formalised as a quasi-theological dogma that is inconsistent with the discoveries of Darwin, Galton, and Mendel.

The fourth inquisition was established in the mid-twentieth century to suppress heresy. As with the first and third inquisitions, a main problem has been that the ideologues did not integrate new knowledge with their already established objectives and dogmas. Instead they viewed new discoveries as a direct threat to all that was good and important in society. As with the earlier inquisitions, the fourth attempts to suppress and censor new knowledge that is perceived to be threatening to old dogmas (Whitney 1997:99-124).

Cattell, in his time, could not do sound scientific work without investigating intelligence, heredity and eugenics and drawing conclusions from his investigations.

Cattell has exhibited a lifelong commitment to attempting to understand the causes of both individual and group differences. Cattell is guilty of being a scientist with an interest in the causes of individual differences (Whitney 1997:99–124).

It seems that Cattell was subjected to the same kind of selective interpretation as Herrnstein and Murray, authors of *The bell curve* (1995), which, among other things, drew the attention to apparent racial differentiations in cognitive

¹⁴ The First Inquisition: 1233 William of Occam, Roger Bacon and a close escape by Thomas Aquinas. Second Inquisition: 1478 in Spain against Jews and Muslims. Third Inquisition: 1542–1600+ Copernicus, Giordano Bruno and Galileo (Whitney 1997:99-124).

ability. That was part of a much wider study exploring the impact of current developments on future societies, conducted by serious scholars. Reaction ranged from respectful and thoughtful disagreement to little more than shouting: “Nazi!” (Johnson 1997:794).

In the preface to his 1972 publication, Cattell comments on the reception of new ideas, noting that the more trivial is better accepted than “a more fundamental and subtle solution to an old problem”. He motivates a virtual silence of forty years before he presents his ideas on a fuller scale:

[...] for it is my experience in scientific work that fragile ideas brought too early into the market place of general discussion and debate are often coarsened and lost rather than developed. In the minds of those who hear them – and, alas, those who attempt to propound them – what is really new gets stamped into the gross common coinage of existing verbal conceptions – as Francis Bacon complained – with the standard misconceptions of the period forever imprinted upon them (1972:xiii).

The tides of history ebb and flow by the ideas and deeds of individuals; some move with springtide and leave high-water marks, others shape a new coastline by “authentically” washing away the old to establish the new marking line that may only be visible at low tide, until eventually there is a new coastline.

Ultimately, time will determine the impact of an individual such as Cattell, who acted on visionary though calculated convictions, lived a fruitful life and left a legacy of challenging ideas.

CHAPTER 4

ONTOLOGY

4.1 Cosmology

Cattell does not get involved in cosmological theories. Between Berkeley – considering the external world a dream – and Descartes' argument for its being a reality, Cattell is content to conclude as follows: "The universe exists" (Cattell 1987:4).

Science sometimes has to launch an interpretation with an assumption and an act of faith. For Beyondism, this interpretation includes that "evolution exists as a paramount fact within this universe" (1987:4). Cattell, having once committed to this basic principle, believes that an astonishing richness of conclusions, each with the firmness of a scientific finding, could follow, both for social and ethical action. From this vantage point, he builds his argument for religion from science, with new emotional values that must grow from the appreciation of a new analysis of the world around us. The logic that he develops is aimed at leading to a new basic life attitude and state of mind in the individual to be derived from a cognitive view of the universe:

[...] the origins of the universe are presently beyond our comprehension. But wonder at the marvellous construction of the universe – from stars to the electron – is a vital part of the spirituality of Beyondism (Cattell 1987:175).

4.2 Evolution

The major discovery of science in the last century may be considered that of organic and inorganic evolution, which is mysteriously evident and much debated with many questions, such as: Is it always to "better" or improve things? Is the improvement inevitable or dependent on circumstances? Does evolution have a variety of directions or just one?

According to Cattell (1987:5), there is a complex interaction between the two forms of evolution – biological and cultural – which we must understand.

Biological evolution could be regarded as follows:

- a) The occurrence of new variations in the biological make-up, as determined by gene changes.
- b) Exposure to natural selection, circumstances under which some forms survive better than others through better adaptations to the given environment.

Cattell (1987:5) observes that recent progress in genetics did not change the fundamentals of evolutionary progress as described by Darwin, Huxley and Spencer more than a century ago.

Evolution appears to take place through competition, strife and the survival of the fittest. There being no biological evidence of inheritance of acquired characteristics, it must be assumed that new beings differ in an erratic way; that the sieve of environment allows the passage only of those possessing some advantageous inheritance. Evolution is therefore assured only by our cooperation with Nature in its vigilant and ruthless elimination of the less fit (Cattell 1938:89).

Since the Beyondist argument is mainly about cultural evolution, Cattell argues as follows:

The selection has finally to operate, literally on individuals, but often the results are well summarised and understood by considering the effect on groups – either as [1] a species interbreeding and having common characteristics, or [2] an organised group, with roles, rules and social structure – say a nation. [...] In a species to a limited extent and in an organised group to a large extent, the survival of the group depends on *capacities for interaction* that are not relevant or necessary simply for the survival of the individual *as such*... Although all survival ultimately take place as survival of *individuals*, it is over-concrete and unsubtle thinking to overlook that it is nevertheless the ultimate interactive properties of the species or

group *as such* that greatly determine evolution. [...] Natural selection is going on *simultaneously* between groups and among individuals and among individuals within groups. [...] within group selection has to conform to the demands of between group selection. [...] It surely needs no extended illustration to accept the basic premise of Beyondism that evolution must produce superior individuals who are *fitted to work in organised groups* (1987:6-9). [Italics as in text.]

4.2.1 Freedom/Forced choice

The question about freedom/forced choice brings us to the core of what Beyondism is about. In an extensive obituary, Professors RM Dreger and IA Berg refer to Cattell's adoption of a "religio-philosophical Beyondism" as apparently being the culmination of his almost dogmatic faith in evolution (Gilles [n.d.]).

The first principle of the summarised Beyondist Catechism is thus as follows:

That evolution is the prime process visible in the universe, to which we have to conform, and should do so in good will (Cattell 1987:257).

Cattell contends that it has to be considered that since humans have self-awareness and self-will, individuals are free to recognise and admit a grand purpose while declining to be part of it. Why would a rational individual decide against the possibility of participation in the scheme of evolution? There is the lurking possibility of disappearing as a species and the assertion that evolution is either indifferent to humans or evilly disposed to them; that the universe is no more concerned with humans than with an ant or a grain of dust. On the other hand, humans, who are undeniably part of the evolutionary process, embody love and understanding – with the consequential probability of expanding these qualities.

Even if the doubt remains whether evolution is what we think it is or whether what we value as love is an increasing principle in the universe, “*then the logical decision must still be to commit ourselves to evolution. For only by evolving in intelligence and knowledge can we reach the answer*” (Cattell 1972:78). [Italics as in text.]

In line with Cattell’s approach, I quote Jonas Salk (1975:70):

[...] in the course of evolution from molecules to man there has occurred a shift in relative importance from chance to choice. Man’s life is not determined by chance alone; neither is choice always possible. But there does exist the challenge for man to create a world closer to the one which men the world over desire.

By virtue of the ‘insistence of life to survive’, a challenge is posed for all living things to invent mechanisms for increasing the probability of survival. Not until the advent of man has this insistence on survival become a conscious, controllable process, possessing a voluntary component, even to the point where man has developed a means of guaranteeing his own survival against a human enemy, the efficacy of which, however, assures the destruction not only of the enemy but of himself as well.

We thus have a situation where the “forced choice” principle leads to the inevitable acceptance of evolution, especially biological evolution toward a brain capacity and structure capable of understanding beyond present limits. Cattell argues that the mere accumulation of knowledge by scientific method at our present stage of evolution as a species will not be sufficient – the only conclusion left to the intelligent human is that our species has to accept evolution and strive for evolutionary gains.

4.2.2 Evolutionary Goal/Purpose

Considering those eras that have historically dominated human values, JB Bury (*The idea of progress*, 1920) in Cattell (1972:79) concludes that in Graeco-Roman times and in the Orient the idea of progress and process did not exist:

In Christianity with its orientation to a future world, the emotional basis for progress was prepared; 'the present is not good enough and man is imperfect'. However, as sociologists have noted (Weber 1904), it was only in the Protestant ethic that Christianity came near to translating itself into a philosophy of human progress on earth (Cattell 1972:79).

Utilitarianism meant freedom from superstition and moving to an objective basis; however, it could be seen as the degeneration of a goal which has slipped into becoming merely hedonistic or humanistic:

The Existential value represented by Sartre's (1948) 'Man...must count on himself...with no other aim than the one he sets himself', is a trivial aim (Cattell 1972:80).

In contrast to these world views, the scientist who follows Beyondism finds his or her goal in his or her active, group-coordinated investigation of the universe, a goal that is no passive acceptance of a tide of evolution.

Rather it commands the Beyondist to navigate on that tide – to take matters into his own hands and experiment and strive. There is no contradiction between the inevitability of evolution for living things as a whole and man's deliberately attempting to explore his own evolutionary potentialities. Will is part of the natural process (Cattell 1972:80).

The acceptance of the evolutionary goal as proposed by Beyondism does not answer or eliminate the question about good, evil and suffering and a Supreme Being determining the fate of mankind and the universe.

In the realm of evolution one may ask, if the ultimate outcome is pre-determined by a Supreme Being and immanent in the structure of the universe, why do we have to re-discover it by long joy and suffering of trial and error. Surely we have to admit that the limitations of our present understanding are such that we are probably asking a false question. The enigma simply underscores our need to evolve in power of comprehension (Cattell 1972:80).

Concerning Wilber's Great Chain model, Cattell's essential evolutionary approach fits naturally, since "evolution is actually not much more than the Great Chain temporalised" (Wilber 1998:205). Wilber depicts the Great Nest of Being according to the similar hierarchies of two great philosophical mystics, namely Plotinus and Aurobindo:

PLOTINUS

AUROBINDO

Absolute One (Godhead)	Satchitananda/Supermind (Godhead)
Nous (intuitive mind) (subtle)	Intuitive mind/Overmind
Soul/World Soul (psychic)	Illuminated World mind
Creative Reason (vision-logic)	Higher mind/Network mind
Logical faculty (formop)	Logical mind
Concepts and options	Concrete mind (conop)
Images	Lower mind (preop)
Pleasure/pain (emotions)	Vital-emotional; impulse
Perception	Perception
Sensation	Sensation
Vegetative life function	Vegetative
Matter	Matter (physical)

If we look in detail at the four quadrants in Appendix A, it illustrates the universe has evolved from matter to sensations (in neuronal organisms) to perceptions (with the emergence of the neural cord) to impulses (in reptiles) to images (in mammals) to concepts (in humans). It is clear that the stages of evolution given by science closely match the corresponding stages given by the Great Chain theorists (Wilber 1998:205).

Intellect is accepted as only one of several survival aids, to be evaluated by its survival contribution. The basic position of Beyondism is that we have to *go beyond what is*, abiding by and according to the essential evolutionary requirements of natural variation and natural selection among groups, with individuals finding purpose in the strive towards the open-ended goal of evolutionary progress.

With regard to Wilber and the integrative model, we can accept that –

each stage is true, each succeeding stage is 'more true': it contains the previous truths and then adds its own, emergent, novel truths, thus both including and transcending its predecessors (Wilber 1998:207).

4.2.3 Views in relation to other systems of thought

Cattell obviously shares reason as an ingredient with rationalism, but he repudiates any association with or grounding in rationalism, mainly because of exponents of rationalism relying on a *priori* arguments. In terms of life and character of the group as such and the evolution of whole cultures, he prefers a fundamental distinction from Hegel, Marx and Herder as to the purpose of the group and from Herbert Spencer and Schopenhauer as to the character of evolution, stating that –

[t]hese describe the action of wholes in too mysterious manner, and at worst succumb to teleological extra-scientific explanations [...] let us agree that action of the total culture is real enough, but that it can be handled by factor-analytic procedures and multivariate, emergent models in a scientifically effective causal analysis (Cattell 1972:74).

Cattell agrees with the vital point made by Hegel that some kinds of scientific experiments could be repeated as often as one wishes, "but history does her experiments only once", as regards any identical repetition, and that these experiments are part of a unique unfolding irreversible stream of data (Cattell 1972:74). He emphasises that the behaviour of social groups belong to the same science as other sciences, and needs no Hegelian metaphysics or intuitions beyond science.

He guards against confounding Beyondist concern for the group with Hegelian super-individual values or its concern for evolution with enthusiasm for the Nietzschean super-man.

The vitality of his poetry is undeniable, but, unfortunately, it embraces among other errors of scientific conception the notions (a) that the survival of the fitter is an affair of individuals, and (b) that competition and aggression are one. The praise of primitive aggressiveness does not belong to a realistic understanding of natural selection. (Cattell 1972:74).

Cattell's development of ethics from science could rather be traced back to Locke and Hume and what has been called English empiricism. (English empiricism has been accused of distrust of pure reason when actually it respects reason to the point of wishing to protect it from merely *a priori* verbal logic.) He also associates with moral systems implicit in Comte's positivism and explicit in the utilitarianism of Bentham and Mill – they strike the essential note by bringing together, on the one hand, a regard for the empirical laws of social behaviour, and, on the other, an explicitly stated final social goal – greatest happiness of the greatest number (Cattell 1972:75). Cattell finds some continuity with their rejection of religious revelation and metaphysical verbal rationalistic systems as a source of morals. He is also clear about essential differences: He prefers searching in science itself for the goal, instead of accepting the too subjective and “porously simple” formula for “the greatest happiness of the greatest number”.

Cattell believes that the complete integration of ethical thought with science is now possible. He (1972:76) specifies the four main reasons for the failure of the utilitarian movement and why it failed to survive philosophical criticism, namely:

- a. The “unsatisfactoriness” of the subjective, arbitrary and indefinite nature of the goal.
- b. The unpopularity with people of religious values of the possibly hedonistic nature of this goal.
- c. The neglect to include the unborn – the biological future – in defining as democratically satisfying the happiness of the greatest number (present), and
- d. in suggesting (partly through its historical association with liberal thought) a greater degree of laissez faire in moral matters than

experience of moral control indicates to be workable.

The Beyondist approach towards a new “state of mind” as basis for personal values and individual behaviour entails the following (Cattell 1972:73):

- i. Acceptance, among other things, of the scientific view that mankind is in a process of evolution in a physically and biologically evolving universe.
- ii. It admits the possibility that the further evolution of his species may fail, but also that there is no inherent reason why the present stage may not be a mere first step in tremendous evolutionary advances yet to come.
- iii. Beyondism reasons back by means of technical social-scientific arguments to defining what the moral laws for individuals and groups have to be to produce such evolution.

Cattell's view of evolving to greater insight through both biological and cultural evolution seems the logical continuation of what has been going on since this now determinable process had started.

4.3 Humanity

Cattell completely accepts that the process of biological evolution includes humans up to the point of man accepting the goal of evolution consciously. The concept of natural selection can be defined as the main determiner of evolution in both biological and cultural natural selection, and the latter becomes an important topic of socio-scientific research. Beyondist thought links with the emphasis on the history of cultural natural selection as observed by authors who published between 1965 and 1970, such as Darlington (who published in 1969), Deutsch (who published in 1965), Merrit (who published in 1970), and Rummel (who published in 1966) (Cattell 1972:111). Cattell's arguments correlate with the most recent research findings in the field of natural selection (Fuller & Thompson, who published in 1960; Lerner, who published in 1968; Darlington, who published in 1969) at the time of writing, which was 1972. He makes the calculated assumption that biological and cultural (behavioural) variation and natural selection have enough in common to economically speak of both together.

4.3.1 Individual within the group

Concerning the two main “mechanisms” of evolution, namely variation and natural selection, the important question is: are those mechanisms applicable to individuals or groups? Which is more important?

As the individual and society are parts of the same process, they should not be seen as opposing elements. Variation and natural selection operate on the habits and genes of the individual, and upon the cultural and genetic patterns of societies as wholes. Through innovative thought and self-realisation the individual contributes to and builds society, which provides through culture the space and opportunity for full expression of his or her potential. Natural selection may produce competent or powerful individuals, but the properties necessary for maintaining viable groups will, in the end, be the determining factor, as natural selection operating among groups is the final arbiter.

A successful society must produce the creative individuals on which its success depends, and creative individuals have need to foster a strong and supportive society. Obviously every society must control by conscience or force, anti-social or anarchistic behaviour, and its skill in distinguishing between creative ‘revolutionary’ originality or mere benign deviancy on the one hand, and malicious individualist anarchy and purely destructive ‘revolutionary’ hubris on the other, is a measure of its likelihood of survival (Cattell 1972:81).

4.3.2 Natural selection

In humans, natural selection acts both on the genes and culture, and the natural selection of the group has priority, for only the group carries culture as well as genes. According to Cattell (1972:82), cultural evolution has extra mechanisms, such as culture borrowing, reinforcement and regulatory assimilation, which are not operative in biological evolution for which the laws and mechanisms of natural selection are worked out far more adequately. Thus, although we are right to continue attempting deliberate progressive

adaptations, the first illusion we have to get rid of in this field is that we *know* that sending more people to college, changing vote requirements and so on is progressive. In the end, the progressiveness of these measures has to stand or fall by their survival value for the group, just as biological mutations do.

Cultural habits will also experience *learning* (as distinct from selection) reinforcement, by reward when they are successful, and extinction when unsuccessful, so that natural selection in the broader sense can operate on cultures *per se*, without biological selection occurring (1972:83).

The idea that natural selection among groups should mean “international warfare” is completely out of line with Cattell’s approach. Different mechanisms are active in group survival or breakdown:

- Group competition may be abolished because selection within groups will take care of rubbing out unviable groups. What may be called *systematic malignant inter-individual selection* (SMIS) is probably a cyclic effect in which individual selection for a time multiplies genetic types and social habits with no regard for group survival, followed by a periodic check by group survival, which rubs out the unviable group. Malignant cancer cell growth in a biological organism could be used as an analogy of this process. A whole new scientific development is necessary to structure what goes on in this interplay (Cattell 1972:84).
- There is substantial evidence that even incomplete and relative breakdowns of a group culture have biologic-genetic effects. Examples can be found in the history of enslavement over thousands of years, where the cultural and political life of groups broke down and fertility was curbed through circumstances (1972:85).
- Two equally powerful aspects of natural selection can be identified, namely *E-selection* – ecological natural selection, that is, success or failure vis-à-vis nature itself; and *I-selection* – inter-group pressure selection, much more due to economic, political and cultural pressures than warfare.

Almost certainly the relative success of human groups rest more on E-selection – in making a living from nature; organisationally, in arranging good education, resistance to natural catastrophe and disease, and, above all, morally – in producing a happy society in which to live and reproduce (1972:85).

The Beyondist ethical aim is to produce *groups* effective in giving creative scope to high individual intelligences, aware of the possible disastrous effects of maintaining only inter-individual selection, without any check by inter-group selection. He emphasises the possibility that individual selection alone may then produce geniuses, but there would be no society to pass on their discoveries – dead societies tell no tales. It is important that a society maintain the conditions for vigorous collective cultural action to prevent falling apart; a condition that can be identified when investigating the last stages of the sprawling Roman and Chinese empires (1972:86).

Priority should be given to selection among groups; a motivated belief in *cooperative competition*.

That is to say, like players in some greater more vital game than men usually play, cultural groups recognise that the maintenance of inter-group competition is indispensable to evolution and they agree to cooperate in whatever rules are necessary to maintain it in effective action (1972:86).

4.3.3 Cooperative competition

The inter-group selection process has operated powerfully in human development for perhaps a million years, but it is only comparatively recently that social scientists have begun to take a good empirical look at what takes place in inter-group natural selection. At the level of primitive behaviour, Ardrey (who published in 1966 and 1970) and Darlington (who published in 1966 and 1969) are prominent, and at the level of advanced cultures, Cattell (1972:83) is authoritative.

When the sharp and specialised eye of the social scientist scrutinises history, it becomes clear that countless genetic features of man, especially in the realm of behaviour genetics, are clearly the consequence of a million or more years of nature's weighing of family against family, tribe against tribe, and in the last ten thousand years, nation against nation. Both the successful and the ones that were subject to human or other environmental genocide have the potential for new and important scientific generalisations in this area. An interesting example can be drawn from ancient Greek writings – those of Homer and Thucydides (Cattell 1972:83), for example, from which can be perceived incessant struggle among tribes and states before the flowering of the Greek culture:

There can surely be little doubt that that investment in what must have been one of the most intensive group natural selection periods on earth was substantially responsible for the genetic capital which, in the comparative security of Athens, was finally expended in cultural advance in the narrower sense (Cattell 1972:84).

Inter-group and inter-individual evolution go on together, while the processes of within-group individual selection and between-group selection of social organisms are not merely potentially independent and producing different results, but could also systematically undo each other. With regard to such vital traits as superego strength and self-sacrificing tendencies, behavioural habits highly favourable to selfish individual survival may be incompatible with the survival of the group, whereas extreme self-sacrificing tendencies may collapse the group from within:

The central principle to be borne in mind here is *that though natural selection must necessarily continue to act directly among individuals, the selection of individuals is always going to be checked out and validated by natural selection operating among groups as groups* (1972:82). [Italics as in text.]

4.3.4 Evolutionary advance

The internal direction of social change will always be an adventure and a gamble. Particular within-group ethical systems are weighed for their survival value, but the outcome of the natural selection process among groups is also determined by genetic and environmental resources not connected with and additional to what is contributed by the present moral state of the group. Apparently dogmatic religion, Fascism, liberalism, humanism and most utopian political systems share the illusion that one can tell from our untutored desires what directions of change are progressive. Cattell suggests that socio-scientific research can greatly raise the degree of certainty in choosing what is going to be progressive.

Progressiveness and survival potential are extremely difficult to measure or predict before they are proved by history. The comparison of similar groups or situations may provide indicators of probability, which would be most valuable where groups are still living and where elements that lasted long in a society could be considered. An indicator of positive effectiveness in a society is evidence of the capacity to adjust over a wide range of environmental challenges. In human societies a capacity to produce and utilise individuals of higher intelligence is one important objective measure of advance.

Cattell (1972:87) acknowledges that there is much about evolution that we do not yet understand, as there is no direct “straight line” of advancement. Why do certain ecologically challenging circumstances stimulate spurts in evolutionary adaptation while other climatic or radiation changes bring about extinction of dozens of species? Morgan (1923 in Cattell 1972:87) pointed to the phenomenon of new emergents – qualitatively different configurations – in evolution. Is the more complex more advanced? Is later always better? What about regression? One could come to the conclusion that what fails to survive is less advanced than whatever survives – an application only possible after a species has become extinct. Different organisms flourish in different situations, so one has to look at environmental demands as well as the performance of the creature.

In evaluating evolutionary advance, different factors should be considered, namely:

- Organ complexity and differentiation are correlated with superior functions.
- Under equal circumstances, the more abundant is more successful.
- Complexity and breadth of the environment to which the organism can adapt and the ability to survive when transplanted are a measure of level of evolution.
- Species that are more aware of and able to control their environment are more advanced. This adds to the above the measure of how much change the organism brings about in its environment.
- Movement in the opposite direction from that of our past; different from regression, which means moving back to a previous stage. This could mean tracing the course followed, going back to where we have been, avoiding a cul-de-sac, and building on another aspect of a past that is not altogether worse than the present.

The above basic principles will be the foothold when arguments will move to human and cultural advance, along with the realisation that decisions relating to progress will have to be made in the light of higher and lower probabilities rather than certainties.

4.4 Theopsyche

In the spirit of the early twentieth-century establishment of psychological science among the other sciences, Cattell worked on certain concepts and some experimental research results to offer a basis for an entirely new and constructive scientific approach to religion. Ethics, moral conduct and social organisation could be approached in this manner and seem to substitute the role of traditional religious institutions, However, Cattell looks at the nascent soul of society and develops his theory of the Theopsyche as a concept of God.

4.4.1 Group mind towards Theopsyche

The notion of group mind was developed by McDougal around 1920. Even though he did not dwell on the implications for religion, he never regarded a person as merely an assemblage of unconnected and quarrelling motives, since people are “integrated unities” guided by one supreme motive around which others are organised.

The essence of the notion of group mind is that in any organised group of human beings there exists a super-individual mind, built up from, yet greater than, the sum of the individual minds – modern concepts of this are found in Hobbes, Hegel, Bosanquet and others. The notion is indeed also visible in the lower-left quadrant: Interior-collective of Wilber’s four-quadrant holon, as portrayed in Appendix A.

Right from the beginning of the exposition of his ideas concerning group mind and eventually Theopsyche, Cattell expresses his strive to stay clear from entanglement with philosophical systems and religious beliefs. He intended to work only with what was known about humankind psychologically and socially, and what could be deduced from the ongoing unrepeatable experiment of history. In effect, he was concentrating on what is portrayed as the upper right: Exterior-individual and lower left: Interior-collective of Wilber’s holon in Appendix A.

4.4.1.1 Individual mind and group mind

The individual mind is alive, responds to stimulation, and has emotions and appetites. She acts and wills to do certain things and decides between different courses of action. She shows evidence of memory, habits and sentiments that constitute the personality and we can assume consciousness (Cattell 1938:63).

Group mind can be detected in any group: a ship’s crew, football team or nation, showing acts in a unified way towards a definite end, responding as a

whole to external stimuli and showing evidence of emotion and heightened excitability. Nations reveal peculiar habits and native temperament as individuals do and collective memory on incidents occurring between groups can be traced. The group memory is stored in individual minds and partly in the archives of libraries. Changes that can be traced in history were brought about by newspaper activities, ballots and organised political committees, all consciously working towards a collective goal.

Many features of the structure and functioning of the individual mind remain unexplored territory, and mental features of the group mind can similarly only be observed and explored. Although the individual mind mirrors a miniature group mind, no individual mind can contain the whole range of awareness or equal the power and intensity of the group mind.

Communication within the group mind is as important as nerve tissue links within the individual mind and the less organised group mind could be ranked lower than any individual mind, for example the crowd. Concerning the old saying, *vox populi, vox dei*, Cattell's view is that the voice of the crowd is not even an echo of the voice of God (1938:65). But it is equally certain that the capability of the individual mind is qualitatively and quantitatively exceeded by the highly organised and integrated self-conscious group mind containing more individuals than any brain has cells. It would also seem that the same evils arise from repression in the group as within the individual mind and a revolution in the group mind is paralleled by a religious conversion in the individual (Cattell 1938:66).

Cattell is clear that the relationships in the life of the individual and the group are matters for statistical and clinical research. He cautions seriously against the possible contamination of the study of the group mind with the philosophical assumptions of Hegel's deification of the state. In its arbitrary blindness to any group other than the state, Hegelian philosophy could be considered instrumental in having sanctioned World War I, thus leaving an attitude of revulsion against accepting the idea of the group mind (Cattell 1938:67).

Groups of people (committees, etc.) have experienced certain thoughts, feelings and attitudes, and by means of communication created an organisation capable of executing their decisions. In the world of companies, economy and law there is a need to discover the workings of the “public mind”. What we are speaking about here is not any mythical, ideal entity present only in verbal thinking, but certain agglomerations of matter and consciousness quite as real as any individual; psychology may just be beginning to see a more complete picture (Cattell 1938:69).

Over the last few decades, group-mind communication acquired another dimension through electronic media. Television is still having a great impact through advertising, popular series and selective news coverage, but even more involving, uncontrolled and unmonitored are chat groups and forums via the internet and cell-phone chat applications and mass communication, mostly among young people.

4.4.1.2 The properties and characteristics of the group mind

Group mind has a property of inertia, of carrying on the characteristics which men have given it long after those men have died. It is potentially immortal; growing into the future as far as humanity itself will grow. In Wilber’s terms, the group mind as described up to here could be identified as lower left: Interior-collective, presently growing from rational (12) to centauric (13), simultaneously including and transcending the previous stages.

We should keep in mind that integrative functioning takes place in all four quadrants (and on all levels; see the holon in Appendix A) and when following Cattell’s exposition of group mind becoming Theopsyche, the matching abstract reasoning (12) and vision-logic (13) of the upper left: Interior-individual will become more and more identifiable.

What is the relation of the individual to the group mind? The individual gives to it and takes away, but what he gives often stays and what he takes away generally leaves the group mind unimpoverished. The group mind acts

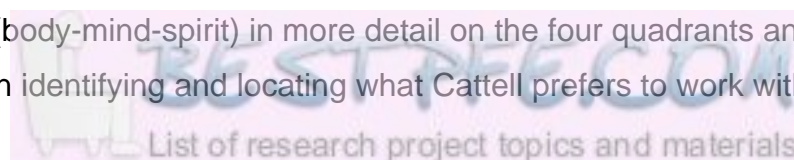
powerfully in moulding individual minds. The slow gains of history, the discoveries of scientists, the phrases of poetry and song, the patterns of human nature hewn out by dramatists, and all the accumulated experience of humans about life and the universe are an intrinsic part of each individual mind. *In the vast majority of people, individuality is the name given to their inability to grasp more than a small fraction of all that the group mind covers.*

The environment tends to treat us as vessels of varying capacities into which can be poured the social heritage that has its sources in Plato and Jesus, Galileo and Newton, Confucius and Shakespeare, and indeed all the greater and lesser contributors to culture since culture began. In every human being lies the possibility of contributing something new through his or her own true individuality – that part that is not merely passive. Therein lies our personal immortality. The nameless many, who in their own lives preserve the good features in the group mind against the constant battering of disintegrative forces, constitute the character and positive growth of the group mind.

A closer look at the upper left quadrant: Interior-individual (intentional), shows at level 12 formop (formal operational or abstract reasoning), which can, according to Piaget (1896-1980), be considered the problem-solving stage. Wilber identifies several psychologists (Bruner, Flavell, Arieti, Cowan) who pointed out that there is evidence for a stage beyond Piaget's formal operational – the first stage of that going-beyond is vision-logic (13 upper left: Interior-individual). The cognitive structures of competent adults and adolescents are adequately described by Piaget's formal model, but the –

[...] space of vision-logic (its world space or world view) is available for any who wish to continue their growth and development. [...] Those who will *master* this stage, or any stage for that matter, will be relatively few; but all are invited to pass through (Wilber 2000:266).

Appendix B depicts Wilber's diagram (2000:449) superimposing the Great Nest of Being (body-mind-spirit) in more detail on the four quadrants and should aid us in identifying and locating what Cattell prefers to work with,



namely the psychologically measurable and socially verifiable (the IT and WE components), and to zoom in on the I or inner-individual, which roughly represents the human individual developmental stages identified by Piaget. The latter also falls within the scope of psychology and will be our reference as we follow Cattell's arguments for the emerging Theopsyche.

The body-mind relationship in this diagram may mean the following:

Body<brain (neo-cortex), which can mean the whole "organism" = upper right. Body can also mean the subjective feelings, emotions and sensations of the felt body<mind = inner circle No. 1 on upper left, where the differentiation of biosphere and noosphere is possible.

Therefore, what we are dealing with here is humanity at a general evolutionary stage of functioning rationally within world consciousness. Within this whole, societies, nations and groups function at different stages of ethnocentric or worldcentric awareness, accommodating individuals of a great spread of emotional and intellectual development and endowment who contribute to and determine the status of the group mind at different levels.

4.4.1.3 Immortality

Clarity on the forms of immortality is essential for understanding religion.

William James (*Varieties of Religious Experience*) has rightly remarked that: 'religion for the great majority of our own race *means* immortality and nothing else' (Cattell 1938:73).

Our immortality is of two kinds, namely biological and spiritual. We have a biological physical immortality in our children, who perpetuate the dispositions, temperaments, and intelligences of their parents. Even with the awareness of the reshuffling of germinal genes and chromosomes in each new individual, Cattell (1938:72) reasons that it could reasonably be maintained that this biological immortality alone is more satisfying than any of the internally contradictory mythic fantasies of traditional religion.

However, he acknowledges that there is something in all but the simplest minds that strives for a more direct and individual persistence than is given in biological immortality; for a persistence of the things concerning which the individual strives and hopes and fears, and for a persistence of those strivings themselves.

This desire may or may not be met by the second form of immortality, which scientific observation is able to recognise. One must note that in the group mind every individual's words and actions, every precept, emotional expression or example of conduct, spreads out in a widening circle of consequences in the lives of his contemporaries and his posterity.

Thoughtful action, acts characterised by truth and beauty, generate similar acts in others and contribute something to the growing heart of goodness in the group mind. In different ways acts, ideas and feelings reverberate through the ages, for example:

- a. The scientist, in his devotion to truth through hard and honest thinking, by wringing discoveries from the stubborn grasp of Nature, serves humanity in increasing human power and favouring realistic ways of thinking – a beneficent immortality.
- b. The aesthetic experiences of artist, poet and musician continue as experiences of a living, immortal group mind in each new generation of brains. As Cicero observed long ago: "A short life is given us by Nature, but the memory of a well-spent life is eternal" (Cattell 1938:74). We are dealing here with the persistence of something more than memories: the immortality of attitudes, of joys, and aesthetic experiences, of heroisms and modes of self-expression.
- c. If we accept the intuitions of Christ in this and in other fields as being contingently the nearest approximation to truth that human wisdom may attain, it is evident that love and humility, sincerity and faith in fellow-men, have as great an immortality value as power, mental capacity, or creativeness (Cattell 1938:77).

In bringing together the two kinds of immortality, Cattell is of the conviction that ideals and ways of thinking could, over many generations, mould a population by Darwinian selective survival towards a biological type suited to those ideals. "Surely this immortality is as superb in conception as any conceived in primitive forms of religion!" (Cattell 1938:74). By touching upon the essentials of (i) the True, (ii) the Beautiful and (iii) the Good, and evolutionary advance, it seems Cattell is spontaneously merging the Big Three and the Great Nest of Being that Wilber (1998) has postulated (see page 55 above).

4.4.1.4 In this idealistic group mind, what about evil?

Evil is that which is opposed to group welfare and we can assert that evil actions by their very nature must in time, if not immediately, cancel and mutually destroy each other. Cattell reads Whitehead as sharing this view when he says: "There is self-preservation inherent in that which is good in itself" (Cattell 1938:76).

The notion of immortality in the group mind implies that not all individuals achieve the same degree of immortality. Unselfishness and that which is of value to the group is preserved in the almost pure immortality of the saint in contrast to evil elements that are arrested. One can conclude that the evil human has little or no immortality. In this line of thought, "the immortality of Christ pervades almost all our lives, moulding them towards happiness and peace and love" (Cattell 1938:76). Degrees of immortality within the group mind are not decided by the talents which a man is given at birth, as the cohesion of the group mind is the prerequisite of all else, and the maintenance of this cohesion by the love and self-abnegation of every individual is of great immortality value.

Krüger (1995:192) makes a similar connection between the realities, acceptance and countering of evil within the context of religion and evolution, emphasising that all suffering is not evil and that the problem of evil lies essentially at the level of human attitudes to events. Cattell restricted his

arguments, examples and applications to human psychological and social realities, but I find it possible to place his ideas liberally (also with inter-group competition in mind) in the conditionalist context that Krüger explores:

Instead of craving to survive eternally, either as single or as collective entities, the powerful will to exist joyfully in the flux, celebrating the opportunity to be part of the whole fellowship of being, becomes the driving force of life. The large-souled human capable of that will also know the suffering of the world. That attitude does not arise from callow sentimentality, but from the nature of reality itself. Life may in fact still be a struggle – not to survive, but to realise the conditional nature of things and to exist in compassion with all (Krüger 1995:193).

The more detailed investigation of Beyondist morality and ethics in Chapter 5 that follows will suggest a proactive approach to deal with the inherent disorder that the notion of evil represents.

4.4.1.5 “Divine” qualities of the group mind

As the qualities of the group mind are identified, it displays many properties that have been repeatedly ascribed to God by intuitive and traditional literature.

Cattell asserts that there is not a phrase or metaphor in the essential scriptures of great religions that does not ring true when applied to the group mind. He also finds that seeking to define these qualities more precisely, typical theological terminology rather than scientific terms would be applicable. With reference to citations on Christ in the above paragraphs it is obvious that personalities such as Christ are almost wholly divine. One could also read some measure of divinity or godlikeness in Buddha and Plato, Michelangelo or Beethoven and in every individual of any stature whose concern for the good of others is characteristic of his overall conduct.

In the way Cattell describes these qualities, his text becomes a close-knit whole:

This mind is a super-individual consciousness with which the individual can maintain communion. He depends upon it, and it exercises a benevolent intervention in his life. He is, spiritually, and in some sense physically, created by the group mind. In serving it he is doing precisely what has been defined as the worship and service of God. It is the cumulative reservoir of super-individual wisdom and it defines by the conditions of its existence, the commandments of morality. It is the assurance of immortality, which is to be obtained only by giving one's life to it. It gives to the individual faith to carry out those tasks valuable to the community which chance and accident and evil may interrupt in the individual's life (Cattell 1938:77).

The group mind can thus be viewed as a transpersonal "space-of-mind" that creates nurtures and feeds the individual as well as allowing communion and growth.

If the group mind functions in the way that Cattell proposes, it would be unavoidable for him to be part of a contemporary group-mind manifestation himself. He reflects on much of the writing of HG Wells (1866–1946), a social reformer who expanded his ideas in fiction, science fiction and historical writing around the turn of the century. He had created several fictional utopias, supported World War I as the "end of all wars", then, after World War II he saw no hope for humanity perpetually at war with itself, conceding that it had lost all power over its cannibalistic impulses. Cattell quotes Wells from his 1917 book, *God the invisible king*, as a contemporary eminent thinker whose ideas were not contradictory to the notion of group mind:

I do not believe in the least that either the body of HG Wells or his personality is immortal, but I do believe that the growing process of thought, knowledge and will of which we are parts, of which I am part and of which you are a part, may go on growing in range and power for ever. I think that man is immortal, but not men. [...] Our individuality is, so to speak, an inborn obsession from

which we shall escape as we become more intelligent. [...] If I had the time and erudition I think I could make an argument to show that this idea of the immortal soul of the race, in which our own lives are like passing thoughts, is to be found in what Confucius calls the Higher Person, in what St Paul calls the New Adam, in the Logos of the Stoics, in the modern talk we hear of the Over-man or Super-man (Wells in Cattell 1938:78).

William James (1842–1910) is well known for his book *The varieties of religious experience* (originally published in 1902) a path-finding work in the field of religion as well as early psychology that has become a classic. His view of God was not Christian: “God was finite, part of the world process, tangled and tied to natural and human ventures, rich in possibility but not in dominating impulses” (ME Marty: introduction to James 1982:xxv). In similar recognition of the idea of group mind is the passage that Cattell quotes:

The practical needs and experience of religion seem to be met sufficiently by the belief that beyond each man, and in a fashion continuous with him, there exists a larger power that is friendly to him and his ideals, ‘giving’ an assurance of safety and a temper of peace, and, in relation to others, a preponderance of loving affection (James in Cattell 1938:79).

Cattell, well aware of the modernist break away from traditional religion, “not in a spirit of wanton hostility, but from the force of logic, the advance of knowledge and the refusal of religion to give up its dogmatic basis” (Cattell 1938:78), reads a groping for a means of defining awareness of something greater than themselves, free from dogma, in JBS Haldane’s following statement:

It is [...] in our active ideals of truth, right, charity and beauty [...] and fellowship with others that we find the revelation of God (Cattell 1938:78).

This echoes what Ernst Haeckel (1834–1919) identifies as “strivings towards the trinity of Goodness, Truth and Beauty” (Cattell 1938:78), which links up with the modernist differentiation of the Big Three: Goodness, Truth and

Beauty that Wilber brings into the integrative holon that we are now familiar with (Figure 3.1 and Appendix B).

In this intellectual climate, Cattell tried to demonstrate that a great positive contribution concerning the realities behind religious thought could be made by psychology.

All man's religious efforts are not lost; all his thinking of God has not been a delusion; at worst it has been the substitution of simple and childlike symbols for a reality too complex long to be held in the focus of attention (Cattell 1938:81).

The group mind is and manifests a consciousness that is contributed to and communicated by individual minds, for example benevolence, love and hatred for suffering. With reference to Christianity, it can be asserted that a group mind that showed many qualities assigned to God, except his benevolence and concern for the individual, has made the shift from ruthless indifference to care and concern. "The fabric of thought, the noble virtues, the lofty laws of good living acquired a power greater than that of men themselves" (Cattell 1938:82).

The same applies for group goal directedness. In the way that Cattell understands group-mind communication to be essential, a universal awareness of the universal pattern is crucial to its existence; the super-national entity which is God cannot exist without common awareness of its purposes. Cattell links this essential quality to various familiar views expressed by thinkers such as Descartes, namely that God exists because the idea of God exists; or the saying of Voltaire that if God did not exist, it would be necessary to invent him, and the conviction of Rousseau that if God is not in us, He never existed.

Does each of these in his piety or irony or rationalist fervour, express despite himself, an awareness of this vital attribute of the group mind? God truly emerges from the group mind only at that stage of development when an

adequate conception of his nature, origin, functions, and capacities grows up in a sufficient number of human brains. Beyond this point we may call the group mind the Theopsyche, to indicate its divine properties (Cattell 1938:83).

It seems that this line of thought transposes Cattell's reasoning into the realm of Wilber's vision-logic, extending what could be reason, noosphere and an inclusive consciousness (see Appendix B).

4.4.2 Theopsyche: Concept of the Divine

Cattell is critical about revealed religion being ruled by dogma and mythic conceptions on the one hand, but on the other he emphasises the shortcomings of secular systems that deny any religion. He does not profess any belief and strives toward objective scientific truth, avoiding philosophising on matters that cannot be tested and verified. It is, however, characteristic of his attitude toward humanity as object of scientific investigation that he understands and respects the importance of the "emotional" aspect of religion.

Cattell avoids terms such as "belief" and "spirit", and it is interesting to see how he ventures into the realm of the "divine", mysticism and ideas that are practically beyond formulation. At the limit of firm ground he prefers to –

recognise that there are some questions that are best honestly and explicitly put on the shelf, until the human mind has biologically advanced beyond its present level. [...] What we actually see is an ongoing *process* of organic and inorganic evolution, and a variety of ultimate laws that gradually are mastered by our power to research and comprehend (Cattell 1987:81).

4.4.2.1 Service: To God or to fellow-men?

Does service to the group mind boil down to nothing more than service to fellow-men, as maintained in Communism? The history of religions provides many examples of extremes to both the practical service and the contemplation and worship modes of religious conviction and practice.

Communism or modern secular morality is only the social manifestation of the one end of the curve to which religion has always tended.

Cattell (1938) quotes two of his contemporaries as protagonists representative of those opposing points of view: Whitehead expresses the convictions of those who think that religion has to do with something beyond man, and that its duties are never sufficiently discharged by social service or the maintenance of human solidarity: "Religion is solitariness, and if you are never solitary you are never religious". To Gerald Heard, "eternal life lies in returning to the general life", as the individual isolated with his God is "solitary, malicious, mad" (Heard in Cattell 1938:111). Observing that the general trend, both of philosophical thought and of the unanalysed opinions of the average man, is towards the position taken up by Heard, Cattell sees this as a general shift to a secular viewpoint encouraged by science, as religious belief in the traditional sense is losing ground.

Cattell views Communism and Fascism in their rejection of religion and the movement towards purely human solidarity as an utterly false solution to the problem of human adjustment to the universe.

The path towards solidarity, uniformity, stability, aggressive strength, and group self-absorption, this ideal of the world as one harmonious anthep is a deliberate turning into that cul-de-sac of evolution which tempted the bee and all the arrested species of the insect world. Such organisation may give man bread, but man does not live by bread alone (Cattell 1938:112).

Considering the unfolding of knowledge about the universe, the human could be considered a meaningless chemical accident on a fourth-rate planet; on the other hand he is considered "a little lower than the angels" and his political behaviour suggests that he is the peak and summit of evolution. What is needed is a new perspective through which he will see the necessity of designing social life with a view to evolution.

The dynamics of social evolution will be more observable if we examine the usual structure of modern societies. A statistical picture of whatever is measured will be the familiar bell-shaped curve showing that most cases cluster about the centre average while on the higher end the “positive” extreme dwindles in numbers, and to the other side the “negative” extreme reflects in fewer numbers.

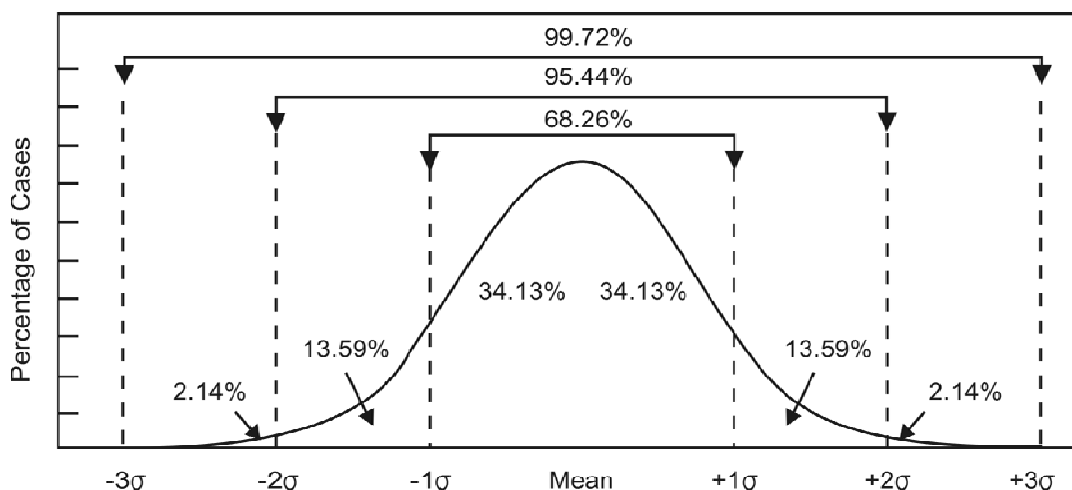


Figure 4.1 Percentage distribution of cases in a normal curve (Anastasi and Urbina 1997:54).

Cattell accommodates the reality of the two opposing views on religion by explaining it by means of the bell curve, referring to intelligence. He observes that those on the lower fringes of mental endowment (intelligence quotient up to about eighty) may be maladjusted because the common standards of life will be hard to meet. They constitute among others the criminals, the socially aberrant, paupers – the scorned and rejected. On the upper fringe are, equally maladjusted, those who suffer from being condemned to a pattern of life which is tedious because it offers no prospect of group endeavour in the directions which would be most natural to them. These upper eccentrics are somehow responsible for social advance; for society progresses like a caterpillar getting a grip on new ground by its head portion and dragging the main body forward by this movement (Cattell 1938:114).

Cattell argues that it is through nonconformist minorities that progress takes place, since in the long run the majority is always wrong. History provides a

clear perspective on this in showing that it was wrong about Christianity at the time of Christ, also about astronomy at the time of Galileo and witchcraft and slavery in 1800. Cattell points out that the majority is wrong today in supposing there is no alternative between adherence to “hidebound” theology and recourse to scientific atheism.

The heretic or visionary is bound to face indifference and hostility within the community which normally serves to support the individual within a group context. Very few may have the emotional balance, the healthy “maturity”, to cope positively without some dependence on powers outside themselves – both horizontally and vertically. The history of social advance is but the story of endless conflict between these eccentrics and the massive entrenched average. Those who can be listed here are, in different ages, saints, scientists or political reformers; they have been burnt and banished, ostracised and starved. Some could not escape the tendency to become cynical or embittered, despotic, self-centred, or mad. As examples of some who could not balance their social-mindedness with sympathy and patience with average or lower common humans are Voltaire, Schopenhauer, Russell and Shaw, all too inclined to scourge the common man with sarcasm and irony. On the other hand, a few have persisted patiently and charitably in their devotion to the common good (Cattell 1938:118).

Placing Christ in this perspective, Cattell recognises him to be one of the emotionally healthy gifted, who was able to draw upon some hidden source of companionship and moral confidence. Hence his insistence on different standards from the society in which he functioned without developing hatred in the face of hostility and persecution. He could not lean on any existing group mind, as during his time there was no thought so developed.

Some power gave him confidence and security in a new inner development which could not be aided by the group, and until the last hour of agony upon the cross, He had faith that some power in the universe supported him in his lonely heresy (1938:119).

Cattell makes it clear that this is intended as nothing more than a demonstration of the value of attachment to something existing beyond the body of men actually constituting any living group. The proof that society needs or does not need such an entity is no proof of its existence or non-existence. Respecting Cattell's own caution not to be misinterpreted concerning how God is depicted to function in society, I prefer to quote him at length on the following:

If for a moment we assume that this entity which gives emotional anchorage may be best described by the traditional label 'God' then the above paragraphs permit of summary in the somewhat scriptural assertion that the salvation of society, and the happiness of both types of extreme variants, lies in a proper relation to God, *i.e.* the Theospyche. The lower variant, doomed by the deficiencies of his nature to conflict with and default from the average standards of society, can achieve happiness and avoid criminal self-assertion by submission; and that submission is alone possible by a vision which gives him a place in the purpose of God and an assurance of benevolence (when he accepts the will of God, *i.e.* the progressive desires of the group). Similarly the upper variant is rescued from cynicism and despair and the prison-house of indissoluble individuality. The need for God, therefore, is great in proportion as man's non-adaptation to existing circumstances is great. A society without awareness of any need for God is one which is about to stagnate. God is the property of the divinely discontented, not of the human cattle perfectly adapted in their communal stalls. The picture of Christ between two robbers is the perfect symbol of the world's variants, bound by a common maladjustment (Cattell 1938:120).

Some critics of religion observed and pointed out that belief in God is often no more than an excuse for human laziness and inaction. If the above analysis is correct, Cattell contends that the opposite relation holds when God is rightly conceived.

If at this stage we take another look at the diagram in Appendix B, and recall Wilber's remark that few are able to go beyond reason to vision-logic, those could be identified as Cattell's upper extremes; stages 3 and 4 would roughly

accommodate the average middle group; and lower 3 and upper 2 could provide for the lower extreme of humanity.

By identifying these distinctions, Beyondism recognises the evolutionary reality of difference among individuals and groups, which is the basis of natural evolutionary advance and survival. This recognition does not aim at stagnant categorising, but is rather a means of guiding humanity beyond the present in ways that will be explained in Chapter 5.

Concerning spirituality, Cattell contends that an imaginary visitor from the Middle Ages, ancient Greece or Rome would find that, despite marvellous engineering progress and material prosperity, society is lacking similar advancement. Finding us still largely surrounded by neurotics, liars, drunkards and criminals as abounding as in his day, he will conclude that we have made little or no progress spiritually (1987:162).

The term “spiritual” is hard to define. It is first defined as those interests beyond the practical, the commercial, the survival orientated, and the self-seeking. A conclusion derived from William James’s scholarly review is what individuals call their spiritual values may be tied to their superstitions rather than the altruistic and ethical aspects of religion (Cattell 1987:161). Wilber makes the following statement:

Genuine spirituality, we will see, is primarily a measure of depth and a disclosure of depth. There is more spirituality in reason’s denial of God than there is in myth’s affirmation of God, precisely because there is more depth. (And transrational, in turn, discloses yet more depth, yet more spirit, than either myth or reason) (Wilber 2000:259).

Cattell simplifies the recognisable stages in the relation of ethical value to spiritual development in the empirical record of history, by distinguishing four stages:

1. Revealed, intuitive religion begins with a spirituality primarily based on the substitute expressions of frustrated ergs. Ethics are crudely

adapted to group survival and accepted through superstitious illusions, generating false compensatory satisfactions.

2. Rationalistic seeking for true perspectives about man and his environment, which is unlikely to reach an integration of fact and emotion. A bleak rationalist perspective that stretched in varied forms over three centuries from 1700 – corresponding to what Wilber identifies as “flatland” and the collapse of the Kosmos.
3. Extension to biological realities through the advance of science (evolution) resulted in ethical reconstructions – Bentham, Mill, Haeckel, Nietzsche and Wilson. Many of these correspond with Beyondist principles, but lack the final step of adequately fitting the newly admitted truths (free from dogmatism) to a radical personal re-adjustment of emotional adjustment and spiritual values. Wilber notes that Darwin did more than disclosing macroevolution; for more than a century his revelation “obscured the fact that a genuine theory of evolution demands something resembling Eros. Darwin’s *lasting* contribution was primarily a massive obscuratationism (sic). Scientists all cheery and self-content began to scrub the universe clean of anything resembling love and its all-encompassing embrace” (2000:519).
4. This conclusive stage integrates concepts of natural science and new evolutionary biological perspectives, and undertakes the deeper psychological analysis required to fit the new perspective on the world and society to an appropriate religious emotional meaning in the life of the individual (Cattell 1987:170). If compared to the diagram in Appendix B, this integration has the potential of including and functioning on all quadrants at all levels.

If the Theopsyche were to emerge from the group mind to unfold and enfold human reality with the kind of spirituality depicted above, what about the universe?

4.4.2.2 Beyond the Theopsyche: The universal reality

The group mind both grows from and feeds the contemporary group, serving and sustaining the lower variants (through properties traditionally assigned to God) and for the higher variants, serving as basis for something beyond the group mind of the day.

A real rich and growing relation to the existing group mind is possible through books (centuries of thoughts of great minds), societies, music and religious services, the love and purpose shared among fellow men. As to the group mind of the future, some individuals with great intellectual power possessed by sufficient emotional maturity, courage and vitality could step into the unknown. In his book entitled *Creative mind*, Spearman described a process of education by which an accurate conception of the group mind that is to be could be constructed (Cattell 1938:123). Scientific explorers who, though cautiously, can logically follow sound mathematical or physical principles break new ground, for example by exploring the possibility of human flight with a calculated possibility of success. But those who aspire to a new art or religion can be sure of nothing beyond their own goodwill and sincerity.

Whatever emotional support or spiritual communion they receive, whatever serenity and determination they possess, comes from their own minds and the existing group mind. They are the revealers and constructors of God (Cattell 1938:123).

At the turn of the 1900s, “emergent evolution” and “Life Force” were ideas adopted by rebels against dogmatic religion. The Life Force idea is found in the writings of Bergson, Nietzsche and the works of Shaw.

According to Cattell (1938:124), Lloyd Morgan originally gave the clearest expression of emergent evolution, by describing it as the tendency of the universe to evolve towards even more complex forms. Simple elements advance to compounds with growing complexity from which living matter

emerges, and after aeons of evolution the higher forms of life begin to show unmistakable signs of mind and consciousness. When mind becomes sufficiently highly organised, some new quality must appear in the universe – meanwhile described as God (Cattell 1938:125).

From various arguments in this regard it can be concluded that many qualities that we are accustomed to ascribing to God can be found in a continuously emerging form, in any aggregate of human minds acquiring increasing organisation. Similarly, biologists could find proof that some signs of mind, of sensitivity, impulse, consciousness or choice reaction are present in living substance from its lowliest forms.

It is feasible, and even probable, that all the great developments which we see transpiring in the universe, and all the remarkable emergents, are nothing but the unfolding of properties already potentially present in the atom. God or at least the group mind would thus be an intrinsic part of the universe itself. And perhaps it is not merely the conceit of the human mind which causes us to consider mind as the most valuable and significant thing in the universe (Cattell 1938:125).

In view of the arguments above, Cattell deduces that both archaic and modern religions worshiping the universe itself, labelled as Pantheism, are not so remote from conventional religions that are considered religions of the mind. Cattell regards Pantheism as “a little out of focus, of failing to separate from the whole its most significant part; or at least that part most valuable for human moral development” (Cattell 1938:126). He quotes Goethe as a typical example of a great mind that has embraced some mystical communion with Nature or the worship of the Life Force of which all are part:

The persuasion that a great creating, regulating and guiding Being conceals himself, as it were, behind Nature to make himself comprehensible to us – such a conviction forces itself on us all (Goethe in Cattell 1938:126).

We should look directly at the question whether the term “God” should be applied to the idea of group mind or the universe itself. Cattell prefers to stay clear of philosophical speculation on time and order:

At most we could follow Whitehead were he to put more precisely his statement implying that God is inherent and unfolding in the universe, the act by which the future emerges: ‘He confronts what is actual in it (the Universe) with what is possible for it. Thus he solves all indeterminations (Cattell 1938:127).

Cattell approaches the Theopsyche and Universe as two patently different entities not reconcilable in a monistic unity, and takes up the challenge to study the relation between them.

Let us look at the part the universe plays in the shaping of the group mind itself. Despite the importance of heredity, evolution does not take place through the inheritance of characteristics deliberately acquired by strivings of past generations. Selective survival, operating essentially in the way Darwin described it, and through the influence of social and physical environment, is responsible for the forms that living matter assumes.

At the level of evolution of the group mind, life continues to try out new forms as the Life Force forces itself forward. From primitive customs, varying from cruel and pointless to the advantageous and morally sound where they doubtlessly play a role, humanity is bound to reach the frontiers of knowledge and is then forced to experiment blindly. Once again the hierarchic line of the Great Nest of Being (Figure 1.2) could be identified here.

The universe stands in the relation of mentor to the group mind or Theopsyche. Cattell compares this relation to that which Freud has described as the untutored individual mind – the Id – and its environment. The Theopsyche is the Ego of the group mind operating through the mechanisms of social life: handling the demands of Nature/environment and embodying in itself the virtues of logical thinking, moral restraint, honesty and kindness.

The distinction between the group mind and the principle of the universe becomes clear: the universe itself remains supremely powerful, sublimely assured in its laws and eternal in its duration, but the group mind is always growing, acquiring more perfectly the expression of the Universal Reality, tending towards an ultimate identification with the universe. Thus, the conscious group mind can be seen as the Theopsyche, the God mind that is distilled from the interaction of all individual minds. All that is inherent in the laws of the universe we will call the Universal Reality (Cattell 1938:129). Although the latter has historically been identified with the term “God” and exceeds the Theopsyche in power, love is not one of its characteristics.

In Chapter 4.4.1.3 (on page 58) we found the Big Three and the Great Nest of Being integrating at the human individual level, but here it tends toward cosmic integration.

Cattell’s approach is from a purely human psychological vantage point, and although it appears to be reductionistic and positivistic at a certain level of functioning and understanding, the views he develops regarding Theopsyche and Universal Reality can be brought into the framework of certain abstract theories, as we have seen with Wilber’s integrative presentation of systems theory.¹⁵ It would also be possible to investigate correspondence with the process theory of Whitehead (1861–1947), whereby the basic characteristics of all actual beings, including God, are seen as progress or change.

Cattell addresses the enigma of pain in human life as part and parcel of the ongoing process of becoming.

Mental frustration and physical pain are consequences of the courageous thrust of the Life Force against the Universal Reality, as a result of which the Theopsyche is continually emerging. [...] Evolution is more a matter of mental

¹⁵

“A new system, scientific in origin and philosophic in depth and scope, is now on the rise. It encompasses the great realms of the material universe, of the world of the living, and of the world of history. This is the evolutionary paradigm...” (Ervin Laszlo in Wilber 2000:14).

tensions. As the Theopsyche proceeds to acquire more and more completely the image of the Universal Reality, as it gains in knowledge, power and intelligence, in control of its emotions, in kindness of man to man, and in the acceptance of scientific reality thinking, so suffering diminishes towards a vanishing point (Cattell 1938:131).

Cattell's argument could eventually reach the point where he sees the Theopsyche as continually approaching a perfect reflection of the Universal Reality – becoming its perfect self. The term “God” could be applied to this perfect fusion of all the qualities ascribed to God, being the end result of evolution and the solution of all pain.

Although Cattell's point of view reflects a consistent approach of evolutionary advance, he avoids leaving his arguments trapped in linear time:

If we consider on philosophical grounds that time is something of an illusion and has no meaning in relation to God, then this God is perpetually present in all His qualities, but from a more common-sense standpoint God is present consciously, but imperfectly, in the Theopsyche, and perfectly, but unconsciously, in the Universal Reality (Cattell 1938:132).

With the option of the human mind evolving in the direction of greater comprehension, Cattell does not involve himself any further in esoteric theorisation. However, his empirical approach and model of the Theopsyche growing toward Universal Reality does present interesting applications.

4.4.2.3 The physical and psychological vindication of mysticism

Cattell contends that many apparent contradictions in religious tendency and moral intention become resolved in the light of the distinction of Theopsyche and Universal Reality.

Wilber refers to authentic spirituality (mystic experience) as the contemplative core of religion and explores enlightenment in all spiritual cultures, concluding that –

authentic spirituality, in short, must be based on direct spiritual experience, and this must be rigorously subjected to the three strands of all valid knowledge: injunction, apprehension, and confirmation/rejection – or exemplar, data, and falsifiability (1998:166).

Concerning this aspect of religion, Cattell the social scientist observes and evaluates objectively, whereas Wilber explores and integrates intentionally, striving to no less scientific truthfulness. Will we find the same spontaneous congruence that occurred in previous chapters?

Cattell identifies the Theopsyche/Universal Reality duality in denominational differences. In comparison, Protestantism is more inclined to awareness of Universal Reality than Catholicism; thus also proved the most common point of departure for those who would dispense with the concept of a personal God altogether in order to stand in direct relation to a scientifically conceived universe.

This duality is reflected in the views of prominent theorists. Whitehead comments as follows on the rift in religious thought: “‘The fear of the Lord is the beginning of wisdom,’ says the proverb. Yet this is an odd saying if it be true that ‘God is Love’” (Whitehead in Cattell 1938:133). Schopenhauer observed this duality when he said: “Religion has two faces, one very kindly and one very sullen” (Schopenhauer in Cattell1938:135).

These views could have been drawn from observing aspects of *general morality*. The moral law of the Universal Reality is harsher than that of the Theopsyche, punishing us whether we sin wilfully or not. A mistake of judgement in technical matters (a slip on the mountainside, a little carelessness at the wheel of a car) is punished as severely as serious ill intentions of covetousness or adultery.

Although the Theopsyche rather rejoices in the good that is in men, and is temporarily patient with their faults, it is not incapable of inculcating a sense of sin. A delegate of the Universal Reality, reflecting the principles that reside in it, the Theopsyche admonishes those who fall far short in the development of their talents and who show no love or service. In some communities it seems to be the most evil and useless who are more conscious of and concerned with an external God in a role to suppress, coerce and lead – God in Theopsyche form (Cattell 1938:135).

This duality can be read in *history*. Freud reminds us that –

The most gifted people of the ancient world dimly surmised that above the gods stands destiny and that the gods themselves have their destinies (Freud in Cattell 1938:133).

On this, Cattell comments that “above various Theopsyches stands the same Universal Reality” (1938:133).

In the New Testament, Cattell finds more of an acceptance of God as the Universal Reality in St Paul, while the Gospels reflect God as the benign Theopsyche through Christ.

Classical antiquity reflects gods that symbolise themselves, that is, the Theopsyche; whereas the Middle Ages reflect a consciousness of the great gap between its culture and the lofty mystery of the Universal Reality with its cathedrals soaring towards heaven.

The relative prominence of Theopsyche and Universal Reality has varied with different epochs, different political and economic conditions and different degrees of development of the Theopsyche – here Cattell created scope for an intriguing historical and sociological study.

Up to this point, we mostly dealt with what can be observed as “exoteric” and “legitimate” religion, as discussed in Chapter 2.5 on pages 44–46. Wilber’s

concern is with the “authenticity” of religion and transformation – the means of reaching a higher level and not merely integrating the present level. Consider Appendix B, Level 1–2 in this regard. Cattell describes transformation at this level as follows:

Brotherly love need not include the love of God; it can be mutual condoning of the all too human tendency to be pleasure-loving, static, semi-bestial – not an expression of a moral trend which exists in living matter (1938:140).

A scientific approach to the problem of human energies in relation to the Theopsyche and the Universal Reality sheds light on a noble spectacle in the pageant of life: the magnificent solidarity of the human race, the self-effacing love of human for human in the sufferings and death that go with the great adventure of life. Consider Appendix B, Level 2–3 in this regard.

There is only one thing nobler and that is the undefeated spirit of the lonely individual striving for his comrades of the future in the face of the taunts and the misunderstandings of his fellows, sincerely loving those who hate him, serenely prepared for whatever fate may hold. For the love of God includes the love of man heightened in so far as they strive towards what is God (1938:140).

Appendix B, Level 4+, applies to the above citation.

This spending of energy in relation to Theopsyche and Universal Reality takes on different forms in different cultures and is also related to temperament (genetic), and historical and geographical factors in the three major existing “religious value conglomerates”, as described in Chapter 2.4 on page 42.

For completeness, I list these factors once more:

1. Buddhist religion, compatible with Confucian emphasis on social harmony and intelligent resignation to the inscrutable, in largely Mongolian countries.

2. Judaic-Catholic-Christian complex derived from the Mediterranean (and having Islam as a tougher, still more ritual-bond offshoot).
3. North-Atlantic conglomerate, partly Protestant Christian, partly rational sceptical (Russia), minimising the resignation to things as they are and the social dependence, which characterises the other religions (Cattell 1987:165).

Cattell's "unattached" observations and conclusions are mostly related to the Christian tradition, including both 2 and 3 above, whereas Wilber's approach strives to be all-inclusive with great emphasis on contemplation as in the Buddhist tradition.

When we look at Christian mysticism along with Cattell, it is advisable to keep historical subtleties in mind. We are aware of dogmatic condemnation of the outcome of exploratory scientific thinking – for example, the experiences of Bruno and Galileo come to mind – however, Wilber observes a deeper dogmatic bias:

The psychic level (Level 4) of nature-nation mysticism was condemned because it brought God 'too much into' this world, it 'dragged God down' from his celestial throne and the Heavenly city above. Subtle level (Level 4+) mysticism was condemned, or at best barely tolerated, because it brought the soul *up too close* to God (Wilber 2000:362).

According to Wilber, dogmatic bias can cryptically be ascribed to the adherence to the doctrine of the Trinity, by which Jesus was one with God (two natures: divine and human). If the Nazarene had in fact realised a Godhead that belongs to all – his own causal-level realisation "I and the Father are one 'I'; we are *all* sons (and daughters) of God" – it did not fit in with the existing myth, so all powers of rationality were used to prop up a new myth: a holy Trinity. No other person would be allowed this Realisation. This fundamental dogma, namely *the utterly unique and nonreproducible realisation of Jesus* hung like a weight around any attempts to transcend. The Church has produced many philosophers, many great psychic and subtle

mystics, but no matter how much these realisers tried to downplay the myths, allegorised them or as-iffed them or interpreted them away, there was no way for individuals to find enlightenment *in this life on this earth* (Wilber 2000:364).

This very contentious aspect of Christianity is not under discussion here; it only serves as background to what may have influenced the way in which Christian mysticism is outwardly observed.

By looking past the “myth” and approaching this religious phenomenon scientifically, Cattell actually measures “unwarranted” depth and height.

The old argument, that if humans are part of God, then evil is also part, is refuted by Cattell on the ground that evil is not a substance, but a set of actions which, if our conceptions of social psychology are correct, it necessarily cannot contribute any enduring feature to the Theopsyche (see Section 4.4.1.4 on page 85 above).

Those who can contribute any “enduring feature” to the Theopsyche would, according to Cattell’s approach, be the minority of individuals¹⁶ at the upper extreme of the bell curve; be it intelligence, conscientiousness, compassion, endurance, piety or a combination of any of these. Throughout his writing, Cattell is concerned about the emotional value of religion that may not be met by science. If one looks at some of the following examples of and arguments for deeper and more serious personal involvement, he attempts to capture what the mystical aspect is about – God as the Theopsyche:

Until man has lost his child-like self-conceit, and realised his own triviality and helplessness before the infinite mystery and power of the Universal Reality, he cannot be sobered into habits compatible with his gaining increasing mastery and security. Only those who have appreciated the magnitude of the

¹⁶ “Very few people even in ‘developed’ countries reach a firm base in worldcentric, postconventional awareness (one study found only 4% of the American population at the higher postconventional stage)” (Wilber 2000:654).

universe, its sublime but pitiless indifference to man, are likely to be capable of that concerted and concentrated effort by which man can acquire something of its power. On the other hand, in the development of the Theopsyche, which must be bound together by the cement of mutual love and have pity to succour all its children, man does rightly to bear ever in his mind that 'God is love' (1938:133).

Cattell contrasts church worshippers, who see only the Theopsyche, with pantheistically inclined Nature mystics (Wordsworth, Richard Jefferies) who ignore rather than deny the Theopsyche in the process of grasping some new truth from the universe itself; unintentionally resulting in serving their fellowmen by increasing human enjoyment and enrichment, thus favourably contributing to the Theopsyche (1938:136).

Both the mystic worshipper of Universal Reality and the individual attached to the Theopsyche become more or less detached from existing groups. Concerning the Theopsyche, for such an adjustment to be profitable for society and correct for the individual, the individual must, in this case, occupy a special position: he must be a leading part of the Theopsyche, practically independent from it and prepared to give much to it. In Wilber's terms, we would be referring to worldcentric and vision-logic (refer to Appendix B).

As the Theopsyche of the future becomes a perfect reflection of the Universal Reality, visionary attachment to the Theopsyche of the future serves attachment to Universal Reality. This vision-logic would function on all four quadrants (Appendix A).

Mystical "escape from reality" (not contributing to the existing Theopsyche) can be seen as an escape of spiritual value, harmless to others and useful to the self. It has been observed that mysticism may partially free the individual from competitiveness and it is clearly an escape from the cultural surroundings. According to Cattell (1938:138), both results can be viewed positively, since conscious competition as main motive in education and social advance can have a similar negative effect as alcohol: stimulation that turns

brutal. Escape from cultural (especially modern urban) surroundings may not be such an error for the individual who can afford the luxury of communing with a noble landscape, keeping alive the vision of something better than the present, whatever can become a reality in society starts with individual embracement of a vision. The non-visionaries who absorb themselves in the “real world” of what is, those who scorn mysticism and introversion, are the ones who prevent society from advancing and breaking free from the inveterate circle of its own culture – they tend to keep on practicing the errors of their ancestors like a snake that has seized its own tail. In Wilber’s terms we speak of individuals or societies that do not evolve in the hierarchies as depicted in Appendices A and B.

Cattell observes that practically all great innovators and discoverers have prized their isolation, their intense inner life; their communion with something beyond the group (1938:139). Examples of positively lonely geographical and spiritual discoverers are Magellan (“taciturn and reserved, always enwrapped in a cloud of loneliness”) and Jesus – it thus is possible for a love of humanity to go with a dislike of crowds. The greatest service to humanity is done by those who persistently look through and beyond it (Cattell 1938:139).

Ascetics have been harshly criticised by Heard as being passionately egoistic, manifesting a terror of being lost in both life and death. The authentic ascetic has refused to lose himself in life in order that he may better live on in the future life of the group mind, sacrificing the present for the future – spiritual instead of biological immortality.

Cattell recognises this future-tending quality of Christianity – not expecting immediate reward, sacrificing material self-interest in view of a greater cause (Kingdom of God) – to be a human quality that Beyondism could depend on:

By such restraint Christianity has established itself in a pattern of a future tending religion. And this in its turn makes possible a new attitude to material and biological processes. For example the development of a true eugenic concern for the generations of the future is scarcely conceivable without the

prior discipline of Christianity, a discipline which has as part of its basis the refusal of the individual to express all his loyalties and attachments directly in the existing group or the existing life (1938:139).

At the beginning of this section I questioned the possibility of congruence between Cattell and Wilber on this aspect of religion in view of their different approaches. It seems, however, that despite their different approaches, Cattell and Wilber are both in agreement that humanity is capable of developing further than the abstract reasoning level, and of probing into the future and into something/somewhere beyond the present. Both agree that the mysterious depth of religion can and should be falsified by scientific method that is characterised by a broader empiricism, allowing for what is the core of religion, namely a science of spiritual experience.

Cattell acknowledges that his theory of Theopsyche is not completely developed and that it is open to much research, and that that which we can conceive presently and will conceive in future is subject to the way in which the human brain may evolve.

CHAPTER 5

ETHICS AND MORALITY

As far as the environment is concerned, global warming and other human-inflicted ecological wrongs enjoy the attention of pressure groups and global initiatives to create awareness of inevitable disaster if positive action is not taken with due urgency.

With his insight into the possibilities of the sensible worldwide application of social science, Cattell envisages a way of avoiding a worldwide disaster of another kind; a moral disaster, the solution of which is mostly unthinkable from traditional fragmented world views.

Cattell started developing his ideas in the 1930s. One of his contemporaries, Reinhold Niebuhr, had similar concerns, but approached them differently in his *Moral man and immoral society* (1932). It is, however, interesting to highlight some statements comparatively.

Niebuhr ascribes the moral and political confusion of the day to the –

disregard of the political necessities in the struggle for justice in human society by failing to recognise those elements in man's collective behaviour which belong to the order of nature and can never be brought completely under the dominion of reason or science. [...] The inferiority of the morality of groups to that of individuals is due in part to the difficulty of establishing a rational social force which is powerful enough to cope with the natural impulses by which society achieves its cohesion (Niebuhr 1932:xii).

If that “which belongs to the order of nature” is read as the evolutionary principle and if the establishment of “a rational social force” is the acceptance of the evolutionary principle through positive eugenics and cooperative competition

between groups, could Cattell's Beyondist approach of a collective evolutionary goal and evolutionary ethics be seen as a way to deal with this reality?

Cattell's point of departure is that, to understand morality, one has to understand life itself as far as we can. We have already looked at his epistemology and ontology, unequivocally based on the acceptance of the process of evolution, cooperative competition and the evolutionary goal of life on earth and the universe as a whole.

Evolutionary ethics tries to bridge the gap between philosophy and the natural sciences by arguing that natural selection has instilled in human beings a moral sense, a disposition to be good. Morality is interpreted as a useful adaptation that increases the fitness of its holders by providing a selective advantage. This is the view of Edward O Wilson, the father of sociobiology¹⁷, who believes that –

scientists and humanists should consider together the possibility that the time has come for ethics to be removed temporarily from the hands of philosophers and biologicized (sic) (Schroeder 2006).

Cattell considers the role of moral rules to be the mainsprings of civilisation and the key to the greater society of tomorrow, envisaging morality to become a psycho-biological science, the idea on which his 1972 book, *A new morality from science: Beyondism*, is based.

Wilson's *Sociobiology* appeared in 1975, three years after Cattell's *A new morality from science: Beyondism*, where Cattell, with his characteristic goal-centeredness, explains the basic principles of an evolutionary ethics from a Beyondist point of view in the first five chapters, followed by modern-world applications thereof in the second part. Cattell acknowledges the intellectual

¹⁷ Sociobiology is defined as the systematic study of the biological basis of all social behaviour (Wilson in Schroeder 2006).

momentum derived from the writings of Bacon, Bentham, Darwin, Mill, Comte, Haeckel, Spencer “and those who have seen with increasing clarity the integration of ethics possible through science” (1987:viii). In *Beyondism: religion from science* (1987), Cattell could make use of the substantial scientific background of observations contained in *Sociobiology* by Wilson (1975), but his approach to evolutionary ethics remains his unique derivation of an ethical system from science, also emphasising the differences from revealed religions, national religions and the relatively modern philosophical creations of Utilitarianism, Spenserian Darwinism and Marxism.

As indicated in Chapter 1.3 in the overview of Cattell’s books in question, his sole quest is to illustrate systematically how morality can be developed *out of* science, aiming to contradict the idea that morality could be brought *into* science, as was the popular argument.

First of all, Beyondism requires a completely different approach to the position of humankind within the universe, namely that evolution as the prime process visible in the universe should be accepted and conformed to. Faith in the purpose of evolution replaces the “inadequate and misleading” beliefs and practices of revealed religions. Human evolution proceeds ultimately by natural selection among groups, which determines and is determined by natural selection among individuals, genetically and culturally. A precondition for natural selection among groups and individuals is adequate variation, culturally and genetically between groups as well as individuals.

The philosophy that ‘life is a fight’ and that evolution is served by fighting is perverse. Evolutionary ethics command us to live our lives happily: conscious competition is no good. In the end therefore, we find that a scientifically based evolutionary ethics leads to something very different from ‘nature red in tooth and claw’¹⁸ (Cattell 1938:96).

¹⁸ From AL Tennyson’s poem *In Memoriam*

Cattell cites examples of historical intuitive growth towards this logical new viewpoint, for example, Christianity “emerging mystically” from the East or the ideal of fair play “emerging prosaically” from Anglo-Saxon democratic life. He finds it expressed in the cross and the parable of the talents.

In his quest to move forward in the application of evolutionary ethics and establishing a new worldview, Cattell is constantly evaluating historical and current moral practices to guide and/or support research outcomes. He expands on the well-known example of ancient Greece as a declining civilisation, citing Galton’s observation that this “marvellously gifted race declined” because of social morality growing exceedingly lax, marriage became unfashionable and many ambitious and accomplished women became courtesans, leaving the task of mothering the incoming generation to a “heterogeneous class”, failing the excellence that exclusiveness would possibly have accomplished. Cattell concludes that this example of the far-reaching effects of a relatively slight moral flaw upon the biological and material conditions of a people should be noted as statistics show that we ourselves “are in the preliminary stages of the same social disease, whilst our moral viewpoint continues to be unadjusted to a positive evolutionary standpoint” (Cattell 1938:105).

Having made this diagnosis, he points out certain protective elements of evolutionary ethics contained in Christianity as an offshoot of Hebrew religion; whereas Greek morality was static, having in view a stable, self-satisfied, and non-progressive state of humanity, the morals of the Hebrew religion were dynamic, strained with a forward momentum, looking for some future perfection beyond the immediate desires of the people. Cattell is advocating for greater consciousness around the investment of emotional interest in the life of the future with love and concern for the wellbeing of children yet unborn, which is an essential characteristic of evolutionary ethics.

I will endeavour to bring together Cattell's extended views on morality and ethics by focusing on the main entities of social existence and their functioning according to Beyondist principles; always keeping in mind that the individual finds self-realisation in the group and the quality of the group is dependent on the quality and variation of the individuals of which it is constituted.

Cattell lists six main entities to which an individual's ethical values can be functionally orientated:

- a. A citizen in a society
- b. A government of a group
- c. Other group governments/world government
- d. The goal of evolution/Evolutionary Purpose
- e. Members of other groups
- f. Individuals committed to a Beyondist ethic

Among these six entities there will be at least 15 diadic relations, as shown in the Rose diagram in Appendix C (Cattell 1987:73). The first four of these are of special interest for this investigation of Cattell's evolutionary ethics.

5.1 A citizen (individual) in a society

Although the majority of anthropologists undeniably found that morality and religion bud from a common stem in all cultures and eras, it is also true that there is no necessary connection between morality and religion – consider Confucianism, for example.

The individual is functioning in a modern and postmodern society, where divinely derived moral laws are weighed against scientific findings and challenged with situations that require a different kind of reasoning. Cattell chooses to expand on

the ideas of Comte, Bentham and Mill, following a rationalist path that can be linked to the idea of “the greatest happiness of the greatest number”:

Any approach to life's problems leads eventually to the wisdom that morality is the most crucially important issue upon which man's happiness depends. And apart from its importance, it possesses grandeur akin to that found in the unchanging laws of nature (Cattell 1938:85).

The following citation further emphasises Cattell's empirical approach:

Morality is included in science by two steps: (1) the goal of human endeavour is not invented from the philosopher's inner consciousness, but is deduced from the observation of man's strivings in the general biological setting; (2) the specific laws of behaviour which will best enable men to approach this goal are calculated according to the facts and principles supplied by sociology, biology, economics, and psychology (Cattell 1938:87).

A lack of philosophical discussion is characteristic of Cattell's ethic; he considered the collection of data, and working out social applications much more important for the sake of the survival of the present generation and those to come. He embraced the progressive change from the stagnant typical Greek worldview that prevailed up to the Middle Ages and even at the time of the Renaissance.

The belief that the end and aim of all moral laws must be nothing less than the *evolution of man in intelligence and nobility* is one which has budded in many modified or partial forms in the last hundred years, ever since men became aware of the idea of progress (Cattell 1938:88). [My italics.]

The customary search for religio-moral values is rooted in deeper feelings and unspoken aspirations, leading secondarily to determining what forms of moral behaviour should flow from it. In contrast, Beyondism wishes to treat the human

moral rule problem as one for psychological dynamics and biological adjustment. The emotional factor will be attended to once the ethical adjustments have been explored.

Adjustment to any moral system, including Beyondism, is concerned with human nature in relation to morality generally. Religiously, human nature is viewed as ungodly, incorrigible and sinful or subject to moral guidance and restriction from higher moral authority through revelation. Cattell built his theories on research data in the specialised field of psychology and social psychology. In order to understand and evaluate his arguments, it is necessary that some basic concepts are explained, namely *ego strength* and *cultural-genetic adjustment gap* (CAG).

What follows may seem somewhat technical for a discussion on morality and religion. However, it is important to have at least a glimpse of what lies behind Cattell's venture from psychometrics and social psychology into the field of religion and morality, as the insight and knowledge that he gained from investigating human nature in this manner guided his approach to both evolutionary ethics and genetics. As most of his ideas originated during the 1930s and were expanded upon in his publications of 1972 and 1987 (as well as many relevant research articles), I considered it necessary to bring into the discussion more recent works by other authors in the field, in order to evaluate the validity of his approach and consequent suggested applications.

5.1.1 Ego strength

The natural reactions to the restrictions and prohibitions of moral systems are usually aversion, grudging acceptance, boredom and all kinds of defences. Cattell sees the "evolving superego", along with "such situational incursions as fear and anger at others' wrong doing, self-assertion in reaching a desired self-image and compassion" (Cattell 1972:238), as the few psychological forces

ethical interests can depend on. However, according to psychological observations, there is a greater variability¹⁹ of humankind in moral maturity and therefore ethical interest than in almost any trait, intelligence included. This is characteristic of evolutionary developments “on the way in”, such as superego formation and also of developments on the way out, like appendices and canine teeth.

In order to understand the importance that Cattell attached to the evolutionary advance of desirable traits like ego strength, superego and intelligence, I will briefly explain the concept “trait” and Cattell’s 16 personality traits.

A trait is defined as “any relatively enduring way in which one individual differs from another” (Guilford 1959 in Wortman, Loftus & Marshall 1992:396). Three assumptions underlie this definition:

- a. Personality traits are *relatively stable* over time – a shy child will most likely become a shy adult.
- b. Traits are *consistent over situations* – dominance will manifest at home as well as at work or play.
- c. *Individual differences* are the result of differences in the strength, number and combination of traits a person possesses. (See the 16 personality factors in Table 5.1 below.)

As researcher, Cattell made a recognised contribution (Child in Gilles [n.d.]; Gorsuch 2007; Wortman et al. 1992) to personality theories and research through factor analysis, concluding that personality is composed of sixteen primary source traits, which he described in terms of opposing tendencies. He developed a personality test based on a group of tendencies known as the 16 PF personality test. Table 1.5 below sets out the personality factors.

¹⁹ Description of a set of test scores is given by measures of *variability*, or the extent of individual differences around the central tendency. The most obvious and familiar way of reporting variability is in terms of the *range* between the highest and the lowest score (Anastasi & Urbina 1997:52).

Table 5.1 Sixteen personality factors (16 PF)

Factor	Opposing tendencies	
A	Reserved	Outgoing
B	Less intelligent	More intelligent
C	Emotionality, neurotism	Stable, ego strength
E	Humble	Assertive
F	Sober	Happy-go-lucky
G	Expedient	Conscientious (superego)
H	Shy	Venturesome
I	Tough-minded	Tender-minded
L	Trusting	Suspicious
M	Practical	Imaginative
N	Forthright	Shrewd
O	Placid	Apprehensive
Q1	Conservative	Experimenting
Q2	Group dependent	Self-sufficient
Q3	Undisciplined	Controlled (self-sentiment)
Q4	Relaxed	Tense

The 16 PF personality test results, based on an extensive culture-free questionnaire, would indicate for each individual a position between the two opposing tendencies for each separate trait. His approach to the study of personality was influenced by his background in chemistry; if psychology were practiced with equal precision it would be possible to identify the basic elements of personality and classify them in a manner similar to the periodic table, and to understand the general laws by which the elements combine (Wortman et al. 1992:399).

Cattell is of the opinion that the adherence to a high standard of morality depends most on the inner structures that we call the *superego* or *conscience* (G in Table 5.1 above) and in the normal person the *self-sentiment* (Q₃ in Table 5.1

above), which would be counteractive (scoring low) for the individual who has the personal image of being a superb criminal.

Child (in Gilles [n.d.]) and Wortman et al. (1992) agree that Cattell made a ground-breaking contribution to modern psychology with his theory on *general intelligence (g)* factor (B in Table 5.1 above). He identified it as the most effectively measurable, and proposed the concepts *gf (fluid intelligence)* and *gc (crystallized intelligence)*. *Fluid intelligence* being the ability to reason abstractly, to make inferences from data, and understand relationships; strongly influenced by heredity and tends to decline in adulthood. Environmental influence, which comprises what a person learns and retains from experience, is reflected by *crystallized intelligence*; this kind of performance keeps on improving with age.

Outside intensive psychological research, the layperson may be aware of intelligence scores (IQ) and the identification of personality traits, but psychological laboratory work, through extensive field research and factor analyses, also identifies a higher correlation between intelligence and some personality factors, for example *ego strength* (C factor) and *conscientiousness/superego* (G factor).

From measurements now being made on G factor (Horn 1965; Gorsuch 1965; Cattell 1957; Dielman and Krug, *In press*), it begins to appear as pointed out above, that it has the wide developmental scatter one would expect in a trait undergoing rapid evolution. Thus an even greater range in this capacity for moral sensitivity, seriousness, and altruism may exist than has already surprised psychologists (see Burt 1917) in regard to intelligence – which is also a trait in rapid evolution (Cattell 1972:242).

Concerning human evolution, one can thus consider the evolving superego, intelligence and conscientiousness to be “on the way in” as appendices and canine teeth are “on the way out”.

The value of IQ testing was strongly doubted and opposed in the mid-twentieth century, partly because of the inadequacy of some tests and the discriminating application of results by, for example, the Hitler regime – the social, moral and emotional impact of which kept all positive genetic research and application hostage for decades afterwards. Cattell strongly comments as follows:

It is deplorable, to research geneticists particularly, that as long as thirty years after the end of Hitler, untrammelled discussion is still, in many circles, bedeviled by his evil genius. And since all illusions are, in the end, costly, the societies which allow their thinking for the future to be affected by the trauma of the past are likely yet to have to pay dearly (1972:289).

In a more recent study, *The g factor: General intelligence and its implications* (1996), Christopher Brand brings the intelligence factor critically into contemporary context by addressing past prejudices along with positive potential. His findings correspond to what Cattell had been advocating throughout his career. Brand emphasises that mental tests have proved to be reliable, predictive and fair to minorities. This kind of investigation has confirmed the importance of IQ to adult lifestyles and self-made life chances, as well as providing evidence that in schools *g* adjusted curricula are more effective. He contends that applying its main measurable variable *g*, as well as other testing, would add to psychology a greater dimension of exactness and objectivity “in times when so much else in psychology has little but buzzwords and platitude to offer” (Brand 1996:175).

Brand also implies what Cattell deems essential in evolutionary ethics when he comments on the importance of the recognition of the reality of *g* regarding the development of the actual potentials for academic and moral growth:

Far from spreading gloom and despondency, to establish the reality of *g* is to clear a base for sensible and effective human choice; *g*'s reality begins to define and clarify the real individuality of people; and it shows people and their would-be improvers where to start (Brand 1996:173).

With reference to the rough concepts created by clinical psychology and psychoanalysis in the first half of the century and confirming Freud's basic "Id" inheritance, Cattell mentions results of multivariate experimental psychology after 1950. The instinctive impulse controlling personality structures which are known as ego and superego (C – ego strength, G – conscientious) self-sentiment and guilt proneness (Q₃ – controlled, O – apprehensive) have been brought into view by various studies, such as those of Hall and Lindzey in 1970; Pervin in 1975; Smith and Vetter in 1982; and Cartwright et al. in 1975).

The *ego* (C factor) is machinery for control of the ergic expressions in the interest of their highest long-term satisfaction. It shows in *good emotional control, acceptance of reality as it is, and dependability in difficulties*. The *superego* (G factor) acquired largely from introjection of a much-dependended-upon parent, is essentially *conscience, altruistic regard for others, and capacity to persevere on a basis of principles* (Cattell 1987:152). [My italics.]

Although experimental psychologists can say little about the development of the superego, there is evidence that it develops best where there is both love and strictness in parents. This early product of education depends much more on the family than on school or church, which can play a role in later growth.

The self-sentiment (Q₃ factor), unlike G (super ego) that has deeper unconscious roots generating *guilt*, is a later acquisition, concerned with conforming to society and generating *shame*. Guilt proneness, (O factor), through easily experiencing a sense of unworthiness and dejection, is a substantial component in anxiety, lack of self-esteem and neurosis.

Concerning guilt and forgiveness, Cattell looks into the dynamics at work in beliefs, ritual and myth in order to find the way to a new ethic.

In Chapter 2, on page 30, Cattell is quoted referring to "a strong complex of warring psychological impulses, namely, the sense of guilt for transgressions" in

connection with the primitive killing of the god. Cattell reasons that a sense of humour and laughter can be seen as a psychological “overload fuse” provided by human evolution “so that a strong sympathy in face of perceived suffering will not be a disabling pain” (1987:155). The heavy burden of guilt can thus be diffused by the killing of the god, as a psychological “overload fuse” and Cattell explores a viable way for future society to deal with it:

The mechanism in the vicarious sacrifice of the god is surely that (an overload fuse) when guilt from offences against conscience becomes to the individual intolerable, the responsibility can be shifted to the god who has come to share our transgressions and who must, logically, then suffer the punishment of being put to death. With that there comes individual “forgiveness of sins” that makes life tolerable again. All this is unnecessary for the psychopathic personality born with a defect of development of conscience. (His profile is quite abnormally low on G, almost normal on Q3 and quite adequate on C [Cattell, Eber, & Tatsuoka 1970:279]. But society needs to breed out the psychopath and raise the level of conscience to the point where the cost of crime and police is decidedly lower than today. This requires means of permitting high sensitivity of conscience to develop without eliminating its bearers by guilt and depression (1987:155).

What Cattell implies here is that the myth-ridden way of dealing with this guilt is not effective for controlling those without conscious “wiring”, while those with sensitivity of conscience are burdened (and sickened) by depression and guilt.

What about forgiveness? As a psychologist, Cattell seriously questions religious tenets regarding forgiveness. Towards effective learning in the physical world, anything resembling forgiveness is an absurd reducer of learning, contradicting what has been effective in social learning: the more certain and immediate the reward and punishment, the better. Being concerned about how a rational ethic can justify the cancellation of punishment by forgiveness, he envisages a “less myth-ridden way” of involving and protecting higher sensitivity of conscience and the development of social devices for forgiveness. “If we ask what religion has

meant the world over, it has been some form of conscience, G, some emotion in O, and some social pressure in Q3” (1987:154).

During the 1970s and the 1980s, popular religious and psychological writing introduced the idea of personality qualities in a variety of self-improvement publications; this is not what Cattell’s approach is about – his quest is for the genetic refinement of humanity.

What becomes clear from this very cryptic explanation of personality factors is that there is proof that humans are born with certain qualities that, along with education and environmental influences, can determine the socially positive or negative input and behaviour of each individual. There is a measurable correlation between intelligence, ego strength and superego, all of which are both genetically determined and environmentally shaped. This forms the basis of Cattell’s arguments for positive eugenics as well as the preservation of group diversity in the larger picture of evolving humanity – religiously as contributing to the growing Theopsyche.

5.1.2 Culturo-genetic adjustment gap (CAG)

Applying the findings and principles of the measurable correlation between intelligence, ego strength and superego discussed above, Cattell looks at the concepts *cultural lead* and *genetic lag* (identified as the cause of many social problems), and the resulting *culturo-genetic adjustment gap (CAG)*. Culture seems to act as the “pathfinder” in adapting to the given physical situation, which equals a labyrinth of complexities in the external world into which life extends itself. These mostly trial-and-error positive results are established as social rules and customs, often requiring energy or input not natural to the general population.

Cultural growth and the learning it leads to by moving in the right direction for better group adjustment to reality can be identified as *cultural lead* and the genetic endowment that moves more slowly, lags – the *genetic lag*. The *culturo-genetic adjustment gap* is the difference that can be measured at any given time between cultural demands and genetic endowment of the group concerned.

Culture in general can be seen as the work of superior intelligences and, as a whole, to keep in pace, the general population has to make more complex adjustments than they are genetically suited to make, resulting in *genetic lag*. It has some correspondence to the difference between the instinctual reactions of the old brain and the adjustments made possible by the cortex (1987:258). Cattell states that the average population level on a number of definable traits within a group could be raised. He regards the present ethical and political concepts as barring the way by preventing the recognition of the biological inequality of humans. “What the sterner religions have called ‘original sin’ becomes perfectly understandable and definable as the genetic-cultural gap” (Cattell 1987:151).

It is the –

Beyondist position that within a group all citizens should have equal opportunity, and that, both there and across groups, love calls for accepting the spiritual equality of all human beings. But this still leaves us with actual biological inequality. It is ethically desirable and practically important for a group to direct its *genetic* direction by similar principles to those in its *educational* shaping of its children (Cattell 1987:188).

Within this analytical framework, governments as well as individuals will be in need of moral guidance as well as motivation in practical situations. Sections 5.1 to 5.3 will outline certain practical ethical issues, while Section 5.4 will address the motivational aspect of a new morality.

5.1.3 Moral rules and actions

For Cattell, the starting point concerning practical morality is that there are natural (survival) guidelines for moral behaviour similar to scientific laws in physics and chemistry. Much of these can be recognised in the tried and tested values practiced by traditional religions. Beyondism does not aim to replace them, but aims to clarify what has been distorted by mythical belief and re-establish what has been lost through the breakdown of religious authority. The new claim for validity will be scientific research to uncover the general guidelines for evolutionary advance: “A wise society would do well to accept the tried moral standards of revealed [religions in] society until such time as experiment can deliver objective and profitably discussable findings” (1972:396).

According to Cattell, the venial and mortal sins as identified and addressed in, for example, the Catholic Church and roughly the Ten Commandments, can be traced down to two “culprit” ergs, namely sex (the positive procreation element defiled by adultery, pornography and rape) and pugnacity (moral indignation overwhelmed by expression in murder, modern weapons and a threat to humanity).

5.1.3.1 Sexual morals

Human sexuality is perhaps one of the most misinterpreted and misused natural gifts. According to Cattell, Freud’s theories on sexual repression and sublimation are valuable psychoanalytic instruments that have become distorted outside formal psychology into “rational” and “enlightened” dubious sexual freedom. Cattell also refers to the very popular *Naked ape* by Desmond Morris (1967), postulating “that a physical variation in humans made sex more ‘pervasive’ than in other primates, and somehow produced culture” (Cattell 1972:375). Morally we have to find a way between the extremes of progressive and liberal rational arguments for sexual freedom and the intuitions of St Paul or St Augustine.

Society has to deal with motivated birth control and a sexually “unlimited” culture created through effective contraception, divorcing sex from procreation and stable relationships. To him, the argument for survival seems the most valid: “The bill of survival can be met only by *an absolutely functional relation of energy expenditure to what are truly adaptive actions*. Any separation of satisfaction from functionality is sheer suicide” (1972:374). [Italics as in text.]

In an advanced society, this energy could be canalised in alternative productivity along with the mission to convince the masses.

Freud most clearly expressed the role of successful sexual sublimation in the cultural productivity of the artist, musician and mathematician. [...] Meanwhile to the fortunate whom ‘mightier transports move and thrill’, by the virtue of greater capacity to sublimate, falls the difficult task of explaining the colours of the sunset to men born blind (Cattell 1972:373).

According to the basic understanding of psychology by the time of writing, Beyondism would fully support monogamous marriage and a sense of guilt regarding flagrant sexual play. When looking at the example of currently more freedom of sexual expression than was acceptable in the Victorian Era, rational ethics must be very comprehensive in assessing all material and psychological consequences if it is to be sound. The mastering of birth control by the pill may have created the need for a second chemical step creating an “anti-aphrodisiac”, contributing easier sublimation to culture. This idea is directly in opposition to what we experience through commercial advertising and HIV/Aids public education. Cattell (1938:103) notes that studies by Freud, McDougall and Unwin correlate in the general conclusion that the higher the culture, the more deep-seated are inhibitions set upon direct sexual expression.

In his writing Cattell often comments that the practice of Beyondism tends to be even more austere and demanding than revealed religions, emphasising the validity earned by research. As the traditional impact and moral authority of

religion diminishes and the ideal of narrowing the *culture-genetic adjustment gap* is sought after –

Society must have an adequate supply of watchers in the field of sociological and psychological research, in order that the consequences of modified moral laws may accurately be worked out...without the guidance of moral research institutes, society can only rectify its ways after something in the nature of a social tragedy (Cattell 1938:104).

In his advocacy for active positive research that can lead to the positive growth of society, Cattell observes that the only soundly scientific research has been directed to analysing the factors which pull society downwards; degrading and disintegrating the group mind. However, by understanding the goodness of the group, moral rules of “spiritual hygiene” can be cultivated in the interests of more intense living:

...evolutionary ethics has aims beyond even intenser living for the living. It is concerned not only with sin as a refusal to make the best of individual possibilities, but with failure to make the best out of the whole race and with disservice to that group mind which is a part of God (Cattell 1938:104).

5.1.3.2 Social engineering, birth control, abortion

The idea of eugenics²⁰ fell into disrepute because of the notion that in order to

²⁰ “Galton coined the term ‘eugenics’ to refer to ‘the scientific study of the biological and social factors which improve or impair the inborn qualities of human beings and of future generations’ (Postgate 1995). He intended the science of eugenics to deal with ‘all influences that improve the inborn qualities of a race; also with those that develop them to the utmost advantage’ (Diggory 1995). Perhaps regrettably, the term is usually understood more narrowly as referring to the applied science of improving the human gene pool (usually by selectivity in procreation) – or, even more narrowly, to state orchestrated, compulsory and ‘negative’ eugenics, including denial to some of opportunities to have children” (Brand 1996:186). “Today it is increasingly clear that the truth about g’s degree of hereditably must be sought not shunned. Modern research into other human psychological differences suggests that no alterations at all of heredity or environment would have much effect on

improve a whole population (race or nation) the practice would be to sterilise or kill those whose genes are judged undesirable by some government or institution.

Cattell attempts to eliminate emotional and political bias by addressing the issue objectively. He looks at three possible forms that action and inaction regarding genetics can take:

- a. Up to the twentieth century, the biological growth of societies took place without human interference regarding numbers or quality, although efforts to advance culture have occurred.
- b. “Culturally-led genetics” – genetic selection that favours those strains that succeed in the culture so that the genetic pattern closely follows and aids the cultural pattern. Although this could strengthen a culture, a lack of challenges towards change (cultural cocoon) could cause a genetic pattern of stagnation.
- c. “Venture research” in which the very nature of the group sub-species would be altered by laboratory-created novel sets of chromosomal instructions, or by the very deliberate selection and hybridisation of genes already in the population. This kind of intervention is very complex and intensive research is necessary for desired genetic selection or for selection which could be successfully applied to reduce a number of well-known disabilities such as diabetes or the mental defect phenylketonuria²¹ (Cattell 1972:147).

average trait levels in the population: g itself might be similar. Learning the truth is now easier than obscurantist behaviour – not least because discouraging irresponsible parenthood is in any case a natural objective for theorists of both hereditarian and environmentalist persuasions” (Brand 1996:88).

²¹ A hereditary disease caused by an inability to metabolise phenylalanine in the body, resulting in mental deficiency and poor physical development.

Cattell reasons that the new demands introduced by Beyondist morality call for positive eugenic pursuit of the culture (b above) as well as attention to genetic engineering (c above) with the general aim of increasing the human potential to command a cosmic environment – Cattell does not exclude eventual survival through planetary colonisation. He identifies three eventual goals: (i) to adapt the genetic pool toward the cultural directions of the particular group, (ii) to create in each group, also, entirely new genetic variations that may in turn affect the culture, and (iii) to assist and monitor the genetic evolution of all groups, through a central comparison of consequences of genetic movements (Cattell 1987:181).

Current research and achievements in the field of genetics are opening up possibilities Cattell had anticipated and tried to accommodate in his approach to ethics. In his 1998 book, *Consilience*, EO Wilson has objections about the c option above:

Alter the emotions and epigenetic rules enough and people might in some sense be 'better' but they would no longer be human. Neutralize the elements of human nature in favor of pure rationality, and the result would be badly constructed protein-based computers. Why should a species give up the defining core of its existence built by millions of years of trial and error? (cited in Wade 2001:168).

On the other hand, a Princeton University neurobiologist, Dr Jeo Tsien, believes that by –

[...] improving people's intelligence, whether by drugs or genetic alteration, could enhance a whole society. 'Civilization is based on our extraordinary human intelligence,' he says. 'That is why our society evolves and civilization evolves, and if there is a way to enhance intelligence then it may not be surprising to see a change in the evolution of society' (cited in Wade 2001:170).

A closer look at Cattell's approach to practical eugenics shows that he worked towards an approach that would embrace the positive potential with built-in precautions to eliminate the negative; admittedly idealistic, as theoretical projections tend to be:

[...] the real aim of a wise eugenics is to have an everyday, workable value system that will act to produce the optimum progressiveness of birth rate patterns operating in ordinary family planning settings across all the families in the nation. [...] Broadly the aim of eugenics is to reduce the suffering and death which prevail when natural selection has to operate through differential *death* rates, by working instead through differential *birth* rates (Cattell 1972:347).

Cattell is convinced that the correlation of income with health, intelligence and responsibility of character is probably positive through 90% of the population and breaks down only in the very rich and the very poor. A generally positive eugenic trend could be ensured by fitting birth rate to earnings (see also Section 5.2.4.b page 142). Beyondism sees survival to be dependent on genetic and cultural bases; a more enthusiastic pursuit of eugenics through the acceptance of genetic individual differences and providing better education for the gifted, all without envy or malicious obstruction. Cattell advocates an ethic of more children from the socially more successful, encouraged by tax relief, to establish a positive eugenic condition. The most practical and convincing action he took to advance his ideas on this matter was to raise five children himself, and, when the occasion allowed, he encouraged colleagues to have bigger families.

The genetic aspect of advance and survival is central to the Beyondist philosophy and the bulk of practical examples, motivations, and references that Cattell applies to support his arguments cannot be effectively summarised here. In the light of recent developments around the human genome, Chapters 15 and 16 in his 1987 book could be viewed with fresh interest: *What are the implications for Genetic Social Policies: I. As to goals?* and *What are Beyondism's Implications for Genetic Social Action: II. As to mechanisms?*

Cattell's ideas were controversial at the time of writing, but his out-of-the-box and largely objectively informed thinking could be fruitfully brought into the current debate around the genetic enhancement of humans. Cattell was consistent in applying the principle of diversity and natural selection (including cultural aspects) in the models that he proposed, not aiming at creating a super individual, group or race, but working towards eventually the best qualities for survival of humanity.

Germline selection and manipulation are becoming more of a reality and public interest. A poll conducted in 1993 by the Eubios Ethics Institute of Japan found that a substantial segment of the population of different countries was positive about genetic engineering both to prevent disease and to improve the physical and mental capacities inherited by their children: Israel 22%, United States 43%, India 63% and 83% in Thailand (Stock 2002:58).

Stock identifies, among others, two concerns about human genetic manipulation, namely that diversity might diminish through gene selecting trends and leave a population vulnerable to plague-like diseases. Also that society might fragment into the rich enhanced at the one end of the social spectrum and an underclass of unenhanced at the other end. One aspect Cattell's emphasis on diversity and natural selection is the countering of egalitarianism; it may also become a way of dealing with fragmentation through germline manipulation.

In 1997, the Roslin Institute in Scotland successfully cloned a sheep and in 2000 human germline engineering became a reality with the uncovering of the human genome. What had been an unrealistic fantasy in the public mind on eugenics (science fiction) or an unqualified social disaster (Nazi application), has become the reality of "techno-eugenics", demanding global policy and regulation as the future of humanity is at stake.

In comparison with other complex issues on the world stage: war and peace, economic growth and equity, race and gender equality, the social and political issues raised by the new human genetic technologies, as foreseen by Cattell, are lacking in infrastructure of civil society institutions and academic centres to address these unprecedented questions. The Centre for Genetics and Society (CGS)²² identifies this problem as new and unique in the sense that the prospect of “re-designing the human species” is unlike anything that humanity has had to deal with previously and demands a completely different approach, since –

attitudes concerning the prospect of human genetic modification don't fit neatly along the conventional ideological axes of right/left or conservative/liberal – they track more neatly along a less institutionally expressed libertarian/communitarian axis. All these factors work to impede a prompt response from world leaders and institutions. Initiatives intended to redress this civil society deficit are of the highest importance (in Agostino & Ashton 2006:175).

We live in a world society where James Watson, a Nobel Prize recipient for his co-discovery of the structure of DNA and president founder of the Human Genome Project, makes a statement seemingly from a scientific agnostic point of view:

If we could make better human beings by knowing how to add genes, why shouldn't we do it? What is wrong with it? Who is telling us not to do it? Evolution can be damn cruel and so to say we've got a perfect genome and there is some sanctity? I'd like to know where that idea comes from because it's utter silliness. To try to give it any more meaning than it deserves in some quasi-mystical way is for Stephen Spielberg or somebody like that. Its just plain aura, up in the sky – I mean it's crap (Agostino & Ashton 2006:11).

²² The CGS is a US non-profit information and public affairs organisation working to encourage responsible uses and effective societal governance of the new human genetic and reproductive technologies. Website: www.genetics-and-society.org.

As a research scientist who was positive about genetic advancement, Cattell might have shared Watson's basic sentiment, tempered by his Beyondist ideal of religion from science:

Priest and hermit, monk and saint, warrior and scientist have experimented blindly with various adjustments to life. Knowledge of the consequences of various adjustments for the individual and the Theopsyche will only be obtained by clearly envisaging the dynamic problems involved, and then approaching them in a scientific and quantitative manner (1938:181).

Although Cattell maintained a challenging approach towards the possibilities of genetic engineering, he never advocated forceful application by any government or authority. He soberly observes that it may well happen that genetic experimentations will take place –

[...] mostly in voluntary, self-directing sub-groups and enclaves within the total society. As Darlington (1969) points out, this is, in fact, happening though not with such a degree of deliberation, in inbreeding religious and professional sub-groups in complex societies (Cattell 1972:172).

Cattell approached the issue of population regulation from a differentiated birth-rate point of view without addressing the birth-control-related issue of abortion directly. However, one could deduce from his ethic of scientific reasoning towards preserving or creating better conditions for positive survival and elimination of senseless suffering that abortion, as euthanasia, could be cautiously considered. These decisions would, I presume, then preferably be made by informed individuals in scientifically justifiable circumstances, considering calculated humane choices.

As stated at the beginning of Section 5.1, there is no necessary connection between morality and religion, but it is also true that religion has over time provided useful guidelines. The Beyondist view would thus be that morality

cannot be separated from human nature, and understanding the psychological dynamics of the individual and the socio-biological problems and possibilities, it could lead to universal evolutionary ethics close to what is common to Christian, Confucian and Islamic values without the surrounding legends and superstitions. Moral motivation will be discussed in Section 5.4 below.

5.2 Government of a group

Cattell's general view of human progress can be seen as necessarily depending on natural selection among organised groups. These groups tend to be nations. The natural selective process is slowed down by the great size of a nation relative to the small familial tribes among which the evolution of group qualities formerly took place.

5.2.1 Race

The term "race" and its use are loaded with misconceptions, and Cattell was criticised for the ideas he developed regarding selection among groups, and deliberately misquoted. Without getting involved in an etymological discussion, I would like to clarify the way certain terms will be used here in an endeavour to interpret Cattell's thoughts clearly. I deliberately use a 1966 source below, closer to Cattell's time of writing, reflecting the prevalent worldview.

Humans belong to the primate *species* *Homo sapiens* that has been classified by anthropologists into three major racial stocks: *Caucasoid* (white), *Mongoloid* (yellow) and *Negroid* (black). Each of these *races* has basic physical characteristics by which it is distinguished and today there are no "pure" races, since any given race in, for example, Europe, has some of the genes of almost all the other races of Europe. A commonly accepted definition of race could be as follows:

A race is made up of persons who have a fairly definite combination of distinguishing physical traits which is handed on from parents to children (Krogman 1966:50).

Key concepts here are *distinguishing traits* and *inheritance*.

The terms “people”, “race” and “nation” mean a group of persons larger than a family or community. *People* emphasises cultural and social unity, *race* emphasises biological unity, while *nation* emphasises political unity.

Cattell states that his use of –

‘racial’ has little relation to races as they presently exist, which [...] are largely geographical accidents, but refers to the improved genetic variants more deliberately generated [...] in relation to explicit ideals of genetic pools (1972:155).

In support of differentiation, Cattell follows the biological argument:

The possibility should be considered that mankind should not be encouraged to remain a single biological species. Biologists tell us that when a genus comes to be represented by only one or two species, this is often the prelude to its extinction (Cattell 1987:306).

Although Cattell used the terminology of his time, it is interesting to note that the two quotes above are much more in line with what can be found in the completely updated article on “races” in the *World Book Encyclopedia* of 2000, not daring any definition of the human race, but explaining that animal species can be subdivided in groups that differ from one another, and that those groups have been called races, subspecies, natural populations, breeds or varieties. Human populations, all belonging to the subspecies *Homo sapiens*, differ from one region to another.

What is called the population approach here is closest to the way Cattell handled the issue:

Anthropologists define a population as a group of similar people who are more likely to mate with one another than with outsiders. Anthropologists using the population approach investigate clusters of physical traits but make no assumptions about races on the basis of those clusters. Instead they see each population as a product of a unique set of circumstances, including adaptation, genetic change, isolation and history of migration. [...] The population approach assumes that groups of people who have lived in similar environments for a long period will demonstrate similar adaptations (Swedlund 2000:57).

Cattell defines a racist as “one who asserts the superiority of his own race or people, without perception of the inherent impossibility, in our ignorance, of making such a value assertion” (1972:262). He coined the term “ignoracists” for those who are prejudiced in the opposite direction by refusing to consider the scientific possibility that races may show statistically significant differences.

Beyondism calls for a more mature attitude than exists in either. It demands as a first act of respect to the reality principle that human beings recognize equally the cultural and genetic origins of individual and group differences, and build an ethics of progress on that basis (Cattell 1972:262).

Cattell was deliberately misquoted on many occasions and labelled as an academic racist. The views he developed in the 1930s were common among his contemporaries when beliefs in racial differences were widely held, and should not be distorted by judgment according to today's standards. General scientific observations should not be read as personal moral statements. He was particularly wronged during the 1990s by certain writers (William H. Tucker and Barry Mehler) who picked out certain references referring to Germany, Hitler or genocide and quoted them out of context.

One example from John Gilles' website on Cattell (Gilles n.d.) should suffice:

In his book *The Science of Politics and Racial Research*, (p 247) Tucker implies that Cattell advocates genocide, writing:

Losing races in the evolutionary competition, Cattell said, had to give way to their betters and 'genocide, like individual death, is the only way of clearing space' (Cattell 1987:306).

However, Cattell does *not* advocate genocide; the full quote in context is as follows:

Biologists, counting the records in the rocks, tell us that no less than about 95% of all once existing species and races are now extinct, and an historian might reach a similar count for cultures. Journalists may scream against 'genocide', but if they include genocide by nature rather than by man, as they apparently do, they are being ridiculous. Nature is concerned with evolving life, not with preserving a living museum of all species, and genocide, like individual death, is the only way of clearing space (Gilles n.d.).

As the genetic "quality" of the group and inter-group competition function as the social mechanism of evolution, it is important to approach Cattell's suggestions and projections with the understanding that survival groups would be most effective if functioning as unities of people, race and nation, acknowledging diversity and inequality as important factors in the global experiment towards an evolutionary goal of human survival in a context of global cooperative competition.

5.2.2 Evolutionary ethics

Throughout his career Cattell held various controversial views that he presented and defended as scientifically and complete as possible without forcing them on

anyone. He delivered his research work as well as his Beyondist exposition, according to his understanding, as a contribution towards the advancement of humanity as objectively and scientifically as humanly possible – that seemed to be his personal ethic. “My belief that a solution to ethics lies in science has never deserted me” (Cattell 1972:xi).

Two systems of ethic can be identified. Cattell agrees with McDougal’s differentiation between “universal ethics” and “nationalist ethics”. Universal ethics advocate kindness and brotherly love among all men, as in world religions, while nationalist ethics advocate mutual help only between members of a group, with ruthless survival of the fittest operating between groups. Cattell prefers “evolutionary ethics” as representing a wider principle in the latter case.

Cattell finds that the true morality that has traditionally been ascribed to Christian ethics as universal ethics of brotherly love founders into an ethic of nationalism (more representative of evolutionary ethics) in the belief that murder in warfare is not murder at all, but a highly moral and heroic act. This kind of aggressive nationalism, theoretically incompatible with Christianity, has been practiced throughout history (Cattell 1938:89).

Biologically there is no evidence of inheritance of acquired characteristics; evolution appears to take place through competition, strife and the survival of the fittest. Acceptance of this evolutionary principle means that our evolution is therefore assured only by our cooperating with Nature in its vigilant and ruthless elimination of the less fit. Opposition of this ruthlessness to all was so complete that in intuitive righteousness, most (universal ethics) thinkers have shied at even entering such an avenue of thought. Cattell mentions Nietzsche’s brave but incomplete poetic exploration of his conviction of the truth of this new morality beyond traditional good and evil, which proved a brief excursion in the face of an unsympathetic world. This general deep-rooted prejudice may have been the

reason for the academic establishment turning its back on Cattell's ethical stance.

To understand the true nature of evolutionary ethics we need to consider the structure of conscience in the individual and it must include the readiness to adopt roles that make group institutions work. We may begin by recognising three major systems, namely:

The *citizen's cultural conscience* concerned with one's own probably national cultural group, operating in good citizenship and patriotism.

The *world conscience* which tells what a man owes to all men, and

The *transcendental conscience* between a man and his God. Or as a scientist might more cautiously wish to say, between a man and his conception of what the purpose of the universe is (Gorsuch 1965; Aronfred, 1968) (Cattell 1972:403).

Cattell contends that the type of human being we desire to evolve is one who is capable of achieving his fullest expression only in groups. For it is only in groups that highly evolved individuals can achieve anything of lasting value.

Survival of the fittest, operating for countless generations on individuals as such, might produce beings of great strength or intelligence, but they would lack the essential qualities which make achievement through common purpose possible (Cattell 1938:91).

Such inborn qualities as sympathy, unselfishness, self-sacrifice and the capacity for enthusiastic co-operation could have been the inner strength of groups that have survived through intertribal warfare or international rivalry, thus evolving this genetic basis. By exploring these inner altruistic elements hidden within the external inter-group conflict that characterises evolutionary ethics, Cattell traces universal ethics as an extension of evolutionary ethics.

He says the following in connection to this:

If kindness, altruism, and all the attitudes which cherish the vitality and security of the group tend to become ideals and habits of thought through the operation of evolutionary pressures over long ages we must not be surprised if sooner or later they become ends in themselves, so that the more intellectual leaders take the seemingly logical step of extending them to all mankind. Whether this overstepping of the boundary of the group is right is another question (1938:92).

If this explanation represented the *world conscience* aspect of evolutionary ethics, the *transcendental conscience* could manifest in the next necessary phase in mental evolution, requiring as a condition to its appearance a sensitiveness incompatible with survival through the brutality of war.

The real purposes and conditions of life would be served if nations could regard each other as cooperators in the joint plan of evolving nobler types. As we do not know where the nobler type will appear, a new psychological attitude without ill-will and suspicion would guide the unavoidable test of rivalry with older biological types – the only way of recognising the “selected” type. “Consequently we must agree to work out in friendly rivalry and to the fullest extent the possibilities of each distinct racial mixture or national culture” (Cattell 1938:93).

Cattell is acutely aware of the immense undertaking to bring about a radical shift in the hub of a moral system. The starting point is to look at the basics: all societies need *maintenance values* as principles to hold them together for survival.

The differences between societies in terms of moral effectiveness have always been very great; almost as great between different periods of the same society. At this stage, a lack of psychological measurements prevents drawing a graph of different aspects of morality over time, and historical observation can hardly lead to the establishment of firm laws. It has, however, been noted, though not without

exception, that the periods of high morality generally come early in the history of civilisations and that internally degenerate values supervene before societies collapse (Cattell 1972:114).

Cattell emphasises the fact that a variety of factors play different roles to influence the survival of a group and that most historians see economic and other material factors as the sole “determiners” of history. The social psychologist, while keeping all terms in the equation, argues that the genetic nature of a population, and, above all, its moral culture, are more important for survival than any accident of the resources into which a population is born.

5.2.3 Democracy

Corresponding to the *within-group conscience* there are civil law and government. In the spirit of interference-free development of independent groups as part of the Beyondist experiment, Fascism and Communism may be chosen and practiced by independent groups. Cattell mostly comments on democracy. He identifies it as one of the few systems in which violent revolution is unnecessary for progress. In comparison with most other political systems it provides a favourable climate for scientific thought, it offers a working system for continuous evolution and recognises the importance of individuality. However, democracy needs to be analysed for improvement, especially the causes of historical collapses, to sharpen its interpretation of “equality” and adaptation to a scientific society. It should become incorporated in a Beyondist set of evolutionary values and cease to be a term of rhetoric (Cattell 1972:251).

Democracy’s present day problem is that, as Plato foresaw, it becomes legalized robbery of the haves by the have nots. Its second weakness is that it substitutes judgment by an ill-informed multitude for that of a selected intelligent elite (Cattell 1987:235).

Cattell envisages a changed democracy in the sense that technical methods in reaching goals are recognised in the democratic process by determining the goals and needs by regular democratic vote, but transferring decisions of means of reaching the goal to a selected body of technical specialists, as applicable.

5.2.4 Economic values

Beyondism sees a free market as the basic definer of economic values modified in three ways:

- a. Taxation for services which only the group can provide – health, military, and public services. Cattell questions the passively accepted ruling that these taxes are charged according to income while all receive the same service. It could be seen as compulsory charity or a form of theft. He argues that the problem in gaining social acceptance for a common tax is partly the encouraged habit of the man in the street to think in terms of “rich” and “poor”, where in fact, 80% of the population is neither (Cattell 1987:244).
- b. An adjustment of earning differences by a eugenic rationale, additional to sheer market values. By increasing the birth rate (e.g. tax allowance) of the middle class rather than of the dependent, society would raise the real earning level.
- c. Introduction of economic eugenic support for providing the next generation. The extra tax burden on the middle and upper class tends to reduce the birth rate to subnormal for those who aim at more expensive education for their generally above-average children.

5.2.5 Education

Cattell advocates the development of a democracy that understands the increasing role of expert research in social science in government and the growth of values by teaching biological and social sciences, and the art of analysing

arguments. Similar to the research conducted on individual personality traits, research could also be conducted to draw a profile of a nation to describe its *syntality*, which is defined as follows:

[...] the behaviour of *the group as an acting organism* – its frequency in involvement in war, its making of treaties with other autonomous syntalities, the style of its economy, the legislation which it creates, its liability to riots and insurrections, its relative expenditure on state education, and so on (Cattell 1972:96).

This is the kind of research that the Beyondist principle of comparative research is based on and towards which technical advances in social sciences can strive, to eventually support the work of a central international research institute that can function in an advisory capacity. No authoritative world government will be involved.

Cattell identifies two “unrealisms” of fashionable elements in twentieth century education:

- a. The overriding effect of home culture (kind of children, their homes and social backgrounds) relative to school culture (goals set by educators). The former can persist for generations, making it virtually impossible for educators to achieve the goals set by an ideal education system.
- b. The overselling of the role of education in relation to the “raw material” provided to educational “craftsmen”. Evaluation is based on the performance of the educator, methods and materials, ignoring the “supply problem”. Cattell finds support for his general approach of positive genetic improvement in the example of an education report in 1970 that half the unemployed between 16 and 21 years of age are functionally illiterate.

Other surveys show about three million illiterates in the U.S. population. (This percentage is about par for Western cultures, except for a few outstandingly organised and probably more gifted populations, such as

those of Switzerland, Sweden and Japan.) It is time that our education policy makers recognised that this is a greater reflection on our neglect of eugenics, than of education, for three million is just about the percentage below an IQ of 70 (which level is accepted in most countries as the borderline of mental defect) (Cattell 1972:398).

Beyondism emphasises three needs to be addressed in education:

- i. Far more down-to-earth and comprehensive biological education and perspective on humanity's place in the universe. Cattell quotes Nobel Prize laureate WB Shockley: "The greatest obstacle to man's future evolution at the present time (1965) is lack of public education on the fact that man is a mammal and subject to known biological laws," adding: "...as an 'Amen' Teilhard de Chardin's 'To see or to perish is the condition laid on man'" (1972:377).
- ii. Emotional and character development must be tied to the perception that moral values are continually developing out of scientific research on group and individual survival, and that, as such, they have authority. A modern humanity, aware of its part in an evolving universe, could produce individuals who sympathetically accept and adjust to the reality of inborn differences and the ability to view racio-cultural groups, not as hostile deviants from their own values and kind, but as equally important experiments. Progress in reasoning alone is precarious, therefore training in emotional balance and character ensuring fair-mindedness and objectivity, combined with the capacity to defend oneself against the emotional arts of psychological warfare, should be developed – the child moves out of the trusting relation to the teacher into a world of political cant, journalistic slyness and persuasive advertising appealing to values of spending, all presenting "the good life".
- iii. The "technical development" regarding the ideal "raw material" through the researched application of eugenics – intelligence does not always go with good character; the whole system needs to be geared into more positive mutual connection through genetics and character education.

5.2.6 Equality, justice and freedom

The above terms are used freely, which causes much confusion and makes various interpretations possible. Cattell investigates what lies behind the well-known words of Jefferson, Franklin and others: “all men are created equal”, and finds that we make sense of it to mean equal before the law, equal in initial opportunity, and equal in some spiritual sense.

Since the notion of “equality before God” as inferred in Judaic-Christian values, to Cattell’s mind tends to translate to equality of income, compulsory redistribution of earnings and the fostering of inadequacy, Beyondism cannot share this notion.

The belief that creativity and progress arise in the minds of free individuals connotes first that the individual differences in intelligence and other genetic qualities must be treated with respect and hope rather than envy and the intention to level-down (1987:166).

In popular media, the terms inequality and injustice have become synonymous, leading to another common-sense saying that “injustice is the equal treatment of unequals”.

Cattell (1987:193) identifies four forms of equality and inequality of individuals that can be encountered in society:

- a. *Biological endowment.* Psychological studies have investigated the desirability and correlation of certain traits in the population and certain cultures. Chassell found intelligence and altruism positively correlated, Terman found intelligence and emotional stability correlated and Cattell found ego strength, superego strength, and the development of the ideal self correlated. These results are particularly for Western culture, but the

point can be made that traits are unequal and not chance-related.

Desirability of traits may vary between cultures, but biological inequality implies an inequality in fitness to contribute to a given culture. It is important that all kinds have the opportunity to develop, as there is no knowledge beforehand to know what is best for the outcome of the grand experiment.

- b. *Social and political opportunity.* Community ownership of water supplies, military defence and roads is agreeable, but it will prove that equal educational opportunity actually, with age, increases differences that exist genetically. Cattell argues that equal opportunity is essentially *freedom*; if such liberty exists along with the first principle that biological inequality does and should exist, then inequality in later life will arise and equality can then only be achieved by artificial enforcement, often by overburdening the successful and succouring those who lag behind.
- c. From the interaction of differences in *biological endowment* and in *social and political opportunity* stems the *level of actual effectiveness* that is reached and accordingly; usefulness to society.
- d. In the spiritual sense of respect for the individual, difference is based on the *individual's potential relevance* to the process of evolution in ways that we are not capable of understanding.

Since one does not know beforehand what is best for a new adventure, it is important to leave opportunity for all kinds of innovations to develop.

5.3 Other group governments/world government

Cattell identifies the need for an "Earth Society" of originally independent nations, to avoid total global destruction and to support a common research institute to evaluate the level of survival potential of all countries. In effect this would function as an impartial guide to internal ethical effectiveness of countries as well as creating a more sound form of international ethics in cooperative competition than existed loosely before the League of Nations and the UNO.

We would then have a world society in two tiers:

- *Ethical System 1* among the members of single organised societies: existing revealed religious ethics and social legislation moving into the Beyondist concept. Among individuals the demand for cooperation and mutual self-sacrifice within the group puts limits to, and requires special devices for accommodating the action of natural selection.
- *Ethical System 2* being a worldwide society among organised societies. It is of the most importance here to favour the group producing and cherishing advanced human types – the group will receive feedback on its own qualities. That does not imply a mere struggle among groups; groups are judged by the natural environment itself. As technology advances, the challenges may become less about conquering nature, and more about positively preserving the natural environment and planning genetic differences.

For the greatest efficiency the processes involved should be carried on within the ethic of completely ruthless competition. Independent nations/groups take responsibility for choices, claiming no assistance if proved ineffective or misguided. In pursuing the experiment of culture-genetic diversification and group natural selection as the greatest need for the evolutionary advance of the human species, it is crucial that the total element – the human species and planetary society itself – must survive. The possibility of interplanetary colonisation is also in line with progressive Beyondist thought. This calls for conditions of inter-group competition, as it would eliminate the possibility of destruction of all groups in the face of global disaster, for example, a sudden ice age, a large meteoric collision or, currently, global warming.

In a current practical sense, I believe that something of what Cattell envisaged regarding Ethical System 2 could be read into the achievement of the Human Genome Project: A consortium of academic biologists in the United States and

Britain had embarked on decoding the human genome with the intent of making it a communal good. On Monday, 26 June 2000, the results were made public and available for the free use of scientists around the world (Wade 2001:14). A scientific achievement with a potentially immense impact on humanity should be handled with global caution, control and monitoring free from political and personal interests – perhaps the kind of evolutionary global survival aim that Beyondism advocates?

The dawn of genomic germline engineering throws light on the least just aspect of human societies, one long ignored because nothing could be done about it: the inequality of heredity. It is a soothing fiction that men are born equal. Inheritance is a random process in which some people inherit their parents' best genes, some their worst. Inheritance is a true lottery in which there are winners and losers, a pitiless system that exists so that evolution can back the winner. Like all great gifts this one will come with a price. The price is that, in beginning to alter the human germline in the name of health, we will inevitably assume a broader control over it (Wade 2001:174).

The above can be linked to Section 5.1.3.2 above, where the goal is (c) to assist and monitor the genetic evolution of all groups, through a central comparison of consequences of genetic movements (Cattell 1987:181). What Cattell envisages is an International Cultural Research Centre to gather data on all countries and to extract by comparative study scientific laws on ethical customs and other determiners of vitality and progress. Beyondist principles would by no means tolerate a world monopoly of general power spreading monotony of cultural style and racial homogeneity; this body would be a federation in structure with only advisory functions promoting adventurous diversity. A single world power or monopoly in determining world affairs would be anathema to an evolutionist – perhaps only in policing against war. It has already been stated that Cattell's Beyondist ideas have been greatly ignored or selectively criticised by academics emphasising the racial and eugenics components of his writing. It is, however, interesting to note that the idea of some form of global cooperation, government,

control or unity has become prominent in contemporary evolutionary future-orientated writing, representing a variety of viewpoints, but sharing a concern for global development, peace and ecology. Let us look at some in more detail:

- a. Ken Wilber mentions Marxism as a serious global social movement that proved to be successful in discovering a common trait that all humans possess, regardless of race, creed, nationality, mythology, or gender: the fact that we all survive bodily through some kind of social labour – making us all world citizens (2000:199). It also proved to gain support across the globe (Russia, China and South America) because it made good sense to so many people. The weakness of Marxism is that it did not just ground higher cultural endeavours in the economic and material realm; it reduced them to material productions, values and means, higher productions and spirituality serving only as the “opiate of the masses”. Wilber views the “Greens”, tending to reduce all concerns to the ecological exchanges of the biosphere, similar in restrictions to Marxism – utterly incapable of mobilising world citizens beyond the point of the common denominator approach (2000:200).

[...] it will take a vision-logic movement of tremendous integrative power (integral-aperspectival as universal integral) in order to unite world citizens on the centauric basis that we all share matter *and* bodies *and* minds in common (not to mention a Spirit and a Self, prior to *all* that) (Wilber 2000:201).

This kind of transformation will take place, as Wilber states, in the hearts and minds of individuals who “themselves evolve to centauric planetary vision”. These individuals create a “cognitive potential” in the form of new worldviews that will influence and create social institutions that will eventually move towards a collective consciousness and a higher order. Wilber declares that at the time of writing he could see no obvious “collective bearers of the new and deeper within” (Wilber 2000:202).

If we locate Cattell's ideas about "world government" on Wilber's four-quadrant model (Appendices A and B), we find that previous identification with levels 12 (nation/state and rational in the IT and WE quadrants) or 3 ethnocentric (in the ECO and EGO sections of the whole) now also allows for levels 13 and 4, reason moving to vision-logic and planetary/worldcentric, especially if we keep in mind the evolving Theopsyche as evolutionary goal and the role of the individual "mystic". See pages 102 and 104 above.

- b. John Stewart (1952–) is a contemporary writer sharing Wilber's ideas on conscious evolution and a member of the Evolution, Complexity and Cognition Research Group at the Free University of Brussels. In June 2008, he published a 34-page *Evolutionary manifesto* (Stewart 2008a), which contains much that can be related to Beyondist ideals. Some important corresponding aspects of this world view are as follows:
- Evolution will be driven intentionally by humanity
 - It relies on scientific knowledge
 - From a rational perspective, the evolutionary worldview does not share the deficiencies of religious and mythical worldviews
 - It can unite and give meaning to and purpose for human existence
 - The next step in human evolution will be the emergence of a unified and sustainable global society, the organisation of a cooperative global society is an urgent priority (in Beyondism more advisory-federal)
 - The direction is towards unification and cooperation over greater and greater scales, to create a cooperative interdependent whole that embraces the planet (Stewart 2008a).

Personal e-mail correspondence with Stewart (Stewart 2008b) revealed that he has never come across the work of Cattell and that he is not aware that any other "conscious evolutionaries" whom he is in contact with, refer to him

in any of their writing. His brief look at some summaries of Beyondism as reflected on the internet led him to conclude that, in contrast to Cattell's emphasis on eugenics as a mechanism for intentional evolution –

I argue that the most effective way we can escape the constraints of our biological and social past is by the acquisition of new 'psychological software', rather than by gene-based changes to our 'hardware'. The capacity to remake ourselves moment by moment through the use of some of the approaches discovered by religious and contemplative traditions will be far more evolvable than the much slower and clumsier processes of eugenics (Stewart 2008b).

He also observes that Cattell is against the formation of a unified and cooperative global society, which he believes to be the next great step in our social evolution.

Instead of natural selection and competition, Stewart's approach to the mechanism of evolution is to follow the trend of greater interdependence and cooperation among living processes – from molecular processes grew simple cells to form more complex cells to multicelled organisms such as insects. Following this trend, humans teamed up from families to bands, to tribes, to agricultural communities – “the largest scale cooperative organisations of living processes on the planet are now human societies” (Stewart 2007). In his *Manifesto* he concludes: “The Earth is not yet a living entity. But it can be” (Stewart 2008a: Part 2).

The *Manifesto* advocates that the organisation of a cooperative global society is an urgent priority to address issues such as global warming and the looming possibility of world war that could mean the end of human civilisation.

Contrary to Cattell's quest for refining human nature through positive eugenics, Stewart argues that a sustainable global society would not

require a fundamental change in human nature, since: “Past evolution has repeatedly shown how to organise self-interested individuals into cooperatives through the institution of effective governance” (Stewart 2008a: Part 2).

Cattell proposes a world organisation deriving authority from a universal evolutionary goal guiding and monitoring the evolutionary process of cooperative competition between nations and states, eventually arriving at the “noblest” groups representing Earth in a possible planetary community. Positive eugenics and hybridisation could speed up the process.

Unfortunately the scope of this study does not allow an extensive comparative evaluation of both theories that, in a peculiar way, address past and future evolution according to similar principles, differing largely about applications. The question arises whether Cattell’s advanced vision is tied down by outdated views on evolution or whether Stewart’s progressive ideal is not sufficiently anchored to the biological reality of humanity; a typical example of what is meant by culturo-genetic adjustment gap.

- c. Ninian Smart (1992), when reflecting on religion and the future, points out three aspects of life that will be touched by the increasing homogeneity of world civilisation and undoubtedly have its consequences for religion.
- The institutionalisation of a unitary world science will mean that each cultural tradition will have to come to terms with it – some will find it more acceptable than others.
 - Homogeneity about the ways of applying science and technology will also be a global concern. This may lead to religious commitment becoming more a private than a community concern.
 - Global culture will manifest all over – world television, global newspapers and a more consciously world cinema. Western values will

become more dominant in academic approaches and sports, and even religions will take on Western appearances.

According to Smart (1992) a transnational global economy dominated by a few hundred huge transnational corporations will minimise the impact of national governments. This may lead to the revival of the great traditions, either as the mystical path or as transnational spiritual corporations. In countries with a strong tradition, a new awareness of ethnicity and nationalism may flourish in the form of, for example, Islamic conservatism.

Smart acknowledges the limitations on predictions and that much is dependent on the progress of science that may have effects on existing belief systems. When reading his depiction of a possible ideology of transnationalism, Beyondism, based on scientifically grounded principles, may become a viable option.

They will not favour a world government per se, though they might well favour various kinds of international regulation, of accounting, trade and other matters. The ideology that suits such desiderata is one of toleration but no complete unification. It would be one which might correspond with the modern Hindu world-view which sees the diverse religions as pointing to the same indefinable goal, and as capable of acting together co-operatively on the social and ethical front. It would be an ideology of mutual polite toleration, a kind of ethical ecumenism. Though this would not attract religious leadership, the soft non-relativism which I sketched earlier is sufficiently close to be an acceptable expression of the spirit of toleration to receive an impetus from the new economic order.

This suggests a new world-view which will treat humanity as the group of ultimate concern, with science and technology as important theoretical ingredients, orchestrated perhaps by Kant and Popper, while values will be personalised and somewhat relativised within the frame of maximum toleration, and the spiritual ancestors of humanity shared in common (Smart 1992:9).

5.3.1 Ecological environmental issues

Cattell does not address ecological environmental issues per se, but his evolutionary approach does by implication not allow for environmental insensitivity. Humanity, as a species striving for intelligent survival, would not wilfully destroy its habitat; human evolution does not find itself in any different category from all previous mammalian laws of evolution. Although it is said that humankind tends to adapt the environment to its needs rather than adapting to the environment, the fact remains that human constructions and “eco-niches” have to fit the laws of the environment.

He [man] defends himself more effectively from gross and inconvenient environmental demands, but he still has to deal with those demands and face the ever-changing face of nature. Environment has the last word (Cattell 1987:217).

One could include in the above statement both the ruthless power of nature and the sensitivity of ecological balance by which the Kyoto Protocol could be viewed as a global effort to this effect, and although it cannot be seen as a Beyondist action, some principles are in agreement. In his *Evolutionary Manifesto*, Stewart is critical about this global venture:

The Kyoto Protocol demonstrates the near-impossibility of achieving an agreement that would work. The positions taken by nations on the Protocol merely reflect the conflicting interests outlined above. It does not resolve any conflicts and does not take the world closer to dealing with global warming. But it has symbolic value – it is a very effective symbol of the inability of humanity to solve global threats at our current level of social organization (Stewart 2008a: Part 2).

Cattell and Stewart seem to agree that a conscious evolutionary world view is urgently necessary for global action, based on authority derived from the shared

positive intentions of a global society. This spirit is also reflected in the idea of Earth Democracy.

Vandana Shiva's Earth Democracy (Agostino & Ashton 2006:219) which is derived from the Sanskrit concept of *vasudhaiva kutumbkam* (earth family), emphasising the continuum between all life on earth, shares Beyondist sentiments like the *intrinsic worth of all species and peoples; diversity in nature and culture; and balancing rights with responsibility*. One wonders whether Shiva's tenth principle of *globalising peace, care and compassion* could or should be made compatible with Cattell's Ethical System 2 above if the negative connotation to competition were replaced by the idea of Beyondist cooperative competition.

Earth Democracy connects people in circles of care, co-operation and compassion instead of dividing them through competition and conflict. Earth Democracy globalizes compassion, not greed, and peace, not war (Agostino & Ashton 2006:219).

Cattell's formulation follows:

Because all men are properly a part of the same great plan their competitiveness and rivalry must be within a circle of fundamental mutual love. And this is further necessitated by the psychological truism that groups, like individuals, can give of their best, without wastage of energy in suspicion, hatred and intrigue, when their security from unfairness, cruelty, or violence is assured (Cattell 1938:95).

Once again, despite some very different details concerning past and future evolution, Cattell and Stewart seem to agree on the main principle:

Cooperation emerges only when evolution discovers a form of organization in which it pays to cooperate. [...] When this is achieved, nations and multi-national corporations will benefit in proportion to their positive contributions to the global

society, and will suffer in proportion to their harmful effects on others.

Corporations driven solely by the profit motive will search for ways to advance the interests of the society (Stewart 2008a: Part 2).

In the face of limited resources, will humanity work towards survival or fight for survival? It may all depend on a clear united purpose for survival.

It is noteworthy that all four future projections above as well as the idea of Earth Democracy share the idea of an inevitable world view that should be developed (or recognised and generally acknowledged) and that the three authors (Cattell, Wilber and Stewart) are in unequivocal agreement that it has to be an evolutionary world view – which Smart does not mention or deny. It seems to be a core principle that this worldview is not to be acquired by some overall authority, but that it should be derived from the inner conviction of “intentional evolutionaries”, to use Stewart’s term, which reflects his theoretical passion, whereas Wilber and Cattell share the same idea tied to their acute awareness of the spiritual-psychological limitations of even post-postmodern humanity. Smart (1992) also recognises this religio-spiritual aspect at different levels of society.

All subscribe to the principle of diversity among individuals and groups. Even though the degree and form of global awareness, cooperation, society, control, and government remain open to debate, a global will towards an all-inclusive peaceful “beyond” may become a reality. The projected goal varies from Stewart’s vision that “as each of us has the potential to be a cell in the brain of the planet, humanity can become a cell in the brain of the universe” (Stewart 2008a: Part 2) to Shiva’s concept of Earth Democracy to include all life forms (Agostino & Ashton 2006:160).

5.3.2 Militancy or pacifism?

A cooperative world society seems the general ideal, but the history of the last

4 000 years cannot be recorded without noticing that only one year in fifteen has been free of war (Andresky, S. 1954. *Military organization and society* in Cattell 1972:189); therefore Cattell finds it crucial to objectively study the role of war in the cooperative competition of groups. He states clearly that war has no necessary role in attaining the aims of cooperative competition within the Beyondist framework:

Few things are more loathsome than war, but the ideal of death in battle is the highest morality until the next stage of evolution becomes possible, in which the aim is to serve with one's life instead of with one's death. And patriotism is satisfying to the primitive soul just because it is a halfway stage to true religion (Cattell 1938:102).

War can be seen as a social disease as complex as cancer is a physical disease and the solution is not to do away with competition. War should be avoided at almost all costs, but to do away with competition because of the risk of war is almost like denying life because of the possibility of pain.

The extreme and horrible and mostly unnecessary loss of life is what makes war unacceptable. But at some stage we all will face death and Cattell compares the 43 000 casualties in nine years in Vietnam with the 48 000 people who died in road accidents in one year (1969) in the US.

Cattell (1938) moves away from emotional arguments, investigating other positive and negative aspects of the phenomenon of war as inter-group action. Along with the physical, psychological and emotional trials that go with war, it also challenges the strong to levels of faith, courage, fortitude and sacrifice that he or she would never reach in any other activity. On the one hand, a group may sacrifice its most able youth in an unnatural genetic drain of the population, and on the other hand, a war situation stimulates scientific endeavour. The pursuit of creating better arms on both fronts may postpone the actual conflict, or an even

better war deterrent may be the race to conquer space, as with the US and Russia in the Sputnik era.

The main idea Cattell develops is that humanity can in fact evolve towards a state of mind where war will not happen; however, until then we need a balanced view of the function of war in the evolutionary process.

Whether force is ever necessary depends on the fact that the purpose of evolution is served at different stages by different means. Ideally intelligent people who are thinking in terms of reality will be patient in their observations and decisions and will not consider the grasping of material resources as important as making cultural and eugenic progress with the existing resources. Iceland is a good example of this kind of advancement.

Yet mankind is doomed, unless education is miraculously successful with the less intelligent types, to labour under the disadvantages of mixed levels and methods of competition; for the range of human intelligence and of the will to co-operate is so great that there are bound to be peoples obstinately persisting at the stage of mental adjustment when war is the only method of competition of which they are capable of enthusiastic understanding (Cattell 1938:101).

Peace at all cost is not an evolutionary option:

It is an utterly perverse morality which teaches that an evolved people should consider means more important than ends to the extent of passively allowing a barbarous but warlike people to overrun them (1938:102).

Could it be that, in the same way that it is a human decision to go to war, the elimination of war will eventually depend on the acceptance of eugenics as an acceptable phase in human development?

Civilisation has difficulty in pulling itself clear of barbarism because it allows too long a pause to ensue between the cessation of natural selection and the inauguration of eugenics (Cattell 1938:102).

In summary of Section 5.2 and 5.3, Cattell identifies seven primal conditions for evolution that should be maintained throughout group interaction.

- a. The avoidance of a world monopoly of power and culture. Lithuania and Estonia have, for example, been lost as a separate cultural experiment due to their absorption by Russia.
- b. The maintenance of the spirit of cooperative competition and diversity. In this regard, Cattell quotes the biologist HJ Muller:

who gave way to no man in his concern that there should be 'no place left for biases against races or social classes' nevertheless recognised that in regard to the future of human evolution, in relation to the hundreds and thousands of animal and insect species, 'It has been intrinsically dangerous for him [man] to have so long existed as just one species' (1966). Rather than move toward coalescence, it is important for man culturally and genetically, to become increasingly divergent in his varieties, to the point where formation of distinct species occurs (1972:219).
- c. Cooperative planning and recording is desirable. By "factorial design" of the "grand experiment", history could be improved upon through deliberate planning instead of the previously blundering humanly-expensive "experiments".
- d. The avoidance of total genocide. Along with the acceptance that a condition of birth of the new is the disappearance of the old; it is also true that the death of the individual is magnified in the death of a culture and a people. Cattell calls for realistic, compassionate objectivity in approaching this problem of which the danger of a detrimental psychological attitude (for example Nazism) is real, but currently also unduly emotionally laden. A first step to clarity in this kind of discussion may be to use the term "genocide" only for the literal killing off of all living members of a culture or

a people and “genthanasia” for what can be called “phasing out”, in which a moribund culture is ended, by educational and birth-control measures, without a single member dying before his time. According to biologists ninety-eight percent of the one hundred million species ever on earth are now extinct (Cattell 1972:220). The maintenance of the *status quo* (animals and humans) cannot extend to making ninety-nine hundredths of the earth a living museum.

- e. Degeneration of competition into pugnacity must be avoided. If aggression is permitted in inter-group competition, the instinctive tendency is to react with counter pugnacity, which could create a frustration-pugnacity spiral. Any competitive situation has to be monitored against this kind of degeneration – the aim of social research should not be the decrease of competition, but the avoidance of degeneration into pugnacity.
- f. A humanity-dominated group environment must be avoided. Planet earth has a limited capacity and the kind of aggression mentioned in (e) above is dormant where groups begin to constitute too large a part of each other’s environment, obscuring at the same time the basic importance of the competition of each group with nature. The co-existence of species cannot find its explanation in their competitive equality; zoological species, man to amoeba, are “equal” in surviving only as long as each has the advantage of its particular ecological niche or geographical isolation or adapted source of nutrition. See Section 5.3.1 on Earth democracy for more on this.
- g. The most subtle and subversive problem of the six foregoing conditions may be doubts in trusting inter-group competition, and the accounting of “points” for survival. Nations could set up conditions of inter-group dependency or striving for artificial community-approved goals could distort or invalidate the whole experiment.

The only way in which the collapse pictured in (g) above could be avoided or eliminated may be in the global acceptance of the Evolutionary Purpose, embracing the grand idea of the future of humanity and working towards it step by step.

We have explored civil law and government regarding *within-group conscience*. Currently, international law and a United Nations Organisation for *between-group conscience* and protection of some rights and political claims are in existence. This is a terrain where potential conflict is never completely resolved, since there are political claims in every generation for either the group or the individual having absolute rights relative to the other.

As to the third or *transcendental conscience*, to God or the Cosmic Purpose, there has been in the past the universalistic religions with such uncertain rights and laws as grew up in their congregations, but always including the right of a man to explain his acts to his own conscience. Beyondism gives more content, logic and distinctness to this right of a man to go over the heads of men to this cosmic temple of the transcendental conscience. It is in connection with the individual's groping for his transcendental conscience that those with what Wendell Holmes called 'three storey intellects with a skylight' will feel the need for new institutes for moral research (Cattell 1972:404).

In Wilber's terms, Cattell's concept of transcendental conscience corresponds to centauric vision-logic operating on the noosphere.

5.4. The goal of evolution/Evolutionary Purpose

At the core of Beyondist thought is the change to a conscious evolutionary worldview based on the scientific acceptance that humanity is in a process of evolution in a physically and biologically evolving universe. What is the conscious Evolutionary Purpose or Goal that could motivate the individual and support the group mind towards the necessary moral action and meaning in life?

In the course of this chapter we touched on the psychological and genetic dynamics of behavioural and biological adjustment. A key concept is *conscious evolution*: accepting and taking into account the process that has brought humanity to this point, and knowingly probing into the future. If this would be only a biological process of linear biological progress from amoeba to *Homo sapiens*, I would not have been writing here, because, being a present-day human being, my consciousness is drawing on millennia of cultural evolution that allows and challenges me to probe further, deeper and wider.

The evolutionary context is the next context for humanity to grow into. Like other contexts before it, living into this wider context demands a reevaluation of the strategies, values and goals that made sense in earlier contexts (Stewart 2008a: Part 4).

Cattell acknowledges this unique human probing in the evolution of the concept of God as outlined in Chapter 2 and the parallel development of science.

Extending on the evolutionary summit of the idea of God as God-in-man, Cattell developed the notion of Theopsyche (Chapter 4.4), containing all scientific effort and accomplishments, moral laws and social accomplishments. Different historical achievements, greatly due to different nations performing in a certain area (Jews with regard to religion; Germans with regard to science; Spanish/Portuguese with regard to exploration) could be regarded as contributions to the Theopsyche as a whole (1938:146). An over-emphasis of the national/political ties in the structure of group minds erroneously creates the notion that no common mind binds all individual minds the world over. However, there are virtues of courage, honesty, and fair-dealing, of hospitality, kindness and self-sacrifice, of intellectual sincerity and truth-seeking, which men recognise and honour in other men wherever a certain level of development has been surpassed. Undeniable differences among cultures, such as stature, physical

peculiarities and even certain intellectual abilities, cannot be overlooked or eliminated. It should not be ignored that these differences (genetic and cultural) play an essential part in the development of the Theopsyche.

In Section 5.3 (page 146) above, we concluded that at least four prominent modern thinkers agree on the concept of some kind of world society. Regarding this kind of “evolving group mind”, Cattell notes that the Theopsyche is only at the beginning of the kind of self-conscious control that would give it greater powers and nobler qualities than could exist in any single national mind. We can assume that through the universal interchange of cultural interests and the common loyalty of humans to profound universal values, the world is on the way to an organic unity (Cattell 1938:144).

Although Cattell can envisage the goal of an eventual global unity, he emphasises that present evolutionary morality indicates that variation of race and culture is a required condition for progress. The individual remains the most important element of the success of any group and the most important inborn characteristic of individuals in this decisive contribution to the Theopsyche is the degree of mental capacity. Cattell mentions several studies (Maller, Portius and Cattell in Cattell 1938:168) to support the conclusion that the general development of the group mind seems to depend directly on the level of biological evolution of individuals with regard to inborn mental capacity. These observations are valid not only regarding intellectual qualities, but also in moral and emotional standards.

For to envisage the noble spectacle of the Theopsyche perpetually growing in its relation to the Universal Reality, and to understand one's own fleeting yet eternal part in the great drama of its growth, is to achieve a serenity before all the facts of life and death. [...] It is the communion with God which brings strength to every endeavour (Cattell 1938:190).

In terms of the four quadrants, Wilber's deduction that the leading edge of the World Soul's evolution at this point in time has reached to the vision-logic/centauric/ planetary level. Any higher efforts will have to "occur through an individual's own efforts (UL), evidenced in individual bodily transformations (UR), practiced in a micro-community or sangha of the similarly deepened (LL), with its own microsocial structure (LR)" (Wilber 2000:32).

What is envisaged here is not merely an idealistic philosophical dream; as Wilber puts it, these hierarchies are *structural potentials* of the human bodymind, which Cattell preferred to approach from a scientific angle, starting from the outer reality, moving inward to intention.

If by God we mean the vast group mind of civilisation, alive with infinite potentialities and growing in power and wisdom continuously, His relation to morality is the closest of organic necessities, for moral laws become, by the definition of evolutionary morality, the very conditions of God's existence and unfolding which are set by the nature of the universe...

A belief in God as the eternally significant part of the universe, together with love for the nature of God, is the sanction from which morality draws its strength and indeed its very purpose in existing (Cattell 1938:107).

CHAPTER 6

BEYONDISM: WHY AND HOW CAN SCIENCE BE RELIGION AS WELL?

6.1 What is religion?

“The death of God left us literally and culturally naked” (1991:246). That is Brian S Turner’s closing sentence in his book *Religion and social theory*. He notes that in his study he accepted the secularisation of religion and found that modern society is characterised by exposure to the material world of commodities, objects and bodies without the “intervening shield of religious meanings”. He observes both Durkheim, following the etymological meaning of religion: *religio* is an obligation or bond pointing to its social functions of discipline and bondage, and Weber, recognising that religion is a response to certain fundamental questions of meaning, not assuming that the “problem of meaning” strikes all members of a society in the same way and with equal force. He also finds that the “coherent answers” of religion are not disembodied responses of the mind, but part of the individual’s physical experience through his or her body of the socially structured world (Turner 1991:246).

This external social observation corresponds to Wilber’s deduction that the truth sought by science cannot cater for the wisdom, value, or worth that give significance to the everyday existence of humans. Around the world, billions of people draw from religion the basic meaning of their lives – the glue of their existence – and it offers them a guideline about what is good (love, care, compassion) and what is not (lying, cheating, stealing, killing). On the deepest level, religion has even claimed to offer a means of contacting or communing with an ultimate Ground of Being – also claiming to offer what is believed to be authentic *wisdom* (Wilber 1998:xi).

From these observations we can see that without linking religion to devotion, worship or any relation to a divine entity or Supreme Being, the interior aspect

of religion presents itself clearly. William James, in his philosophical-psychological approach to religious experience, attempts a kind of definition:

Religion [...] shall mean for us the feelings, acts, and experiences of individual men in their solitude; so far as they apprehend themselves to stand in relation to whatever they may consider the divine (James 1982:31).

James also confirms what we have previously noted, namely that psychologists could find no “religious sentiment” as far as traits are concerned. He states that there is no ground for assuming an abstract “religious emotion” to exist as a distinct elementary mental affection by itself, present in every religious experience without exception. He then draws the following conclusion:

As there seems to be no one elementary religious emotion, but only a common storehouse of emotions upon which religious objects may draw, so there might be conceivably also prove to be no one specific and essential kind of religious object, and no one specific and essential kind of religious act (James 1982:28).

All sources mentioned above agree that religion is an element of society, manifesting in individual behaviour and in group context, and that it seems to have its initial roots from within (some) individuals and in a variety of ways. This observation corresponds to an element of Cattell’s approach that has been characteristic of his writing since his first exploratory work on this topic, *Psychology and the religious quest; an account of the psychology of religion and a defence of individualism*, namely that despite his “agnostic” critical approach to traditional and revealed religion, his understanding of and interest in the religious (emotional) needs of humanity is extended to the proposal of an alternative form of *religion*. In this regard, Beyondism can be differentiated from, for example, Humanism, Communism and rational liberal thinking, as traditional religion is not merely suggested to be replaced by a different ideology, but offers a dynamic world view with individual and universal dimensions.

In the preceding chapters, Cattell's epistemology and ontology have been outlined, reaching no final clarity, as our knowledge of reality always has a subjective component, coloured by the stage of development at which we find ourselves (Visser 2003:215). In order to get around the possible critique of positivism and reductionism in Cattell's scientific approach we will once again revert to Wilber's exposition of dimensions of religion as presented in Chapter 2 (on pages 44–46) when evaluating Beyondism as religion from science. As religion is such a multidimensional human phenomenon, we may well take note that the dimensions distinguished by Smart (in Chapter 5 on page 152) correspond very closely to those identified by Wilber: Myths, rituals, doctrines, ethical teachings, social institutions and religious experiences of various kinds. Cattell (1938:158) himself sets a similar standard to the study of religion in stating that the scientific treatment of religion should keep in mind that religious questions could be discussed on the basis of at least three aspects that cannot be completely separated, namely:

Individual and emotional life – Freud, Jung, Forsyth.

Philosophical (approach through ontogeny) – Whitehead, Russell and other modern philosophers.

Social origins, consequences and purpose.

A true picture of reality requires thorough correlation of all three aspects.

To add more dimensions to this investigation, Krüger's criteria for religion from a conditionalist point of view will also be considered.

Up to this point we have investigated Cattell's views on reality within Wilber's all-quadrant framework of knowledge. It can be concluded that Cattell's socio-scientific approach can be clearly located on the line through the IT and the WE sectors of Wilber's quadrant (Appendix A), these being Cattell's field of specialisation. He did not intentionally exclude the I and ITS sectors; in fact, they do feature strongly in his development of the idea of the Theopsyche, Universal Reality (Chapter 4) and a cooperative plan towards an Evolutionary Goal for humanity (Chapter 5).

6.2 Dimensions of religion

Which dimensions of religion could be applicable to Beyondism and would it have the *legitimacy* and *authenticity* to function as religion – on a social as well as spiritual level?

Wilber identifies nine aspects of religion (see Chapter 2, page 44–46), which all occur in various combinations. For this purpose, we will identify three main groupings:

a. The mythic-based aspects:

- i. Non-rational engagement (dealing with faith, grace transcendence, Satori, etc.)
- ii. Religion as immortality project (compensatory belief to assuage anxiety of apprehending mortality)
- iii. Fixation/regression (illusion, magic, myth – pre-rational)

b. The exterior functioning:

- i. Meaningful or integrative engagement (meaning, truth, integrity, stability)
- ii. Exoteric (lower outward aspects of belief system – teaching and practice)
- iii. Legitimacy (primarily validates translation – integrative meaningful operational)

c. The interior functioning:

- i. Evolutionary growth (increasing self-realisation: transform<transcend<God-realised Adaptation)
- ii. Esoteric (higher inward practice toward mystical experience)
- iii. Authenticity (validates transformation to dimension-level centrally religious)

6.3 Religious qualities of Beyondism

Is Cattell creating a new religion or only observing the social and individual need for a new version of religion?

6.3.1 Mythic aspects

Cattell's rational approach allows no intellectual space for the mythic aspects of traditional and primitive religion; these he regards mostly as anthropological museum exhibits or pathology, and what is remaining in present-day religion does not fit into an advanced moral system. Cattell ascribes the success that religions of the past had in making "emotional deals" or exchanges to the superego not being advanced enough in most men to provide the motive force for a whole moral system.

That the successful religions, from the banks of the Ganges to Westminster Abbey, have paid men to adopt a more ethical emotional adjustment by imaginary coin is widely recognised. [...] Heaven, hell, the all-seeing eye of God, the compensated afterlife, the bestowal of dignity and status in a church congregation (such as the individual scarcely possesses in a wider society): all these are more positively effective and less expensive than a police force (Cattell 1972:271).

Cattell acknowledges that totalitarian Communist and Fascist societies could reach that kind of efficiency through complete control and propaganda, but the crowd lacks the "capacity to generate supports of conscience for reforms transcending the given society" (Cattell 1972:271).

Cattell makes three interesting observations regarding Christianity where "peace" could be regarded a psychological reward for accepting many inhibitions and escape from competition:

- a. That Christianity grew in Rome partly on the dynamics of slavery; deprived of any future in this world, they were happy to accept the "heavenly millennium" of the Church, including the virtues demanded

- by a religious morality. The new religion was a psychological gift – “making a glorious virtue out of a debasing necessity”.
- b. He calls on historical data and quotes Richardson stating in 1960 (in Cattell 1972:272) that in the 500 years preceding the establishment of Christianity there was acceleration in the trend of aggression. “The spiral of frustration-pugnacity-increased frustration until hostility and cruelty reached intolerable levels from which the *volte face* of Christianity offered a compelling chance to escape” (Cattell 1972:272).
 - c. He refers to students arguing that Christianity aligns with the eightfold way of Buddhism, and with Gandhism – adjustment which delivers from all strife.

Cattell fairly acknowledges that religious congregations are living groups that meet the ordinary needs of a group for sufficient human interest to compete for survival. Beyondism offers no emotional deals based on illusion. The austerity of evolutionary ethics cannot offer escape from competition, nor does the notion of a loving God provide evasion of all real fear, or concern about the future of humanity:

Its satisfaction, apart from those which come to the superego itself, are mainly aesthetic, in participating in the magnificence of our unfolding view of the universe. Here it joins with and needs the aesthetic experiences of music and art, as older religions have done in the organ music and the architectural grace of a great cathedral (Cattell 1972:273).

This view of the possibility of science fulfilling an emotional personal religious function is supported by the evolutionary theologian Dr John F Haught:

Something religious is going on even in scientific work, not in the scientific information itself, but in the commitment to the idea that the universe is intelligible and truth is worth seeking. Those are religious convictions. You can't prove scientifically that truth is worth seeking but it is the conviction that it *is* worth seeking that underlies all good science (Edelstein 2006).

Concerning Satoric experience, Cattell's overall attitude reflects the lack of understanding of Eastern wisdom that prevailed in typical Western culture, and his characteristic inquiring interest was not drawn in this direction. This facet of the mythic aspect of religion also belongs to the interior aspect and will be discussed later in connection with the interior aspect.

Cattell does not probe into the archetype facet of the mythical aspect of religion, but he comments positively on Jung's emphasis on the unconscious mind as the spring well of religious sense. Science could provide an intellectual basis for healthy human adjustment to the environment, but in itself does not provide the emotional vitality that goes with harmony of feeling and intellect. It is interesting that his solution to educating the young in Beyondism implies what can be recognised as a kind of integration of the Big Three and the Great Nest of Being:

Consequently the harmony of feeling and intellect is not to be achieved by any superficial intellectual learning: the process of education must be a long and slow one, that the emotions may have opportunity to adjust to the intellect. And the pathway to religion should be paved with perceptions of the beautiful, even if it is fenced by logic. The part to be played by the emotional experiences of ceremony and prayer is a matter for research (Cattell 1938:187).

Subject to intensive educational research he searchingly suggests a model based on the theory of recapitulation – that the child in his or her own development tends to repeat the history of the race:

Should the child, recapitulating, begin with vague animism of fairy tales, progress to the crude and symbolic account of God in the Old Testament, and approach the moral teaching of the New Testament just when his scientific education is reaching the point at which a final perspective on divinity, morality, the Theopsyche and Universal Reality can be given (1938:184)?

Cattell argues that in opening up the way to a scientific approach to God there is much learning and unlearning for most people. But the child, who begins to

learn about the universe, is impressed by the age of the earth and keenly follows the varied drama of evolution and will at last be prepared to appreciate the majesty of the Theopsyche and the intricate laws of its development. For a child, thus, informed history will take on a new significance; intellect will no longer be at war with religious emotion. Children would be able to gain a true perspective of each individual part to play in the life of the greater Theopsyche (1938:183).

We can conclude that, regarding the mythical (non-rational) aspect of religion, Cattell is sensitive about the “great, slow-built emotional attitudes, with all their poetry and wealth of human associations, which have grown up through the centuries around the concept of God” (1938:186). Beyondism suggests a fundamentally different route of education, namely teaching based on observation and reasoning rather than on authority. Cattell envisages a religious viewpoint founded in scientific investigation, contrary to perpetuating attitudes and beliefs which are going to cause suffering, conflict and disillusionment to all those young people intelligent enough to respond to modern culture. It is clear that Cattell regards the minds of the new generation to be the real fertile soil for Beyondism to take root.

In my work with children’s literature I am particularly aware of the rich variety and content of the myths and legends of different cultures constituting a rich legacy of the growth of human consciousness. Alongside this there is a burst of factual books illustrating and explaining the whole range of human knowledge clearly and accessibly. In the selection and cataloguing of books and when giving guidance in the selection of reading material for different age groups, certain questions arise.

What is “canonical” for each religion? When does a story carry the “authority” to be “religious” and when is it plain literature? In the effort to moralise, very often “religious” writing falls short of the literary finesse of other value-building literature. Will multi-religious education eventually achieve what conservative believers intuitively fear, namely that the authority of the ruling myth will ultimately be identified as myth in the flow of knowledge also in this domain?

A heliotropic new group mind already seems to be steadily growing in and through the shady patches of decaying growth of the previous epochal season. This is where the external social “climate” needs to be explored.

6.3.2 Exterior aspects

As far as meaningful or integrative engagement is concerned, once the main principle of Beyondism is accepted and understood, meaning will be derived from the truth and integrity of available and applicable scientific knowledge. The integrated individual finding meaning in progress and the idea of an Evolutionary Goal will no longer seek stability in the unchanging dogma of traditional religion. The Beyondist would grow constantly in a dynamic evolutionary context that incorporates the functions of religious practice and teaching – moral practice as described in Chapter 5 and relations as illustrated in the Rose diagram in Appendix C. Religion from science is Cattell’s way to acknowledge (and an endeavour to meet) a deep-rooted emotional and spiritual need of a diverse humanity. As Beyondism is not a functional system as yet, legitimacy could only be postulated on the grounds of the soundness of the principles. Cattell is appreciative of existing moral practices that have proved to be effective in society, and such practices, based on research and free from dogma, would continue.

Whether the proposed Beyondism would be able to completely replace the typical religious congregation is doubtful; as Cattell stated, the church had for centuries been the structure within which many generations had all their needs fulfilled. On the other hand, in South Africa traditional liturgy and congregational activities of some established churches have changed face over the last thirty years to keep pace with the needs of communities. It also seems that larger numbers of individuals more easily function completely outside the church without being morally or intentionally indifferent.

It is within this dimension that the *within-group conscience* will be at work and that whatever kind of “religious” practices would develop within Beyondism would reflect the character and personality of the group, roughly similar to

Cattell's distinction of personality groupings related to existing religions (refer to Chapter 2, page 43).

Meaningful integration will include scientific research and responsible accountable application of results in group context as well as in inter-group and global context, guided by *transcendental conscience*, which cannot be separated from the interior function of religion.

6.3.3 Interior functioning

As previously indicated, Cattell's socio-psychological approach and empirical concern can largely be located in the lower left and upper right quadrants of Wilber's holon; areas which he explores "religiously" with as meticulous scientific precision as possible at that stage and fervour in application (see quotation by Haught on page 170 above). His focus on this part of the whole should not be interpreted as negation of the rest. On the contrary, his method is working towards distinguishing what is identified as real science and real religion in Chapter 3.1 (on page 54), even though his terminology and turn of phrase may be time bound.

Cattell's psychological interest in and exploration of personality and individual differences (intelligence, ego strength, super ego strength and guilt proneness) provides insight into human nature in a manner in which variation in spiritual capacity can be explained, appreciated and applied towards self-realisation. It is also clear that society could better provide for self-realisation at different levels of individual human development towards transforming and transcending through recognising and exploring the genetic bases of cultural and spiritual strengths and weaknesses. Active awareness of the culturo-genetic adjustment gap could favour research on and a policy for genetic "design" towards greater spiritual capacity in individuals.

We must keep in mind that Cattell approached religion from a social point of view, always keeping the masses or crowd in mind. Talking here about the interior of religion, we could well keep in mind Craffert's (2002:57) distinction

between socially transmitted religion (second-hand religious life) and the novel experiences which set religions off in new directions (pattern setters). Once a religion has a set pattern functioning institutionally and myths are established, they are not only transmitted as established truth, but are also continuously experienced.

Through the identification of pathology and myth, the higher inward practices toward authentic mystical experience can be distinguished, explored and shared (see Wilber's three strands of knowledge in Chapter 3.1 on page 50) towards greater universal understanding and growth in this dimension that can be identified as what Cattell calls *transcendental conscience* (see pages 139 and 161). But the largest percentage of the average community (see Figure 4.1 on page 92) will have "second-hand" individual authentic experiences strengthening claims of the authenticity of the popular myth.

Cattell's quest is to raise the overall mental ability of individuals and groups, genetically through selective birth rate and culturally through sound scientific education. Religion from science will meet the "higher" and emotional needs of the ordinary citizen, eliminating the need for unlearning certain beliefs that tend to confuse modern humans. In an un-integrated society many struggling "believers" are lost between traditional religious ways of "coping" and the chemical support and therapy offered by the psychiatrist and psychologist, who are not necessarily religiously committed or equipped to deal with religion and beliefs on a therapeutic level. Gorsuch, former colleague of Cattell, investigates integrating spirituality and psychology from a Christian training point of view, concluding as follows on religious coping styles:

Unfortunately, the research program has not yet reached the stage of documenting interventions to alter a person's modes of religious coping. Hopefully a clinical psychologist knowledgeable in this research literature could direct the client toward better modes of coping (Gorsuch 2007:128).

Gorsuch observes (2007:124) that the lack of integration of spirituality into therapy is self-perpetuating, as clinical psychology has historically viewed

clinical treatment to be free of all spirituality. This could mean that the individual whose mythical religious experience is pathologically identified (if a permanent mental condition is not certified) and chemically “stabilised” or balanced has to cope with interpretative disillusionment while trying to make practical sense of a “real” world where mind and meaning through medicine make more sense outside the mythical teachings that were the original medium for a newly acquired meaning.

In Chapter 2.3.4 (on page 42) the reader was confronted with the possible final conclusion that, according to Cattell’s historical and psychological findings, we should accept the fact that actually there is no God or gods out there.

Our questioning should be concerned to find out, for example, what changes in the behaviour of individuals and groups follow upon their appreciation of the reality of the Theopsyche; to understand first how defective, relatively, is the adjustment of those who work with some personalised symbol of God; to discover the way in which the science of the Theopsyche is best taught to the young (Cattell 1938:154).

As psychology was the new and challenging way of looking at religious experience at the beginning of the twentieth century, so is neuroscience or a biopsychosocial perspective in vogue at the beginning of this century – also deducing from the latest research that all that is meaningful to religious experiences happens in the mind (Craffert 2002:53). Furthermore, as Cattell finds God in the extended space of the Theopsyche relating both to the inner and outer space of the individual, Craffert finds that the biopsychosocial nature of religious experiences –

[...] undermines the identification of the experienced deity/deities with external reality and the experienced world (in soul flight or mystical trance) with the world-out-there. It is neither outside nor inside, but within the total biopsychosocial system (Craffert 2002:80).

Cattell (1938:167) also refers to Dr JB Maller's *Mental ability and its relation to physical health and socio-economic status*. The essential finding is, as with Thorndike, that a general factor of goodness of community life emerges, being at different levels of emergence in different societies (Cattell 1938:167). This study highlights the much-neglected question of how far the group mind is limited in its qualities by the biological (genetic) qualities of the individuals composing it. Cattell (1938:168) states that though religion has neglected individual differences, individual differences have not neglected religion; for, as McDougall²³) has shown, there is great variation in the form of religious expression among groups of different racial constitution exposed to the same religion. The form of the Theopsyche will depend on the form of religious expression.

Ultimately, since the Theopsyche must become perfectly adapted to the Universal Reality, the group differences must vanish, but in the meantime there will be as many gods as there are biological racial experiments, each being an approach to the final expression of God. Most important of the inborn characteristics of man in deciding the nature of the Theopsyche is his degree of mental capacity (Cattell 1938:168).

Cattell (1938:168) refers to several studies (Maller, Portius and Cattell) that support the conclusion that the general development of the group mind, not only in intellectual qualities but also, curiously enough, in moral and emotional standards, seems to depend directly on the inborn mental capacity of individuals with this level of biological evolution.

Cattell (1938:153) is once again in agreement with Wilber (1998:161) when he concludes that both scientists and theologians would have to make adjustments to their established approaches. The characteristic scientific analysis will have to allow, for instance, psychic phenomena, to synthesise and see new wholes as well as to reveal new entities by analysis. On the other hand, matters concerning the Theopsyche considered matters of

²³ Cattell referred to several of McDougall's works and dedicated his 1938 publication to McDougall. In this case Cattell refers to *National welfare and national decay* (1921).

opinion only would have to be subjected to experimental, statistical and other techniques of more advanced psychology.

Gorsuch (2007:28) mentions Cattell to be one of the most integrated scientists he has known and I would like to quote him again in this regard:

[...] he approached integration from a different perspective and, while I strongly disagree with him at particular points, his work provides that additional insight that occurs from 'seeing how someone outside the fold does it'.

It is mainly because of these extraordinary wide interests, references and integration that characterise Cattell's lifelong work that I consider it necessary to have a look at his proposal for a new religion – finding the highest ethical values and converting them into morality – according to Krüger's conditionalist approach.

6.4 Does Beyondism meet certain criteria for religion?

In Chapter 2 we followed Cattell's arguments as he revealed primitive and traditional religion as serving humanity in its evolutionary advance to become the rational beings of modernity. Cattell's Epistemology (Chapter 3) came to the conclusion, in Wilber's terms, that real science and real religion could be integrated through the integration of the Big Three: Truth, Beauty and Goodness, and the Great Nest of Being: Matter, Body, Mind and Spirit at all levels.

Chapters 4 and 5 expanded on an evolutionary world view and a system of ethics independent of any religious system, based on motivation derived from a universal Evolutionary Goal.

Krüger outlines a brief criteriology for investigating and evaluating both religious theories and religions. He applies a conditionalist approach, implying that it is impossible to leap out of the limitations of the human psyche and its capabilities. We can only experience the inside of the world, like intestinal bacteria (1995:29).

6.4.1 Krüger's criteria for evaluating a religion

Krüger (1995) states that science seeks patterns on a limited scale, whereas religion and metaphysics operate on a universal scale. Can Beyondism as religion from science cross this border convincingly, pass the test for validity and perhaps be accepted for the better?

Two general criteria for evaluation are proposed by Krüger:

a. **Clarity and comprehensiveness**, entailing the following elements:

- Coherency
- Simplicity
- Linking up with existing thinking
- Covering the facts by extension and intention

b. Demonstrate a **transcending/penetrative power**, implying the following:

- Religious truth is perspectival, relative, historical
- Clear distinction between authority and force
- Compliance with the progressive principle of being fruitful and stimulating
- The difference it makes for the better

6.4.1.1 Clarity and comprehensiveness

This aspect implies an integrative power that establishes relationships between things. "Religion may be required to restore to the individual a sense of inner integrity and solidarity with humanity and with nature" (1995:110). The relationships are explored in further detail below.

6.4.1.1.1 Coherency

Are Cattell's arguments logically connected and is there consistency in the structure of his thinking on religion? The theory of Beyondism is based entirely on the acceptance that (i) *evolution exists* as a paramount fact within (ii) the *existing universe*. He identifies with a mathematical way of thinking – “If we wish to be as tightly logical as a Euclidian proposition – which we need if we claim our position to be logically sound – we have to recognise these two assumptions or presuppositions” (Cattell 1987:4). The logic that he develops is aimed at leading to a new basic life attitude and state of mind in the individual, which is to be derived from a cognitive view of the universe. In line with this, his aim to develop a basis for moral values as a special branch of science is rooted in the objectivity of science itself.

The acceptance of the evolutionary process of natural selection, survival of the fittest, cooperative competition, evolving in intelligence and understanding the principle of group mind and Theopsyche may lead to the answer on the question whether what we value as love is an increasing principle in the universe.

Cattell argues that mere accumulation of knowledge by scientific method at our present stage of evolution as a species will not be sufficient – the only conclusion left to the intelligent human is that our species has to accept evolution and strive for evolutionary gains:

The basic condition of progress is that people should realise that stagnation is obsolescence and that the categorical imperative commands a readiness to go beyond the present. [...] The future life understood by Beyondism is a widely different cognitive concept from that of revealed religion, but much of the emotional meaning for the individual is the same (Cattell 1987:viii).

The whole system would depend on scientific-social research matching the input that has already been made in the field of, say, chemistry or physics. Dealing with the existing lack of such social research, Cattell outlines the ideal

scenario in a realistic “as if” mode in expectation of gaining the support of informed individuals to form a core similar to those that had been the beginning of established religions.

Cattell deliberately prefers to avoid entanglement in the metaphysical and esoteric speculative, and not to leave the firm ground of hard scientific theory. He argues that certain questions cannot be answered until the human mind has biologically advanced beyond its present level. The consistency of his theory becomes clear in his handling of the unanswerable creator/creation question. If the observable creation implies a creator, we may well stand in complete awe of that creator. In this wonderful creation we are actually witnessing an ongoing process of organic and inorganic evolution, and additionally we aim to be one with the evolutionary process (Cattell1987:81).

What Cattell constructed in his Beyondist theory is in itself a very coherent and consistent unit of thought, but something seems to be lacking in its correlation with what was or is going on in a postmodern world. Did he focus so intensely on structuring society according to a “logical” biological evolutionary pattern that he lost sight of another kind of dynamic that could be at work in humans as creatures with a deeper sense of reality? A universal system of religious thought cannot be complete if the dimension of experience and observance that could be contributed by the more contemplative religions such as Buddhism is not integrated into the whole.

The application of Wilber’s four-quadrant theory highlighted the areas on which Cattell concentrated, namely the exterior-individual – the psychological and behavioural aspects of human reality as well as the interior-collective – the importance of social and group connectedness.

In his appreciation of exceptional individuals like Jesus and Gotama and the gifted individual’s part in the evolving Theopsyche, it is clear that Cattell does not limit the possibilities of the evolution of the human brain to higher intelligence, greater understanding and ego strength and responsibility. It does however seem that, notwithstanding the correlation with systems theory,

when we apply Wilber's four-quadrant model and if Spirit is simply identified with the Sum Total of exteriors, we never move from the exteriors to the real interior (Wilber 2000:525).

According to Wilber (2000:525):

This less than adequate interpretation makes it appear that the most urgent problem in the modern world is to teach everybody systems theory, instead of seeing that what is required is an understanding of the interior stages of consciousness development.

It seems that despite a well-constructed theory and well-grounded motivation, the "missing link" remains in the form of an Evolutionary Goal that may be a too a far-off exterior from which meaning in the present cannot be convincingly derived.

6.4.1.1.2 Simplicity

The beauty and simplicity of Beyondism can be sought in the relation between inter-individual and inter-group selection and cooperative competition.

There is no contradiction between the inevitability of evolution for living things as a whole, and man's deliberately attempting to explore his own evolutionary potentialities. Will is part of the natural process (Cattell 1972:80).

Among various theories of evolution, Cattell preferred to follow the Darwinian route of natural selection and cooperative competition that he sought to apply at all social levels.

Two great motivators for Cattell's interest in and concern for addressing social issues scientifically and on a global scale seem to be his experience as a very young teenager of the devastating effects of World War I on individuals and his five years of clinical work in communities with large families, where he was

acutely aware of the correlation and social impact of below-average intelligence in such cases.

Two main features of Beyondism are (a) to nurture and expand the naturally better endowed portion of society through economic and positive genetic social measures in group promotion of natural selection among individuals, and (b) to eliminate the brutality of war through intelligent cooperative competition among groups, as diversity remains an important factor in natural selection at all levels.

Cattell's approach converts blind natural selection and the "nature red in tooth and claw" principles of evolution to intelligent progress and fair abiding by the laws of "survival of the fittest" through an evolved "will" motivated by the ideal of an Evolutionary Goal.

The success (likelihood of survival) of a society depends on the creative individuals that it produces, and creative individuals are dependent on a supportive society. Anti-social and lawless behaviour should be controlled by conscience or force directed by the fine skill of distinguishing between creative "revolutionary" originality and malevolent individualist anarchy.

Thus, instead of fearing or avoiding the impact of natural selection, the evolutionary goal of producing groups effective in giving creative scope to exceptional individuals also requires selection among groups. If Beyondism were universally accepted, cooperative competition would be embraced as a single cooperative undertaking in the whole process of variation and selection among groups. War has to be avoided at almost all costs, but to reject competition because of the possibility of war would be sacrificing the goal. "It would be a supreme blasphemy of denying life because life has possibilities of pain" (Cattell 1987:8).

6.4.1.1.3 Linking up with existing thinking

In all his writing, Cattell was acutely aware of the obstacles that his new theory had to deal with as he was working scientifically in a scientific field that was still in the process of being recognised as science in the full sense. Along with this, he was advocating for a complete shift from revealed religion to a religion based on science. Cattell's situation could be recognised in the following statement of Kuhn on paradigm change:

[...] the issue is which paradigm should in future guide research on problems many of which neither competitor can yet claim to resolve completely. A decision between alternate ways of practicing science is called for, and in the circumstances that decision must be based less on past achievement than on future promise. The man who embraces a new paradigm at an early stage must often do so in defiance of the evidence provided by problem solving. He must, that is, have faith that the new paradigm will succeed with the many large problems that confront it, knowing only that the older paradigm has failed with a few. A decision of that kind can only be made on faith (Kuhn 1970:58).

Being an academic product of the early twentieth century, Cattell acknowledges the influence of thinkers like Comte (religion of science and rule by experts) and Spencer (survival of the fittest). Along with these he mentions Darwin, Voltaire, Huxley and Mill as eighteenth and nineteenth century liberals who inspired the conception of Beyondism. A survey of the bibliographies of his 1972 and 1987 publications reveal that out of 331 authors quoted in 1972, publications after 1960 amount to 129 and for 1987 the figures are 192 out of 396. Some of these more recent scientific soundboards were: RA Ardrey, J Brownowski, CD Darlington, T de Chardin, HJ Eysenck, GJ Hardin, C Jencks, A Keith, G Lindzey, K Lorenz, N Weyl, RJ Williams and EO Wilson.

Konrad Lorenz (recipient of the Nobel Prize in Physiology or Medicine, 1973) did not become interested in human behaviour and human culture before late

in his life and he did not consider himself scientifically informed enough to express an opinion on such issues. However, as someone who practiced medicine, he was under the obligation to give warning whenever he saw a danger, even if he only suspected its existence –

Regarding culture as a living system and considering its disturbances in the light of illnesses led me to the opinion that the main threat to humanity's further existence lies in that which may well be called mass neurosis. One might also say that the main problems, with which humanity is faced, are moral and ethical problems (Lorenz 1973).

This statement resonates with Cattell's concerns and his motivation for working at a scientifically grounded moral system.

In his 1991 book, *The rebirth of nature; the greening of science and God*, Rupert Sheldrake pictures a world in crisis as follows:

At the very least, our attitudes and political and economic systems will have to change radically if we are to live in greater harmony with Gaia. The only question is how radically? [...]The cause of the present sickness is our modern technological civilization and its underlying ideologies. If we are to enter the new millennium with any hope for the future, we need to recover a new vision of human nature and our relationship to the living earth (1991:209, 210).

Cattell addressed educational, political, economic and ideological issues in his proposal of a Beyondist ethic and morality.

Cattell (1972:452) depicted Arthur C Clarke, the popular science fiction writer, as one of the few who sensed the deeper emotional meaning of science. Clarke's recent death drew the attention to his "seamless blend of scientific expertise and poetic imagination [that] helped usher in the space age" (Jonas 2008).

Clarke's detailed forecast of telecommunication satellites in 1945 proved to be realistic enough to become reality within a decade. Clarke was a promoter of the idea that humanity's destiny lay beyond the confines of the earth –

Paraphrasing William James, he suggested that exploring the solar system could serve as the 'moral equivalent' of war, giving an outlet to energies that might otherwise lead to nuclear holocaust (Cattell 1972:452).

Cattell's model of cooperative competition serves the same moral purpose and is perhaps a bit more "down to earth". Referring to "war without war" or "war of nerves" Cattell comments as follows:

[...] the cost of being prepared for war is a more humane source of natural selection than war itself. It was incidentally in this sense that the poet Robert Frost gave explicit thanks to this mutual national competition. And anyone familiar with the reactions of American science and education realises that they too owe much to Sputnik (1972:205).

Happy acceptance of a healthy and continuous inter-group competition by all concerned is probably the most important prerequisite for avoiding war (1972:231).

We are faced with the scientific reality of genetic engineering and cloning, along with the social challenges of overpopulation, worldwide HIV/Aids and a possible ecological disaster due to global warming; all matters that demand united worldwide involvement and action that may be technologically possible if driven by a motivated and dedicated human will.

It is interesting to note that Paul Johnson, contemporary historian, in his book *Modern times: a history of the world from the 1920s to the year 2000*, highlights three important issues that will be carried into the twenty-first century:

- a. **Free societies** practicing democracy and shaped by market forces, with all basic needs satisfied, moving towards more specified needs such as better bodies.
- b. The following of the ideology of Darwinian fundamentalism and its practical offspring, **genetic engineering**, allows for changes in the human situation much more influential than Marx's social engineering or Jean Jacques Rousseau's re-education, coined "brainwashing" in the twentieth century (Johnson 1997:791). Johnson points out that, apart from academic deification of Darwin, laboratory work on human genetic engineering paved the way for altering the human race permanently.
- c. In 1995 the American sociologist Charles Murray published the much-debated book *The bell curve*, summarising and interpreting a mass of empirical detail about **human intelligence and reproduction**. Although the book was largely discussed and criticised for drawing attention to the apparent racial differentiations in intelligence, its main point was something quite different: "Murray argued that intelligence acquired by inheritance, and knowledge acquired by education were more closely connected than ever, and in conjunction were more determinative of income in all advanced societies" (Johnson 1997:794). The combination of genetically-privileged and genetically-engineered babies would create a super class in contrast to those financially and educationally (if not intellectually) deprived in a financially and educationally-privileged situation. He continues to say the following:

[...] we would be well on our way not just to a class system of a kind not seen in western societies since the Feudal Age, but to a caste system on Indian-Hindu lines, with marriage between the genetically-engineered *over class*, and the disease-prone, undoctored *underclass*, regarded as unthinkable (Johnson 1997:794).

In this regard, Cattell comments as follows in his 1987 publication:

Genetic engineering for humans is at this moment overlaid by the media (in the spirit of scientific fiction). Its real role, either as the intervention between parental sperm or ova and the child, as negative eugenics, is to prevent defects. Its use as positive eugenics, to create superior qualities, is a long, long way in the future. [...] Genetic engineering is limited by our ignorance of the more subtle social 'pay-offs' (Cattell 1987:202).

Johnson's final words on this topic:

But the underlying human evils which made possible the catastrophic failures and tragedies of the twentieth century – the rise of moral relativism, the decline of personal responsibility, the repudiation of Judeo-Christian values, not least the arrogant belief that men and women could solve all the problems and mysteries of the universe by their own unaided intellects – were still deeply rooted in world society. Can they be eradicated, or at least eroded? On that would depend the chances of the new century becoming an age of hope for mankind (1997:795).

In 1987 Cattell observes as follows:

Among the more independently thinking citizens, there has already been a quiet withdrawal from what are properly designated the 'revealed' and ethically dogmatic religions into some kind of existentialism, or a benign and humanity-proud humanism, or a variety of hashes cooked from arbitrarily chosen fragments of Christianity, Islam, Buddhism, Shintoism, etc. These hashes can all be called 'morally relativistic' in that their followers claim that all values are 'relative,' lack any objective basis and can be modified to suit the individual (1987:1).

Cattell has been writing about this phenomenon since the 1930s. In fact, it has been his concern for 50 years that moral and ethical issues were not addressed fundamentally enough by social sciences:

The mere advance of scientific knowledge about the workings of society cannot save us from the moral morass that is inevitable with the decline of the moral authority of revealed religion. No increase in level of education – still less any rise in the noise level of mass communication – can be a substitute for the patient and creative pursuit of necessary, new, ethical values (Cattell 1972:6).

In the secular world, questions regarding religion are being raised. Do we still need religion? What is the value of religion today?

In developing his arguments for religion from science, Cattell investigated and evaluated Marxism, fascism, humanism and rational scepticism, ideologies that were either labelled to be scientific or atheistic. Superficially Beyondism would be grouped among these, but I believe that most arguments presented so far indicate a different stance. Does Beyondism fit into another league of discussion if we finally see how renowned writers on the field of religion approach the present socio-cultural situation? Consider the following:

[...] both Buddhism and Christianity are now facing 'a transitional period of uncertainty' or 'crisis' in which continuous 'organic development' or the usual cumulative process of 'normal science' is no longer appropriate.

Insofar as Buddhist-Christian dialogue is undertaken as an interfaith dialogue in which the validity and significance of religion are taken for granted, it will fail to reach the core of the present crisis all religions are now facing, and will not lead to a much-needed search for a new paradigm. Only when Buddhist-Christian dialogue is pursued with an appreciation of the wider context of the contemporary confrontation of religion and irreligion will it be able to open up a deeper religious dimension in which Buddhist and Christian truth can be fully realised in a new paradigm beyond the religion negating principles of scientism, Marxism, traditional Freudian psychoanalytic thought and nihilism in the Nietzschean sense (Abe 1990:4).

Writers representing various disciplines agree directly or indirectly that we have entered the 21st century in a socially diseased state, that action is needed and that the human being is responsible for his own future in the universe. What makes Cattell noteworthy in this sense is his serious “outside the fold” attempt not only to identify the situation but also to practically suggest a way to go. Drawing on existing research results and human experience from history, he allows his imagination to play out a possible new world order, providing for the social aspects of the survival of the human species.

As an independent thinker, Cattell created Beyondism as a radical philosophy of change and progress that cannot be linked to any current or popular twentieth-century religion or ideology. Its concern with morality and ethics positions it categorically as religion but because it is also science it defies generic classification. Cattell identifies right- and left-wing politics as “merely historical and arbitrary conglomerates of values” (1987:19) that have no relevance to Beyondism’s quality of progress. Despite political implications as an ethical system it should be viewed as a religion rather than a political movement.

Cattell was cautious about association with “social Darwinism” and stated clearly that the only link lies in accepting evolution, as Beyondism has “an altogether different and more refined view of what the implications are for human ethics” (1987:19). Beyondism as a system of organised social and ethical values recognises the cultural and biological tendencies and needs that shape society, but it cannot be socio-biology, which is a combination of social and biological sciences.

Cattell can rightfully be regarded as a positivist. That was the nature of the philosophical climate in the early twentieth century, the time during which his thinking was shaped and he acknowledged the influence of particularly Hume (1711–1776) and Karl Pearson (1837–1937). He was a dedicated scientist who endeavoured to create a complete model for social progress by means of Beyondism. Based on science with the typical positivist rejection of

metaphysics, the latter may partly be the reason for the non-acceptance of his well-organised and fluently presented ideas.

This brings us to the fourth sub-criterion, namely:

6.4.1.1.4 Covering the facts

Beyondism, itself being a development of evolutionary advance of religion in humanity, begins with a scientific view of the universe and works back to the spiritual values appropriate and needed in man.

Cattell identified the following traditional functions of religion:

- What could be called “emotional consolation” – to satisfy frustrated primary instinctual needs.
- To aid societies to reach some degree of internal ethical organisation.
- Explaining the cosmos and creation – religion and magic as science shared explanatory myths and a map of the universe purporting to tell the underlying nature of the world of appearances.

Placing the last function first: Cattell assumes the existence of evolution along with the existence of the universe. The accumulation of data and strict application of scientific method, along with an evolution of the human species in intelligence, can work towards the solution of scientific problems in the universe. In order to find out whether evolution is what we think it is, we ourselves have to evolve. Commitment to this principle is an act of faith based on scientific finding.

Beyondism is thus a system of belief differing fundamentally from what Cattell calls “revealed religions”, which, according to him, have their main values established by intuitions, on the part of a few leaders, who experience such intense conviction that they believe it to be of divine origin. These beliefs are

further shaped by “social verification” and over time stamped with the hallmark of pragmatic truth.

This brings us to the function of aiding societies to reach some degree of internal ethical organisation. Cattell refers to cave drawings and modern anthropological studies when concluding that the virtues enshrined by the great religions (by Christ, St Paul, Mohammed, Buddha and Tao) were recognised, codified and taught long before these religions arose. Survival measures, incorporated into a religious tradition, created an aura of divine origin and a cult to keep the ethical development alive.

A religion which fostered love and self-sacrifice and general humaneness was a most potent force for relative survival in the groups that possessed it. Ethical and religious values consequently grew into human society through the natural selection by which evolution eternally operates (1987:14).

For this reason, many tried and tested ethical values will be taken out of the realm of subjectivity and be informed on a firm scientific foundation. (See also 6.4.2.3 below on page 198.) Such classifications as mortal sins (pride, wrath, envy, lust, gluttony, greed and sloth) and venial sins may be elaborated as a guide to education indicating desirable and undesirable behaviours.

Concerning the emotional function of religion, we should turn to the socialisation of animism for the real beginnings of religion. A vicious circle of unrealistic thinking developed as the unsophisticated individual's fear, rage and supplication, addressed to demons, spirits – ancestral or natural – became group ceremony and traditions to handle the powers of the unseen world.

In Chapter 2 we followed the evolution of the god concept as summarised by Cattell.

Average modern religious persons will consider themselves evolved from the animistic caricature of religion, recognise or deny Freudian and Jungian

aspects of the psyche and be content with therapeutic measures where (un)questioned religion falls short, as long as the order is kept by the unchangeable unseen God who rewards and punishes and serves as emotional support in the flux of life.

This is the area where Beyondism is challenged the most, as it places a greater demand on one's intellect and emotional maturity than remaining with traditional religions would, where art, ritual, music and social congregation create a rich comfort zone.

And amidst these aids to ethical obedience which traditional religions possess, the most important is probably the belief in God. It is extremely important for everyone with a sincere actual or potential religious belief to discover what happens to the concept of God in Beyondism (1987:147).

Cattell admits that God is the most complex entity in the universe with which science has to deal. In Chapter 4.4 a full explanation of group mind and his concept of Theopsyche is given. Cattell further states the following:

The use of new terms, such as 'Theopsyche' for new constellations, meets the need for clarity: for the rest more confusion of an emotional kind would be caused by the lack of continuity than would be avoided in the intellectual realm by continuity. It is desirable that we should not throw away the great slow-built, emotional attitudes, with all their poetry and wealth of human associations, which have grown up through centuries around the concept of God (1938:186).

In his 1987 book, Cattell acknowledges that the Theopsyche concept does not fit all requirements and that it needs further development. It however remains a fact that –

we can grasp as a meaningful pattern little more than the evolutionary process, and that the best we can do is to follow this path until our minds become equal to asking in profitable form such questions as 'What happened to time before time began?' (1987:148).

In the meantime “the Theopsyche is the island of love, rationality and protectiveness that an advanced society can produce” (1987:79) and “perhaps an approximate – or conceptually uncertain concept of God is better than none at all” (1987:149).

Beyondism does not create rational ethics in the style of Lock, Bentham, Huxley and Mill, or promise a utopia of any kind like the eighteenth century rationalists. The Beyondist invitation entails to adventurously take part in the vast ongoing process of evolution, where at most, with concentration on resources of the human sciences, some immediate targets for each new generation could be shaped. On this pilgrimage of indefinite duration the call is beyond the horizon and the investment in future generations.

In the spirit of scientific investigation and action based on research that Beyondism advocates one finds that Cattell kept pace with developments in the science of biology and genetics and incorporated it in his last Beyondist book. These developments only supported his arguments and where he had to revert to speculation about future possibilities in the final chapters of his 1987 publication, he voiced his uneasiness about them. Although his thought was in line with thinking about society as noted in the previous section, he did not keep in touch with (or care to take note of) religious thinking and modern philosophical views.

6.4.2. Transcending/penetrative power

The demonstration of transcending/penetrative power is the second criterion proposed by Krüger (1995) for the evaluation of a religion. The elements considered in this regard are more of a philosophical, non-tangible nature, as will become clear from the discussion below.

6.4.2.1 Perspectival, relative and historical truth aspects

On the religious scene we have fundamentalist and neo-orthodox religion on the one hand, and materialist/nihilist/scientistic pseudo-religion on the other. Krüger mentions the signs of a possible third religious force promising a new spiritual vision and the moral energy to lead into the future. “It may be a renewal of the deepest intentions of religion, a discovery of the religious intent of science, and an effort to heal the rift between the two” (1995:193).

About the inception of a new austere moral system, free from sentimentalism and pleasure-principle manipulation, and sure to meet emotional opposition, Cattell creates a religious scientific perspective:

Actually the bleak lack of compromise of evolutionary ethics with human nature is no greater than that of some great religious insights, notably the system which Moses brought down from Mt Sinai. A Beyondist is sympathetically drawn to those moments of emotional misgiving which Moses experienced, when he met the ‘unenthusiastic’ reaction to his laws by his wayward followers. Desiring to be reassured by some glimpse of the glory of God, he was yet denied this needed reassurance with the answer: ‘I am what I am’ (sometimes translated as ‘I shall be what I shall be’). Indeed this ‘revealed’ truth beautifully expresses the essence of what we have here been emphasising as the core of science: that the nature of the universe, and therefore, of the moral laws which derive from it, are given to us as absolutes. It is our task to discover the nature of the cosmos – the glory of God – and increasingly understand its message, but not to pretend that it will adjust to *us* (1987:257).

The scientific perspective of Beyondism is based on evolutionary principles that determine that change and going beyond the present is what it is about. On a global scale it calls for sensitivity in order for humanity to survive in the universe, not losing sight of the importance of groups (national/racial) and individuals within groups. The concept of Evolutionary Purpose allows for “receptive creative interplay with reality” at different levels of human existence.

Although Beyondism requires a complete change in world view, it is sensitive to the human history of religion and the emotional attachments to beliefs and convictions. Beyondism displays an openness to incorporate values and customs that have proved to be progressive.

Our conception of God and morality becomes something that admits of constant new discovery that hides within itself truths yet to be understood. It is as if we knew only the base of a great mountain whose peaks are hidden in impenetrable cloud not further to be pierced by intuition but only by the arduous adventures of scientific investigation (1938:190).

In view of the correlation established between real science and real religion (Chapter 3.1 on page 47) we could accept Cattell's "scientific investigation" above to include Wilber's meditative core of religion and that the authentic truth-seeking element of science (see Haught's view on page 170) is equally accepted by religion. Do we here get a glimpse of the healing of the rift between science and religion?

It is quite intriguing that Cattell uses the mountain metaphor in a similar way to Krüger's (2006) application of the metaphor in his orientation to mysticism. Krüger depicts the great mystics as the pioneers of the evolution of the human spirit, surveying the higher slopes of the mountain of which he visualises three practical distinguishable contours: The first he regards as the most practical: "Social institutionalisation, holy tradition and normative ethics are to be found here" (2006:149). This seems to be the level where Beyondism would mainly function, encouraging authentic pioneering by scientists in all domains of human effort.

6.4.2.2 Authority and force

Once the principles of Evolutionary Purpose are accepted by individuals and communities alike, it will become the authority to guide behaviour, decisions and achievements on all levels of human existence.

Beyondism calls for an examination of the internal rules of progress, and concludes first that a substantial freedom for individuality is required. [...] When ethical rules are scientifically derived from social research, egoistic, antisocial individualism can be treated in distinction from creative individualism. The id constantly chafes for 'human rights' rather than duties, and rights are not 'God given', but, truly contractual and situationally fixed by the conditions of group survival (Cattell 1987:259).

Cattell identifies six main entities to which an individual's ethical values can be orientated: Fellow group members, the group government, other group governments, members of other groups, individuals committed to a Beyondist ethic, and above all, the Evolutionary Purpose (see Appendix C, Rose diagram).

The success of Beyondism may entirely depend on, firstly, it being accepted by an influential core group of scientists and spiritual leaders sharing its insight. Secondly, that values that are scientifically, and not merely rationally, established are understood by the adult, intellectual and mentally trained. For practical purposes the authority furnishes the child or those incapable of advanced reasoning with the value system, almost like a vaccination.

Society is dependent on the quality and behaviour of the people who constitute it and the importance of the individual within the group should not be underestimated.

Although Cattell was clearly outspoken, critical and sceptic in his approach to traditional religion and belief and although he dedicated precious research time to his writing on this topic, he was not aggressive in his quest to establish a new religion – not driven by “divine revelation” or a personal social mission.

Beyondism's moral functioning would be by means of decisions and guidance, based on relevant research results in and among groups finally subject to the long-term survival principle.

6.4.2.3 Fruitful and stimulating?

It has already been mentioned that early in his life and career Cattell was confronted by two serious social realities, namely war and the hereditary characteristic of intelligence and its social impact. Can or should the quality and behaviour of people be altered, improved or selected? Medical biologist Jonas Salk views humanity to be suffering from ill health and suggests that if humans are able to bring under control elements in nature that threaten them, they should be able to bring their counterparts in the human population and greed in humans under sufficient control – these excesses could be seen as cancers *of* humans analogous to the problem of cancers *in* humans (Salk 1975:97).

As researcher Cattell made a useful contribution to personality theories and research through factor analysis, concluding that personality is composed of sixteen primary source traits, as discussed in Chapter 5.1.1 (on page 116). Cattell states that raising the average population level with regard to a number of definable traits within a group is a task that could already be undertaken. He considers present ethical and political concepts to bar the way by preventing the recognition of the biological inequality of men. It is the –

[...] Beyondist position that within a group all citizens should have equal opportunity, and that, both there and across groups, love calls for accepting the spiritual equality of all human beings. But this still leaves us with actual biological inequality (Cattell 1987:188).

What Cattell advocates is that humanity should consider variation, as humanity is biologically extremely fragile as a one-species genus.

It is ethically desirable and practically important for a group to direct its *genetic* direction by similar principles to those in its *educational* shaping of its children. [...] It must perhaps be accepted that segregation into species can hope to reach effectiveness only after some generations of human socio-

biological education, increases of emotional maturity, and acceptance of Beyondism (Cattell 1987:188).

Instead of “global government”, Beyondism favours national, compartmentalised experiments with an element of cooperative competition in which all humanity can learn. Advanced social science research could, as the practice of “political medicine”, detect societies that are ill or waning, and perhaps save such societies from extinction as well as obtain information on the sources of illness. The application of political medicine could benefit societies in general. The Beyondist view is that research results from the social sciences tracing what group consequences follow from varieties of individual behaviour should form the basis of ethics.

It could be said that Cattell stubbornly opposed the intellectually fashionable post-war trend of outright condemnation of eugenics. However, that was not because he condoned any of the abhorrent applications (racism, genocide) that gave rise to the egalitarian way of thinking, but because the genetic basis of evolution was part and parcel of accepting the natural selection aspect of evolution.

In his positivistic empirical way, Cattell developed a set of ideas applying new tools (for the first half of twentieth century) of psychology and social science to tackle the symptoms of moral collapse in modernist society. His approach included integrative qualities not associated with typical positivism as he remained sensitive to the religious needs of humanity and explored scientific ways of meeting those needs.

After World War II he seemed to have stepped out of line concerning ideas about eugenics, evolutionary theory and intelligence, seemingly preferring to follow the course he had originally taken. Just as the humble wheel today still remains the means of launching even the fastest aircraft and still serves as the final landing mechanism for even a space shuttle, Cattell may have captured certain basic psychological and genetic working mechanisms that

could be fruitfully applied in combination with new insight and advanced social theories.

6.4.2.4 The difference it makes for the better

In September 1997, in an open letter to Cattell, an appreciative former student and colleague, Prof JR Nesselroade, said the following: “Beyondism was presented as a set of concepts and ideas for debate and discussion. [...] It is regrettable that the ideas you consider worthy of debate were formulated and presented in a manner that is offensive and painful to so many” (cited in Gilles [n.d.]).

Fully aware of the fact that his ideas would not be accepted with ease and comfort, Cattell noted in the preface of his 1972 book –

[...] from observing that few men and even fewer women could make any sense of it, I perceived that a much more systematic introduction and far more illustration to make the setting and the application more real in everyday life were necessary (1972:xii).

Following this conviction, Cattell added to his legacy of meticulous research the insight that he gained over the more than 40 years of active research and intelligent observation. Throughout the presentation of both books on Beyondism he is painfully aware of the lack of substantial research to back-up many of his submissions. However, he richly compensates by making use of an abundance of relevant socio-historical case histories, reference to existing religious ideas and practice, ideologies, quotes from world literature and current research results, integrating science and religion to cover the whole spectrum of human social life and interaction with an evolutionary open-endedness.

Much of what is envisaged by Cattell in his master plan for Beyondism as religion will depend on intensive socio-scientific research, at least matching the input that goes into research in, say, the physical and biological sciences.

The ideal would be research motivated and supported by the enlightened vision of scientists, sponsors, and political leaders elected by communities eager to take part in sensibly living the present while joining in creating the future of humanity.

Even if this system of thought with its suggestions for practical application cannot change the world in a generation or two, could it direct us towards a society with a secure ethical foundation and a better chance for survival?

Considering Section 6.4.1.1.3 above, that is a critical need.

In a harmonious society the will of God, i.e. the conditions necessary for the evolution of the Theopsyche towards the Universal Reality, will be to a considerable extent identical with the forces imposed by the most able, the most sublimated and self-sacrificing, controlling group in the community. They are the mediators between self-willed and pleasure seeking men on the one hand and the Universal Reality on the other. They are the will and conscience of the Theopsyche as it comes to closest grips with the true conditions of reality. Thus they act as a bulwark between thoughtless men and stark reality, reflecting in their habits and ordinances an adapted but still austere picture of reality, more objective than any single individual is prepared to be, also more wise, more virtuous and perhaps more universally kind (Cattell 1938:169).

The value of Beyondism as a theory of religion lies in its relative completeness as a theory as the outcome of one individual's research journey. Beyondism is unique in the sense that it is consistent in applying a theory of evolution to human society. At the beginning of this study I did not expect to find this kind of scientific approach to fit all the dimensions or meet the criteria for religion at different levels. Matching one theory to another does indeed not create a new, better or different reality – it only guides us in our understanding of matters to match the knowledge we have. The background created by Beyondist insight could be developed into an enabler for humanity to make calculated choices rather than blind emotional ones when it comes to moral and ethical issues. This scientifically derived insight could be of value

both in the case of current unresolved moral questions and in issues arising from new scientific developments.

The enigma of religion is that it grows in the hearts and minds of people. If Beyondism is to take root as “real” religion it will have to attend more to the transcendental aspect. One could see Wilber’s way of identifying the contemplative core of religion as a way to address this need that was identified in the Beyondist approach.

CHAPTER 7

EVALUATION IN CONTEMPORARY CONTEXT AND CONCLUSION

Following Cattell's exposition of Beyondism as religion from science proved to be a journey through the religious history of humanity. We did some probing into psychology, evolution and genetics against a sociological background that included history, literature, politics, economy and philosophy. This integration of all aspects of human living corresponds with Cattell's view that "the spirit of science is older than organised research, and that great minds are too few in any one century..." to limit exposure to those influences in any way (Cattell 1972:xvi).

7.1 Thorny issues

I came across a very appropriate visualisation of probing into the future while, at the same time, having the past as anchor. Consider Figure 7.1 below:

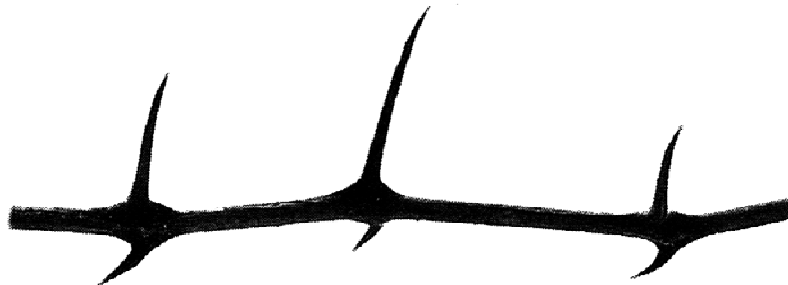


Figure 1.7 Thorns of the tree *Ziziphus mucronata* (McCallum 2005:3).

The thorns are spaced along the length of every branch in pairs. One of the pair points robustly outward and forward while the other curves back and inwards in the opposite direction. The Nguni African legend says the thorns tell us something about ourselves - that we must look ahead to the future ... but we must never forget where we come from.

With this African legend in mind, we will consider a few thorny issues that Cattell preferred to bring to the table notwithstanding academic, social or political evasion at his time of writing.

7.1.1 Religion

Although Cattell could be regarded as a positivist and behaviourist, he did not reject the role of religion in the life of humans, but rather explored how science could bring verifiable grounding to this very human attribute. He based his evaluation of and altered approach to religion on sociological (moral-ethical) and psychological (emotional) aspects, more than on the esoteric spiritual. To follow his reasoning in the “opposite direction” (Chapter 1, page 1) or *from without inward*, the starting point must be the acceptance of the principles of evolution, not speculating about it or debating about it, but following through without accommodating religious myths and traditions as they are. Wilber’s systems theory is doing just that, and therefore his four-quadrant holon proves to be a useful tool to evaluate Cattell’s arguments.

Cattell postulated that the new Beyondist spiritual values created through science could eliminate stagnation, integrate society and expand its thinking into a new and unique spirituality:

- a. Individualism: Culture is dependent on the intellectual endeavours of individuals who are simultaneously dependent on and actively creative in the material and group environment. Individual differences in intelligence and other genetic qualities must be treated with respect and hope, rather than with envy and the intention to level down. Inferences from Judaic-Christian values where “equality before God” becomes equality of income, and compulsory redistribution of earnings and the fostering of inadequacy, are strongly rejected.
- b. In harmony with the acceptance of the evolutionary process, the demise of cultures and races proven incapable of survival is accepted.

- c. A spirit of community adventure would nurture a heroic lifestyle. He identifies two extremes that should be avoided, namely superfluous luxurious lifestyle, as well as charity, which increases the need for charity.
- d. Diversity between groups should not only be tolerated, but should also be respected, encouraged and enhanced. Recognising that all are involved in pursuing a common goal of evolutionary advance, but that each has initial loyalty to his own group experiment is a spiritual balance, perhaps psychologically not easily acquired, but central in the spiritual values of Beyondism.
- e. The pursuit of truth and new knowledge. The task of the scientist-Beyondist is to express truth in the best words and formulae available.
- f. Discoveries will demand change in social values. In the light of new discoveries, particular values may change, for example, voluntary euthanasia along with the possibility of supporting people to stay alive up to extreme old age through advanced medical care.
- g. Ergs that go searching for spiritual satisfaction are those who are denied more direct satisfaction. Sex and aggression (pugnacity) are prominent here, as well as a parental-protective drive, which will also favour spiritual expressions close to the original goal of the erg.

I can imagine that a model like this may work, provided that the principles and authority are accepted by all involved, and only then. Inevitably the short-lived success of the Arthurian round table comes to mind. For Christianity, a religious movement with a divine authority claim, the all-acceptance did not even take place over a period of 2000+ years, while a pluralistic society increasingly seeks adherence to universal, moral and ethical standards, nearing the point of necessity for ecological survival. Beyondism would derive its validity from a different authority, namely scientific truth. In the end, only complete acceptance by all humanity of any one system of social or religious order could possibly create a visionary earthly utopia. Beyondism promises neither an instant universal solution nor a utopian present; at most it aspires to meaningful involvement in the future of humanity by applying scientifically

derived ethics and morals towards an evolutionary goal. Essentially Beyondism's claim to be religion rests on the acceptance of the fact of evolution in order to make life progressively more meaningful in each generation.

7.1.2 Evolution

In the mid twentieth century, the time when Cattell was developing his ideas, the biological fact of evolution had been established already, although evolutionary theory is still developing at this stage (Murphy 1992:35). In applying the evolutionary principle in human society, he explored the applicability of the main tenets of evolution, namely natural selection and survival of the fittest, through cooperative competition. Genetic qualities and cultural development will determine survival – in global, national and individual contexts. The survival of humanity depends on what humans are (genetics) and what humans do (culture). Culture is the work of “superior intelligences” (Cattell 1987:259) and it changes by the mechanical and social inventions of leading persons. Although the genetic makeup of an individual or group remains a biological function, knowledge about genetics brought it into the cultural domain. What Cattell calls “genetic lag” is increasing as culture advances and genetic adjustment may become a future human responsibility.

7.1.3 Genetics and eugenics

Cattell's views on this contentious topic have been thoroughly discussed in Chapter 5.1.3.2, on page 127–134. He foresaw that issues such as the application of genetic research-result advances would have to be dealt with – in the case of humans, consciously evolving the new generation, and he advocates due respect and compassion for the current generation. The scale at which and the intensity with which Cattell tackles the problem of decision making and overall authority through advocating for social research is comparable to how, for example, nuclear research is approached. We have looked at World Society options in Chapter 5.3, page 146, and in order to preserve variety as a biological and cultural pre-condition for evolutionary

advance, Cattell advocates cooperative competition among national or racial groups as committed participants in the great experiment.

7.1.4 Intelligence

Cattell's emphasis on *intelligence* and certain trait combinations reflects the spirit of the era in which he initially functioned and made his intellectual contribution. Over the past fifty years, psychometricians have added new scales of mental tests, working with components of cognitive ability that had previously not been measured. It remains for psychologists to decide whether new developments in that area add to Cattell's original research or invalidate it. Cattell had an open-ended evolutionary view of the possibilities of the human brain.

Wilber's vision-logic stage or integrative perspective suggests a more advanced stage of the evolving human. Murphy extensively explores the further evolution of human nature in *The future of the body* (1992) and describes "integral practice" – a discipline to cultivate the physical, vital, affective cognitive, volitional and transpersonal dimensions of human functioning in an integrated way (Murphy 1992:588). Stewart (Chapter 5.3.b on page 150) suggests that we evolve by means of new psychological software. In three different but complementing and inviting future projections, Wilber, Murphy and Stewart share the idea of a certain "metanormal" capacity that we currently recognise in well-known explorers of the spiritual realm. I have already mentioned Cattell and Wilber's observation that those capable of such higher states of awareness are in the minority (Chapter 4.4.2.3 on page 104).

To what extent does this higher mental capacity depend on something as basic as intelligence and certain personality traits (super ego, ego strength and conscientiousness) that go with it? For a discussion, see Chapter 5.1.1 on page 114–118. Cattell recognised the gap between leading individuals and the bulk of society. This gap manifests in the exterior aspect of religion in the social acceptance and practice of teachings, ritual and moral conduct of the

greater part of society, whereas the interior aspect displays exclusiveness in two grades, namely “second-hand religious life” and “pattern setters” (page 172 above).

My own experience of the 16 PF test and knowledge of the results, due to this research, brought about a personalised understanding of the way in which I had to grow (and grope) through the complexities of exterior and interior religious life. I look at myself from this perspective and recognise a uniquely composed individual who displays the traits that are part of my makeup. Added to that is the insight I have gained through my acquaintance with psychological pathology, psychoanalysis, archetypal psychology and mysticism. Each has proved to be enriching; some on different planes than others.

7.1.5 Individuality

The I, or Wilber’s upper left quadrant, and Cattell’s *defence of individualism* (sub-title of his 1938 publication) are implied in the importance that Cattell ascribes to the individual within the group and the relationship to the group mind and the Theopsyche. The individual’s first love and ethical obligation are to another individual in the group and then to the government of his own group, and equally important, to the Evolutionary Principle – God in some terms, and elaborated on by Cattell as the Theopsyche evolving towards Universal Reality. By creating this concept, Cattell did not claim to describe the indescribable or name the unnameable, but he endeavoured to create esoteric space (Krüger 2006:17) in terms corresponding with his idea of progress. He considered as necessary the anchorage of emotional life to a majestic superhuman process in which a glimpse of intelligence and miracles is important for both the independence and conscience of the individual (Cattell 1987:150).

Cattell’s suggestion of religion deriving moral motivation and ethical intentions from socio-scientific research provides for clearly articulated and rationally motivated external religion with no less a projected vision than Stewart’s ideal

of an evolutionary epiphany²⁴ for all “evolutionaries”. Ideally Cattell would initially see particularly social scientists and educators becoming part of a Beyondists movement. Through the thoroughly researched and voluntary application of eugenics, the “raw material” could be provided for an adjusted education system comprising comprehensive biological and character education that produces individuals who sympathetically adjust to and accept inborn differences. These individuals are to have perspective on humanity’s place and part in an evolving universe, and are to develop an evolved consciousness.

7.2 Destined to obscurity? A return to the research question

At the beginning of this investigation, the structure of this thesis was designed around the challenge to read Cattell with *epoche* in an open-minded science of religion context (Chapter 1, page 2). As mentioned at the beginning of this chapter, it soon became clear that different related disciplines would be involved, the relevance and impact of which I tried to answer to in applicable sections.

My answers to the questions, comprising the research question (Chapter 1, page 5 and 6), could lead to a motivated and clear conclusion on the acceptance and relevance of the work of this interesting though controversial figure of the twentieth century.

Questions and answers will be divided into two main groups, namely questions 1 to 6, which are more external, focusing on Cattell’s work and reception, and questions 7 to 12, aimed more at his religious thinking.

²⁴

In such an epiphany, individuals experience a sudden revolution of ideas, beliefs and strategies, as well as an exhilarating rush of diverse emotional responses to them. They experience directly the capacity of the evolutionary worldview to make sense of many experiences and beliefs that were previously unconnected and isolated (Stewart 2008a:Part 4).

7.2.1 Questions of a more external nature

1. Was Cattell's 1938 book a typical reflection of the intellectual climate of his time?
2. He started his psychological career at a time when Freud and Jung were established names in the field of psychoanalysis; how did he relate to them?

From a psychological perspective, *Psychology and the religious quest* (Cattell 1938) reflects behaviouristic qualities linking with Freud in a reductionist approach to religious phenomena, and, where applicable, reference is made to Jung as well. The findings of both icons of that period inevitably added dimension to Cattell's views.

From a sociological perspective, Cattell followed the main lines of thought, namely Comte, Bentham and Mill; and he further resonates with Weber and Durkheim. Other clear contemporary links are Whitehead and Niebuhr. Within a year after publication, *Psychology and the religious quest* was reprinted in 1939, a fact from which a wider public or academic interest could be deduced than was probably realised at the time of publication.

3. With the three books so widely spaced, was there development in his thought?
4. Was his religious thinking compatible with the demands of the times?

In the 1930s, when the 1938 book was conceptualised, Cattell must have read the demands of the times when he observed society to be ready or in need of fundamental change. He explored his ideas for change, focusing on the possibility of the creation of a future society by the application of the evolutionary principles that were in vogue at the time. The next two books of the Beyondism trilogy, following after a break of forty years, seem to be more focused at developing the idea of morality from science as an academic exercise (social impact intended) than at commenting on any religious, philosophical or socio-political thought of the day.

World War II has left a multidimensional scar of disillusionment and devastation on the psyche of humanity and the world society. To Cattell, his involvement in extremely satisfying wartime research on officer personality issues was the beginning of thirty years of full-time fruitful and rewarding research activity. Cattell summarises the many years of psychological research he conducted in Illinois in his publication *The voyage of a laboratory*. The five years Darwin spent on the Beagle, concentrating on natural history, come to mind as a comparison when one reads *The voyage of a laboratory*. Cattell regards his book, *A new morality from science: Beyondism* (1972), which dealt with bringing ethical values into the standards of science, as the culmination of the last development of his intensive research phase.

Instead of emotionally and psychologically experiencing the world as godforsaken as many did at that time, Cattell could function in his meta-paradigm of evolutionary advance that had already been established in his 1938 book. He developed his theory of morality from science in the relative luxury of concentrated scientific research. I observe steady advancement on this chosen course, albeit singular and out of line with what was generally accepted.

5. What was behind the negativity and disparagement of the psychological establishment with regard to his religious thinking?

Former colleagues (such as Gorsuch, Nesselroade and Horn) loyally supported and shared his academic work. This was also true of the inception of the idea of research on ethics and morality (Cattell 1984:121), but they did not hesitate to openly hold opposing views. Although they and others are mentioned as soundboards for the 1987 publication, they did not share his enthusiasm and would probably not have risked their academic reputation by supporting this obscure movement.

His evolutionary approach in itself would discourage interest and support from a religious sector that in principle denies that point of departure. At least two elements of his whole argument were not acceptable in the contemporary academic and, perhaps even more so, social climate, namely:

- a. He advocated the independent development of groups and inter-group competition – he was clearly outspoken against popular egalitarianism. His work was superficially (intentionally?) associated with Fascism by certain pressure groups. In fact, much of the detail contained in his writing is the exploration and explanation of positive human advancement that could be achieved by the well-researched and cooperative application of basic evolutionary principles countering the unacceptable effects as experienced during the Hitler era, which Cattell strongly condemned. See also Chapter 3.3 on page 62 on radical egalitarianism.
- b. God concept: He depicted the evolution of the God concept, culminating in the idea of dwelling-in-God, currently featuring in most Western thinking. Even the God-is-dead statement could be more comfortably countered or ignored than the alternative concept of the Theopsyche; of God being the non-supernatural spearhead of ultimate human evolution, which implies no personal relationship other than individual commitment, no loving and forgiving, and no divine intervention to rely on.

Apart from the fact that his ideas may not have been fully acceptable in the society of his time, he encountered deliberate political and ideological resistance.

6. Is the dichotomy between the works on Beyondism and his formal research internal or a matter of perception?

The works on Beyondism differ from his formal research (which was highly respected among contemporaries and colleagues) in the sense that he boldly explores areas that have either not yet been researched at all or that have been explored insufficiently, thus lacking dependable results. One could say

that he allowed his informed intuition or imagination to move ahead of current research and in the process sacrificed some scientific standing and loyal academic support. Cattell was aware that he was moving past his own research boundaries, which could create an impression of inconsistency and contradiction. The Beyondist works mapped out what might be scientifically possible, especially with regard to social research in the manner and style of authentic scientific work, but that is precisely what made it disputable.

7.2.2 Questions pertaining to Cattell's religious thinking

7. Could his religious thinking and his thinking on religion be regarded as pioneering?
8. Setting aside the political prejudices of his time, is it feasible to give him a contemporary hearing on religion, keeping in mind his social-psychological assumption that the views and practices of society are generally from ten to a hundred years behind the enlightened thought of the time? (Cattell1938:13).

The answer to these questions is a qualified yes.

- i. Cattell, being a scientist and agnostic, studied religion as a social and psychological phenomenon without the bias of any traditional religious conviction. It could be said that he reasoned without the insight of a believer – since belief was something he completely negated. However, he displayed understanding of and appreciation for the emotional and certain moral and survival needs that were met by revealed religion. Those moral principles and survival mechanisms could, in his view, be refined to be more effective if scientifically investigated, developed and universally applied. With this pragmatic approach, he scientifically founded a religion that would function without a supernatural element; the higher functions lying in understanding and striving towards a universal Evolutionary Purpose. This kind of social application of evolutionary principles could not be found in any other literature.

In the 1970s Cattell was frequently quoted in textbooks. On investigation, I found that current general psychology textbooks briefly mention his work in personality testing and fluid and crystallised intelligence. At this point, roughly ten years after his death and twenty-plus years after his last publication, discourse on evolutionary advance becomes more common. There is even a current blog discussion on Beyondism on the world-wide web. In September 2008, an article comparing Beyondism and Evolutionary Catholicism was posted on a pro-Evolutionary Catholicism blogsite. The author, Lloyd Anderson, subscribes to Cattell's positive eugenic approach, concluding: "Evolutionary Catholicism synthesises, or transmutes science (e.g. Beyondism) into Catholicism to create a coherent system of beliefs that both scientists and priests can affirm" (Anderson 2008).

This kind of highjacking by a specific denomination is not exactly what Cattell envisaged, but his ideas also correlate with much that is found in Stewart's previously mentioned Evolutionary Manifesto (Chapter 5.3, page 150b) without Stewart originally having been influenced by Cattell's ideas. It may not be a too far-fetched idea to expect that his ideas may be reconsidered by a new generation not caught up in post-war thought patterns. Only time will prove the validity of his observation of society being several years behind enlightened thought.

- ii. His religious thinking could be viewed as a continuation of his thinking on religion: the principle of evolutionary advance creates an image of God as the developing Theopsyche eventually attaining unity with the ultimate Universal Reality, which displays many of the familiar traditional features of the Godhead, except for being in a personal relationship with humanity other than a collective and individual invitation to, and

possibility for, human advancement. Cattell lived this philosophy through his active research, and following his intuition in producing these books on Beyondism could be regarded as a kind of religious devotion to his conviction. Although he was unshakable in his ideas and openly strove to make clear his scientific vision for an alternative approach to religion, he did not force his ideas on students, colleagues or family – he did not pursue his ideas fanatically. As Gorsuch (2007:29) noted, his work provides that additional insight that can occur from “seeing how someone outside the fold does it”.

2009 marks the bicentenary of Darwin’s birth and 150 years since *The origin of species* was published. General thinking on religion has changed over this period and a great variety of facets of Darwin’s theory have been explored.

I consider Cattell's religious thinking as pioneering in the sense that he addressed the science and religion debate in a direct and unique manner long before the current prominence this matter is enjoying. His argument has always been that science did not need to represent downright atheism. A fresh look at what Cattell wrote, free from the historical biases of his time, may lead to some valuable insights without necessarily “resurrecting” Beyondism – particularly in view of modern scientific and religious thinking.

Questions 9 to 12 concern the intuitive quality of Cattell's Beyondist ideas. Do we have here a case of positive radical trendsetting or ridiculously out-of-pace concepts?

9. With a lifetime's work concluded, is it possible to trace emotional intuition in what he proposed?

(When arguing on science's two tests of truth, namely that concerning predicted facts and that concerning internal logic or syntax, Cattell distinguishes between cognitive intuition and emotional intuition. The first can be brought to explicitness and be fully communicated if required, whereas

emotional truth gained through emotional intuition cannot be reliably transmitted). Could this be a key to the disparity in the acceptance of his work? Even if the presentation were intelligible, could it be communicated to an audience not ready to receive?

10. What is the relevance of his religious thinking? Did he make a contribution to religious thinking?
11. Do we have here the expressions of a truly searching mind concerned with humanity or that of someone possessed with a singular idea?

To meet the inquiry needs of the theme of this dissertation I intentionally approached it by listening unbiasedly in search of what is behind the Beyondist expression of Cattell's thinking on religion and his religious thought. A complete overview of the corpus of his work reveals, besides the previously identified dichotomy, a threefold character that can be related to Wilber's four quadrants, namely –

- his formal research that could be recognised as completely upper right–exterior individual (behavioural) IT;
- the Beyondist trilogy, that belongs in the WE and ITS spheres (see Appendix A) of the lower left (cultural) and lower right (social) quadrants; and
- clearly more personal and intense, the prefaces to those books as well as the autobiography in Lindzey's *History of psychology in autobiography* (1973) belong in the upper left (intentional) interior individual, I.

One can conclude that Cattell adhered to his acceptance of the evolutionary principle – his metaparadigm – and that he applied it as widely as possible. He did not present Beyondism as a utopian destiny, but rather as a complete pragmatic philosophy of progress, offering nothing more than temporal stations of achievement from which individuals could derive the emotional and spiritual satisfaction of moving beyond the present.

Despite his integrity and observational qualities, Cattell was not a metaphysical thinker, lacking the kind of creativity that brings about the great changes in history. Another argument also holds, namely that a paradigm shift through his revolutionary ideas was virtually impossible in his default situation. Social psychological research on groups and leadership suggests that revolutionaries have mostly brought about change after the establishment of authority within the paradigm they were about to change (Gorsuch 2007:23). Cattell's speciality was neither social science nor philosophy or theology; therefore, despite broad and integrative thought, his work did not have the leverage in any specific field to bring about fundamental change. Cattell received due recognition for his work in psychometrics. His works were frequently quoted and further proof of appreciation of his contribution to his field lies in his nomination for the APA award and the initial positive decision concerning that. Beyondism was, apart from the reverberation caused by ideological criticism by individual activists, a borderline activity in Cattell's working milieu.

12. Were his ideas lost in the void between the discourse of psychology and the discourse of religion at the time, and is that the case now?

Many evolutionary discussions have reached a cul-de-sac in the "missing link". Another kind of missing link could be identified in the realm of the evolving soul. Cattell deliberately excluded belief and myth from his frame of reasoning. His personality factor analysis gave insight into human motivation and behaviour, and his observations on intelligence could lead to interesting conclusions. One could build the puzzle of historical data in many different ways and the manipulation of brain chemistry can solve, relieve or cure, but myth seems to endure.

Beyondism may be able to fulfil most external functions of religion, give meaning to positive actions and perhaps create a "good" society on its way towards an Evolutionary Goal, but inside each individual within his or her lifetime there seems to be an unseen umbilical cord of more, or other, than meaning that attaches us to the cosmos. It makes life in this time and

dimension liveable and, in some cases, tolerable beyond reason (and intelligence). “I am in search of the myth that can carry psychology, enabling psychology to carry soul”, Hillman (1975:218) says near the end of his first major work, namely *Re-visioning psychology*. His archetypal psychology was critical of twentieth-century biological psychology, behaviourism and cognitive psychology and sheds light on the function and the depth of myth.

In the epochal and evolving human psychological” consumer market certain mythical systems may have reached the “shelf-life” limit of credibility, as we see in the decline of religious authority. In Chapter 6.3.3, page 175, I slightly touched on the inner experience of religion, which, in the realm of psychology, psychiatry and neuroscience could become mere pathology and chemistry if the religious myth were to be unmasked as such. I postulate that as medical science and human knowledge advance, more individuals will live through this kind of mind-shattering unmasking, of which I can testify²⁵.

7.3 Conclusion

Beyondism is based on the conscious acceptance of the theory of evolution (modern myth?) with claims of being fact (uncovering unconscious roots of our present consciousness). The idea of evolution may be the kind of myth that links humanity to the past and reaches sufficiently towards the future. A main feature of Beyondism is that Cattell recognises the religious aspect of being human. The Theopsyche provides for the necessary God concept. Hillman finally concludes that the re-visioning of psychology means recognising that psychology does not take place without religion, because there is always a God in what we are doing (1975:228).

To me, having developed my world consciousness over the last half of the twentieth century, and experiencing the void between the discourse of religion and the discourse of psychology, Cattell's thinking on religion and his religious

²⁵ 1978: Single occurrence of acute manic depression as entirely religious experience. Stable on lithium (and Unisa!) for 25 years.

thought provided useful integrating links as the new century gains momentum. A variety of social phenomena embody this momentum, such as school curricula becoming multi-religious; alternative expression of philosophical-religious themes in popular films (such as *The Matrix*, *Da Vinci Code*, *Golden Compass*); news magazines (such as *Newsweek* and *Time*) frequently covering challenging religious topics; and, most recently, propaganda for scientific atheism on buses in London and elsewhere. Somehow we move and evolve with the current beneath the waves or the sap in the stem between the directive thorns.

BIBLIOGRAPHY

A. Primary sources

Cattell, RB. 1938. *Psychology and the religious quest: an account of the psychology of religion and a defence of individualism*. New York: Nelson.

Cattell, RB. 1947. *General psychology*. Cambridge, Massachusetts: Sci-Art Publishers.

Cattell, RB. 1972. *A new morality from science: Beyondism*. New York: Pergamon.

Cattell, RB. 1987. *Beyondism: religion from science*. New York: Praeger.

B. References

Abe, M. 1990. Kenotic God and dynamic sunyata, in JB Cobb Jr & C Ives (eds). *The emptying God: A Buddhist-Jewish-Christian conversation*. New York: Orbis Books.

Agostino, A & Ashton, G (eds). 2006. *A patented world? Privatisation of life and knowledge*. Johannesburg: Fanele.

Anastasi, A & Urbina, S. 1997. *Psychological testing*. Upper Saddle River: Prentice Hall.

Audi, R (ed). 1999. *Cambridge Dictionary of Philosophy*. Cambridge: Cambridge University Press.

Brand, C. 1996. *The g factor: general intelligence and its implications*. New York: John Wiley and Sons.

Burnshaw, S. 1970. *The seamless web: language-thinking, creature-knowledge, art-experience*. New York: George Braziller.

Capra, F. 1975. *The Tao of physics*. London: Wilwood House.

Cattell, RB. 1973. Autobiography, in G Lindzey (ed). *A history of psychology in autobiography*. New York: Appleton-Century-Crofts. Vol. 4:61–90.

Cattell, RB. 1978. Ethics and the social sciences: the Beyondist solution. *The Mankind Quarterly* 19: 305-308.

Cattell, RB. 1984. The voyage of a laboratory, 1928–1984. *Multivariate Behavioral Research* 19 (2&3):121–174.

Craffert, PF. 2002. Religious experiences and/as (alternate) states of consciousness from a biopsychosocial perspective, in CW du Toit (ed). *Brain, mind and soul: unifying the human self*. Pretoria: Unisa.

Girard, R. 1986. *The scapegoat*. Baltimore: John Hopkins University Press.

Gold Medal Award for Life Achievement in Psychological Science: Raymond B. Cattell. 1997. *American Psychologist*, 52(8), August:797–799.

Gorsuch, RL. 2007. *Integrating psychology and spirituality?* Pasadena: Fuller Seminary Press.

Higgs, P & Smith, J. 2006. *Rethinking our world*. Cape Town: Juta.

Hillman, J. 1975. *Re-visioning psychology*. New York: Harper & Row.

James, W. 1982. *The varieties of religious experience*. New York: Penguin.

Johnson, P. 1997. *Modern times: a history of the world from the 1920s to the year 2000*. London: Phoenix Press.

Krogman, WM. 1966. Race in *World Book Encyclopedia Vol 16:50*. Chicago: Doubleday & Company.

Krüger, JS. 1982. *Studying Religion: a methodological introduction to science of religion*. Pretoria: Unisa.

Krüger, JS. 1995. *Along edges: religion in South Africa: Bushman, Christian, Buddhist*. Pretoria: Unisa.

Krüger, JS. 2006. *Sounding unsound: orientation into mysticism*. Wierda Park: Aurora.

Kuhn, TS. 1970. *The structure of scientific revolutions*. 2nd ed. Chicago: University of Chicago Press.

McCallum, I. 2005. *Ecological Intelligence: rediscovering ourselves in nature*. Cape Town: Africa Geographic.

McKay, JP; Hill, BD & Buckler, J. 1992. *A history of world societies*. Boston: Houghton Mifflin.

Miller, R. 1987. *The bare-faced messiah*. London: Michael Joseph Ltd.

Murphy, M. 1992. *The future of the body: explorations into the further evolution of human nature*. Los Angeles: Jeremy P Tarcher.

Niebuhr, R. 1932. *Moral man and immoral society: a study in ethics and politics*. London: SCM Press.

- Salk, J. 1975. *How like an angel; biology and the nature of man*. London: David & Charles.
- Sheldrake, R. 1991. *The rebirth of nature; the greening of science and God*. New York: Bantam.
- Smart, N. 1992. Reflections on religion and the future, in GI Pillay (ed). *Religion and the Future*. Pretoria: HSRC Publishers.
- Stock, G. 2002. *Redesigning humans: choosing our children's genes*. London: Profile Books.
- Swedlund, A. 2000. Human races in *World Book Encyclopedia* Vol 18:57 Chicago: Doubleday.
- Turner, BS. 1991. *Religion and social theory*. London: Sage Publications.
- Visser, F. 2003. *Ken Wilber: thought as passion*. New York: State University of New York Press.
- Wade, N. 2001. Life script: how the human genome discoveries will transform medicine and enhance health. London: Simon & Schuster.
- Whitney, G. 1997. Raymond B Cattell and the Fourth Inquisition in *The Mankind Quarterly*, 3 (1&2) Fall/Winter: 99–124.
- Wilber, K. 1983. *A sociable God*. New York: McGraw-Hill.
- Wilber, K. 1998. *The marriage of sense and soul: integrating science and religion*. New York: Random House.
- Wilber, K. 2000. *Sex, ecology, spirituality: the spirit of evolution*. Boston: Shambhala.
- Wortman, CB; Loftus, EF & Marshall, ME. 1992. *Psychology*. New York: McGraw-Hill.

C. On-line references

- Anderson, KL. 2008. Comparing evolutionary Catholicism and Beyondism. *Civilizing the beast: reflections on evolutionary Catholicism*. 7 September. Available: <http://civilizingthebeast.blogspot.com/2008/09/comparing-evolutionary-catholicism>. [Accessed: [2008/12/11]].
- Cattell, H; Gorsuch, R & Hammer, S. 1998. *Eulogies*. Available: <http://www.cattell.net/devon/rbceul.htm>. [Accessed: 2001/09/10].



- Cattell, HEP & Horn, J. 1998. *Raymond B Cattell (1905–1998): his life and scientific contributions*. Available: <http://www.cattell.net/devon/rbcbio.htm>. [Accessed: 2001/09/10].
- Cattell, RB. [N.d.] *Ethics and the social sciences: the 'Beyondist' solution*. Available: <http://www.mankind.org/man7.htm>. [Accessed: 2001/09/10].
- Edelstein, A. 2006. A God-shaped hole at the heart of our being. *What is Enlightenment Magazine*. Available: <http://www.wie.org/j35/haught.asp?pf=1>. [Accessed 2007/07/09].
- Gilles, J. [N.d.] *Raymond Bernard Cattell*. Available: <http://www.stthomasu.ca/~jgillis>. [Accessed: 2001/09/10; 2002/01/07; 2008/08/08, 2008/10/10].
- Hilts, PJ. 1997. Racism accusations and award is delayed. *New York Times*, 15 August. Available: <http://query.nytimes.com/gst/fullpage.html?res=9907EEDC153FF936>. [Accessed: 2001/09/10].
- Hunt, E. 1998. The Cattell affair: do hard cases make poor lessons? *History and Philosophy of Psychology Bulletin*, 10(2). Available: <http://www.ferris.edu/isar/bios/Cattell/HPPB>. [Accessed: 2002/05/20].
- Jonas, G. 2008. Arthur C Clarke, author who saw science fiction become real, dies at 90. *New York Times*, 19 March. Available: <http://www.nytimes.com/2008/03/19/books/19clarke.html?scp=2&sq=Clarke%20%20seamless%20blend%20of%20scientific%20expertise%20%20&st=cse>. [Accessed: 2008/03/25].
- Lorenz, K. 1973. *Autobiography*. Available: http://nobelprize.org/nobel_prizes/medicine/laureates/1973/lorenz-autobio.html. [Accessed:2008/03/25].
- Lynn, R. 1974. Review: A new morality from science: Beyondism by RB Cattell. *Irish Journal of Psychology* 2(3) (Winter). Available: <http://www.ferris.edu/ISAR/bios/cattell/lynn.htm>. [Accessed: 2002/05/20].
- Mehler, B. 1998. Raymond B Cattell and the social context of science. *History and Philosophy of Psychology Bulletin*, 10(2). Available: <http://www.ferris.edu/isar/bios/Cattell/HPPB>. [Accessed: 2002/05/20].
- Schroeder, D. 2006. Evolutionary ethics. *The internet encyclopedia of philosophy*. Available: <http://www.iep.utm.edu/e/evol-eth.htm>. [Accessed: 2008/03/13].
- Stewart, J. 2007. The potential of evolution. *What is Enlightenment Magazine*. Available: <http://www.wie.org/j35/stewart.asp?pf=1>. [Accessed 2007/07/09].
- Stewart, J. 2008a. *The evolutionary manifesto; our role in the future evolution of life*. Available: <http://www.evolutionatymanifesto.com/man4.html>. [Accessed 2008/12/11].

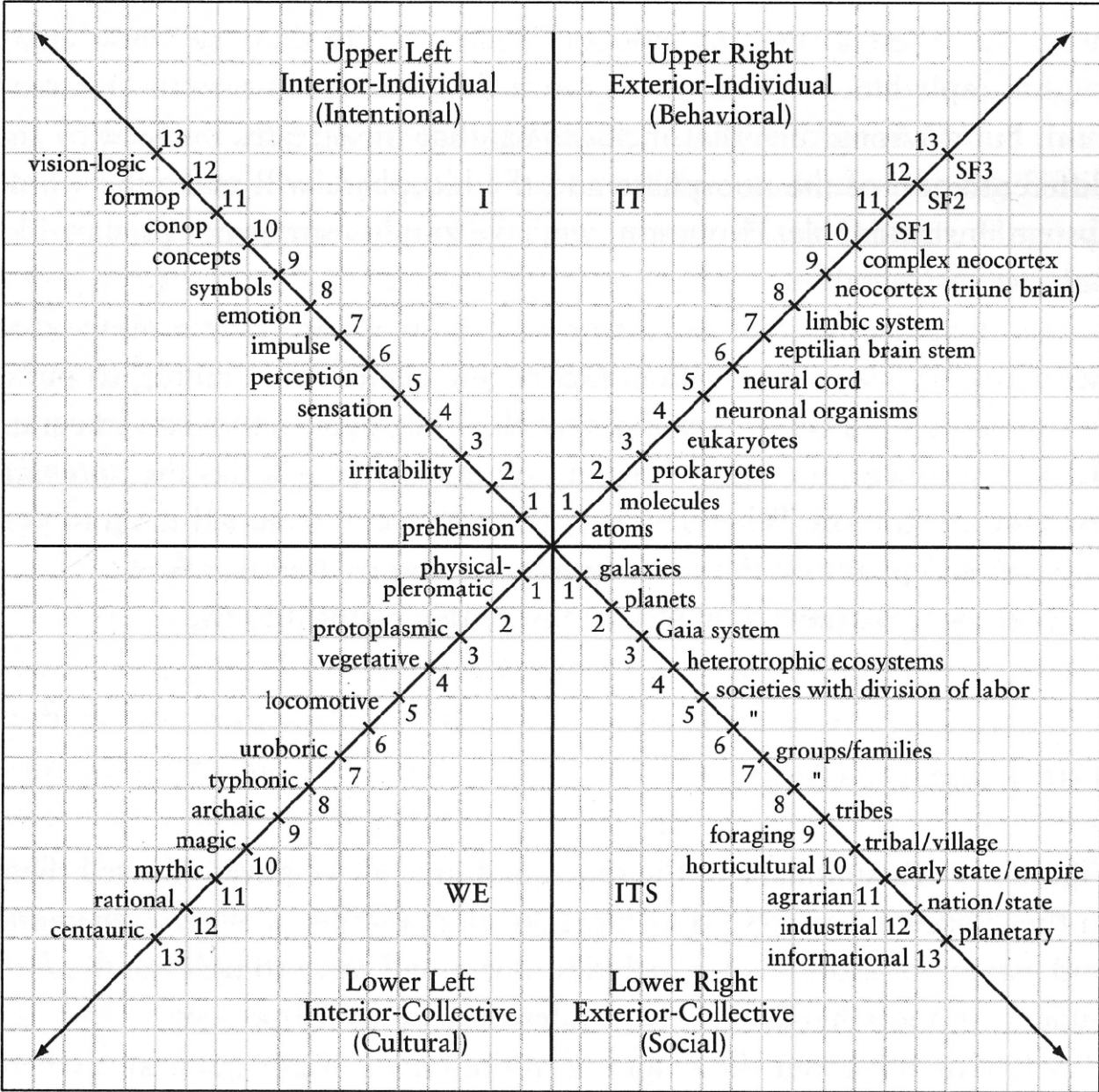
Taylor, J. 1995. A conversation with a pioneer. *AmericanRenaissance.com*, 6(10). October. Available: amren.com/ar/1995/10/#top. [Accessed: 2002/05/20].

D. Personal communication: E-mail correspondence

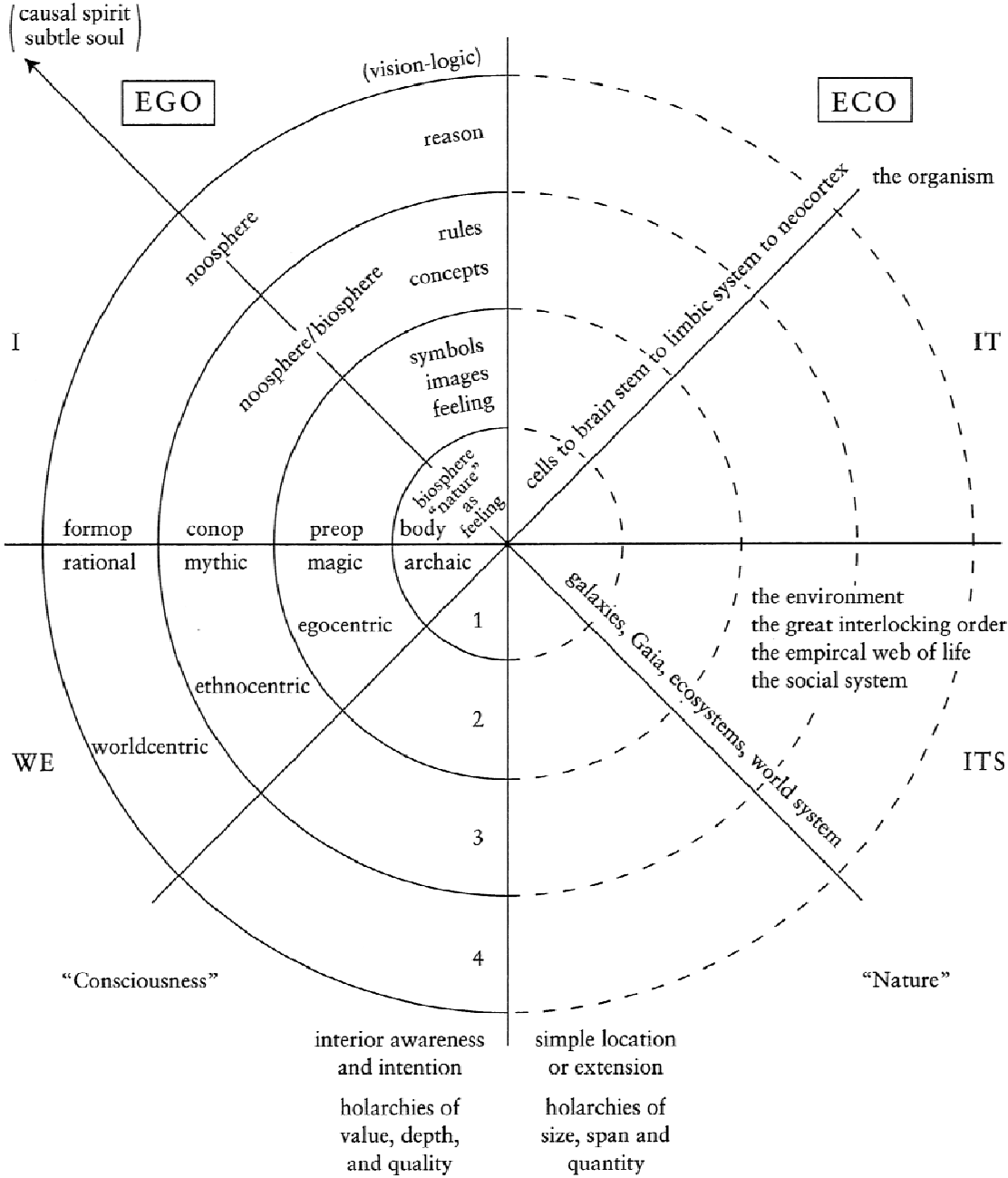
Cattell, HE. 2002. Personal e-mail. 27 February. hec@ipat.com.

Stewart, J. 2008b. Personal e-mail. 11 December. future.evolution@gmail.com.

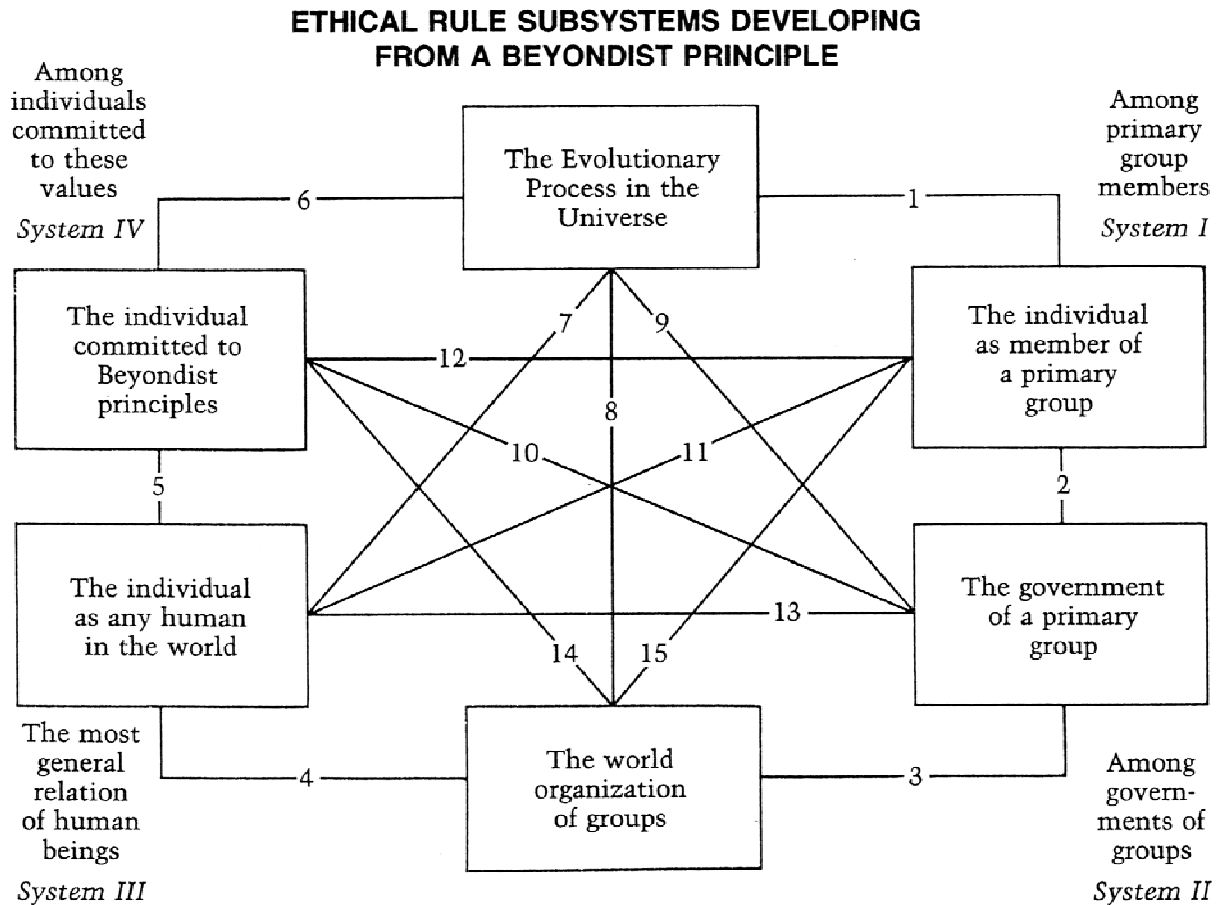
Appendix A: The Four Quadrants (Wilber 2000:198)



Appendix B: Integrated Great Nest and Four Quadrants (Wilber 2000:449)



Appendix C: The Rose Diagram – Ethical rule subsystems developing from a Beyondist principle (Cattell 1987:73)



System I can be divided into two components—1(a) the laws for the survival of any group and 1(b) the laws appropriate to the behavior of individuals in the particular adventure for survival of the given group.