AN EXAMINATION OF SOME RELIGIOUS CONCEPTS OF

URBAN INDIAN SCHOOL CHILDREN

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DESCRIPTION

CHAPTER ONE

1.1   MOTIVATION

The present study was motivated by the following factors:

1.1.1   The near universality of religious practices in man and the persistence of religious behaviour over succeeding generations suggests that perhaps religious beliefs and practices do satisfy certain human needs.   There is anthropological evidence to indicate that the practice of religion has persisted among peoples widely spaced in time and place, (Schoeps, 1967).   Some authors are confident that religion is indeed a human need because it motivates specific types of human behaviours, (Spinks, 1963; Yinger, 1970; Nielson, 1971).   Other examples of the need-satisfying qualities of religion come from present-day Communist China and Russia.   There religious freedom is constitutionally revoked and suppressed.   In spite of that religious beliefs and practices still persist, (Marshall & Richard, 1971; Mac Innis, 1972).

1.1.2   Religion holds promise for the development of new insights into human relationships.   It is felt that the contemporary imbalance between material idealism on the one hand and the spiritual and ethical values on the other is threatening to undermine human relationships to the detriment of mankind, (Benson, 1960; Kay, 1968; Wilkes, 1969). Some people are drifting away from religion in trying to find new ways of counteracting the decay in human values, (Wilson, 1970).   Only posterity can decide upon the merits or demerits of such experimentation with religious alternatives.   In the meantime, it is the religionless void that is worrying those concerned with the restoration of the equilibrium between science and technology on the one hand, and ethical

control on the other.   It is a concern well-founded because man

living in the nuclear age cannot afford to take risks, (Thomas, 1969).

1.1.3   With recent developments in research methodology attention is

again being focused on religion.   An increasing volume of research by

a large number of research workers is being directed towards religion

for the sake of finding new insights and solutions for the world's

problems, (Brown, 1973).   The kinds of trends that are now emerging

indicate that increasing demands will be made on religion for the re=

suscitation of ebbing human values and social controls, (Marlow, 1952;

Niblett, 1963; Edwards, 1969; Brown, 1973).   A notable case in point

is the recent merger between scientific psychology and religion.   The

refined research methods of psychology are now being increasingly used

to investigate the functional aspects of religion, (Waardenberg, 1973;

Brown, 1973).

1.1.4   It is felt that the development of inter-religious tolerance

could initiate firmer foundations in human relationships.   The state of

inter-religious tolerance in the past has had a notorious connotation.

Strife and chaos followed in the wake of exclusive claims of the

superiority of one religion over the other and many wars were fought in

the name of religion, (Benson, 1960; Bull, 1969; Wilson, 1970). Major

catastrophies soured religious fervour in man.   Recently, however, a

new trend has taken shape viz., inter-religious tolerance.   Men of

religion feel that the practice of inter-religious tolerance holds much

promise for the future.   Inter-religious tolerance on the world scene

represents sincere efforts at fostering harmonious human relationships,

(Young, 1970).   In recent years representatives from world religions

have met at world conferences for the sole purpose of cultivating

religious tolerance and finding ways and means of helping to solve some

of mankind's most urgent problems. Such inter-religious conferences
were held in many parts of the world at various times, (Canada, 1932;
Madras, 1938; Ceylon, 1969; Canterbury, 1969; Beirut, 1970; New
Delhi, 1975). At these conferences it was felt that it was time that
religious men of different faiths united and faced common problems con=
fronting mankind. A popular theme at such conferences was that by
deepening one's faith in the religion of one's choice one's mind can be
broadened and one is then enabled to perceive the other man's religion
with respect and tolerance, (Jung, Nikhilananda, Schneider, 1963;
Wilson, 1970).

In the midst of all the chaos and confusion caused by inter-religious
dissensions, the Republic of South Africa appears to be unique. There
have been no serious inter-religious confrontations here. Yet these
selfsame world religions of Islam, Hinduism and Christianity have
existed side by side for over a century. The Indian South Africans,
followers of these religions, seem to reflect harmonious relationships
in spite of the differences in religious philosophies and orientations.

The overall picture of inter-religious tolerance among the world
religions in the Republic appears to hold much promise for the future.
But the paucity of empirical evidence makes it necessary to research
religion in the Republic so that better projections into the future
may be made. Research evidence obtained from other parts of the
world would be inadequate here on account of cultural differences,
(Balkisson, 1973).

For these reasons the present research was planned to examine some

religious concepts in urban Indian school children. Indian school children subscribe to all three religions of the world, Hinduism, Islam and Christianity. By examining their judgements of the concepts of their own religions, and those of the other religions, some knowledge may be gained about the way they perceive the religions of other people in relation to their own.

1.2   AIMS OF THE RESEARCH

By using the semantic differential method it was planned to investigate the following:

1.2.1   the way in which Indian children perceive their own religion and that of the other children's religions, and whether there is a de= velopmental change in their perceptions; and

1.2.2   the intensity of their religious feelings as related to their background variables.

Specifically, it was hoped to find answers to the following questions:

1.2.3   Do Indian children show a greater preference for their own religions than the other religions?

1.2.4   What other religion does each group prefer after its own?

1.2.5   Are younger children more rigid in their feelings towards the religious concepts than older children as Piaget (1968) had postulated?

The background variable investigated involved the relationships between:

1.2.6   religious intensity and religious tolerance;

1.2.7   religious intensity and peer interaction;

1.2.8   religious intensity and occupational status;

1.2.9   religious tolerance and peer interaction;

1.2.10   peer interaction and occupational status;

1.2.11   religious tolerance and occupational status.

1.3   EXPLANATION OF THE TERMS USED

1.3.1   Religion

The term religion as implied within the context of the present study relates to a power superior to man, that is conceived as the director and controller of the destiny of man and the course of nature.

Thomas (1970), states: "Definitions of religion are generally unsatis= factory, and perhaps it is impossible to formulate a completely adequate one."   Buren (1972), is of a similar opinion.   He states: "No single definition or analysis can hope to cover all the diverse aspects encom= passed by religion."   From time to time certain investigators made some valiant efforts at defining religion.   Spinks (1963), listed some of those efforts as follows:

1.3.1.1   Religion represents the faith of man in a power beyond himself through which he attempts to seek satisfaction of his emotional needs. That faith gives him stability in life.   It is the kind of faith ex= pressed in acts of worship and service.

1.3.1.2   Religion is conceived by some as represented by service and social attitudes of individuals or communities towards the powers that are believed to have ultimate control over their interests and destinies.

1.3.1.3   In the broadest sense it is believed that there is an unseen order and that our supreme good lies in harmoniously adjusting ourselves to it.

1.3.2   Religious Differences

Although religions revolve around a central authority or power (believed to direct and control the course of nature and of human life), yet the interpretations of that power reveals differences among the major religions.   Hindu, Islamic and Christian religions differ in their philosophies, traditions, customs, practices and modes of worship.

1.3.3   Religious Tolerance

Religious tolerance in the present context implies a recognition of the rights of the private individual, whether he is a Hindu, Moslem or Christian, to his own opinions, beliefs and practices in matters per= taining to religion so long as there is no interference with the rights of others or with decency and order.   This is the kind of religious tolerance which appears to be practised in the Republic of South Africa.

Absence of this kind of thinking on the world scene was a contributory cause of much human suffering, mass exterminations and suppression. Benson (1960) and Jung, *et al.* (1963) feel that the world is at last returning to sanity.   They observe that the relations in the world today are such that the pendulum is gradually and surely, swinging from a more religiously conservative to a more religiously tolerant attitude.   The frequency of world conferences involving leaders of world religions bear ample testimony to this fact.   In the present

study tolerance was defined by a lower score on the semantic diffe=
rential scale.

1.3.4   Religious Intensity

James (1971), feels that religious intensity reflects a deeply felt
religious experience with respect to those aspects directly associated
with religious beliefs.   Hence, religious intensity as it obtains within
the context of the present study was examined by noting how often Hindus
light the Holy Lamp in their homes during the course of a week, and how
often Moslems and Christians attend mosque and church services during
a week respectively.   The frequency of participation was positively re=
lated to the degree of intensity.   A high frequency implied a high
religious intensity and *vice versa*.   Waardenberg (1973), expounded a
somewhat similar interpretation.   He observed that there were three
types of gradations in religious intensity: the truly religious; the
intermittently religious, and the indifferently religious.

1.3.5   Peer Group Interaction

In conformity with Lindzey's (1959) proposals, it may be generalized
that group pressures exerted by particular religions can influence the
choice of close friends.   In this respect, Lindzey (1959) indicated
that the more an individual is disposed towards acceptance of a particu=
lar opinion or trait as a desirable tendency the more will he be inclined
to adopt that tendency, and the quicker will he then succumb to group
pressures brought to bear upon him.   Merchant (1972), found that peer
interaction as an environmental factor can affect children's cognitions.
Therefore, the choice of close friends of the same religious denomination
can have a corresponding effect on the individual's degree of religious
intensity, conceptions of religious differences and tolerance, and *vice*

versa.   Consequently, peer interaction in the context of the present study implies to what extent children of a particular religion choose friends of the same religious group.

1.3.6   Occupational Status

The criteria for occupational status was derived from Glass (1954).   He pointed out that the occupations of fathers and guardians may be used for socio-economic classifications.   Using the criteria recommended, the subjects in the present study were classified into the lower and middle socio-economic levels.   Categories A and B (grades 1 and 2) and the middle C and D (grades 3 and 4) from Glass' list of trades and occupa= tions were used respectively.

1.3.7   Religious Concepts

Osgood, Tannenbaum & Suci (1957, 1964), and Snider & Osgood (1969), provide a wide latitude for the choice of concepts that may be used for investigation with the semantic differential method.   They state that the choice of concepts depends upon the interests of the investigator, the nature of the problem and the type of subjects that may be used. This wide latitude provided made possible the choice of the following concepts for the present investigation: Temple, Mosque, Church, Rama, Mohammed, Christ, Deepavali, Eid, Christmas, Gita, Koran, Bible, Murthi, Kaaba and Altar.   A system was adopted for the selection of concepts. The presumption here was that the concepts chosen should as far as pos= sible be matched in each of the three religious groups. For this reason the following choice was made:

(1)   Temple, Church and Mosque as places of worship,

(2)   Rama, Christ and Mohammed as Divine Beings,

(3)   Deepavali, Eid and Christmas as holy festivals,

(4)   Gita, Bible and Koran as holy books,

(5)   Murthi, Altar and Kaaba as symbolic representations of God's presence.

A further consideration that dictated the choice is that the above concepts exist universally wherever these religions are practised.

A fuller elaboration of these three religions, their influence on the development of codes and values, their similarities and differences, philosophies and influence on tolerance, is presented in Chapter 2.

CHAPTER TWO

2.1   HINDUISM, ISLAM AND CHRISTIANITY IN THE REPUBLIC OF
        SOUTH AFRICA

2.1.1   The Influence of Religion in the Development of Codes and
        Values among Indian South Africans

The Indian immigrants who came to Natal during the latter half of the
19th Century brought with them a variety of rituals and practices rela=
tive to Hinduism, Islam and Christianity. For over a century since
then, religion seems to have played a significant part in the lives of
the Indian South Africans. It is noteworthy that religion has provided
the basis for codes and values that have sustained the Indian way of
life in the Republic, (Kuper, 1960; Mann, 1966, Meer, 1969).

Contemporary observations indicate that religion still plays an important
part in the lives of the majority of Indian South Africans. Despite
exposure to over a century's impact of western influences, religion
continues to permeate the Indian way of life. It is common practice
among Indian South Africans from various walks of life to observe sig=
nificant events such as births, deaths and marriages through the medium
of religion. And the propagation of religious virtues continues to
receive attention amongst contemporary Indian South Africans. The many
temples, mosques and churches that have sprung up in new Indian town=
ships and settlements in the Republic in recent years bear testimony to
the fact that religion is very much alive amongst Indian South Africans.
Religious festivals and ceremonies continue to be observed with great

pomp and ceremony. From time to time religious teachers and learned men from abroad are invited to rejuvenate interest in religion. There appears to be a peaceful co-existence among the major religious groups here. The atmosphere here is unlike the tensed conditions that pre= vailed in recent years amongst Muslims and Jews, or Muslims and Hindus in other parts of the world. It appears therefore, that each religious group lives within the framework of its own codes and values according to its own philosophy without malignant pressure or interference.

2.2   THE PHILOSOPHIES OF ISLAM, CHRISTIANITY AND HINDUISM

Some philosophical aspects of relevance to the present study are outlined below:

2.2.1   Islam

Islam is believed by its followers to be a religion of peace. It believes in one God, Allah. Muslims believe that the word of God was revealed to Mohammed, who is the Prophet and founder of Islam. The basic teachings of Islam are reflected in the Koran. Islamic theology propounds that all that exists is Muslim in concept and creation. All things from the minute organisms to the limitless space are controlled by Allah's law. Since all things in the Universe are Muslim so man living in the Universe has no choice but to be Muslim, (Meer, 1969). It is therefore, the sacred duty of every believer to spread the word of Allah to the non-believer so that he may be saved. Islam demands that there should be absolute submission to the Will of God as reflected in the Koran. The Koran lays down the code of ethics to guide behaviour along the path of right living. Transgressors are warned that they will have to account for their sins on the Day of Judgement. The true believer is promised everlasting peace after death. Islam exerts

a tremendous unifying effect upon its followers.   Brotherhood in Islam overrides barriers of caste, colour or creed and all those embracing Islam express fellowship and peace.

2.2.2   Christianity

Christians believe that Jesus Christ was the Son of God who came to Earth to teach people about God and to restore God's Kingdom on Earth. He came in the midst of strife and hatred in order to restore law and order.   Christianity believes that the only way to salvation and ever= lasting peace is through Jesus Christ.   The unbelievers are warned that they are sinning by deviating from the path of true salvation.   It is therefore, the aim of Christianity to bring into the fold those who are deviating.   Believers are promised everlasting bliss in Heaven whereas the sinners are warned of the Day of Judgement and everlasting punishment in Hell.   Christianity offers a code of ethics for its followers.   This basic code is expressed as the Gospel in the Bible.   The primary aim of the Gospel is the inculcation of the principles of right living amongst believers.   Christianity believes that it is the only true way and to attain salvation one must be a Christian.

2.2.3   Hinduism

The basic philosophy of Hinduism lays down that there is one God, Brahmin, wherefrom all things are born and unto Whom all things return.   The Bhagavad Gita emphasizes this belief.   The Hindu believes that all creations are manifestations of the same Supreme Godhead.   This makes the Hindu tolerant towards all of nature's creations.   He believes that there is Divinity in everything no matter how mundane or material its nature.   The underlying philosophy of Hinduism aims at promoting right conduct in its followers.   It propounds that the ultimate aim and

purpose of all existence is eventually to reach Godhead and be one
with the Maker. The attainment of Godhead is a long and an arduous
process and only those endowed with exceptional Divinity eventually
reach it. Before this happens the believer has to prove himself beyond
doubt. Consequently, the believer is put through a series of exacting
tests in the way of births and rebirths during which the Law of Karma,
or Cause and Effect, operates.

This law warns that breaches committed in one generation must be paid
for in the next generation. Through retribution the transgressor is
warned to keep out of sins and to live within the bounds ordained for
him. If he succeeds in leading a pure, virtuous life to the satisfac=
tion of His Creator then he is allowed to resume his evolutions towards
Godhead. It is obvious therefore, that Hindu philosophy is extremely
demanding. The Hindu is always reminded to respect all creations of
God and to recognize the Divine presence in all Beings. The true
Hindu is therefore very tolerant.

2.3   RELIGIOUS TOLERANCE

The underlying beliefs of Islam, Christianity and Hinduism appear to
influence the concept of religious tolerance in their own particular
ways. Islam and Christianity seem to show greater tolerance towards
believers than unbelievers since these religions are more concerned
with conversions of unbelievers than Hinduism is. On the other hand
Hinduism is expected to show tolerance towards all of God's creatures
in practice, but this does not always happen.

Inspite of these variations in religious beliefs the state of inter-
religious tolerance in the Republic has remained on an even keel.
There have been no major confrontations such as the religious wars that
had plagued the world scene.

2.3.1   Religious Tolerance and its Implications for Twentieth Century Man

Living together in this planetary world of ours is bringing people of diverse faiths, colours and creeds closer together. This problem of conglomeration of diverse peoples, cultures, tradition and life styles is presenting challenges that are unique in the sense that before the solution of one problem is achieved another begins emerging. The world is at present in the grip of rapid changes. Populations are expanding at an ever increasing rate. The gulf between religion and irreligion is widening (Kay, 1968). Men of different faiths are now getting to= gether to an increasing extent. A new generation is emerging, nurtured within the crucible of scepticism and materialism. Kay (1968), refers to them as the technocrats of the future who need to be trained not only in scientific but also in human terms. Individualism and permis= siveness are running rife and science and technology are being increasing= ly looked upon as the saviours of the future. For these reasons it is imperative that the apparent imbalance between materialistic tendencies, and ethical, and spiritual qualities be restored as soon as possible for the good of mankind. How this should be done is anybody's guess. As a result men of science as well as religion are exploring new fields and techniques for the sake of restoring the equilibrium in man's mind. Science is now having a closer look at religion; at the same time reli= gion is using the techniques of science to an increasing extent in helping it to forge a method to restrain the growing tide of world tensions and anxiety. The popular theme among men of religion nowadays, is that religion should no longer be moats of separation as in the past, (Benson, 1960; Bull, 1969; Wilson, 1970), but should become bridges of understanding in the future, (Marlow, 1952; Nikhilananda & Schneider,

1963; Young, 1970). The frequency and magnitude of inter-religious, world conferences are clear indications that the world is now being in= creasingly geared towards greater religious tolerance.

The underlying mechanisms that either mar or promote inter-religious tolerance need careful scrutiny. It is therefore, necessary to view religion from as many vantage points as possible so that adequate solutions for the fostering of harmonious relationships could be worked out. For these reasons an examination of the similarities and differences between the three major religions, does appear to be in order. Simila= rities and differences especially those related to the present research will now be discussed.

2.4 SIMILARITIES AND DIFFERENCES

Hinduism, Islam and Christianity appear to be similar in some ways but different in other ways. They are similar in the sense that they all start from a basic philosophy, and have common prayer houses such as temples, mosques and churches. All of them celebrate certain holy festivals connected to Divine Beings such as Rama, Mohammed and Christ, offer prayers at sacred places such as Murthi, Altar and Kaaba, subscribe to the virtues in Holy texts such as the Gita, Bible and Koran. But these major religions also have differences. These differences arise as a result of differences in emphasis on worship, life styles, social institutions and conventions. These differences will now be discussed under the following headings: prayer houses, festivals, Divine Beings and holy books. Only those aspects pertinent to the present research will be discussed.

2.4.1   Prayer Houses

2.4.1.1   The Hindu Temple

In the life of the Hindu the temple personifies man's faith in the present, past, future and the whole order of the cosmos.   It is used more as a place of veneration rather than a place of congregation.   The Hindu devotee prostrates himself in front of the Icons in time of stress or despair and seeks God's guidance.   From this point of view the temple is conceived as the House of God containing the Images of God.

2.4.1.2   The Islamic Mosque

The mosque forms a vital aspect of community life.   Wherever Muslims settle in appreciable numbers efforts are made to erect a mosque.   The mosque serves a two-fold community need.   It is not only used as a place of worship but also a place of congregation.   Although it is conceived as the house of God yet it does not have any images of God. Islam prohibits the worship of God in symbolic forms.

2.4.1.3   The Christian Church

The church is conceived as fulfilling a three-fold need.   It is consi= dered a house of God, a place of worship as well as a place of congrega= tion.   Although the church is usually adorned with religious murals, friezes and statues yet there is no place for the symbolic worship of God in Christianity.   Like Islam, Christianity also does not subscribe to the Hindu's use of symbolism.   The decorations in a church are used primarily as media for religious instruction rather than veneration.

2.4.2   Religious Festivals

2.4.2.1   Hindu Deepavali

This festival is a major event in the life of the Hindu.   It is celebrated with much pomp and ceremony each year.   It is a time when

learned Hindus expound the virtues of Hinduism in written and verbal
forms.   Prayers are offered in Hindu homes, in temples and in public
halls.   Each year sees a plethora of profuse articles, expounding the
virtues of Hinduism.   These articles are usually given prominence in
newspapers and magazines.   Apart from literary expositions many religious
pictures symbolizing the many manifestations of Hindu belief accompany
the articles.   Interest in the festival appears to be waxing instead of
waning as each successive year sees a great deal of enthusiasm generated
at festival time.   For over a hundred years the Hindu in the Republic
of South Africa has been drawing renewed courage and faith at each
successive festival.   This has been an annual practice among Hindus
since antiquity.   The consensus of opinion among Hindus is that
Deepavali symbolizes the triumph of the forces of good over evil.

2.4.2.2   Muslim Eid

The Muslim faith makes provision for the celebration and observation of
two Eids.   These festivals are the Eid-ut-Fitr and the Eid-ul-Adha.
The former is celebrated at the end of the Fast of Ramadan and the latter
also called Bukrie-Eid (involving a sacrifice), serves to remind the
believers of the sacrifice of Abraham.   Eid is a time of festivity,
there is much visiting and exchanging of greetings.   Religious congre=
gations are held in mosques where the Glory of Allah is exalted.
Articles appear profusely in newspapers, magazines and weeklies, extolling
the virtues of Islam.   Muslims express renewed faith in Islam at each
successive festival.   The intensity of religious feeling is such that
Muslim business houses close for the day.   Each successive generation
of Muslims over the last hundred years have never failed to observe the
annual festivals.   The renewed enthusiasm each year gives the impres=
sion that interest and involvement in the festivals are increasing

instead of decreasing.

2.4.2.3   Christmas of the Christians

Christmas is an annual event of considerable magnitude.   It marks the
observation of the birth of Jesus Christ.   Christmas Day is a public
holiday since it is celebrated as a major festival involving large
population groups.   It is a time of rejoicing, of getting together of
friends and relatives.   Greetings are exchanged.   Gifts are presented
to young and old alike.   It is a memorable event in the lives of
children.   Children are given special attention; toys and the extraor=
dinary Christmas fare add to the gaieties.   Church services are held
and carols are sung in praise of the Lord.   The Glory of Christmas is
exalted in newspapers, magazines, books and periodicals.   The magnitude
of interest generated each year indicates clearly, that Christian religious
fervour continues unabated.

2.4.3   Divine Beings

2.4.3.1   Rama of Hinduism

Hindus believe that Rama came to earth at a time when there was strife
and chaos.   His duty here was to re-establish righteousness.   He
fought the forces of evil in order to restore law and order.   He was
ascribed with Divine characteristics because Hindus believe that Rama
was a re-incarnation of God.   The extraordinary powers which he possessed
and the many superhuman feats that he was supposed to have performed
caused Hindus to believe that he was the very personification of God's
power.   On the side of virtue Rama was believed to be the perfect em=
bodiment of all the qualities of love, goodwill, courage, devotion to
duty, loyalty and tolerance.

2.4.3.2 Mohammed of Islam

Mohammed was attributed with Divine characteristics because he was the
chosen One to spread the word of God to the masses.   God's revelation
to him of the Koran, through the Archangel Gabriel, was compiled in the
Koran.   The Koran prescribes the Will of Allah and the way of life for
all Muslims.   Mohammed was born in Mecca.   His place of birth is now
synonymous with Islam.   Every year many thousands of Muslims converge
in Mecca for the sake of the annual pilgrimage.   It is the wish of
every true believer to visit the birth place of Mohammed at least once
in his lifetime.   So great was the impact of Mohammed's words upon the
masses that within the space of a short period of time Islam attained
the status of a world religion.   It is the youngest of the other major
religions of the world, viz. Hinduism, Christianity and Bhuddism.
Through the sheer force of His dynamic personality Mohammed was able to
unite the scattered tribes of Arabia and bring them under one banner,
the banner of Islam.   Unity is a prime concept in Islam.   The brother=
hood of Islam proclaims that every Muslim regardless of caste, colour
or creed should regard every other Muslim as a brother.   Each day since
the advent of Islam Muslims are united five times at the specified
prayers.   No matter where the Muslim lives he has to orientate towards
the Kaaba in order to offer his prayers.   Mohammed's concept of Muslim
unity is therefore inextricably interwoven into the fabric of everyday,
practical life.   Mohammed continues to be enshrined in the minds of
Muslims as the Prophet of God.

2.4.3.3 Christ of Christianity

Jesus Christ is believed to the the Son of God.   He came to earth to
restore law and order and to set up God's Kingdom on earth.   Love was
a basic concept from which Christ drew His inspirations for the salvation

of man. He loved all those who followed Him as well as those who despised Him. Christians believe that the love of Christ was so great that He sacrificed His life in order to redeem the sinners. Christ was attribu= ted with Divine characteristics since He was believed to be the Son of God. Jesus Christ's birth, death and resurrection form the basis for Christianity. The Gospel of His Heavenly Father is revealed in the Bible. Christianity has at present the largest number of followers in the world. Through the sheer force of numbers it attains the status of the world's most powerful religion.

2.4.4   Holy Books

2.4.4.1   Gita of Hinduism

The Gita reflects the cardinal principles of Hinduism. It was derived from the more ancient Rig Veda and the Upanishads. These latter books are believed to be the basic literatures of Hinduism. Consequently, the Gita is considered today as the most popular literature in Hinduism. The wisdom expressed by the Gita is believed to be timeless. Each succeeding generation since the mists of antiquity has gained inspiration from its lofty principles. The Gita not only provides a theoretical basis for Hinduism but it also provides a practical guide for right living. Its wisdom is believed to be unsurpassed and it offers some= thing for all humanity. In the 6th Discourse of the Gita it is stated that, "Whatsoever form any devotee desires to worship with faith - that (same) faith of his I make firm and unflinching" (Sivananda, S., 1972). The concept of tolerance in the Gita is therefore, boundless.

2.4.4.2   The Koran of Islam

The Koran reflects the word of God as revealed by Mohammed. It teaches that there is only one God and Mohammed is His Prophet. The Koran

expresses the basic tenets of Islam, the Will of Allah.   It prescribes the kind of life that should be led by every true believer.   It warns against transgressions and reminds one of the Day of Judgement.   Islam as propounded in the Koran is a simple yet a profound religion.   The very word Islam connotes peace through complete submission to the Will of Allah.

2.4.4.3   The Bible of Christianity

Christianity draws its inspiration from the Bible, the holy book of the Christians.   It reflects the word of God communicated to the masses through the Son of God, Jesus Christ.   The Bible propounds that God is a living, existing and a practical force in the world today.   God is present here and now and every true believer should live according to the teachings of the Bible.   Transgressors are warned that they will have to account for their sins on the Day of Judgement and in the Life Hereafter.

2.4.5   Place of Religious Veneration

2.4.5.1   The Murthi in Hinduism

The Icon in a Hindu temple called Murthi is accepted as a personification of God.   As a symbol of God it is expected to charge the mind and propel its thoughts along the Divine path.   Since Hinduism believes that not all people are capable of pure abstract thought, the Murthi therefore, serves a practical purpose.   The Murthi forms the core of Hindu worship as it helps to establish communion with the Maker.   Although the Hindu Trinity professes a myriad of Icons, yet the large variety are mere manifestations of One God, The All-pervading Brahmin.

2.4.5.2   The Islamic Kaaba

The Kaaba is a central place of prayer in Mecca.   A large black stone,

believed to be a meteorite of heavenly origin, is embedded in the Kaaba.
Muslims on pilgrimage walk seven times round the Kaaba. In the early
pre-Islamic days nomadic Arab tribes went to the spot where the Kaaba is
at present situated in order to worship various deities whom they
honoured, (Meer, 1969). Although present-day Muslims also offer prayers
at the Kaaba yet their prayers are not offered to the Kaaba, but to
Allah. There is no place for the symbolic worship of God in Islam. To
the Muslim of today, the Kaaba stands as a symbol of muslim unity. Five
times each day all true believers scattered through the length and
breadth of our planet turn towards the Kaaba to pray. So five times
each day Muslims are united into one big brotherhood.

2.4.5.3   The Christian Altar

The Christian religion does not provide for the worship of symbolic re=
presentations of God. In the Church of today, although a place is
reserved for veneration, the Altar, yet that place in no way represents
God. Figuratively, the Altar in a Church is deemed a symbol of
sacrifice. This symbolic representation appears to be a practice
carried over from the Old Testament. In the days of the Druids animal
sacrifices were offered at the Altar. But there is no place for such
practices in the Christian Church of today. According to the New
Testament the altar in a church has a more figurative connotation as
there is no place for the worship of images in a church. The popular
figurative connotation of the altar is that it symbolizes the sacrifice
of Jesus Christ for the sake of mankind. Christ sacrificed His own
Life so that mankind may be redeemed from their sins.

2.5 SIMILARITIES AND DIFFERENCES WITH RESPECT TO CERTAIN BASIC INSTITUTIONS

Births, deaths and marriages, basic institutions in three of the religious groups, appear to have certain similarities as well as differences. They are similar in the sense that they all mark important events in the lives of the observers. Consequently, some measure of preparations and ar= rangements are directed towards observing them. All three religions appear to show this tendency. These basic institutions are also dif= ferent in the sense that their practical expression reveals certain differences. Some of these differences are outlined below:

2.5.1 Births

Among Hindus the birth of a child is a religious occasion. It is celebrated with much pomp and ceremony. Functions are held to which friends and relatives are invited. Usually Hindu priests initiate the newborn into the folds of Hinduism through prayer and ceremony.

Among Muslims, initiation of the newborn into the Muslim faith is a private matter. The usual practice at the birth of a child is for an elder to whisper the fundamentals of the Islamic creed into the ear of the newborn. The baby is thereby ushered into the folds of Islam, (Meer, 1969).

Among Christians there is the holy sacrament of Baptism. Baptism marks the first act of faith that initiates the newborn into the Christian faith. Sins are symbolically washed by using water during the ceremony. Among Roman Catholics there is a slight variation. For instance, the priest first blesses the baby's mouth with salt (for wisdom), anoits the

back and breast with oil (for fortitude), and finally marks the forehead with a cross by using a mixture of oil and water, (Welles, S., 1961).

2.5.2   Marriages

The traditional religious view among Hindus is that marriage is a sacred ceremony.   It is regarded as a basic institution.   It aims at fulfilling the act of creation as ordained by God.   Hinduism propounds that once a marriage is solemnized it cannot be broken.   For this reason the social institution of divorce is not sanctioned by Hinduism.   The parent feels that marrying his child is a sacred task and it is regarded as the parent's final duty towards the child.   The traditional Hindu view frowns upon romantic attachments or pre-marital involvements.   Current observations indicate that religion continues to play an important part in marriage functions.

Among Muslims religion does not appear to play a vital role in the marriage ceremony.   Therefore, marriages are not viewed as sacraments. They can be broken with the mutual consent of both parties or at will. The Muslim marriage is a kind of civil contract between persons who pledge themselves to live as man and wife.   Divorce is an accepted social institution among Muslims.   During a Muslim marriage the contract is performed in proxy.   Elders bear witness to the consent of the bridegroom to accept the bride as his wife and *vice versa*.   Islam frowns upon pre-marital romantic attachments.   Marriages are usually arranged by elders.

Among Christians there are certain inter-denominational differences. For instance the Roman Catholics regard marriage as a sacrament that cannot be dissolved.   The Protestants also regard marriages as sacra= ments but they are not rigid about divorce.   Although the typical oath

taken at the altar is "for better or for worse, until death do us part"
marriage contracts are allowed to be dissolved. The traditional mar=
riage ceremony is normally performed in the church but civil marriages
are usually contracted in a court of law. In the latter case it is the
marriage officer who completes the contract.

2.5.3   Deaths

The Hindus regard death as a transition to a better life or a new life.
The status in the next life is determined by the kind of life that was
lived here on earth.   Therefore, Hindus believe that there is a
positive relationship between the level of Divinity and the level of re-
incarnation.   During death Hindus console one another with relevant
excerpts from religious philosophy.   This philosophy regards death as
inevitable.   Those who are born, are mere mortal beings and thus have
to die.   It is only Godhead who is immortal.   For this reason death
is regarded as transition from one life to another in the evolution of
the soul towards Godhead.

Among Muslims there is no expression of grief during death.   The Muslim
believes that the departed has gone to a better life in God's Kingdom.
Earthly life is regarded as one long chain of trials and tribulations,
pain and sorrow.   Upon death these miseries cease and the departed is
granted everlasting peace in God's Kingdom.   Muslims are warned,
however, that they have to live within the framework of their religious
philosophies whilst on earth in order that they may enjoy eternal bliss
in Heaven.

Among Christians religion also permeates ceremonies that are performed.
A church service is usually held in memory of the departed soul.
Christians believe that upon death the soul of the deceased departs to

the Kingdom of God.   Christians are reminded that a life of virtue whilst on earth ensures a place in Heaven whereas those who have sinned are cast into Hell.   To the Christians therefore, death is inseparably linked with Heaven and Hell, the day of Judgement and Life Hereafter.

An analysis of some of these religious facts will now follow.   An analysis of these facts will help throw light on religion among Hindus, Muslims and Christians, and the way religious philosophy guides the day to day lives of these people.   By researching religion further new insights could be developed for the sake of finding the best means of fostering and propagating fellowship and goodwill so that these religious groups could prosper harmoniously.   The excursions of philosophers, scientists, sociologists, anthropologists and psychologists into the religious domain have resulted in a huge volume of literature that is relative to religion and its manifestations.   This literature refers mainly to religion in other parts of the world, whereas religious in= quiries from the scientific point of view have been hardly applied to Indian South Africans, especially children.   A discussion of relevant literature follows in the next Chapter.

CHAPTER THREE

3.1   SURVEY OF LITERATURE

An examination of available literature indicates that very little or no research exists on religious differences and religious tolerance among Indian children in the Republic of South Africa.   For this reason the author has had to confine himself to material that was in some way related.   A survey of such related literature follows:

3.1.1   The Psychology of Religion

Brown (1973) feels that the year 1857 is of importance for the psycholo= gy of religion.   It was the year of fusion between psychology and religion.   The following historical developments are of relevance here. These developments either directly or indirectly hastened the amalgama= tion of psychology with religion:

3.1.1.1   Frederick Temple (1857) (later Archbishop of Canterbury), remarked that theology was gradually being forced into a psychological mould.

3.1.1.2   Sir Francis Galton (1883), in his *Fortnightly Review*, and his *Inquiries into Human Faculty*, attacked the manifestations of religion experimentally.

3.1.1.3   Others of note (according to Brown, 1973) who made significant contributions were people such as:

Enge (1899): *Christian Mysticism;*

Von Hugel (1908): *Mystical Element in Religion;*

Underhill (1911): *Mysticism;*

Starbuck (1899): *Psychology of Religion,* and

William James (1902): *Varieties of Religious Experience.*

A direct result of the fusion between psychology and religion was the
interest it generated in the practical tasks of healing emotionally dis=
turbed people.   The use of religion as a dimension in psychotherapy is
gaining momentum (Brown, 1973), and the manipulation of values, mores
and codes of behaviour is becoming increasingly popular in the rehabili=
tation of emotionally disturbed individuals (Lief, *et al.,* 1963, p. 67,
Psychotherapeia, 1975).

Psychotherapy in general, and pastoral psychology in particular, are
indebted to these early workers who contributed towards the use of
religion as a dimension in the practical tasks of healing.   In this
respect Brown (1973) is of the opinion that the contributions of the
following people are of importance:

3.1.1.4   Thouless (1923, 1935), in his *Introduction to the Psychology
of Religion,* linked instincts, mystical experience, unconscious proces=
ses, prayer and conversions to aspects in psychotherapy and religious
behaviour.

3.1.1.5   Crichton Miller (1925), in his *Psychology and the Preacher,*
drew attention to the effects of conflict, compensation, projection,
fantasy, auto-suggestion, sex, the oedipus-complex and symbolism in
religious behaviour.   He was especially concerned with the use of
religion in counteracting the material bias of psychoanalysis.

3.1.1.6   Hadfield (1923), in his *Psychology of Morals,* emphasized that
many psychoneurotic problems had their origins in moral and spiritual
causes.

The efforts of the above workers eventually led to the founding of the

Guild of Pastoral Psychology (1936).

Through the efforts of this Guild the preacher and the psychotherapist were brought closer together. They aided and abetted one another. The preacher had to get some sophistication in psychology. Conversely, the psychologist and the psychotherapist had to acquaint themselves with the techniques of using religion in psychotherapy. As a result religion assumed a new dimension, a kind of spiritual healing force in psycho=therapy. Walters (1964), subscribed to the value of this alliance between psychology and religion. In his *Religion and Psychopathology*, he emphasized that both neuroses and psychoses were interwoven with religious ideas among some maladjusted persons.

These early pronoucements were mainly introspective and anecdotal. It was not until adequate research methods were developed that scientific enquiries into the rôle of religion in psychopathology got under way. Concepts such as guilt, ethical standards, anxiety, moral judgements, affiliations, self-concept, and discrepancies between beliefs and practices, became increasingly popular topics for research. A discus=sion of some experimental work done in this area now follows:

3.1.2 Religion, Guilt and Ethical Standards

Black and London (1966) investigated religion, guilt and ethical stan=dards. They worked under the hypothesis that guilt and standards of ethical conduct in people vary in accordance with their religious affili=ations. For example, a code of behaviour deemed ethical in one religion may not be so conceived in another. The subjects were University students comprising 33 boys and 27 girls. They were drawn from three different religious denominations - Catholics, Protestants and Jews. The questionnaire administered had 33 items of high probability

moralistic evaluations. This study was designed to determine how university students of different religious denominations evaluated identical moralistic items in the questionnaire. It was hypothesized that the religious groups would use their own creedal evaluations to judge the moralistic items. Differences among them would reveal how a particular type of religious conditioning affects the perceptions and judgements of people. The results obtained revealed this to be the case. It was found that subjects used their own creedal evaluations to judge the moralistic items. This study evaluated the contention that religion does help in the formation of moral values.

3.1.3   Religion and Anxiety

Cooley and Hutton (1965), were concerned with the popular belief that religious people are more anxiety-ridden than non-religious people. The hypotheses examined were as follows:

(1)   are individuals with high anxiety-levels attracted to the emotional appeals of religion to a greater extent than those with low anxiety levels?

(2)   will their anxiety-levels decrease if placed in suitable religious settings and *vice versa*?

The subjects were 72 youths who were invited to a youth orientation camp. The youths were invited for the sake of re-awakening the religious spirit in them. The investigators were interested in observing the extent to which special services such as re-dedications, conversions and commitals assisted in reducing anxiety-levels in the subjects. To make such measurements possible, the anxiety-levels of the subjects were measured on the first day of camp and on the last day as well. The scale used for the measurement of anxiety-levels was the Ipat Anxiety Scale. By

comparing measurements of both days, the investigators determined whether there had been any changes. The results revealed that there was no relationship between anxiety and religious appeal. This study indicates that people pray probably for intrinsic reasons and not because they are neurotics.

3.1.4   Moral Judgement and Religious Beliefs

Wright and Cox (1967), wished to determine the following:

(1)   the degree of severity of moral judgements or matters relating to sex and co-education,

(2)   whether there was any relationship between indices of religious beliefs and actual practice of these beliefs in everyday life.

The subjects were 2 276 pupils from the 6th forms of 96 Maintained Grammar schools in England. The questionnaire used involved items such as religious beliefs and practices, attitudes towards the church, reli= gious education and moral judgements.

The hypotheses were substantiated significantly as follows:

(1)   that religious people are more severe in their moral judgements of various kinds of vices,

(2)   that there was a clear difference between those who were religious and those who were not religious relative to matters concerned with man's purpose, and aim in life, and the reasons for being on earth.

With respect to (2) above, the devout claimed that the individual's life

was not his own.   It was a concern of God, therefore man's behaviour
on earth should be intrinsically rather than extrinsically orientated.

3.1.5   Group Pressures and Conformity to Religious Beliefs

Barocas and Gorlow (1967), wished to observe whether it was group pressure,
through traditional conformity situations that was responsible in forcing
religious affliations upon certain people, or whether other factors were
also involved.   The subjects were 148 male university students of
Protestant, Catholic and Jewish faiths.   It was a questionnaire study.
The study revealed that specific religious affiliations were not due to
group pressures.   The truly religious, that is those who were intrinsi=
cally motivated, were not concerned with any specific ulterior motive,
aim or ideology by subscribing to any specific religious affiliation.
It appeared that their affiliations to particular religious organizations
were determined solely by the deeper, intrinsic qualities, the qualities
that the truly devout possess.

3.1.6   Self-Concept and Religious Intensity

Brown and Ferguson (1968), wished to determine whether religious beliefs
and practices contributed towards the development of a more mature self-
concept.   The subjects were 53 males and 77 females, all university
students.

The Who-Am-I, technique of Kuhn and McPartland (1954), was administered.
The subjects were classified into three groups according to the intensity
of their religious beliefs.   The results obtained were as follows:

(1)   Those who regarded religion as of importance for the
         development of a mature self-concept, constituted 57%
         of the most religiously intense;

(2)   Those who were moderately religious intense formed

37% of the group; and

(3)   26% constituted the least religiously intense of the

group.

The results of this investigation confirmed significantly, that there
was a high positive correlation between religious intensity and the
development of a mature self-concept.

3.1.7   Religious Beliefs and Positive Attitudes and Feelings

Apfeldorf and Smith (1974), wished to observe whether there was a
discrepancy between the religious beliefs of certain virtues and the
practice of those virtues in everyday life.   The subjects were 54 boys
and 68 girls from a group of 11th grade high school volunteers.

A questionnaire on religious belief and the Waldorp revision of the
study of values were used.   The results obtained, indicated significant=
ly that those who were exposed to early religious training readily
expressed ethical attitudes and feelings.   These investigators appear
to endorse the view, popularly held, that there is a need for early
religious training and education.   This investigation also evaluated
the existence of the following:

(1)   sex differences in religious beliefs; and
(2)   developmental changes in religious beliefs, among children.

3.2   INTRINSIC AND EXTRINSIC RELIGIOUS ORIENTATIONS

Argyle (1958) quoted by Brown (1973), observed that it is the genuinely
devout rather than the conventionally religious who obtain the maximum

benefit from religion.   The genuinely devout are those intrinsically

orientated whilst the conventionally devout are the ones extrinsically

orientated.   A discussion of these two terms follows:

3.2.1   Intrinsic Religious Beliefs

Brown (1973), defines intrinsic orientation as follows:

> "By contrast the intrinsic orientation regards faith as
> a supreme value in its own right.   Such faith tries to
> transcend self-centered needs, takes seriously the com=
> mandment of brotherhood that is found in all religions
> and seeks a unification of being."

It is a kind of brotherhood that is based on God's love.   The aim of

intrinsic faith, therefore, is to make life worthwhile and purposeful.

It gives man focus and direction in life.   It also acts as a guiding

beacon for man's aspirations on earth, and rescues man from the morass

of materialistic tensions and conflicts.   Intrinsic religious orienta=

tions elevate the mind of man towards lofty ideals for the sole benefit

of mankind.

Kuhlen (1952), feels that it is this type of religious orientation that

helps man in chartering a course through life.   Horrocks (1962),

observes that man always sees some good in religion, otherwise religion

would not have survived the centuries.   Schoeps (1967), provides ex-

haustive anthropological evidence to indicate that religion has been a

part of man's way of life since the dawn of history.   He illustrates

by providing a cross-section of religions past and present.   He shows

that wherever men gathered in appreciable numbers religion in one form

or another sprung up.   Men always picked up their heads in reverence to

a Superior Being who invariably represented the Protector, Sustainer and

the great Lover.   In his survey Schoeps gives an insight into the

religions of the Babylonians, Egyptians, Persians, Aztecs, Mayas, Incas,

Teutons, Slavs, Celts, Greeks, Romans, Chinese, Japanese, Hindus, Buddhists, Judists, Muslims and Christians.

Saverval (1971), is of the view that religion has persisted throughout man's history because it had within it enduring insights for the benefit of mankind.

3.2.2 Extrinsic Religious Beliefs

Brown (1973), defines extrinsic religion as an instrument serving the motives of personal comfort, security and social status, and not as a value in its own right.   According to this contention major human con= flicts in the past, in the name of religion, were due primarily to the transgressors' extrinsic religious orientations (Benson, 1960; Kay, 1968; Wilkes, 1969; Bull, 1969; Brown, 1973).

Materially orientated societies make capital of extrinsic religion. They state that one should focus upon some aim or task in life rather than on religion. To them religion has been a precursor of evils. They feel that the history of man's religion is besmirched with bloodshed and human misery.   They opine that religion has failed dismally in providing man with the means of living harmoniously with his fellow beings (Marshall, *et al.*, 1971; Mac Innis, 1972).

On the contrary, Millar (1969) states that a faith based on materialism is false.   It lacks permanence because the very foundations upon which such faith is based can be falsified as well as the ideology that goes with it.   The foundations upon which a materialistically inclined faith is based depends upon causality.   Cause and effect in nature are never static but always in a state of flux and change.   Acquisition of new knowledge in the face of old, can therefore, topple the very basis of

the old ideology and with it the philosophy that goes with it.   Man
will then be living from moment to moment only.   There would be no
permanence.   Constant flux and change are noted precursors of anxiety
and tension.   Uncertainties due to rapidly changing social systems are
maladaptive.   They increase emotional disturbance and mental disorgani=
zation (Horney, 1957; Harper, 1962; *Psychotherapeia*, 1975).

Again, faith based on intrinsic religion cannot be falsified because
this faith rests upon the assumption of an eternal, timeless, Superior
Being - a Being whom man revered through countless centuries since the
dawn of history.   This Eternal Being defies falsification.   A search
to find the means to defy His existence can assume the proportions of an
intellectually unmanageable task of astronomical proportions, leading to
the very limits of interstellar space (Radhakrishnan, qupted by Marlow,
1952).   With due cognisance of such presumptions, Diehl (1970), feels
that religion as a vital aspect of man's life will persist till the end.

3.2.3   The Importance of Religion in the Lives of Children

A religion that is intrinsically orientated helps in the development of
the child.   The fact that religion serves a useful purpose in moulding
the lives of children so that they could enter into loving productiveness
with their fellow beings, is subscribed by a large body of psychologists
(Cole, 1948; Kuhlen, 1952; Cruze, 1953; Wattenberg, 1955; Jersild,
1961; Horrocks, 1962; Garrison, 1965; Hurlock, 1967, 1972).   Piaget
(1968) indicates that there are distinct developmental stages in the
child's conception of God.   He first believes in a Superior all-
pervading Being whose authority is absolutely unquestionable;   at a later
stage this belief is more altruistically orientated.   Both Elkind (1963)
and Goldman (1964), found developmental stages in the child's

religious thinking. This observation is of importance to the religious education of the child. The fact that all children are incapable of assimilating the same kind of religious facts underscores the need to have graded material for the various age groups. Readiness to learn certain kinds of facts emerges as a result of a combination of factors some of which are maturation, and practice. These facts about readiness have been experimentally evaluated by such investigators as, Carmichael (1927); Cruze (1935); Dennis (1940); Gesell and Thompson (1929), and Davis (1947), (Quoted by Morgan and King, 1966.) Peterson (1966), states that it is rather a fallacy to teach the child some material for which the readiness to learn has not emerged.

In the area of readiness for the learning of basic skills, the work of Piaget, Elkind and Goldman looms large. A survey of their findings follows:

3.2.4 Piaget's Theory of the Development of Moral Judgement in the Child

Piaget (1962), brought together aspects of cognitive and affective development that he had treated separately, previously. These aspects were moral reasoning and logical thinking. He hypothesized a correspond= ence or parallelism in these two kinds of development. The presumption involved is that just as the child uses his mental apparatus to solve a logical problem and arrive at an answer, so does he apply the same kind of mental reasoning to arrive at a decision on a moral issue (Kay, 1968).

Piaget (1968), in his discussion of moral judgement notes that it is possible to observe a pattern emerging as the child grows older. Initially, the child in its early years is dominated by a morality of

constraint. The term, constraint implies a morality based upon an external authority that is accompanied by a rigid conception of rules. The morality of constraint is followed by the morality of co-operation. This kind of morality involves and appreciable degree of flexibility in the conception of rules. A discussion of the moralities of constraint and co-operation follows:

3.2.4.1 The Morality of Constraint

This morality has its beginnings in the rule-regulated play of infants. He begins imitating aspects of the play. He comes to associate rules with the father or elders. Eventually this conception is transferred to God. The line of demarcation between the parent-figure and God is not well defined. As a result the child develops the notion that rules develop from some transcendental authority, who is absolutely unquestion= able. Flouting a rule, therefore, is a sacred matter.

The following extract from *Moral Judgement of the Child* (Piaget, 1968) illustrates:

> "Zamb (6 yrs): "Why must we not tell lies? - because God punishes them - and if God didn't punish them? then we could tell them."

This statement illustrates the basic fact involved in the morality of constraint, that is, that the child regards rules whether governing a game of marbles or social relations.as a necessary or inevitable aspect of the absolute world-order, that exists in the same uniform way and never subject to fluctuations or changes. The child imbued with this kind of absoluteness of things is reluctant to allow for special con= tingencies to alter his perceptions. He remains rigid in his belief even at the expense of a fellow being. For example, the child may judge the degree of the naughtiness of an act by referring to the size of the damage caused; the bigger the damage the naughtier the act and

vice versa (Piaget, 1968).

The child cannot as yet comprehend that his ideas on such matters belong to him only. He believes that everyone shares his point of view - there could be no other way. Consequently, he assimilates all that enters his consciousness in his own private way, confident that he is right all the time and in conformity with the thinking of all the others in his social world. In this way he reveals idiosyncratic, socially isolated patterns of behaviour. As a result he flouts rules and regu= lations at every turn, convinced all the time that he is right. Under the circumstances it is a tenable assumption, that a child in the ego-centric stage will be rigid in his behaviour when interacting with diverse groups.

At about 9 or 10 years the morality of constraint gives way to the emergence of the morality of co-operation. Piaget (1962, 1968), does not, however, lay hard and fast rules about age limits when these transitions occur. It seems that in making arbitrary decisions about age limits he has taken into cognizance, the fact that development is intertwined with certain maturational and cultural processes which are not uniform in all people. A discussion of Piaget's morality of co-operation follows:

3.2.4.2   The Morality of Co-operation

In this stage the child brings to the perceptual situation some memory of the past, some consideration of the immediate future and an awareness of a logical necessity. Briefly, this stage is predominated by the conception that rules can be changed to suit particular contingencies. The earlier conception of the absolute inviolability of a rule owing to Divine origins gives way to more altruistic considerations. Since the

child conceives of rules as man made and not God made, he modifies

rules in conformity with reciprocal peer agreements. He no longer

labours under the notion that the bigger the damage the naughtier the

act. His ideas about punishment also change, He realizes that

punishment is no longer the inevitable part of the world order or Imma=

nent justice over which people have no control. The following quotation

from Piaget (1968), illustrates how the child's thinking changes from

intolerance to tolerance (constraint and co-operation).

> "Drus (7 yrs): "It is naughtier to a grown-up. They
> are bigger than children, and little children can say
> naughty words to each other (cf. definition of a lie)."

The same question put to an older child by the investigator (Piaget)

realized the following type of answer:

> "Cal. (12 yrs 8mth): "Sometimes you almost have to tell
> lies to a grown-up, but it is rotten to do it to another
> fellow."

The older child can now think and reason in the abstract. Equity and

compassion emerge in reciprocal relationships. The child will be

prepared to break a rule if he feels that the act will benefit some

poor fellow. This obvious change in emphasis from rigidity to flexi=

bility also translates to other spheres of the child's activities. It

is presumed therefore, that the change from rigidity to flexibility

will also appear in the religious sphere. If this is so, then older

children should reveal a greater measure of flexibility or tolerance in

their religious relationships with others. A discussion of Piaget's

constraint and co-operation and their relevance to intolerance and

tolerance follows:

3.2.5   The Relationship between Piaget's Moralities of Constraint

and Co-operation and the Concepts of Intolerance and Tolerance

A dominant feature in the morality of constraint is the concept of ego-

centricism.   Flavell (1968) defines ego-centricism as follows:

> "It denotes a cognitive stage in which the cognizer sees
> the world from a single point of view only - his own but
> without knowledge of the existence of other viewpoints
> or perspectives."

This type of behaviour appears to dominate the thinking of little children.   It is very much pronounced in early childhood but mellows down as the child attains maturity and grows towards middle childhood. Intolerance appears to be a conspicuous feature of ego-centric behaviour. Flavell (1968), opines that the ego-centric tendency may also appear in adolescence (the period of storm and stress), in a somewhat transformed manner.   It may appear as an extension of the thought that takes the form of a naive idealism bent on intemperate proposals of reforming the world and re-shaping reality.   Or there may be total disregard for the practicability of such a proposition or the obstacle blocking the proposals.   Piaget (1968) also agrees that under certain conditions ego-centric behaviour may extend into adulthood, especially when there is rigid induction of specific modes of behaviour.   The rigid induction of specific modes of conduct results in the development of extrinsic religious orientations.   In these types of inductions, referred to as "strictly conformist societies", Piaget (1968)   the development of in-group prejudices follow which in turn mar human relationships.   Such groups revert to earlier forms of ego-centric behaviour with all the adverse human traits involved: selfishness, greed, jealousy, intolerance, conceit and the pursuance of one's own interests at the expense of the interests of others.

These Piagetan views appear to have a special significance for the education of children.   Absolute, rigid conditioning with the sole aim of developing an unswerving faith in a specific religious ideology may result in creating the opposite effect and thereby defeating the very

purpose for which religion stands. Wilson (1971), indicates that
contemporary religious education as an aid to the education of the
emotions is geared towards co-operation, flexibility and harmonious
reciprocal relationships. This kind of education is a more feasible
proposition in later childhood and in adulthood wherein the co-operative
tendency is predominant. A recent feature worthy of note is the effort,
of inter-religious dialogue between international religions, at fostering
inter-religious tolerance. This appears to be a step in the right di=
rection. Since adverse religious motives that were extrinsically
orientated caused much human suffering and misery on the world scene.

3.3   THE RELATIONSHIP BETWEEN THE CONTENT OF RELIGIOUS EDUCATION
        AND DEVELOPMENTAL NEEDS IN CHILDREN

Using the semi-clinical method of Piaget, Elkind (1963) investigated
spontaneous meanings in children's religious beliefs. The subjects
were children from the Jewish, Catholic and Protestant faiths. There
were two age groups. The first group consisted of children between
5 to 11 and the second group was made up of children between 6 to 12
years. The children were interviewed individually and questioned on
six novel items of their religions. The results obtained revealed a
clear differentiation in the children's religious thinking. There
were three well defined stages. Elkind summarized the results as
follows:

> "Identity is at first vague and undifferentiated and
> has no more significance than a proper name. Gradually
> the child comes to think of his religious identity in
> terms of particular objects and certain religious
> practices."

This kind of identity generally differs among the religious denominations.
Differences in religious practices among the different denominations

help the child in differentiating one denomination from another. It
appears that the child only comes to realize religious identities in
terms of religious practices at about 11 or 12 years of age. It is
felt that it is only then that the child is mature enough to reflect on
his own thoughts. For these reasons it is inadvisable to try to instil
the same religious virtues in children of various ages.

Elkind's (1963) research was closely followed by Goldman (1964). The
Education Act in Great Britain (1944), emphasized that more information
should be derived about the religious needs of children before embarking
on any syllabus for religious education in schools. Owing to the
paucity of research evidence on children's religious beliefs, Goldman
(1964), decided to remedy the breach by researching religious develop=
ment in children. He was particularly interested in the developmental
changes in children and the kinds of religious material that were
suitable for each stage of development. He researched among subjects
ranging from 6 to 18 years of age. His subjects were divided into
groups of 20 each matched for sex, age, ability, religious habits and
social background. Altogether 200 subjects were investigated, selected
at random from schools in the midlands and the south of England, situated
in urban settings. His major research apparatus consisted of a paper-
and-pencil test called "The Picture and the Religious Story Thinking
Test" (a test suitable for children between 6 to 18 years). Each
subject was interviewed. The results were as follows:

3.3.1   Bible Concepts

Clear developmental changes with respect to the children's concept of the
Bible were realized. At first their ideas of the Bible were rather
crude, magical orientations, written by God or some powerful adult. To

them these matters of the Bible were unquestionably true in every detail but were thought of as matters that had happened a long time ago since God had died or returned to Heaven. Then as the children advanced in age they moved onto the veneration of the Bible as a true Book, an ancient Book because it contained holy stories about God and Jesus. This tendency was a marked feature among children of higher ability in the second year of secondary education.

3.3.2   Concepts of the Nature of God

It was found that infants perceived God as an old bearded man. Junior children viewed Him as a superman with magical qualities and with super= natural signs symbolizing His power. By the 12th year the children appeared to have discarded the physical qualities attributed to God and attributed Him with symbolic, abstract and non-physical qualities.

3.3.3   Concepts of God in the Natural World

Infants and very little children conceived of God as intervening directly and physically in the natural world. For them God had magical and miraculous qualities. The interpretations later followed a dualistic trend and this appeared to be characteristic among late juniors and secondary children. The dualistic trend conceived was as follows: one school of thought felt that God was a physical Being and the other regarded Him as a representative of cause and effect in nature.

3.3.4   Concepts of God's concern for Man

Infants feel that God cannot possibly love naughty people. The primary school child sees God primarily as a person concerned with retribution, replacing love with vengeance and with the capability of doing anything. Among secondary school children there was a firm belief that God's love

is universal. His love is associated with justice, order and fairness.

3.3.5   Concept of Jesus

Jesus was regarded by infants as a good man and a worker of magic. It is only the mid-secondary children who appeared to have grasped the true nature of Jesus's mission on earth. However, the stages of thinking in the concept of Jesus did not appear to be clearly differentiated.

3.3.6   Concept of Prayer

There were three clear stages evident here, ranging firstly, from pure magic to semi-magic and finally to non-magic, at about 12 to 13 years. Of relevance here is Piaget's views on developmental changes in the thinking of children. Bull (1969) also made a similar observation by quoting Harms's (1944) research. Kay (1968) went a step further by stating that Harms's research was a literal echo of the Piagetan view. Harms (1944) found three clear stages, viz., the first stage consisting of ego-centric, unsystematic, credulous behaviour with God being con= ceived as a giant as portrayed in fairy tales. In the second stage religion appeared to be entirely in concrete form. God, to this type of child, appeared as a localized, tangible figure whose existence was confirmed by historical events. Finally in the last stage religion appeared to be personalized and spiritual in character. God took the form of a spiritual rather than a physical force. Religious realities assumed intangible and non-material connotations.

3.4   THE DESIRABILITY OF FURTHER RESEARCH INTO THE RELIGIOUS DIMENSION

Religion in children has not been researched very much. What information

there is, with a few exceptions, involves largely different denominations of the Christian religion. Studies involving non-Christian religions are rare. The available literature is largely interested in:

(1)   Children's views of God.

(2)   Religion in old age.

(3)   Differences between religious and non-religious people with respect to prejudice, tolerance, human relationships, guilt feelings, ethical standards, anxiety, moral judgements and evaluations of the self-concept, all involving adult subjects.

Of particular importance to his investigation is the realization that very few developmental studies are available. The present author has been unable to trace much research material which investigates, develop= mentally, the concepts of tolerance or acceptances of Christian and non-Christian religions among children. The absence of such studies has contributed to the paucity of material for this, the review chapter. However, it is necessary to obtain such information, especially among Indian children who form part of the heterogenous religious population of the Republic of South Africa.

The present research, using a recognized research technique, was planned to remedy the position somewhat. The technique depended upon was the semantic differential technique which is more fully discussed in the next chapter.

CHAPTER FOUR

4.1   THE MEASUREMENT OF MEANING

4.1.1   Introduction

Scientists, philosophers and linguists, together with all those concerned with meanings and their implications, have not as yet arrived at a satisfactory definition of meaning.   For this reason Osgood, Tannenbaum and Suci (1964) state, "There are as many meanings of meanings as meanings themselves".

The lack of an acceptable definition of meaning has compelled those disciplines that have to use meanings, to develop their own frames of reference.   Kreitler and Kreitler (1968), remark that a psychologist's definition of the meaning of a word may differ from a linguist's defini= tion of the same word.   Unlike the linguist's point of view the psycho= logist's chief concern is with the various types of behaviours that meanings produce.   By observing behaviour the psychologist works back= wards and tries to deduce the kinds of meanings that may have given rise to those behaviours.   The implication here is that how a person behaves in a given situation is a fair indication of what that situation means to him. Osgood, *et al*. (1964), attempt to explain psychological meaning by means of the semantic representational, mediational process.

4.1.2   The Semantic Representational Mediational Process

The semantic mediational process is believed to occur between two contiguous relationships,   viz., the sign on the one hand and the significate on the other.   The sign can either be a pattern of sound

waves, a printed word or picture. The significate can be a stimulus in
contact with the organism and which regularly and reliably produces a
certain pattern of behaviour in a given situation. From the above it
may be deduced, therefore, that whenever a sign that is not the signifi=
cate but is contiguous with the significate, it can possibly acquire an
increment of association with some part of the total behaviour elicited
by that significate. Osgood, *et al.*, (1964) explain this process as
follows: The word hammer (sign), is not the same stimulus as the
physical object hammer it signifies, yet the word hammer does come to
elicit behaviours that are in some manner relevant to the physical object
hammer. The mediation process by which this kind of relationship is
presumed to occur is believed to be a neural process, the exact nature
of which is still not clear. Pfaffman (1969), (quoted by Brody, 1965),
has suggested that the latter components are presumably mediated
neurophysiologically by an affective system involving the limbic system.
Classical conditioning presumes that signs achieve their meanings simply
by being conditioned to those reactions that were originally made to
their significates. For example, the printed word hammer (sign)
could achieve its meaning by being conditioned to the physical object
hammer, through the medium of association. In this case the significate
(unconditioned stimulus) is substituted by the sign (conditioned stimu=
lus). Therefore, under classical conditioning procedures, the signi=
ficate is substituted by the sign and in the process acquires its
meaning. In spite of the simplicity and limitations of the conditioning
viewpoint, the objective formulation here provides a first-step inter=
pretation of meaning as a semantic, mediational, representational
process. A discussion of the semantic mediational process now follows:

4.1.3   Meaning as a Representational Mediation Process

According to this view words represent things because they produce some
replica of the actual behaviour towards those things.   It is presumed
that some underlying mechanism links certain signs to particular signi=
ficates.

It is this type of underlying mechanism that is responsible for the
very large number of signs that arise in everyday communications.   The
mediational, neurophysiological process may ramify in a similar way to
other associations, thereby producing varied meanings to any one particu=
lar stimulus.   As an example the word horse (the sign), developed out
of the physical object horse (the significate); this can be generalized
to other similar animals such as mules, ponies and zebras.   These
generalizations emerging from a sign are termed assigns.   Osgood, *et al.*
(1964), give the following example to show how assigns develop from
signs: They state that the word zebra is understood by most six-year-
olds, yet few of them have actually encountered the actual animal (zebra)
in their lives.   In spite of the discrepancy, these people appear to
develop an adequate idea of the animal, to the extent that they are able
to recognize the animal should they encounter it for the first time.
Such recognition could be facilitated by associations such as: zebras
run like horses, are generally found wild, have stripes, resemble the
size and shape of horses.   In like manner numerous examples could be
quoted to indicate that these kinds of generalizations are commonplace
in everyday life.   The dictionary is a fairly good example of assigned
meanings.   It works from the premise of what is known to that which is
unknown.   When one looks up the meaning of a new word in a dictionary,
previous associations are combined to provide the new meaning.

Osgood *et al.* (1964) state that the little "black bugs" on printed pages are definite assigns. These visual patterns are seldom associated with the objects they signify but rather with the auditory signs created by child and teacher as they verbalize. The majority of assigns in a book appear to develop in this way. The development of connotative meanings towards specific signs and assigns depends upon the kinds of experiences that were associated with those signs. The development of assigns from signs therefore, depends on various factors, important among these is the kind of relationship the person had with respect to that particular sign or significate. For example an unpleasant experience with a horse will realize an unpleasant experience with the sign horse, or its assign mule. For these reasons the idiosyncrasies of individual experiences are reflected in the kinds of connotative meanings they ascribe to certain concepts and significates. This is of importance to communications among individuals with differential cultural backgrounds. Of relevance here, is the statement from Morgan and King (1966), who state that the concept of time and time perspectives among various cultural groups give rise to difficulties in conducting matters at the United Nations Affairs. They quote as follows:

> "Most Anglo-Saxons believe that abiding by regular
> scheduling is appropriate. Eastern Europeans tend
> to be more flexible and often would prefer to finish
> the business at hand before adjourning for lunch.
> Far Easterners tend to conceptualise life and time as
> a continuous stream;   from their viewpoint, the
> discussion at hand should continue and those who must
> leave should be free to do so as the occasion requires,
> without feeling that this is interrupting the ongoing
> meeting."

4.2   THE PROBLEM OF MEASURING MEANINGS

It is assumed that meanings give rise to specific kinds of behaviours,

e.g., the meanings various people have towards a particular sign will reflect the kind of behaviour they will display when that sign is present. The observable index of the experience of a particular situation is be= haviour. Therefore, in our efforts at measuring meanings we are left to the measurement of behaviour, because behaviour is the only aspect of the cognitive process that is amenable to measurement, all else is merely inferred. The quantification and interpretation of meanings are there= fore, indirectly done through measurements of behaviour. We work backwards from behaviour to meanings. We generalize that a particular type of behaviour could have only stemmed from a specific type of meaning the persons may have had. For this reason the observation of behaviour occupies a central position in the psychological field. Over the years various methods have been developed to measure behaviour. Of relevance here are the methods that assume to measure aspects of behaviour for the sake of quantifying specific meanings. A discussion of some of the more common methods that have been used by psychologists and behaviourists alike, follows:

4.2.1   Physiological Methods

These methods use such behavioural responses as action potentials in the striate musculature, salivary reactions and galvanic skin responses. With the help of the physiological methods the investigator isolates as best he could direct behavioural correlates which he presumes represent behavioural meanings. Some of the methods used in this are as follows:

4.2.1.1   Action Potentials in the Striate Musculature

With reference to this technique it is felt that "thought" represents subliminal speech. This implicit speech can activate certain implicit muscle responses. So periods of directed "thought" are used as stimuli

for evaluation of meanings. This type of "thought" is measured by sophisticated amplification and recording methods. Jacobson (1931, 1932), Max (1935, 1937) - both quoted by Osgood, et al.(1964) - inves= tigated detailed records of muscle potentials during periods of directed thought. Although some consistent, localized correlations were realized that were believed to represent implicit muscle responses, yet these indices remained crude and cumbersome. An important criticism levelled at this technique was as follows: A recorded activity realized electri= cally was in no way a valid technique in providing a measure of the meaning of a sign since the meaning of a sign cannot be read from a record of an electrical nature.

4.2.1.2   Salivary Reactions

Using himself as subject, Razran (1935, 1936), conducted an investiga= tion into the relationship between stimulus words and salivary reactions. He worked under the hypothesis that the more familiar the word the greater will be the secretion of saliva and *vice versa*.   In designing the experiment he chose words from various languages with which he was differentially familiar.   Multi-lingual words all of which denoted the concept saliva in their own languages were used.   Razran's familiarity with these words ranged from the most familiar words to least familiar or unfamiliar words.   He was most familiar with his own Russian term for saliva.   In the actual experiment he muttered each of the words ranging from the most familiar to unfamiliar.   He measured the amount of saliva secreted after each successive muttering.   The results indica= ted that his own childhood Russian term for saliva succeeded in the largest amount of secretion.   The word he was most unfamiliar with realized the least amount of saliva. In this way Razran demonstrated that a relationship existed between the meaningfulness of a term and

the amount of saliva secreted.

4.2.1.3 Galvanic Skin Response

The galvanic skin response technique presupposes an index of meaning at the autonomic level. This theory presumes that the autonomic system can be activated by uttering certain stimulus words. It is assumed that the stimulus words are meaningful to the individual, therefore there would be successful arousal of the autonomic system. An extension of this presumption leads to the belief that the more meaningful the stimulus words the greater the arousal of the autonomic system and *vice versa*. For this reason stimulus words are used to measure the autonomic responses. It is presumed that such measurements provide a reliable index of meaning. Kreitler, *et al*. (1968) regard the G.S.R. re= cordings as of doubtful validity since they are presumed to provide only a restricted property of meaning, probably its novelty, complexity and emotional value.

4.2.2 Learning Methods

Usually nonsense and meaningful material are frequently used to measure meanings of words. The presumption here is that the more meaningful the word the more easily will it be learned. There is therefore, a positive relationship between the meaningfulness of a word and the ease in learning and retention. Learning therefore, forms the variable in such investigations. Osgood, *et al*. (1964) criticize this method at quantifying meanings as follows: at best these techniques concentrate upon how learning occurs in the individual rather upon the use of learning as an index of meaning. It is thought that these techniques have been useful in developing laws of learning rather than upon quantification of the meanings of words.

4.2.3   Perceptual Methods

These methods work under the hypothesis that there is an positive rela=
tionship between the perception of stimuli and recognition, the more
meaningful the stimuli the greater the rate of perceptual recognition.
Bruner (1948) found that tachistoscopic recognition of stimuli was
greatly facilitated by the meaningfulness of the stimuli.   Bruner and
Goodman (1947) noted that personal values of individuals also affect
speed of perception and recognition, and thereby have an effect on
meanings.   Osgood, *et al.* citicize this technique of measuring meanings,
by pointing out that at best, these perceptual methods appear to measure
alternate meaning forms, rather than meanings in their pure states.

4.2.4   Association Methods

A major criticism of the association method is that it does not provide
us with an index of meaning in the sense that there is no sharp line of
demarcation between the meaning of a sign and its association.   This
implies that an erroneous conception of meaning can develop by the
subject associating with the sign rather than with the meaning of the
sign.   If the same sign recurs within different contexts it is possible
that the subject may respond to the sign itself rather than with the
context in which the sign occurs.   Therefore, the same sign may realize
the same meanings even if the sign occurs within different contextual
backgrounds.   Nygren (1972) found that meanings were influenced by
different contexts.   Wilcox (1966) observed that the particular
idiosyncrasies of individuals influenced their meanings of particular
signs.

4.2.5   Scaling Methods

Scaling methods have been used quite extensively for the measurement of aspects of traits, attitudes and abilities.   However, little use has been made of scaling methods as measures of meanings of words. Mosier. C.F. (1941) used a scaling technique to tap the evaluative dimension of meanings.   This attempt appears to be the first systematic effort at the measurement of the meanings of words.   By using an eleven point scale, with bi-polar limits of favourableness and unfavourableness, Mosier, was able to tap the evaluative dimension quite well.   Subse= quently, it was shown that there are many other dimensions in which meanings vary.   So Mosier's efforts was of limited value.   Osgood, *et al.* (1957, 1964) and Snider and Osgood (1969) provide experimental evidence to indicate that there are other dimensions of meaning besides the one tapped by Mosier's technique.

4.3   THE SEMANTIC DIFFERENTIAL TECHNIQUE

Osgood, *et al.* (1957, 1964) and Snider and Osgood (1969), point out that apart from the denotative meanings of concepts there are also connotative meanings.   The assumption here is that the connotations assigned to a stimulus may be considered as the affective meaning of the stimulus presumably mediated neurophysiologically by an affective system.   The semantic differential technique developed by Osgood, *et al.* (1964), is designed to measure the connotative meanings of concepts. The semantic differential was originally used as a research tool but since has found widespread use in many other fields.   Three basic dimensions of meaning are measured by the semantic differential.   The dimensions are referred to as the evaluative, potency and activity factors.

Factor analysis studies have shown that the three factors of evaluative, potency and activity cover a large range of meanings (Osgood, *et al.*, 1957, 1964). The semantic differential has been mainly used to analyze the meanings of concepts with respect to these three dimensions. Each semantic differential uses a large number of scales. Studies have shown that they can range from two (Wright and Cox, 1967), to twenty (Osgood, Tannenbaum and Suci, 1964). A basic presumption in using a large number of scales is to help clarify the meanings of a concept. Osgood, *et al.* (1964) state that very simply the technique resembles a game of twenty questions. By asking a large number and a variety of questions about a concept, the meaning of that concept gradually emerges. For example questions such as, Is it fast or slow? Is it hard or soft? Is it happy or sad? can help summarize and develop specific meanings in the minds of individuals. Instead of questions the semantic differential uses scales.

4.3.1 Scales of the Semantic Differential

The semantic differential consists of a concept and scales. Each scale is a straight line function with a neutral zero at the midpoint. The opposite poles work in apposition, positive and negative. The positive pole is equivalent to the term (agree) of attitude scales and the negative to the term (disagree). As a further illustration the posi= tive pole represents favourableness whereas the negative pole indicates unfavourableness. The midpoint zero is the lower limit of the positive and the negative poles. The scales of the semantic differential are therefore, of the interval type, e.g.

Mother

	2	1	0	1	2	
Good						Bad
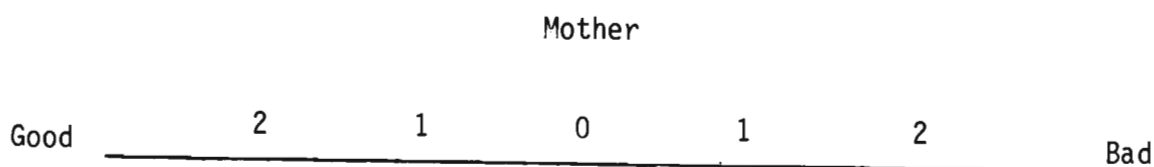
This technique, therefore, uses a combination of scaling and association procedures. The scales selected should be as representative as possible of the semantic space (see below). In this respect the authors of the semantic differential state,

> "We usually select about three scales to represent
> each factor, these being maximally loaded on that
> factor and minimally on the others." (Osgood, *et al.*, 1964, p.78)

As an example the evaluative factor can be represented by scales such as good-bad, clean-dirty, pretty-ugly. The potency factor may be investi= gated by scales such as hard-soft, strong-weak and large-small. Scales such as sharp-dull, fast-slow and hot-cold are considered maximally loaded on the activity factor and therefore, taken to tap the activity dimensions in meanings. A scale can range from 5 to 11 points or more. According to Osgood, *et al.* (1964), college students seem to yield the best results with a 7 point scale whereas grade children seem to function well with a 5 point scale.

4.3.2   Concepts of the Semantic Differential

The authors, Osgood, *et al.* (1964), state that in selecting concepts the investigator is expected to use good judgement. Good judgement in this context implies that a lot more information can be derived by using concepts that vary as much as possible rather than by using concepts that are closely related in meanings. Therefore, concepts with single unitary meanings are preferable in order that the subject is prevented from vacillating in what is being judged. Familiar con= cepts, or concepts whose meanings have been explained to the subjects, realize better judgements otherwise spurious regressions to the middle of the scales may occur. The usage of familiar concepts in this broad sense can, therefore, be infinite. The concept to be judged can be in

printed form, be verbal, auditory, tactile, kinesthetic or may appear as a single word, noun phrase, or a sentence.

The concept being judged can also be a picture, or pictures, or a three-dimensional model or any other type of perceptual stimuli that permits judgement with the semantic differential scale. The judgement of a concept with the help of a scale provides what is termed a semantic differential for the concept. A judgement of this type of rating meanings follows the congruity principle.

4.3.3 The Principle of Congruity

This principle implies that judgement of a concept is preceded by a mediation process that occurs as a vacillation between the positive and the negative poles of each scale. Osgood, *et al.* (1964) define the principle of congruity as follows,

> "Whenever two signs are related by an assertion the mediation reaction characteristic of each shifts towards congruence with the characteristic of the other. The magnitude of this shift being inversely proportional to the intensities of the interacting reactions."

It appears therefore, that the congruity principle assists in determining polarization of judgements. According to Brody (1965), the polarization or direction of judgement is determined by the favourable or unfavourable inclinations of the subject towards the concept. A favourable inclina= tion will realize polarization towards the positive end of the scale, conversely an unfavourable inclination will show a regression towards the negative pole of the scale. Check marks nearest the poles will indicate the highest polarity values, either positive or negative, conversely, check marks near the midpoint of the scales will indicate low polarity values. Differential ratings occur between the midpoint and the pole for either the positive or negative halves of the scale.

The above facts are illustrated by means of the following examples:

(1)   Low positive polarity score
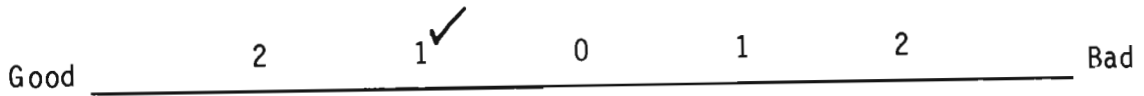
Good _____ 2 ____ 1✓ ____ 0 ____ 1 ____ 2 ____ Bad

(2)   Low negative polarity score
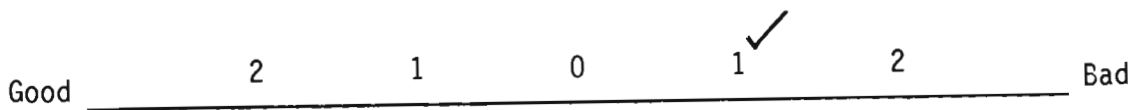
Good _____ 2 ____ 1 ____ 0 ____ 1✓ ____ 2 ____ Bad

(3)   High positive polarity score

Good _____ 2✓ ____ 1 ____ 0 ____ 1 ____ 2 ____ Bad

(4)   High negative polarity score

Good _____ 2 ____ 1 ____ 0 ____ 1 ____ 2✓ ____ Bad

(5)   Midpoint score

Good _____ 2 ____ 1 ____ 0✓ ____ 1 ____ 2 ____ Bad
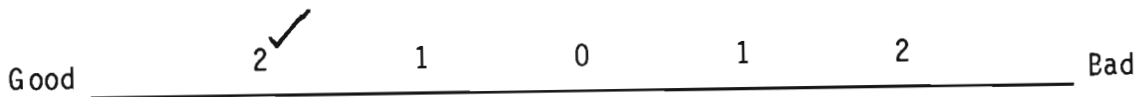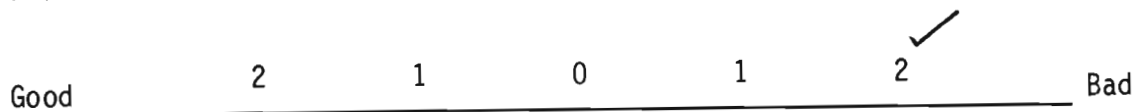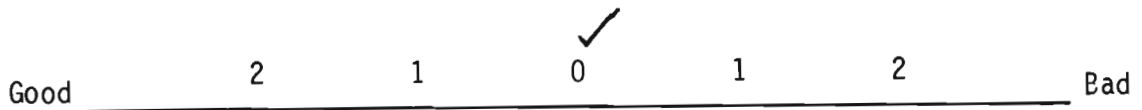
A check at the midpoint of a scale appears to be rather ambiguous. Brody (1965) states,

> "It was felt that Osgood's standard form was ambiguous; for when S rates a stimulus at the midpoint of a bipolar scale, it is not clear whether he means to indicate that the sti= mulus is neither of the two opposites, e.g., neither good nor bad, or that it has both of the opposites in equal strength."

Consequently, he proposed the usage of values 1 to 7 for a seven-point scale with value 1 for the high negative polarity rating and thereby proceeding numerically to the value 7 for the high positive polarity

rating. With reference to examples (1) to (5) above, transformation of the values reflected along each scale from right to left should appear as follows: the extreme negative score in (4) will appear as value 1; the low negative polarity score in (2) as value 2; the midpoint value in (5) as 3; the low positive polarity score in (1) with a value of 4 and finally in (3) the high positive polarity score with a value of 5. This type of transformation for scoring purposes obviates the difficulty in the Osgood presentation which does not allow for ambivalent responses. Brody's scheme appears to have influenced the investigations of Rosenbaum and McGinnies (1969). They also assigned values 1 to 7 starting from the negative pole.

Strickter and Zak (1966) investigated the relationship between the level of intelligence and the ability to use the semantic differential scales. They noted that the more involved the scale the less was the ability of lower intelligence groups to cope with it. According to them these findings are in keeping with those of Kerrick (1956), Light, Zak and Gardiner (1965), Neuringer (1963), Brod, Kernoff and Terwilliger (1964) and Osgood (1964) - quoted by Snider and Osgood (1969).

4.3.4   The Choice of Scales for the Semantic Differential

Any number of scales may be used ranging from 1 to 20. The choice of the number of scales to be used depends upon the interests of the inves= tigator, the type of concept and purposes of research. Wilcox (1966) used only three scales to judge a total of 1 650 concepts. These scales were good-bad; active-passive, and pleasant-unpleasant. Marais (1967) used five scales. They were as follows: good-bad; negative-positive; cruel-kind; dishonest-honest, and valuable-worthless. McCrosky (1968) used six scales: good-bad; wise-foolish;

fair-unfair; beneficial-harmful; right-wrong and positive-negative.

Osgood, *et al.* (1964) point out that care must be exercised in the selection of scales. In order that they extract as much meaning as possible the scales should be as representative as possible in the various ways in which meanings vary. The ways in which meanings vary are legion. The magnitude of variations in meanings are illustrated by what is termed the semantic space. Osgood, *et al.* (1964) state that the magnitude of meanings tapped by the semantic differential is positively related to the amount of semantic space tapped by the scales. The more representative the scales of the semantic space the greater the extraction of meanings.

4.3.5   The Semantic Space

Osgood, *et al.* (1964) state that the semantic space is a mental con= ception of a region of some unknown dimensionality, Euclidian in character. The space is presumed to be explored by the scales that constitute the semantic differential. It is assumed that the majority of meanings within this space vary along three dimensions, viz., evaluative, potency and activity. By far the evaluative factor realizes most meanings. People are generally concerned with evaluations such as, Is it good or bad? Pretty or ugly? Clean or dirty? It is for this reason that the evaluative dimension tapped by the evaluative scales of the semantic differential realize the greatest frequency in judgements. The potency dimension appears to be the second in magni= tude. This dimension is explored by scales such as hard-soft, strong-weak, and large-small. The potency dimension presumes concern of people with such preoccupations as how strong, potent, durable or tough is it. The dimension is presumed to be explored by scales such as

the ones concerned with endurance, power, mass and durability, etc.
The third dimension of note constituting the semantic space is that of
activity. Speed, alertness, action and active involvement also occupy
the thoughts of people. The third dimension, activity, is therefore
assumed to be measured by scales such as sharp-dull, hot-cold, and fast-
slow. There are other dimensions of lesser importance, such as density,
orderliness, reality, and familiarity, appearing in that order (Bentler
and LaVoie, 1972). Kreitler and Kreitler (1968), after an exhaustive
study of the various methods that have been advanced to measure meanings
of concepts, came to the conclusion that the semantic differential
technique taps the evaluative, potency and activity dimensions of
meanings quite well. Brody (1965) indicates that the evaluative di=
mension is most clearly defined by the good-bad scale, potency factor
by the strong-weak and the activity dimension by the active-passive
scale.

4.3.5.1   Semantic Space of Different Cultural Groups

Inter-scale interaction appears to diffuse the sharp lines of demarcation
among the evaluative, potency and activity factors.   In a particular
investigation a certain scale may fall in the evaluative dimension, in
the potency dimension in the next and in the activity dimension in the
third. Crockett and Nidorf (1969) state that this tendency towards
scale interaction seems to occur more frequently among subjects drawn
from different cultures or when there are marked differences in the
content of the concepts. Osgood, *et al.* (1964) quote anthropological
studies to indicate that the generality of the semantic space shows
certain similarities among peoples widely separated in space and time.
Primitive cultures such as Aztec, Pueblo Indians, Australian Pushmen,
Siberian Aboriginies, Negroes (Africa), and Malayans show similarities

in semantic space structuring. On account of such similarities the
semantic differential has assumed the proportions of an international
method. It has found widespread usage in the investigation of a
variety of phenomena internationally. A common technique that is
usually used in contemporary investigations to reduce the effects of
concept scale interaction is to balance the scales representing each of
the dimensions being investigated. For example three scales maximally
loaded on the evaluative factor may be counterbalanced with three of
each loaded on the potency and activity factors respectively.

Crockett and Nidorf (1969) state that the semantic differential has
become a popular method. They note,

> "Of the various standardized scales that have been
> developed by psychologists in recent years, the
> Semantic Differential has doubtless been as
> widely adopted as any."

Snider and Osgood (1969), enjoin by stating that the semantic differen=
tial has generated extensive cross-cultural research. Studies also
indicate that the semantic differential is a useful technique for inves=
tigations among children. Children also appear to have similar semantic
space structuring as those of adults, (Di Vesta, F.J.A., 1966).

4.3.5.2 Semantic Space in Cognitive Functioning among Children
Di Vesta (1966) obtained experimental evidence to indicate similarities
in the semantic space functionings in children and adults. Specific
developmental studies show that the semantic differential technique is a
useful means of investigating changes in cognitive functioning in
children. Maltz, H.E. (1963), found consistent changes in the cognitive
functioning of children as they grew older. These findings were
paralleled by the investigations of Walkey and Boshier (1969). They
found that there was a significant difference between the two groups

investigated namely 12 year 8 months and 14 year 8 months, New Zealand boys. Di Vesta (1966) indicates that the apparent stable nature of the semantic space between adults and children, between one individual and another, within cultures and between cultures appears to validate the semantic differential as a cross-cultural method. (Quoted by Snider and Osgood, 1969.)

The semantic space of children and adults alike is presumed to be tapped by the semantic scale. Each semantic scale defined by a pair of bipolar adjectives is assumed to represent a straight line function bisecting the origin of that space.

4.3.6   Forms of the Semantic Scales

Another matter of interest with respect to concept scale interaction is the usage of alternate forms of the same scale. For example if it is desired to tap the potency dimension of the semantic space by using the scale strong-weak, will the same kind of result be available by using its alternate form hard-soft? Will these two alternate forms tapping the same dimension have similar connotations?

Aiken (1965) decided to investigate the kind of connotation these alter= nate forms realize. He used alternative forms of the same scales, measuring the same dimensions among the same subjects during two separate sessions. As an example the potential scale hard-soft appeared in the first session and in the second session the same scale was expressed as strong-weak. The concept to be rated was "The way I see myself". The investigation used 20 scales altogether, 10 of each. The subjects were 348 introductory students in psychology. The results indicated that there was no significant difference between the two forms. This study showed that the dimensions of the semantic space could be tapped

adequately by using any of the alternative forms.

4.3.7   Forms of the Semantic Differential

The semantic differential has different forms in order to cater for the needs of various investigators.   There are two main forms.   These are the latency and the graphic forms.   The graphic forms are twofold, form I and form II.

4.3.7.1   The Latency Form

This form uses reaction time as the response measure.   It involves the projection of a semantic differential, that is, the concept and its bi= polar scale.   The same concept is judged by each scale separately.   As soon as the subject perceives the concept and its scale on the screen, he moves a lever to either the right or left, negative or positive. The response measure in this case is the reaction time, the time taken to move the lever; this is the difference between perception and response.   The lever being attached to a mechanical device makes possi= ble the recording of the reaction-time.   Obviously the latency form is laborious and tedious and only one subject at a time may be investigated. Its use is therefore, restricted to certain types of investigations only.

4.3.7.2   Graphic Form I

In this type of arrangement the concepts appear on the left of the page, in a column below one another.   Each concept is supplied with a scale on the right adjacent to it.   All the concepts and the scales are rotated in such a way that each dimension of the semantic space is investigated fully.   The following is an example of form I:

Lady	rough	2	1	0	1	2	smooth
Me	fair	2	1	0	1	2	unfair
Father	good	2	1	0	1	2	bad
Lady	strong	2	1	0	1	2	weak
Me	hard	2	1	0	1	2	soft
Father	big	2	1	0	1	2	small, etc.

The advantage of form I is that it keeps the subject's attention fluctuating. In this way it prevents comparisons of previous ratings. But the constant fluctuations destroy continuity in judgements and cog= nitive functioning (Osgood, *et al.*, 1964). Constant fluctuations cause frequent changes in meanings from concept to concept. On account of such reasons form I of the semantic differential is not popular among investigators.

4.3.7.3 Graphic Form II

This form appears to be more popular among investigators. Osgood, *et al.* (1964) state that form II has a definite advantage over the other because it provides greater consistency in judgements. Usually a whole page is devoted to the investigation of a single concept. The concept appears on top of the page with the scales below. The number of scales that may be used can range from one to 20 or more. Only one concept is judged at a time by all the scales tapping the various dimensions. On subsequent pages only the concepts change but not the scales. The same scales are used over and over again. Randomization of the concepts, scales and polarity of the scales depend upon the needs of particular subjects and their ability to cope with the degree of complexity involved.

Randomization is less involved for little children than for adults.
The following is an example of form II:

Mother

	2	1	0	1	2	
good						bad
strong	2	1	0	1	2	weak
fast	2	1	0	1	2	slow
happy	2	1	0	1	2	sad
powerful	2	1	0	1	2	powerless
active	2	1	0	1	2	passive, etc.

The graphic form I and II can be used to investigate a large number of
subjects simultaneously. Although form II appears to be more popularly
used, the difference between itself and form I is hardly significant.
Both forms appear to yield similar results (Osgood, *et al.*, 1964).

4.4.1   Reliability of the Semantic Differential

The term reliability used in the context of the present investigation
pertains to the repetition of results within acceptable or significant
margins of error upon repeated presentations under similar conditions.

Osgood, *et al.* (1957; 1964) and Snider and Osgood (1969), quote a
large number of independent investigations pertaining to the reliability

of the semantic differential as an instrument for the measurement of meanings. They quote the following studies that investigated the re= liability: Wilson and Solomon (1954); Luria and Bopp (1955). These studies revealed that reliability was consistent even among the same subjects tested on separate occasions. Di Vesta (1966), working with children from grades 2 to 7 over a period of time found that the semantic differential was a reliable test and retest technique. He found the technique useful with children even as low as the third grade.

Walkey and Boshier (1969) found significant reliability among New Zealand boys of two age groups. Maltz (1963), working with children as young as those in grades 2, 4 and 6 also attested to the reliability of the semantic differential (Snider and Osgood, 1969). On account of the popularity of the semantic differential as an international method the questions about reliability hardly arise in the minds of investigators scattered throughout the globe.

4.4.2 Validity of the Semantic Differential

Validity of a method involves the co-variance of data obtained by the method with some other valid index derived by some other method of accepted validity. In this context, the validity of the semantic differential has to be demonstrated with some other index of meaning.

Meaning and its quantification in the human being appears to remain a subjective phenomenon. Consequently, the question arises to what extent the introspective judgements of subjects could be translated in objective terms. Osgood, *et al.* (1964) reply as follows: "Objectivity concerns the role of the observer and not the observed", implying that whilst it is true that subjective introspections cannot be translated into objective terms, that is not a criticism of the method itself.

On account of these obvious difficulties associated with questions of
validity, studies have leaned heavily on face validity.

4.4.2.1   Face Validity

Face validity may be defined as the extent to which distinctions provided
by using an instrument correspond with the personal deductions of inde=
pendent observers on the basis of their own judgements.   In brief,
there should be comparisons with what is termed common sense.   Osgood,
et al. (1964) remark that they had no occasion to question the validity
of the instrument on the basis of its comparison with the results to be
expected from common sense.   Reeves (1954) states that he found a
close correlation between semantic differential ratings and the clinical
stories based on the personal judgement of the subjects with respect to
certain Thematic Apperception Test pictures.   Stricter and Zak (1966),
and Rosenbaum and McGinnies (1969), observed that the pre-election
semantic ratings were valid in predicting the actual outcome of presi=
dential elections in America.   Consequently, these investigators feel
that the semantic differential has predictive validity as well.
Bentler and La Voie (1972), in their efforts at extending the semantic
space provide research evidence to indicate that the semantic differen=
tial is valid in realizing consistent data with respect to the dimensions
of evaluative, potency and activity.   Consistent appearance of these
three dimensions was also subscribed by the viewpoints of Osgood, *et al*.
(1957; 1964) and Snider and Osgood (1969).

Walkey and Boshier (1969), and Rosenbaum and McGinnies (1969) state that
the semantic differential compares favourably with the Thurstone and the
Guttman Attitude Scales. Oles, H.J. (1973), is of the opinion that if the
semantic differential is constructed and presented properly it can then
function as a valid and a reliable measure even with subjects as young

as the third grade.   Brody (1965) wished to observe how valid was the semantic differential in predicting results that were compatible with the particular outlook of the subjects.   He found that the semantic differential consistently predicted valid results in the sense that the scientifically inclined subjects gave scientific interpretations to the criterion namely, recovery from illness, whereas the religiously inclined subjects gave religious interpretations that are in keeping with their personal orientations.

Rydell (1966) found that the semantic differential was a valid instru= ment in predicting certain personality characteristics of authoritarian subjects with a low tolerance for ambiguity.   The results obtained confirmed the hypothesis that authoritarian people have low tolerance for ambiguity.

In conclusion it may be pointed out that the semantic differential is being increasingly used in the investigation of a wide variety of phenomena.   The obvious flexibility of the method helps it to accommo= date and conform to the diverse needs of various investigations.   This method has generated a vast amount of research since its inception in 1957.   The method has now assumed an international character since it has been used widely among people vastly separated in space and time. The authors of the method have testified to its validity as a cross-cultural technique with special reference to the semantic space which the method taps.   It can be translated into various languages in order to cater for diverse language and cultural groups.

The method can be used singly and in groups.   It can provide a vast amount of data within a short space of time.   It can be used to test adults as well as children, neurotics as well as normal people.

A sort of built-in way of making judgements prevents repetition of instructions. Once the subject has mastered the basics involved the rating of any number of concepts follow without hindrance. This aspect of the method has made it possible for children as low as the 2nd grade to understand the technique (Maltz, 1963; Di Vesta, 1966). A discussion of the technique as used in this investigation follows.

CHAPTER   FIVE

5.1   THE   INVESTIGATION

5.1.1   Introduction

The present study was designed to examine the meanings of certain reli=
gious concepts in Urban Indian school children attending State controlled
schools in the Republic.   These children subscribe to all three of the
major religions of the world, viz., Hinduism, Islam and Christianity.
Each subject judged five religious concepts of his own religion and
five equivalent concepts of each of the other two religions.   By
examining their ratings of the concepts by means of the semantic diffe=
rential technique, it was hoped to obtain information on how Indian
school children view one another in religion.

5.1.2   The Subjects

The subjects for the investigation were drawn from a sub-group of the
total population of the Republic of South Africa, the Indian South
Africans.   Hindu, Muslim and Christian subjects appear to reveal dif=
ferences within groups as well as differences between groups.   Diffe=
rences within groups arise as a result of linguistic, caste, cult and
creedal variations, whereas differences between groups are due essential=
ly to variations in the religious philosophies of the groups.   The
three religious groups from which the subjects were drawn are, there=
fore, not homogeneous (See figure 1).

5.1.2.1 The Hindus

The Hindus make up the largest number of Indian South Africans.

Linguistically, they are divided into Tamils, Telegus, Hindustanis, Gujarathis, Benjalis and Sindhis. Religiously, the Hindus are further sub-divided into Vedic and Puranic. The Puranic ramifies into castes, cults and creeds. Some Hindus are also followers of religious movements such as Vedanta, Divine Life, Ramakrishna, Sai Baba Movement, Saivites and Mission of Eternal Religion.

5.1.2.2 The Muslims

Linguistically, the Muslims also seem to reveal differences. There are the Gujarati speaking, the Urdu, Kokni, Memmon, and Swahili. Inter-denominational differences in the Islamic Religion are also evident. There are the unorthodox and the orthodox cults such as the Pirs, Sunnis, Shiah Bhoras, Shiah Khojas and the Zanzibaris.

5.1.2.3 The Christians

Among Christians the common mode of communication is English. The vast majority of Christans subscribe to the Western modes in living-habits, social conventions and behaviour. Inspite of linguistic homogeneity the Christians also appear to reveal certain religious differences that are of an inter-denominational nature. There are the followers of the Gereformeerde Kerk, Bethesda Temple, Anglicans, Methodists, Catholics, Baptists, Presbyterians, Lutherans, Pentacostals, Apostolics, Seventh Day Adventists and Jehovah's Witnesses (Meer, 1969).

5.1.3 The Selection of Subjects

Altogether 600 subjects participated in the investigation. There were 200 subjects from each of the three religions, viz., Hinduism, Islam, and Christianity. Each religion was represented by 100 boys and 100 girls belonging to two age groups. The lower and upper age groups were

FIGURE 1

A DIGRAMMATIC REPRESENTATION OF INTER-DENOMINATIONAL AND RELIGIOUS
DIFFERENCES WITHIN THE INDIAN COMMUNITY OF THE REPUBLIC OF SOUTH
AFRICA

THE INDIAN SOUTH AFRICANS

HINDUS   MUSLIMS   CHRISTIANS

Tamil &   Hindustani   Gujarathi   Sindhi &
Telegu   Bengali

Vedic & Puranic Castes and Cults

RamaKrishna   Divine Life   Mission of Eternal
Mission   Society   Religion

            Saivites   Sai Baba
                        Movement

Gujarathi   Urdu   Memmon   Kokni   Swahili

Orthodox and Unorthodox Cults

Sunnis   Shiah Boharas   Shiah Khojas   Zanziharis

English and
Vernaculars

Denominations

Anglicans   Methodists   Catholics   Baptists   Presbyterians

Followers of
Bethesda Temple   Pentecostal
                  Group
                        Apostolic Faith
                        Mission
                                Lutheran
                                Church   Jehovah's
                                           Witnesses
                        The Nederduitse Gereformeerde Kerk
                        The Seventh Day Adventists

derived from the standard 1 and standard 6 classes, 8 to 9 years, and
13 to 14 years, respectively.

Thus there were 50 subjects in each group.   The following is a diagram=
matic representation of the sample composition:

FIGURE 2
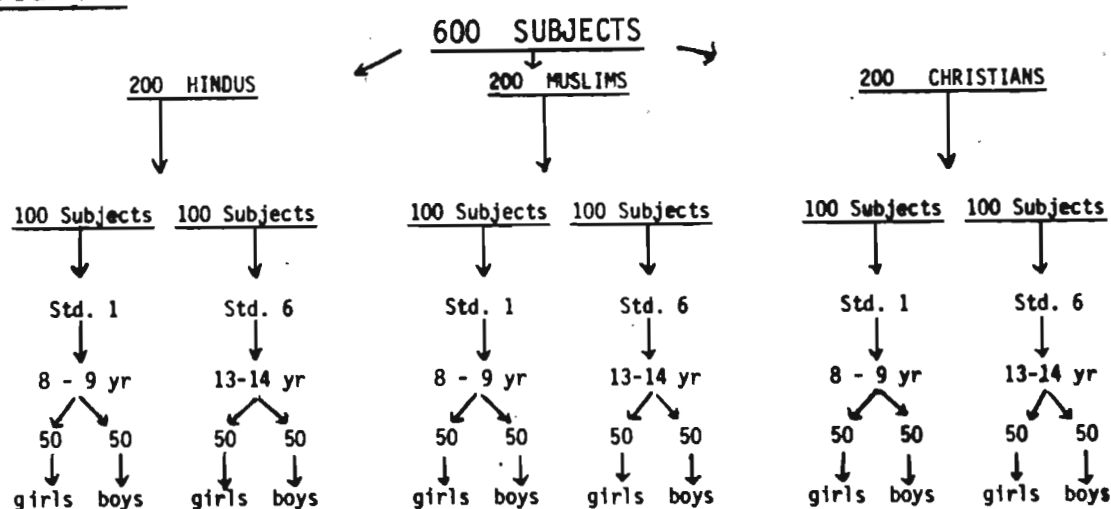
The subjects were chosen from schools in the urban areas.   These areas
were as defined by Ramphal, A. (1972). (See Figure 3 for Map.)

5.1.3.1   Northern Area

The northern area of the City of Durban has as its boundary, the Umgeni
River.   It includes suburbs such as Riverside, Umgeni, Prospect Hall
Road, Avoca, Effingham, Greenwood Park, Red Hill, a part of Durban
North, Briardene, Rosehill, Kenville, Sea Cow Lake, Newlands and
Parlock.

5.1.3.2   Southern Area

This lies south of the Umbilo River.   It encompasses the suburbs of
Rossburgh, Sea View, Bellair, Hillary, Chatsworth, Merebank, Clairwood,
Jacobs, Wentworth, Bluff, Bayhead Area, "Happy Valley", and the townships
of Umhlatuzana and Kharwastan.

5.1.3.3   Western Area

The boundaries of the western area are as follows: The Umgeni River in the North and the Umbilo River in the South.   The following suburbs constitute the western area,   Manor Gardens, Stella Hill, Quarry Estate, Springfield, Asherville, Mayville, Cato Manor, Candella, Clare Estate, and Reservoir Hills.

5.1.3.4   Central Area

This area is bounded by the Umgeni River in the North the Umbilo River in the South, the Indian Ocean in the East and the crest of the Berea in the West. It includes the business complex of the City, Greyville, Stamford Hill, Old Dutch Road, Botanic Gardens, Umbilo and Congella complexes, as well as the Railway and Magazine Barracks (Figure 3).

Most of the subjects for the investigation came from schools in the southern and western areas.   Only 42 subjects were chosen from a school in the central area.   The schools and their areas appear below:

(1)   Southern Area

Astra, Apollo High, Depot Road Memorial, Junagarth Road, Montford, Nizan Road, Risecliff High, M.L. Sultan, St. Mary's, Settlers, Seven Hills, Southern Cross, Sunnyvale and Truro.

(2)   Western Area

Arya Samaj, Clareville, Durban Heights, St. Aidan's No. 1 (now College=vale), and St. Aidan's No. 2 (now St. Aidans), and Springfield Hindu.

(3)   Central Area

Hindu Tamil.

With the exception of the following schools all the others were State controlled schools: M.L. Sultan St. Mary's, Settlers, Arya Samaj,

Clareville, and Springfield Hindu. These latter schools were designa=
ted as State-aided schools. There were two high schools involved, viz.,
Apollo and Risecliff. The standards six subjects who formed part of
the sample were drawn from these schools (Table 1).

In brief, the subjects were drawn at random from 20 different schools.
At each school where the investigation was conducted as many Hindu,
Muslim and Christian subjects as satisfied the subject criteria of the
investigation were chosen. This procedure was followed until the re=
quired number for each religious group was obtained. Table 1 gives an
indication of the schools and the breakdown of the subject population.

5.1.4   Criteria for the Selection of Subjects

The following criteria were used for the selection of subjects: age,
sex, religion, educational level, socio-economic status, and registra=
tion at an urban State controlled school. The criteria are further
defined below.

5.1.4.1   Age

There were two age groups. The first age group consisted of boys and
girls born between 1963 and 1964, who turned 8 or 9 years of age in
1972 (year of investigation). The second age group was made up of boys
and girls born between 1958 and 1959, who turned 13 or 14 years of age
during the year of investigation.

5.1.4.2   Sex

The number of boys and girls were equalized in each of the two groups
of the investigation.

5.1.4.3   Religion

Subjects of the three religions, viz., Hinduism Islam and Christianity

TABLE 1

A TABULAR REPRESENTATION OF THE DISTRIBUTION OF SCHOOLS AND SUBJECTS

NO.	NAME OF SCHOOL	SUBJECTS											
		STANDARD ONE						STANDARD SIX					
		Religion, Sex & Number						Religion, Sex & Number					
		Christian		Hindu		Islam		Christian		Hindu		Islam	
		M	F	M	F	M	F	M	F	M	F	M	F
1	Arya Samaj	-	3	-	1	-	2	2	2	3	2	1	1
2	Astra	1	3	3	1	2	3	-	-	-	-	-	-
3	Apollo High	-	-	-	-	-	-	3	3	3	2	6	2
4	Clareville	1	-	1	9	-	4	-	-	17	11	2	1
5	Depot Road Memorial	-	-	-	-	-	-	-	2	-	-	-	-
6	Durban Heights	1	1	1	4	1	5	-	-	-	-	-	-
7	Hindu Tamil	2	6	1	2	4	2	3	3	1	3	6	9
8	Junagarth Road	3	3	-	-	-	-	-	-	-	-	-	-
9	Montford	8	2	2	4	10	4	-	-	-	-	-	-
10	Nizan Road	-	-	-	-	-	-	19	7	1	-	5	5
11	Risecliff High	-	-	-	-	-	-	14	13	-	1	12	18
12	St. Aidan's No. 1	2	4	8	7	5	5	-	7	-	17	1	8
13	St. Aidan's No. 2	3	7	12	5	12	13	6	-	15	-	10	-
14	M.L. Sultan St. Mary's	5	4	-	-	-	-	-	-	-	-	-	-
15	Settlers	5	2	2	-	-	-	-	-	-	-	-	-
16	Seven Hills	4	5	4	2	7	2	-	-	-	-	-	-
17	Southern Cross	5	2	6	5	-	1	-	-	-	-	-	-
18	Sunnyvale	6	6	6	4	5	5	-	-	-	-	-	-
19	Springfield Hindu	4	2	4	6	4	4	3	1	10	14	7	6
20	Truro	-	-	-	-	-	-	-	12	-	-	-	-
	TOTAL	50	50	50	50	50	50	50	50	50	50	50	50
	GRAND TOTAL	600											

were chosen.   Particulars about the religious affiliations of the subjects were obtained from school records (IE 8 and IE 18 cumulative record cards).   Information from those cards were corroborated and checked against the information supplied by subjects in their test questionnaires.   All doubtful cases were left out.   In cases where the cumulative record cards were not available, other school records such as mark books and admission forms were consulted.

5.1.4.4   Educational Level

Only those subjects who were in standard 1 and standard 6, ages 8 to 9, and 13 to 14, respectively, were selected.   The class registers and admission registers were consulted to verify date of birth of the testees.

5.1.4.5   Registration at an Urban State or State-Aided School

The subjects selected had to be registered at a school controlled by the State.   The school had to be in the Urban environment within the Municipality of the City of Durban.

5.1.4.6   Socio-Economic Status

The subjects were classified into socio-economic groups by using the criteria suggested by Glass (1954).   In that classification the occu= pation of fathers or guardians are used.   This system of classification was adapted for South African needs by the University of Natal, on behalf of the Natal Technical Planning Commission for Social Research purposes. Groups 1 and 2 of the classification were treated together.   These two groups combined, formed the lower socio-economic level of the subject population.   Group 1 referred to occupations listed as manual-unskilled-routine and group 2 as manual-semi-skilled-operative.   In like manner groups 3 and 4 were treated together.   These two groups together

formed the middle socio-economic level. More specifically, group 3 referred to occupations listed as non-manual, lower grade. The subjects were classified on the basis of their fathers' occupational status. Subjects whose fathers were pensioners or were deceased, assumed the status of the lower-economic category. Conversely, orphans and children of separated (judicially), or divorced parents assumed the guardian's occupational status. By using these various criteria it was possible to confine the selection between the lower and the middle socio-economic occupational status range. The relevant information for socio-economic classification was derived from the cumulative record cards and other school records. Schools obtain such information direct from parents or guardians via the application forms for admission. Parents or guardians are required to supply information regarding their occupations, etc. That information is kept up to date by the schools concerned. The biographical information derived from these forms are transferred to relevant school records and adjusted whenever changes occur. Responsible officers are required to check these records periodically.

5.2   APPARATUS

The major apparatus for the investigation consisted of a test booklet (see Appendix A for complete booklet). The test booklet was made up of two parts. The first part was concerned with certain biographical information such as the name of subject, school, standard, sex and questions relative to religion, religious activity, religious intensity and peer interaction. The second part of the booklet was made up of the concepts to be rated together with their semantic differential scales. There were 16 concepts altogether. Of these the first

concept "car", was used for practice purposes and the other 15 concepts were used in the investigation. Each concept appeared on a new page. There were nine rating scales for each concept. Each of the dimensions of the semantic space, viz., evaluative, potency and activity, that are presumed to underline the meaning of concepts was tapped by three scales. The scales and concepts were randomized. Specifically, the scales were 5 point bi-polar, with the neutral zero radiating in equal graduations. towards the positive and the negative continuum of the poles. The in= tensity of a subject's judgement was to be indicated by a cross over the relevant figure along the scale. A gradation of 2 was taken to be more intense than a gradation of 1 and *vice versa.* The following example illustrates:

CAR

Pretty +	:	2	:	1	:	0	:	1	:	2	:	Ugly −
		very +		somewhat +		not + not −		somewhat −		very −		

The purpose of the above concept with its set of rating scales on the practice page was to familiarize the subjects with the technique of rating with the semantic differential scales. Only when the subjects were thoroughly familiar with the method of judging were they allowed to proceed with the actual concepts of the investigation. The concepts to be judged were as follows: Christ, Deepavali, Mosque, Church, Gita, Altar, Koran, Murthi, Bible, Mohammed, Temple, Eid, Christmas, Rama, and Kaaba. The subjects were familiarized with the meanings of the concepts before they began their ratings of each concept.

5.2.1 Procedure

The physical conditions for testing at various schools varied slightly
(on account of room size, location of room and seating), but the instruc=
tions and testing procedure remained the same. In addition the younger
subjects were told that they were going to play a game of words where
certain rules had to be followed. In all cases the subjects were
asked to give their own feelings, as there were no right or wrong answers.
The practice page of the booklet was used to acquaint the subjects
with the semantic differential technique. The Experimenter gave the
instructions by means of the chalkboard and a chart which was a fascimile
of the practice page. The Experimenter made use of these aids in order
to explain how the test books were to be marked.

Upon completion of the biographical details on the first page, the
Experimenter told the subjects to turn to the practice page. The
subjects were told that the word "CAR" on the top of the page must be
judged by the scales that appeared below it. Pointing to the fascimile
on the chart he explained that each scale was made up of a pair of
opposite adjectives joined by a straight line. The figure 0 appeared
in the middle of the line with figures 1 and 2 on either side.

If they felt that the word "CAR" was very pretty, they should make a
cross over the figure 2 next to the word pretty. On the other hand,
if they felt that the word "CAR" was very ugly they should make a
cross over the figure 2 next to the word ugly, as illustrated below:

CAR

Pretty +	:	✗	:	1	:	0	:	1	:	2	Ugly -
		very +		somewhat +		not + not -		somewhat -		very -	
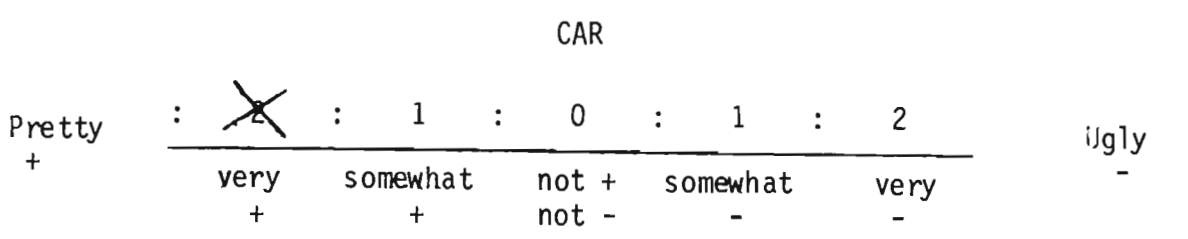
FIGURE 3 DURBAN : SHOWING AREAS OF INDIAN SETTLEMENT
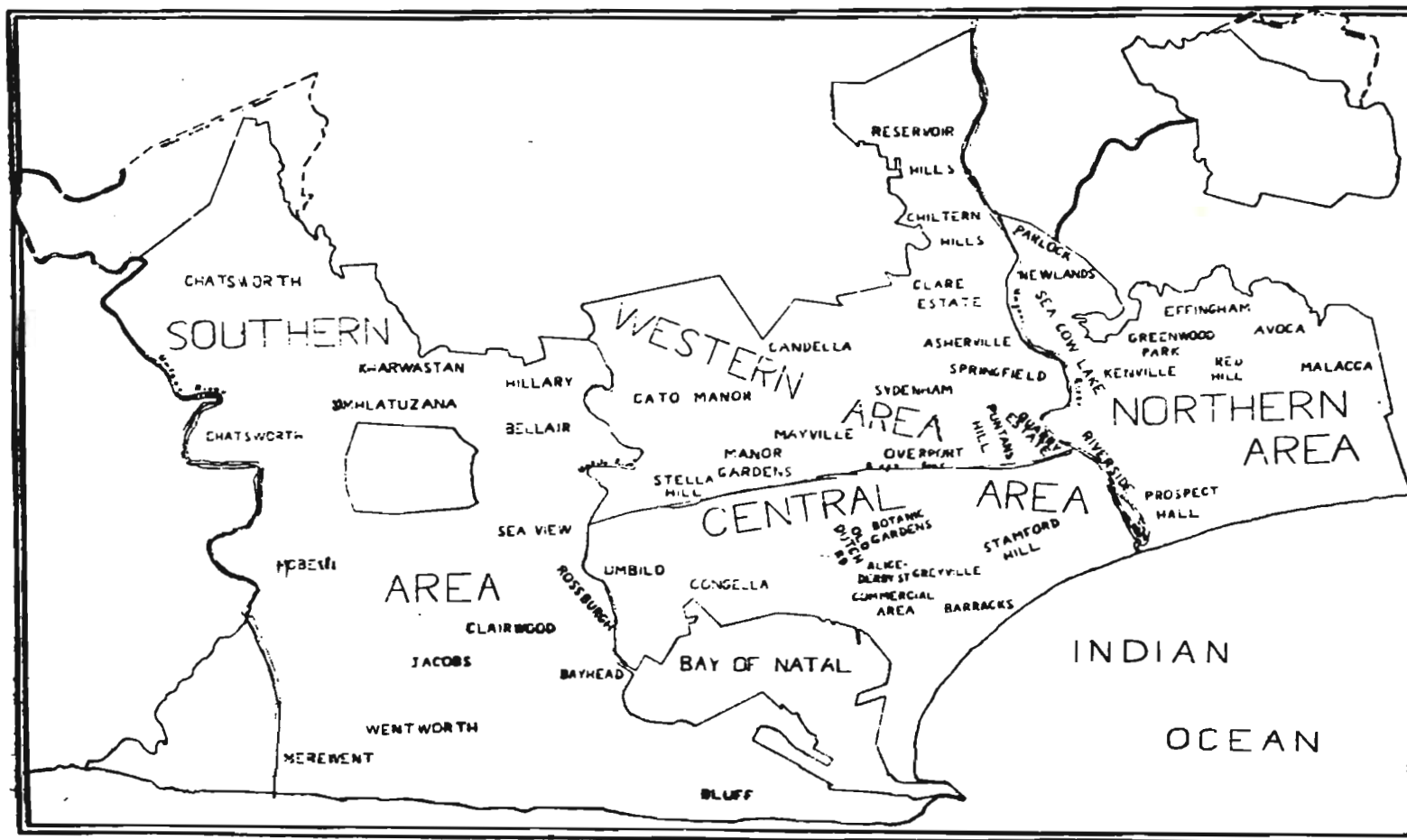
(Reproduced from Ramphal, 1972).

or

CAR

Pretty +   :   2   :   1   :   0   :   1   :   ✗   :   Ugly -

very +   somewhat +   not +
not -   somewhat -   very -
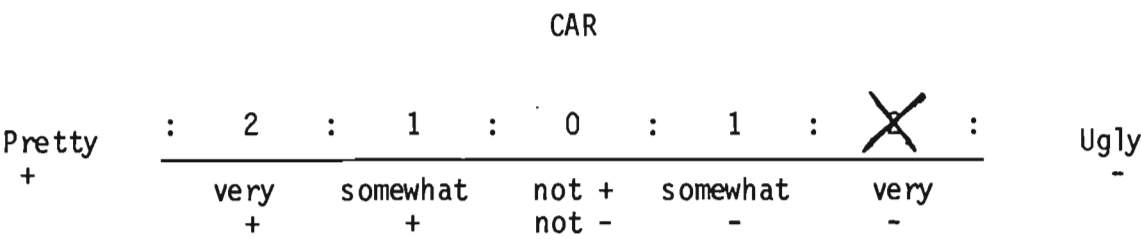
The subjects were then told that if they felt the word "CAR" on top of the page was not very pretty but somewhat pretty, they should make a cross over the figure 1 (the figure with the word somewhat + below it) e.g.

CAR

Pretty +   :   2   :   ✗   :   0   :   1   :   2   :   Ugly -

very +   somewhat +   not +
not -   somewhat -   very -
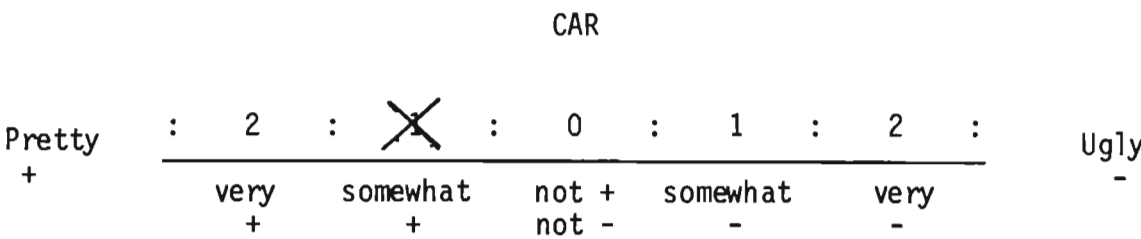
or if the subjects felt that the word "CAR" on top of the page was somewhat ugly they should indicate that feeling by making a cross over the figure 1 (the figure with the word somewhat - below it), e.g.

CAR

Pretty +   :   2   :   1   :   0   :   ✗   :   2   :   Ugly -

very +   somewhat +   not +
not -   somewhat -   very -
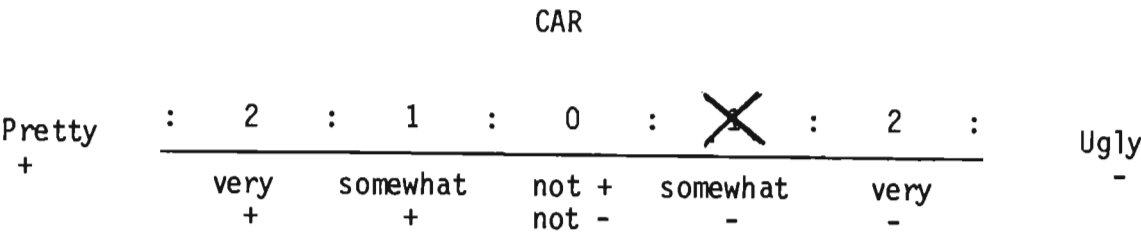
If the subjects felt that the word "CAR" on top of the page was neither pretty nor ugly or the word "CAR" was equally pretty or ugly or they could not make up their minds then they should cross out the figure 0 (the figure with the words not + and not - below it), e.g.

CAR

Pretty   :   2   :   1   :   ⊗   :   1   :   2   :   Ugly
  +   very   somewhat   not +   somewhat   very   -
                +   +   not -   -   -
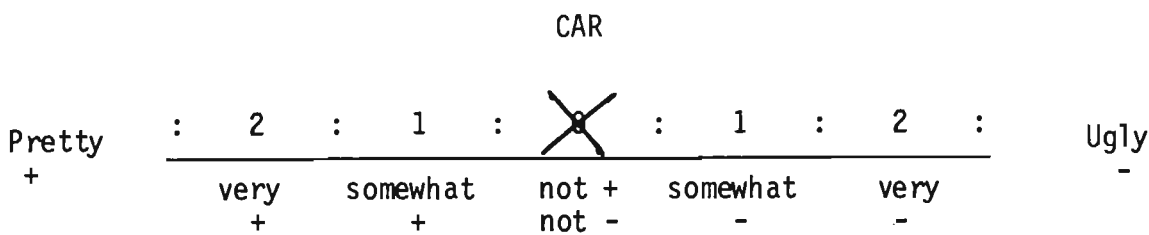
The subjects were told to avoid using the figure 0 as far as possible. It was emphasized that under no circumstances should more than one cross appear on any scale. All the judgements should be made in response to the first feelings that came to their minds. Only their own feelings were required and not their friends' or other people's feelings. The subjects were told not to be afraid to answer in any way they wished as there were no right or wrong answers. They were informed that their responses to the scales and concepts would be treated confidentially. After that the subjects were questioned to ascertain whether they were familiar with the technique of judging that was involved. When the Experimenter was perfectly satisfied that the subjects were thoroughly familiar with the method of using the semantic differential, he told them to proceed with the next scale on the same page, viz., Good - Bad. The subjects were informed that they should put their pens down after they had finished. Before proceeding to the 3rd scale the Experimenter invited questions again, in order to clear up any doubts. After that the subjects proceeded to the 3rd scale, Hard - Soft. A similar pro= cedure followed for the remaining 6 scales on the practice page. When the time arrived for them to start the actual test, the Experimenter asked them to indicate by a show of hands if they were still not clear about any thing that was said about how the concepts on the following pages were to be rated. After the Experimenter was satisfied that the subjects were thoroughly familiar he told them not to turn to a new concept before they were told to do so. The subjects were told that

on the succeeding pages of the test booklet various concepts would

appear on top of the pages.   Those concepts would have to be judged

with the help of the scales that appeared below them.   In order to make

it easier for them to judge, the meanings of the concepts would be given

to them.   Should they forget the meanings whilst judging then they

should look at the chart displayed on the board for the meanings.   Only

the meaning of the concept being rated was given at a time.   The subjects

were given the following meanings:

Christ   : Christians believe in Christ.

Deepavali   : It is a holy festival of the Hindus.

Mosque   : It is a holy place where Muslims pray.

Church   : It is a holy place where Christians pray.

Gita   : It is a holy book of the Hindus.

Altar   : It is a place for Christian prayers in a Church.

Koran   : It is a holy book of the Muslims.

Murthi   : It is a statue of a Hindu God in a Temple.

Mohammed   : Mohammed taught the Muslims about God.

Temple   : It is a holy place where Hindus pray.

Eid   : It is a holy festival of the Muslims.

Christmas   : It is a holy festival of the Christians.

Rama   : He is a Hindu-God-Figure believed in by the Hindus.

Kaaba   : It is a holy place of prayer for the Muslims.

The same scales as those with which the subjects had familiarized them=

selves on the practice page appeared below all the concepts on the

following pages of the test booklet.   The scales for each concept were

randomized.   The subjects were reminded that the same procedure for

judging as that applied on the practice page would be applicable to all the concepts to be judged.

Thereafter, the investigation proceeded smoothly page by page until the last concept at the end of the test-booklet was rated. Those subjects who finished first were required to wait for the others as each new page had to be started simultaneously.

After rating a page the subjects were told to place their pens (ball=point) at the place where they had stopped, to close their booklets and wait until they were told to begin again. This method helped the subjects to find the page on which they had to work next, more easily. Upon completion of the investigation the test booklets were collected and the subjects were sent back to their classrooms.

The information derived from the test booklets formed the major response measure. This was then subjected to statistical analysis to be explained more fully in the next chapter.

CHAPTER SIX

6.1   RESULTS

The response measure was the subject's ratings of the Hindu, Islamic
and Christian concepts on the semantic differential scales.   The
scores obtained from these ratings made up the raw data for the in=
vestigation.   The raw data thus obtained were subsequently, analyzed
with the aid of the following statistical procedures:

(1)   An analysis of variance with a factorial design
        (Lindquist, 1953), was used to investigate the
        influence of sex, age and religion on the subject's
        rating of the different religious concepts on the
        semantic differential scales.

(2)   A series of chi-square analyses were computed to
        investigate the following relationships:
        1.   religious intensity and religious tolerance,
        2.   religious intensity and peer interaction,
        3.   religious intensity and occupational status,
        4.   peer interaction and religious tolerance,
        5.   peer interaction and occupational status,
        6.   religious tolerance and occupational status.

Definition of the terms used in the chi-square analyses will be dis=
cussed later.

Prior to the usage of above statistical procedures, the raw scores
constituting the response measures were transformed.

6.1.1   Transformation of the Response Measure

The ordinal data provided by the raw scores on the semantic differential
scales were transformed into interval data.   The example below (adapted
from Brody, 1965), reflects a typical semantic differential scale
used in the investigation, with its transformed scores appearing
below its raw scores.

Good	2	1	0	1	2	Bad
	5	4	3	2	1	

The degree of favourableness increases progressively from 1 to 5, with
5 as the most favourable and 1 as least favourable.

According to Brody (1965) and Rosenbaum and McGinnies (1969), a
subject shows greater preference and is consequently more favourably
disposed towards a concept by rating that concept higher than any of
the other concepts.

In the present research, using transformed scores the following totals
were calculated for each subject and which were then used for statisti=
cal analyses:

(1)   the total scores for the Hindu, Islamic and
            Christian concepts,

(2)   the total scores for the evaluative, potency
            and activity factors of the semantic space for
            the different religious concepts.

In addition, data of the other variables investigated, namely, religious
intensity, peer interaction and occupational status were obtained from

the semantic differential questionnaire and were tabulated.

6.2   ANALYSES TO EXAMINE THE EFFECTS OF THE MAJOR VARIABLES ON CONCEPT RATINGS

The initial analysis of variance used an AXBXCXD factorial design with repeated measures on D (Lindquist, 1953).   The variables investigated were: sex x age x religious groups x different concept ratings.

The details of the variables follow:

(1)   Sex: male and female.

(2)   Age: two groups, 8 to 9 years, and 13 to 14 years.

(3)   Religious Groups: there were three religious groups namely, Hindu, Islamic and Christian.

(4)   Concept Ratings: five concepts of each religion were rated by each subject.

Table 2 below, summarises the results of the first analysis of variance (AXBXCXD).

TABLE 2

An AXBXCXD Analysis of Variance with Repeated Measures on D to examine

the effects of the major variables on concept ratings

Source	SS	df	MSS	F-Ratio	p <
Sex	4640	1	+ 4640	1,79	
Age Groups	8906	1	+ 8906	3,45	
Religious Groups	2119	2	+ 1060	+ 0,41	
Sex and Age Groups	15220	1	+15220	+ 5,89	,05
Sex and Religious Groups	1056	2	+ 528	+ 2,04	
Age and Religious Groups	7118	2	+ 3559	+ 1,37	
Sex, Age and Religious Groups	789	2	+ 359	+ 0,15	
Error for Between Factors	+1519664	588	+ 2584		
Concepts	+ 6745	2	+ 3373	+12,68	,01
Sex and Concepts	+ 92	2	+ 46	+ 0,17	
Age Groups and Concepts	+ 65	2	+ 33	+ 0,12	
Religious Groups and Concepts	+ 35469	4	+ 8867	+33,26	,001
Sex, Age and Concepts	+ 74	2	+ 37	+ 0,14	
Sex, Religious Groups and Concepts	+ 89	4	+ 22	+ 0,08	
Age, Religious Groups and Concepts	+ 2258	4	+ 565	+ 2,12	
Sex, Age, Religious Groups and Concepts	+ 541	4	+ 135	+ 0,50	
Error for Within Factors	+ 313179	1176	+ 266		

6.2.1   Interpretation of Results

An examination of the data on Table 2 reveals that the following

effects were significant at ,05 and above:

(1)   The main effect of concept rating was significant at
        ,01 level indicating that there is a significant dif=
        ference in the ways the concepts of the three major
        religions are rated (see Table 2A).

TABLE 2A

Concept Ratings

	Concepts		
	Hindu	Islamic	Christian
Christian, Hindu and Islamic Concept Ratings	105258	106848	106158

(2)   The age and sex interaction was significant at ,05 level
        (see Table 2B).

TABLE 2B

Age and Sex Interaction

Age	Sex	
	Male	Female
8 to 9 years	81153	79981
13 to 14 years	76534	80596

The age and sex interaction indicates that there was a significant
difference in the ratings of the concepts by the 300 male and the 300

female subjects at the two age levels, namely, 8 to 9 years and 13 to 14 years.

(3)   The interaction between religious groups and concept ratings was significant at ,001 level (see Table 2C).

TABLE 2C

Interaction between Religious Groups and Concept Ratings

Concept Ratings	Religious Groups		
	Hindu	Islamic	Christian
Hindu	35768	34961	34063
Islamic	34619	36555	34688
Christian	34871	35332	37407

The result implies that subjects of each of the three religious groups (200 per group), rated the concepts of the three religions differently.

A second analysis of variance was done to investigate whether the three factors of the semantic space were rated differently.

This analysis of variance used an AXBXCXDXE factorial design with repeated measures on D and E (Lindquist, 1953).   The same variables as for the initial analysis of variance (see Table 2), were investigated here, except for E, which refers to the semantic space, namely, evalua= tive, potency and activity.

The results of the second analysis of variance are given in Table 3.

TABLE   3

An AXBXCXDXE Analysis of Variance with Repeated Measures on D and E to

examine the Effects of the Experimental Variables on Concept Ratings

SOURCE	SS	df	MSS	F-Ratio	p <
Sex	+ 1547	1	+ 1547	1,80	
Age	+ 2969	1	+ 2969	3,45	
Religious Groups	+ 707	2	354	,41	
Sex and Age	+ 5073	1	+ 5073	5,89	,05
Sex and Religious Groups	+ 351	2	+ 176	,20	
Age and Religious Groups	+ 2372	2	+ 1186	1,38	
Sex, Age and Religious Groups	+ 264	2	+ 132	,15	
Error for Between Factors	+506555	588	+ 861		
Concepts	+ 2249	2	+ 1125	12,64	,01
Concepts and Sex	+ 30	2	+ 15	,17	
Concepts and Age	+ 21	2	+ 11	,12	
Concepts and Religious Groups	+ 11822	4	+ 2956	33,21	,01
Concepts, Sex and Age	+ 25	2	+ 13	,15	
Concepts, Sex and Religious Groups	+ 32	4	+ 8	,09	
Concepts, Age and Religious Groups	+ 754	4	+ 189	2,12	
Concepts, Sex, Age and Religious Groups	+ 179	4	+ 45	,51	
Error for Within Factors	+104393	1176	+ 89		
Factors	+143090	2	+71545	769,30	,01
Factors and Sex	+ 206	2	+ 103	1,11	
Factors and Age	+ 20729	2	+10365	111,45	,01
Factors and Religious Groups	+ 679	4	+ 170	1,83	
Factors, Sex and Age	+ 220	2	+ 110	1,18	
Factors, Sex and Religious Groups	+ 161	4	+ 40	,43	
Factors, Age and Religious Groups	+ 460	4	+ 115	1,24	

Table 3 (continued)

Factors, Sex, Age and Religious Groups	+ 685	4	+ 171	1,84	
Error for Within Factors	+109435	1176	+ 93		
Factors and Concepts	+ 413	4	+ 103	12,88	,05
Factors, Concepts and Sex	+ 81	4	+ 20	2,50	
Factors, Concepts and Age	+ 238	4	+ 60	7,50	,05
Factors, Concepts and Religious Groups	+ 541	8	+ 68	8,50	,01
Factors, Religious Groups, Sex and Age	+ 12	4	+ 3	,38	
Factors, Concepts, Sex and Religious Groups	+ 84	8	+ 11	1,38	
Factors, Concepts, Age and Religious Groups	+ 339	8	+ 42	5,25	,01
Factors, Concepts, Sex, Age and Religious Groups	+ 114	8	+ 14	1,75	
Error for Within Factors	+ 18550	2352	+ 8		

6.2.2   Interpretation of Results

An examination of the data on Table 3 indicates that the following effects were significant at ,05 and over:

(1)   The main effect of concept ratings was significant at ,01 level indicating significant differences in the ways the concepts of the three major religions were rated (see Table 3A).

TABLE   3A

Concept Ratings of the three Religious Groups

Religious Groups	Concept Ratings
Hindu	104792
Islamic	105862
Christian	107610

(2)   The main effect involving the factors of the semantic space, evaluative, potency and activity, were rated differently (p < ,01 - see Table 3B)

TABLE   3B

Factors of the Semantic Space

	Ratings
Evaluative Factor	118366
Potency Factor	103914
Activity Factor	95984

(3)   The interaction between concepts and religious groups was significant at ,01 level (see Table 3C).

TABLE   3C

Interaction between Concepts and Religious Groups

	Religious Groups		
	Hindu	Islam	Christian
Evaluative Factor	39326	39924	39116
Potency Factor	34122	34947	34845
Activity Factor	31810	31977	32197

This result indicates that the three religious groups rated the factors of the semantic space differently.

(4)   The interaction between the three factors of the semantic space and the two age groups was significant at ,01 level (see Table 3D).

TABLE   3D

Interaction between Factors and Age

Factors	Age	
	8 to 9 years	13 to 14 years
Evaluative	57677	60689
Potency	52652	51262
Activity	50805	45179

The result indicates that the two age groups 8 to 9 and 13 to 14 years, both males and females rated the factors of the semantic space differently.

(5) The interaction between factors and concepts was
significant at ,05 level (see Table 3E).

TABLE 3E

Interaction between Factors and Concepts

Factors	Religious Concepts		
	Hindu	Islam	Christian
Evaluative	38806	39499	40061
Potency	34293	34701	34920
Activity	31693	31662	32629

This result indicates that the concepts of the three religious groups
were rated differently with respect to the factors of the semantic
space.

(6) The interaction between factors, concepts and age
realized a result that was significant at ,05 level
(see Table 3F).

TABLE 3F

Interaction between Factors, Concepts and Age

Factors	Concepts					
	8 to 9 Years			13 to 14 Years		
	Hindu	Islam	Christian	Hindu	Islam	Christian
Evaluative	18991	19225	19461	19815	20274	20600
Potency	17282	17603	17767	17011	17098	17153
Activity	16756	16850	17199	14937	14812	15430

This result indicates that the two age groups rated the concepts of the three religions differently with respect to the three factors of the semantic space.

(7)   The interaction between factors, concepts and religious groups were significant at ,01 level (see Table 3G).

TABLE 3G

Interactions between Factors, Concepts and Religious Groups

	Religious Groups								
	Hindu			Islam			Christian		
	Religious Concepts			Religious Concepts			Religious Concepts		
	Hindu	Islam	Christian	Hindu	Islam	Christian	Hindu	Islam	Christian
Evaluative Factor	13395	12965	12966	12961	13717	13246	12450	12817	13849
Potency Factor	11547	11273	11302	11439	11982	11526	11307	11446	12092
Activity Factor	10826	10381	10603	10561	10856	10560	10306	10425	11466

This result indicates that the three religious groups rated the concepts of the three religions, and the factors of the semantic space, differently.

(8)   The interaction between factors, concepts, age and religious groups was significant at ,01 level. This result indicates that all the variables, except the sex variable, interacted in the concept ratings.

6.3   GRAPHICAL INTERPRETATION OF CONCEPT RATINGS

A graphical representation of the interaction between religious groups and concept ratings was made to examine more fully this interaction which had attained significance (see Table 2 and Fig.4).

FIGURE 4

A Graphical Representation showing how Subjects of the three Religious Groups rated their own concepts and the concepts of their counterparts.
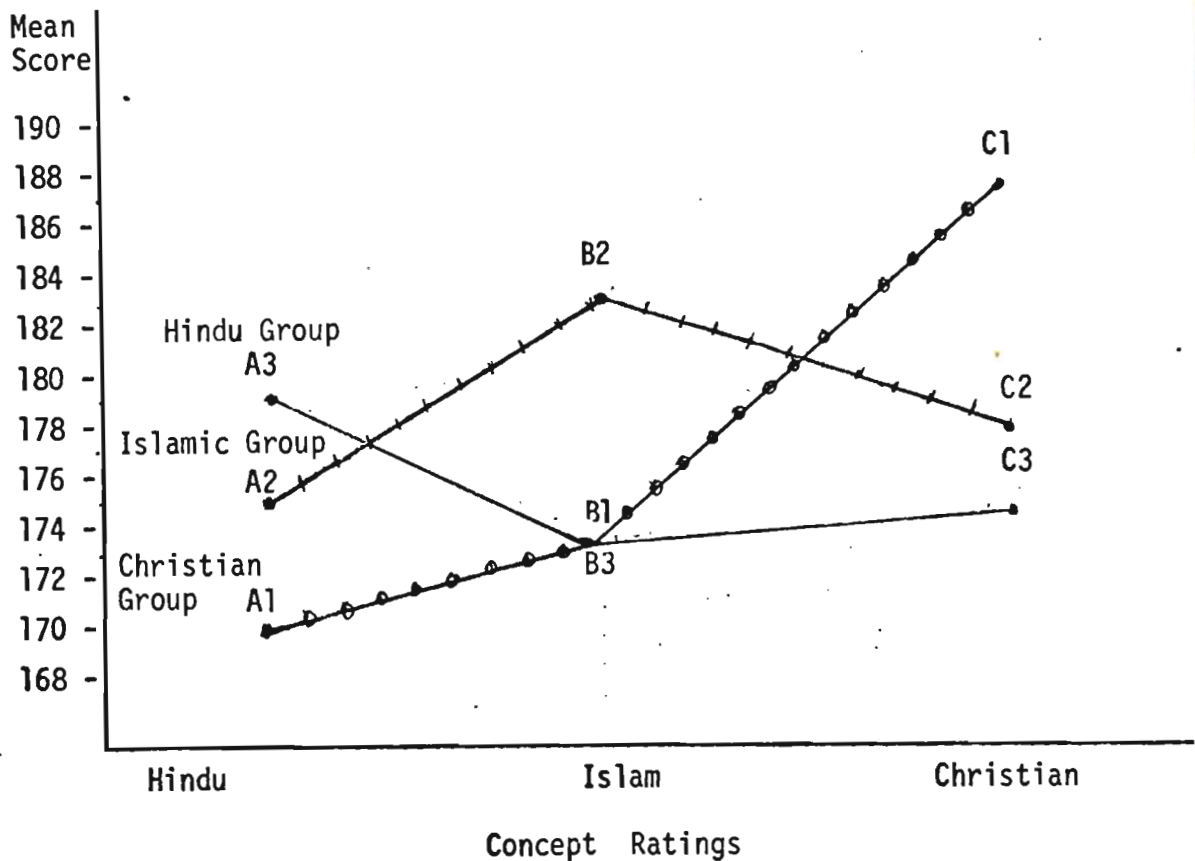
Concept Ratings

From the graphical representation as depicted in Fig. 4, the following observations can be made:

. (1)   Each religious group appears to have identified itself with its own religious concepts. This religious identity was shown by the higher ratings of their own concepts as against the concepts of the other religious groups. For instance, the Hindu group got a mean of 179 for its own concepts and means of 173 and 174 respectively for the Islamic and Christian concepts.

The Islamic group obtained a mean of 183 for its own concepts and means of 175 and 177 for the Hindu and Christian concepts, respectively.

The Christian group got a mean of 189 for its own concepts and means of 170 and 173 for the concepts of Hinduism and Islam, respectively, (see Fig. 4).

The results from Fig. 4 may be summarized as follows:

Most of the subjects appeared to prefer the Christian religion after their own.   The Hindu subjects appeared to prefer Christianity to Islam and the Islamic subjects appeared to prefer Christianity to Hinduism.

6.4   RELATIONSHIPS BETWEEN THE VARIABLES OF RELIGIOUS INTENSITY, RELIGIOUS TOLERANCE, PEER INTERACTION AND OCCUPATIONAL STATUS ON CONCEPT RATINGS BY THE THREE RELIGIOUS GROUPS

The information for these relationships was derived from biographical data that appeared on the test booklets of the subjects (see Appendix A). The following are definitions of the terms involved in the above analyses:

6.4.1   Religious Intensity : This variable was measured by the frequency of participation in prayer services and rituals during the period of a week.   The degree of religious intensity was positively related to the frequency of participation in religious matters.   High religious intensity implied a greater frequency in participation with respect to religious observances than low religious intensity.

The actual questions asked on the test booklet were as follows:

If you are a Christian, how many times a week do you go to Church?

/ Once /   / More than once /   / Not at all /

Make a cross in the box that applies.

If you are a Muslim, how many times a week do you go to a Mosque or Madressa?

/ Once /   / More than once /   / Not at all /

Make a cross in the box that applies.

If you are a Hindu, how often is the holy lamp lit in your home?

/ Everyday /   / Once a while /   / Not at all /

Make a cross in the box that applies.

A high religious intensity implied participation in the above more than once a week; conversely, low intensity implied participation only once a week or not at all.

6.4.2   Peer Interaction : Here the choice of close friends was the criterion involved. High peer interaction implied that the subjects had chosen two or more of their own religious-denominational friends; conversely, low interaction denoted that subjects had chosen two or more friends of the other religious groups or one friend from each of the three religious groups.

Provision was made on the test booklets for the subjects to indicate choice of friends   (see Appendix A).

6.4.3   Religious Tolerance : High religious tolerance was taken to be lower ratings of the subjects' own concepts, and higher ratings of the concepts of one of the other religions or both of the other reli= gions.   Conversely, low tolerance was taken to mean higher ratings of the subjects' own religious concepts and lower ratings of the concepts of the other religions.

6.4.4   Occupational Status : The socio-economic criteria as postu=
lated by Glass (1954), was used to classify the subjects into particular
socio-economic categories.   This classification was based on the
fathers' or gu ardians' occupations.   In keeping with Glass' classifi=
cation the occupations listed in categories A and B (groups 1 and 2
comprising manual routine, unskilled and manual semi-skilled, operative)
and categories C and D (groups 3 and 4 comprising, routine grades of
non-manual and skilled manual; and inspectional supervisory and other
non-manual (lower grade) were used to classify the subjects.

Using the socio-economic criteria as listed in the above categories
two groups were developed for purposes of this investigation.   Glass'
A and B categories were listed as the categories for the low occupa=
tional group and the categories C and D as the categories for the high
occupational group.   The high and low status groups were then used in
chi-square analyses to indicate how occupational status interacted with
the other variables.   Chi-square analyses were computed to examine the
following relationships:

(1)   religious intensity and peer interaction,

(2)   religious intensity and religious tolerance,

(3)   peer interaction and religious tolerance,

(4)   religious intensity and occupational status,

(5)   peer interaction and occupational status,

(6)   religious tolerance and occupational status.

The above relationships were examined separately for the two age
groups, (8 to 9 and 13 to 14 years), two sexes (male and female), and
the three religious groups (Hindu, Islam and Christian).

The following tables reflect a summary of the findings of chi-square
analyses.

(1)   TABLE   4

Relationship between Religious Intensity and Peer Interaction as indi=

cated by X^2 Analyses

Subjects	Age Groups	Number of Subjects	χ^2	df	p <
Islam Female	8 to 9 yrs.	50	,03		
Islam Female	13 to 14 yrs.	50	1,25		
Islam Female	8 to 9 & 13 to 14 yrs.	100	2,47		
Islam Male	8 to 9 yrs.	50	,00		
Islam Male	13 to 14 yrs.	50	,21		
Islam Male	8 to 9 & 13 to 14 yrs.	100	,37		
Islam Total Male & Female	8 to 9 & 13 to 14 yrs.	200	4,16		,01
Hindu Female	8 to 9 yrs.	50	,57		
Hindu Female	13 to 14 yrs.	50	,14		
Hindu Female	8 to 9 & 13 to 14 yrs.	100	,17		
Hindu Male	8 to 9 yrs.	50	1,20		
Hindu Male	13 to 14 yrs.	50	,60		
Hindu Male	8 to 9 & 13 to 14 yrs.	100	1,63		
Hindu Total Male & Female	8 to 9 & 13 to 14 yrs	200	,68		
Christian Female	8 to 9 yrs.	50	1,02		
Christian Female	13 to 14 yrs.	50	,04		
Christian Female	8 to 9 & 13 to 14 yrs.	100	,01		
Christian Male	8 to 9 yrs.	50	1,09		
Christian Male	13 to 14 yrs.	50	,05		
Christian Male	8 to 9 & 13 to 14 yrs.	100	1,29		
Christial Total Male & Female	8 to 9 & 13 to 14 yrs.	200	,18		

The above chi-square analyses between religious intensity and peer

interaction indicate that only the Muslim group as a whole (200 subjects)

showed a result that was significant at ,01 level.   This result
suggests that the Muslim subjects deeply imbued with religion and its
connotations of unity in brotherhood, chose more friends of their own
religious affiliation than friends from the other religious groups.
The Hindu and Christian groups were not similarly influenced.

(2)   TABLE   5

Relationship between Religious Intensity and Religious Tolerance as
indicated by X^2 Analyses

Subjects	Age Groups	Number of Subjects	χ^2	p <
Islam Female	8 to 9 yrs.	50	,00	
Islam Female	13 to 14 yrs.	50	,09	
Islam Female	8 to 9 & 13 to 14 yrs.	100	,00	
Islam Male	8 to 9 yrs.	50	,94	
Islam Male	13 to 14 yrs.	50	,05	
Islam Male	8 to 9 & 13 to 14 yrs.	100	,04	
Islam Total Male & Female	8 to 9 & 13 to 14 yrs.	200	,01	
Hindu Female	8 to 9 yrs.	50	,50	
Hindu Female	13 to 14 yrs.	50	1,93	
Hindu Female	8 to 9 & 13 to 14 yrs.	100	4,45	,05
Hindu Male	8 to 9 yrs.	50	1,11	
Hindu Male	13 to 14 yrs.	50	,02	
Hindu Male	8 to 9 & 13 to 14 yrs.	100	2,72	
Hindu Total Male & Female	8 to 9 & 13 to 14 yrs.	200	8,45	,01

Table 5 (continued)

Christian Female	8 to 9 yrs.	50	,03	
Christian Female	13 to 14 yrs.	50	,23	
Christian Female	8 to 9 & 13 to 14 yrs.	100	,48	
Christian Male	8 to 9 yrs.	50	11,12	,001
Christian Male	13 to 14 yrs.	50	,07	
Christian Male	8 to 9 & 13 to 14 yrs.	100	5,84	,02
Christian Total Male & Female	8 to 9 & 13 to 14 yrs.	200	6,81	,01

The X^2 analyses between religious intensity and religious tolerance indicated the following significant relationships (see Table 5).

Of the three religious groups involved only the Hindu and Christian groups revealed a significant relationship. The Hindu group consisting of 200 subjects and the Christian group made up of 100 subjects (males) 8 to 9 and 13 to 14 years, obtained significant results of ,01 and ,02 levels, respectively.

Upon closer examination it was found that the result of the total Hindu group, both males and females, from both age groups, was greatly influenced by the result of the Hindu females, 100 subjects, 8 to 9 and 13 to 14 years, who obtained a significant result at ,05 level.

In like manner the Christian group consisting of 100 male subjects from the 8 to 9 and the 13 to 14 year groups, appeared to be greatly influenced by the result obtained by the Christian male subjects from the 8 to 9 year group (50 subjects), who obtained a result significant at ,001 level (see Table 5).

From the above result it seems that both the Christian and the Hindu religious groups appeared to be deeply religious as well as tolerant of one another and also tolerant of the Muslim group.

A further breakdown of the above result indicates that the Hindu females were largely responsible for the overall significance of the Hindu group as a whole; whereas with the Christian group the over= all significance was influenced by the male scores. The Muslim group showed no significant difference.

(3)   A discussion of the relationship between religious tolerance and peer interaction follows (see Table 6).

TABLE 6

Relationship between Religious Tolerance and Peer interaction as indi=
cated by X^2 Analyses

Subjects	Age Groups	Number of Subjects	χ^2	p <
Islam Female	8 to 9 yrs.	50	,32	
Islam Female	13 to 14 yrs.	50	,08	
Islam Female	8 to 9 & 13 to 14 yrs.	100	,02	
Islam Male	8 to 9 yrs.	50	,23	
Islam Male	13 to 14 yrs.	50	,00	
Islam Male	8 to 9 & 13 to 14 yrs.	100	,04	
Islam Total Male & Female	8 to 9 & 13 to 14 yrs.	200	,09	
Hindu Female	8 to 9 yrs.	50	1,77	
Hindu Female	13 to 14 yrs.	50	0,1	
Hindu Female	8 to 9 & 13 to 14 yrs.	100	1,43	
Hindu Male	8 to 9 yrs.	50	,07	
Hindu Male	13 to 14 yrs.	50	,00	
Hindu Male	8 to 9 & 13 to 14 yrs.	100	,14	
Hindu Total Male & Female	8 to 9 & 13 to 14 yrs.	200	1,17	
Christian Female	8 to 9 yrs.	50	,10	
Christian Female	13 to 14 yrs.	50	1,11	
Christian Female	8 to 9 & 13 to 14 yrs.	100	3,01	
Christian Male	8 to 9 yrs.	50	,00	
Christian Male	13 to 14 yrs.	50	,07	
Christian Male	8 to 9 & 13 to 14 yrs.	100	,03	
Christian Total Male & Female	8 to 9 & 13 to 14 yrs.	200	,79	

None of the above x^2 relationships between the variables, religious tolerance and peer interaction obtained significant results.   This means that the subjects' choice of friends, in terms of the friends' religious affiliations was not influenced by the subjects' religious tolerance.

(4)   TABLE   7

Relationship between Occupational Status and Religious Intensity as indicated by x^2 Analyses

Subjects	Age Groups	Number of Subjects	x^2	p <
Islam Female	8 to 9 yrs.	50	2,38	
Islam Female	13 to 14 yrs.	50	,09	
Islam Female	8 to 9 & 13 to 14 yrs.	100	,07	
Islam Male	8 to 9 yrs.	50	,54	
Islam Male	13 to 14 yrs.	50	,92	
Islam Male	8 to 9 & 13 to 14 yrs.	100	,12	
Islam Total Male & Female	8 to 9 & 13 to 14 yrs.	200	1,77	
Hindu Female	8 to 9 yrs.	50	,01	
Hindu Female	13 to 14 yrs.	50	,05	
Hindu Female	8 to 9 & 13 to 14 yrs.	100	,72	
Hindu Male	8 to 9 yrs.	50	,00	
Hindu Male	13 to 14 yrs.	50	,02	
Hindu Male	8 to 9 & 13 to 14 yrs.	100	,00	
Hindu Total Male & Female	8 to 9 & 13 to 14 yrs.	200	,48	

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Table 7 (continued)

Christian Female	8 to 9 yrs.	50	,41	
Christian Female	13 to 14 yrs.	50	,13	
Christian Female	8 to 9 & 13 to 14 yrs.	100	,34	
Christian Male	8 to 9 yrs.	50	,64	
Christian Male	13 to 14 yrs.	50	2,81	
Christian Male	8 to 9 & 13 to 14 yrs.	100	3,21	
Christian Total Male & Female	8 to 9 & 13 to 14 yrs.	200	,47	

None of the above X^2 analyses between religious intensity and occupational status were significant. This means that the subject's religious intensity was in no way influenced by his parent's occupational status.

(5) TABLE 8

Relationship between Peer Interaction and Occupational Status as indi= cated by X^2 Analyses

Subjects	Age Groups	Number of Subjects	X^2	p <
Islam Female	8 to 9 yrs.	50	,00	
Islam Female	13 to 14 yrs.	50	,04	
Islam Female	8 to 9 & 13 to 14 yrs.	100	,18	
Islam Male	8 to 9 yrs.	50	,00	
Islam Male	13 to 14 yrs.	50	,04	
Islam Male	8 to 9 & 13 to 14 yrs.	100	,06	
Islam Total Male & Female	8 to 9 & 13 to 14 yrs.	200	,08	

Table 8 (continued)

Hindu Female	8 to 9 yrs.	50	,31	
Hindu Female	13 to 14 yrs.	50	,05	
Hindu Female	8 to 9 & 13 to 14 yrs.	100	,00	
Hindu Male	8 to 9 yrs.	50	,00	
Hindu Male	13 to 14 yrs.	50	,01	
Hindu Male	8 to 9 & 13 to 14 yrs.	100	,00	
Hindu Total Male & Female	8 to 9 & 13 to 14 yrs.	200	,00	
Christian Female	8 to 9 yrs.	50	,89	
Christian Female	13 to 14 yrs.	50	,25	
Christian Female	8 to 9 & 13 to 14 yrs.	100	2,01	
Christian Male	8 to 9 yrs.	50	,01	
Christian Male	13 to 14 yrs.	50	4,59	,05
Christian Male	8 to 9 & 13 to 14 yrs.	100	2,87	
Christian Total Male & Female	8 to 9 & 13 to 14 yrs.	200	1,21	

In the chi-square analyses between peer interaction and occupational status only the standard six, Christian male subjects showed a significant result at ,05 level. This means that as far as the Christian male subjects were concerned, their selection of friends were significantly influenced by their own socio-economic status. This was not observed for the Christian females and the Hindu and Muslim groups.

(6) TABLE 9

Relationship between Religious Tolerance and Occupational Status as

indicated by X^2 Analyses

Subjects	Age Groups	Number of Subjects	X^2	p <
Islam Female	8 to 9 yrs.	50	1,27	
Islam Female	13 to 14 yrs	50	,58	
Islam Female	8 to 9 & 13 to 14 yrs.	100	2,28	
Islam Male	8 to 9 yrs.	50	,11	
Islam Male	13 to 14 yrs.	50	,03	
Islam Male	8 to 9 & 13 to 14 yrs.	100	2,67	
Islam Total Male & Female	8 to 9 & 13 to 14 yrs.	200	,30	
Hindu Female	8 to 9 yrs.	50	,52	
Hindu Female	13 to 14 yrs.	50	,25	
Hindu Female	8 to 9 & 13 to 14 yrs.	100	,66	
Hindu Male	8 to 9 yrs.	50	1,95	
Hindu Male	13 to 14 yrs.	50	5,18	
Hindu Male	8 to 9 & 13 to 14 yrs.	100	7,81	,01
Hindu Total Male & Female	8 to 9 & 13 to 14 yrs.	200	1,23	
Christian Female	8 to 9 yrs.	50	,01	
Christian Female	13 to 14 yrs.	50	,02	
Christian Female	8 to 9 & 13 to 14 yrs.	100	,50	
Christian Male	8 to 9 yrs.	50	1,22	
Christian Male	13 to 14 yrs.	50	,03	
Christian Male	8 to 9 & 13 to 14 yrs.	100	,00	
Christian Total Male & Female	8 to 9 & 13 to 14 yrs.	200	,43	

In the X^2 analyses between occupational status and religious tolerance only the Hindu male subjects of both age groups (100 subjects), got significant results at ,01 level.

This result indicates that the Hindu male subjects of both age groups (100 subjects), who belonged to the high socio-economic status group differed significantly in their religious tolerance from the Hindu male subjects who came from the lower socio-economic status group. No such difference was noted for the other groups.

These results as reflected in this Chapter will now be more fully treated and discussed in the next Chapter.

CHAPTER SEVEN

7.1   DISCUSSION OF RESULTS

The questions raised in the first chapter of this investigation will now be discussed by referring to research results obtained.   The discussion is based upon group analysis of data.

7.1.1   The way in which Indian children perceive their own religion and that of the other children's religions, and whether there is a developmental change in their perceptions.

The results obtained indicate clearly that religious differences exist among Indian children in the way they perceive their own religious con= cepts and those of the other religions.

For each religious group, the subjects' own religious concepts were scored higher than the concepts of the other religions, as indicated in Table 2C and Fig. 4.   The results suggest that Indian children as a group prefer their own religions more than the other religions.

The fact that developmental changes occur in perceptions as children advance from early childhood to middle childhood and beyond was supported by this investigation.   An indication of such a change was apparent since generally the younger children rated the concepts higher than the older children.   Table 2B shows that the concept ratings of the younger children (8 to 9 years) was higher than the ratings of the older children (13 to 14 years), the total scores obtained being 161 134 and 157 130 respectively (see Table 2B).   Within the context

of the scoring system adopted for this investigation, a higher score on the semantic differential for the religious concepts was taken as a more rigid perception of religion. Similarly, a lower score was interpreted as a more flexible perception.

Probably it is the fear of automatic punishment (Piaget, 1968), that caused the younger subjects to conceive of the religious concepts as relating to their beliefs in God and therefore, unviolable. According to Piaget (1968) younger children believe that automatic punishments emanate from things themselves or from God's will (Jenson & Rytting, 1972). Therefore, the younger children conceive of God as an un= questionable, absolute authority, transcendenting both man and nature and the su preme administrator of Immanent Justice from which all punishments automatically flow. Probably it was this kind of conception (fear of Immanent Justice) that caused the younger subjects to rate their religious concepts higher. These conceptions of Immanent Justice deminishes as the child matures. The older child is therefore, more flexible, co-operative and tolerant in his thinking. Support for this comes from Table 2B which indicates that the concept ratings of the older children were lower generally than the ratings of their younger counterparts. Probably the more relaxed, flexible, tolerant and co-operative thought of the older children was at the root of lower concept ratings of the religious concepts. Both Elkind (1963) and Goldman (1964) obtained empirical evidence of developmental change in religious thinking among children. Empirical evidence corrobora= ting children's beliefs in Immanent Justice, was obtained by Jenson and Rytting (1972).

7.1.2   Do Indian children show a greater preference for their own religions than the other religions?

The results of this investigation indicate clearly that children of each religious group preferred their own religious concepts to the concepts of the other religious groups. The Hindu group's total ratings for their own concepts was 35 768, for the Islamic concepts it was 34 961 followed by 34 063 for the Christian concepts. The Islamic group's ratings for its own concepts was 36 555, 34 619 for the Hindu concepts, 34 688 for the Christian concepts. The Christian subjects as a whole scored a rating of 37 407 for their own concepts, 34 871 for the Hindu concepts and 35 332 for the Islamic concepts (see Table 2C).

This together with the graphical representation (see Fig.4), show that religious identity was strongest among Christian subjects followed by the Islamic subjects. The Hindu group indicated the lowest inten= sity of religious identity. But all groups showed a higher preference for their own religious concepts than the concepts of the other religions.

7.1.3   What other religion does each group prefer after its own?

The interactions between concepts and religious groups, as indicated in Table 2 of the results obtained a significance at ,001 level. This result indicates that there was a significant difference in the way the Hindu, Islamic and Christian subjects rated the concepts of the three religions.

Figure 4 depicts a graphical representation of subject preferences.

These preferences indicate the kinds of differences shown by the sub=
jects with respect to the concepts of the three religions.   These
preference differences will now be discussed more fully:

(1)   Hindu Preferences

The Hindus indicated a preference for the Christian religion (mean 174)
to the Islamic religion (mean 173).

(2)   Islamic Preferences

The Muslims preferred the Christian religion to the Hindu religion
(means 177 and 175, respectively).

(3)   Christian Preferences

The Christian subjects preferred the Islamic religion to the Hindu
religion (means 173 and 170 , respectively).

An examination of the data on Figure 4 indicates that there is a close
affinity between Christianity and Islam.   This is not surprising in
that, both these religions appear to profess the same roots.   The
Koran opines that it was the same Archangel Gabriel (of Christianity),
who transmitted the word of God to Mohammed in his revelations.   Such
roots do not appear to link the Hindu religion to either Islam or
Christianity.   This contention appears to be supported by results that
show that the Christian subjects preferred Islam more than Hinduism.
Similarly Muslim subjects showed a greater preference for Christianity
than Hinduism.   This observation appears to substantiate the view that
a mutual bond exists between Christianity and Islam.   The other possi=
bility is that the greater preference for Christianity by Muslims and
Hindus could have been due to the exposure of Muslim and Hindu subjects
to the influence of westernization.   Research is needed to examine

whether the close relationship between Islam and Christianity is due primarily to sentiment or to utility. Another observation of note is that Hinduism appeared to be the least preferred religion by members of either Islamic of Christian religions. Another possible explana= tion for the fact that Hinduism was the least possible choice of non-Hindu subjects may lie in the extent to which Christianity and Islam are actively propagated in the community.

The South African educational system is essentially western in character, deriving many of its ideals from Christian principles. Every school going child learns something about Christianity in school. Islam on the other hand is propagated actively by religious education outside school hours. Practically every Muslim child attends madressas. Hinduism is the least actively propagated, and the religious teachings of Hinduism appears to be primarily a matter for the family.

Nataraj (1965), observed that the relationship between Christians and Muslims was stronger than between Muslims and Hindus. Further, Hindus showed a greater preference for Christians than Muslims. These re= search results point to the fact that religion appears to be a dominant force in determining relationships between groups both here and abroad. The fear, among some Hindu and Muslim religious leaders that Hindus and Muslims are fast losing their identities in the Republic of South Africa is not supported by research evidence both here and abroad.

Uncertainties devolving around cherished ideals such as religion and the like appear to precipitate emotional conflicts. Minority groups in various parts of the world who are anxious on the one hand of retaining their cultural identities and on the other are desirous of

conforming to the requirements of the main cultural streams, appear to become apathetic and anxious. They seem to vacillate within a double-appraoch-avoidance type of conflict with two threatening goals, westernization on the one hand and retention of cultural identities on the other. These minority groups appear to approach westernization but when the threat of losing their identities arise they retreat to the other extreme. Vacillation between these two points, that is, accep= tance of western culture on the one hand and retention of traditional values on the other is emotionally disturbing. Research needs to be done in this area.

Harper (1962), states that the neo-Freudians such as Horney (1923), Fromm (1933) and Sullivan (1949) laid much stress on cultural conflicts as causative factors in the development of emotional disturbances and anxiety. Similar pronouncements were made by Frazier (1957), Anastasi (1958), and Brown (1973). Significant experimental results also bear testimony to the fact that cultural conflicts can precipi= tate emotional disturbances (Van Baal, 1960; Bernard, 1962; Robert, 1964; Berrion, 1965, Wemstock, 1965; and White, 1966).

Smith (1964), feels that active coercion and compulsion into a single cultural stream (as an alternative for the resolving of conflicts), does not appear to hold the answer. Research evidence indicates that the use of such methods in other parts of the world has failed. Degler (1973), found that the American Indians preferred retaining their iden= tities as "Red Men". More recently, Connor (1974), observed that the American Japanese preferred retaining their own family values to the value systems of the Americans.

A somewhat similar situation appears to be prevailing in the Republic
of South Africa, Inspite of over a century's exposure to westerniza=
tion the Hindus and the Muslims in the present research showed prefe=
rence for their own religions rather than Christianity (which appears
synonymous with westernization). It is therefore, rather an over-
simplification to presume that all peoples of the Republic of South
Africa are anxious to be assimilated into a single cultural stream.

7.2   The usage of the semantic differential technique in the
present research will now be discussed.

To what extent is the semantic differential technique as used in the
present investigation useful?

The semantic differential technique was originally meant for research
purposes but since has found widespread use in many other fields.
Crockett and Nidorf (1967) state that an extremely large number of
psychologists have used this technique in a variety of research set=
tings. The apparent adaptability of the technique makes it possible
to use it in investigations involving children as young as those in
the 2nd grade (Maltz, 1963; Di Vesta, 1966; Oles, 1973). The
present investigation also involves a young group of subjects (8 to 9
years). The 5 point, bi-polar, graphic form 11, adapted version of
the semantic scale (Snider and Osgood, 1969), proved adequate for these
children. No apparent difficulties were encountered by them in rating
the concepts.

The present investigator chose the semantic differential technique
since this technique has the reputation of investigating subjective

phenomena in objective terms, and religion is more subjective than objective. This was one of the reasons that dictated the choice of this method for the present investigation. The results vindicate the choice.

The authors of this method state that it is an indirect way of getting at meanings, projective in nature and designed in such a way that it could tap the various idiosyncratic aspects of individual experiences, (Osgood, et al., 1957, 1964; and Snider and Osgood, 1969). This tech= nique has a built-in rating system that is repetitive in nature. Once the initial technique of rating is mastered the rest of the ratings follow automatically. Thus the smooth flow of the child's thinking processes are not unduly interrupted by methodological intricacies. Apparently it is this reason why children as young as the 2nd grade find it convenient to use the semantic differential. The system of scoring adopted in the semantic differential makes it possible to ar= rive at an objective quantification of the subjective ratings. This makes it possible to use various statistical techniques for analyses and interpretations. So far the semantic differential appears to have predominated in investigations within the context of western culture, therefore, its extension into eastern culture can be an im= portant contribution. The results suggest that it can be used successfully with non-Caucasian subjects.

To what extent is the semantic differential technique useful to sub= jects of non-western culture?

Osgood, et al.,(1957, 1964) and Crocket and Nidorf (1967), and Snider and Osgood (1969), found that the evaluative,potency and activity factors

7.3.1   Religious Intensity and Religious Tolerance

A high religious intensity implies more frequent participation in prayer and associated rituals and a low intensity connotes infre= quent or non-participation in prayer or associated rituals.

Religious tolerance was indicated by a lower score for the subject's own religious concepts and a higher score for any of the other reli= gious concepts, or both the other religious concepts.   Conversely, religious intolerance or rigidity implied that the subjects scored higher for their own religious concepts and got lower scores for both the other religious concepts or obtained equal scores for the concepts of all three religions.

The chi-square analyses show that a positive relationship exists between religious intensity and religious tolerance among Hindus and Christians (see Table 5).   Those subjects totalling 400 (200 of each religious group) obtained significant results at ($p < ,01$) level. This implies that the Hindus and Christians were both religiously intense as well as tolerant.   Probably the underlying philosophies of Christianity and Hinduism with which the Christians and Hindus were presumably imbued, were responsible for the significant results.   The Hindu religious philosophy teaches that the presence of God exists in all His creations, therefore, all creations no matter how mundane or material its nature should be revered and tolerated.   In a somewhat similar strain Christian religious philosophy teaches that love of God is universal.   This fact appears to be illustrated by the Sermon on the Mount.

> "Ye have heard that it hath been said, Thou shalt
> love they neighbour, and hate thine enemy.   But I

> say unto you, love your enemies, bless them that
> curse you, do good to them that hate you, and pray
> for them that despitefully use you, and persecute
> you; that ye may be the children of your Father
> which is in Heaven : for he maketh his sun to rise
> on the evil and on the good, and sendeth rain on
> the just and on the unjust." (Welles, 1961).

The Islamic group did not obtain a significant result for the rela=
tionship between religious intensity and religious tolerance. The
possible reasons to account for this kind of result need to be
researched.

7.3.2   Religious Intensity and Peer Interaction

Religious intensity is similarly defined here as in the above context.
Peer interaction, however, involves the choice of friends of one's own
religious affiliation. High peer interaction implies the choice of
more friends of one's own religion; conversely low peer interaction
involves choice of two friends from the other religious groups and
one from one's own religious group or one friend from each religious
group. This information was obtained from the test booklet (see
Appendix A).

Data furnished on Table 4 indicate that only the Muslim subjects
totalling 200, obtained a significant result at (p <,01) level.
Probably, the underlying religious philosophy of Islam was responsible
for this result. The concept of unity is a living force in Islam.
Welles, (1961), in this respect states, "Mohammed said 'The Unity'
was equal in value to a third part of the entire Koran". Unity
therefore, appears to be synonymous with brotherhood in Islam.
Brotherhood is an exalted virtue that is actively cultivated and given

practical recognition in daily life. Once united within the folds of this magnanimous brotherhood all barriers of caste, colour, creed or nationality dissolve. True believers therefore, regard one another as brothers. Perhaps this was the reason why the subjects of Muslim faith, imbued with the exalted conception of brotherhood, showed a preference for friends of their own religious group, hence the high significance at (p < ,01) level. Another explanation is that through the system of madressas the Muslim school children maintain contact with children of their own religion for up to 2 hours per school day - far longer than they remain in contact with children of the other re= ligions. This prolonged contact probably helps to consolidate friendship within their own religious groups. Research needs to be done in this area.

7.3.3   Occupational Status and Religious Intensity

None of the chi-square analyses computed to investigate this relation= ship realized significant results (see Table 7). These analyses indicate that there is no relationship between religious intensity and occupational status as defined.

7.3.4   Religious Tolerance and Peer Interaction

An examination of Table 6 reveals that none of the chi-square analyses computed, reached significance for this relationship. Subjects who showed high religious tolerance as defined above, did not show the corresponding relationship in choosing more friends from their own religious affiliations.

7.3.5   Peer Interaction and Occupational Status

An examination of Table 8 indicates that only the Christian male subjects from the standard six classes (13 to 14 years) (50 subjects), obtained a significant result at the (p< ,05) level of confidence.

Watson and Lindgren (1973), indicate that social class variables are highly correlated with occupational status and educational level. Social class continues to be one of association - who associates with whom.   Among western orientated societies, social mobility and stratification of society often occur along socio-economic levels. It is mainly the socio-economic level, in such instances, that deter= mine the hierarchial status in the vertical social structure.   Probably the male Christian subjects in this investigation imbued with these kinds of norms for social stratification realized a significant result at the (p< ,05) level.   Christians are more western orientated in terms of culture and traditions than Hindus and Muslims.   None of the Hindu subjects obtained a significant result for the X^2 relationship between peer interaction and occupational status.   Of interest here is the lack of significant results with respect to the Muslim subjects. None of the Muslim subject groups obtained any result of significance. Probably this may have been due to the feelings of brotherhood that Muslims are supposed to display towards one another and consequently there is a lack of emphasis in class consciousness.

7.3.6   Religious Tolerance and Occupational Status

Only the Hindu male subjects from Std. 1 and 6, ages 8 to 9 and 13 to 14 years, constituting a group of 100 subjects, got a significant

result at the (p< ,01) level of significance. This result indicates

that the Hindu male subjects from the high socio-economic groups

differed significantly in the tolerance of the religious concepts than

the Hindu male subjects who belonged to the lower socio-economic levels.

The other religious groups did not differ in this respect.

The   relationship between members of the high socio-economic

levels and those of the low socio-economic levels in terms of religious

tolerance appears to have a direct link with the caste system that was

prevalent among the Hindus but now appears to be falling away. In the

past a person's occupational status determined his caste level. High

occupations were reserved for high castes whereas low occupations for

low castes. It was a kind of fixed, hierarchial social structure with

social mobility limited to within castes instead of between castes.

It was believed that the caste system was Divinely ordained any trans=

gressions therefore, were deemed transgressions against Divine order.

For this reason the caste system was perpetuated for generations. An

examination of historical facts shows that the caste system is foreign

to classical Hindu religion and philosophy. Meer (1969), states that

the caste system was introduced to Hindu religion by the materialistical=

ly inclined Aryans who invaded India from the north round about 2000

B.C. This system foreign to classical Hindu thought and philosophy

was soul destroying and extremely depressing to those of the lower

social classes. Probably the residues of this system that had been

perpetuated for generations could have caused the Hindu male subjects

of the higher social level to reveal greater religious intolerance

than those subjects from the lower social level. The Muslim and

Christian subjects did not show any significant differences for the

relationship between religious tolerance and occupational status.
Probably this result could have been due to the fact that no caste
systems prevailed among Muslims or Christians. The possible reasons
for the high level of significance in the result obtained by the Hindu
male subjects need to be researched.

7.4   CONCLUSIONS

Rapid advances in science and technology and the tempo of changes in
man's pattern of living, combined with the increasing use of sedatives,
tranquillizers and anti-depressants are creating serious problems for
contemporary man.

In his efforts at finding adequate solutions man is increasingly re=
searching hitherto neglected fields such as religion with the hope of
finding the right answers (Kay, 1968; Wilson, 1971; Brown, 1973;
Psychotherapeia, 1975).

However, in view of the restrictive nature of the present research it
was not possible to investigate all the ramifications of the term
religion. Only a few functional aspects have received attention.
Brown (1973), has suggested that it is mainly the functional aspects
of religion that are amenable to scientific research rather than
those aspects that are merely inferred.

Religion investigated in the 600 subjects of this investigation was
therefore, confined to an examination of inter-religious perception
and the relationship of this to some background variables. Inspite
of the restricted nature of the present research the data obtained
can help in the following ways:

(1)   The information obtained can be used in the guidance and
        counselling of both children and adults of eastern back=
        grounds.   Adams (1965), feels that personal guidance and
        counselling of this sort can help alleviate the emotional
        problems of disturbed individuals.

(2)   The developmental trends indicative in the present research
        point to the need for suitably graded material for the re=
        ligious education of children from various age groups,
        (Phillips, 1969).   The researches of Harm's (1944), Elkind
        (1963) and Goldman (1964) indicate that not all children at
        the various stages of development are ready for the same
        kind of religious material.   This can contribute to the
        compilation of a syllabus for right living in the Indian
        school system.

(3)   The developmental trends indicative in the relationships
        between the older and younger children in this investiga=
        tion augur well for the future.   The older children re=
        vealed more flexibility and religious tolerance than their
        younger counterparts.   This observation is in keeping with
        Piaget's (1968) postulations that the initial rigidity of
        little children give way to increasing flexibility as they
        grow towards adulthood.

(4)   Spinks (1963), Yinger (1970), and Nielson (1971), opine
        that religion expressed as a need is an important motivator
        of human behaviour.   The survey of religion by Schoeps

(1967) indicates that peoples widely spaced in time and
place used religion in one form or another as the basis for
conventions, social institutions, norms and values.   In
these ways religion assumes an important role in the initia=
tion and motivation of behaviour.   Both Kuper (1960) and
Meer (1969) laid emphasis on religion as the principal
motivator of the Indian way of life in the Republic.   Since
religion is an integral part of human behaviour, the need to
research religion is great.   The present research provides
some empirical data on the religious perceptions of non-
western populations.   As such it is useful especially for
functioning in a multi-national society.

7.4.1   Further Research Possibilities

The questions raised in the present research offer possibilities for
further research among children and adults in the Republic of South
Africa.   The following offer possibilities for further research:

(1)   The present research was confined to urban school children
         of two age levels.   It might be interesting to investigate
         whether there is a difference between rural and urban children
         of similar age levels.

(2)   The present research can be extended by investigating similar
         religious matters inter-denominationally or within the various
         sub-groups that exist within the contexts of each of the
         three religions (see Fig. 1).

(3)   A modification of this research design can enable the in=
        vestigation of subject preferences of both the mentally
        handicapped and mentally endowed with respect to some
        religiously orientated concepts.

(4)   A similar research with like aims can be undertaken to
        compare the ratings of Indian South Africans and with the
        ratings of Indians settled in other parts of the world, e.g.
        Britain and India.

(5)   Similarly research can be undertaken to investigate develop=
        mental changes in religious perceptions as children advance
        in a vertical developmental order from infancy to old age.

(6)   The schools where the present research was undertaken had
        more or less an even distribution of children from the
        three religious groups.   It is not known how children
        from schools where particular religious groups predominate
        will function in this kind of research.

Religion will continue to play a significant role in the lives of the
majority of Indian South Africans in the future.   A fact worthy of
note in this connection is that inspite of over a century's exposure
to the influences of westernization, the Indian children of the pre=
sent generation showed a significant difference in the way they
perceive one another's religions.   Of importance is the finding
that the children preferred their own religious concepts more than

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the religious concepts of the other religions, and that Christianity
is the next preferred religion.   This is interesting in view of
recent reports that young Christian people, especially in the States,
are turning increasingly towards eastern religions.

CHAPTER EIGHT

SUMMARY

This study was undertaken to examine some religious concepts in urban Indian school children belonging to three religions namely, Hinduism, Islam and Christianity.

By using the semantic differential technique answers to the following questions were obtained:

1.1   The way in which Indian children perceived their own religion and that of the other children's religions and whether there is a developmental change in their perceptions.

1.2   Do Indian children show a greater preference for their own religions than the other religions?

1.3   What other religion does each group prefer after its own?

2.   The following relationships between background variables were investigated:

2.1   religious intensity and peer interaction,

2.2   religious intensity and religious tolerance,

2.3   religious tolerance and peer interaction,

2.4   religious intensity and occupational status,

2.5   peer interaction and occupational status,

2.6   religious tolerance and occupational status.

The method of investigation involved a test booklet comprizing the semantic differential technique and some background variables. One-hundred-and-thirty-five, 5 point, bi-polar, graphic form 11 scales were used to rate 15 equivalent religious concepts of Hinduism, Islam and Christianity. The scales, concepts and the factors of the semantic space were randomized.

There were 600 subjects altogether (200 from each religious group). Subjects were matched for age, sex, educational level and socio-economic status.

The results obtained were as follows:

1.1   Indian children perceive their own religions differently from the religions of their counterparts.

1.2   Each group preferred its own religion most. Christianity was ranked second with the majority preferring Hinduism the least.

1.3   There was a developmental trend indicated by changes in religious perceptions among the younger and the older sub= jects.

1.4   The order of magnitude for the semantic factors was the same as in all previous investigations where the semantic diffe= rential technique was used effectively.

2.1   There was a significant relationship between religious in= tensity and religious tolerance for the Hindu and Christian groups (p < ,01).

2.2   There was a significant relationship ($p < ,01$) between
        religious intensity and peer interaction for the Muslim
        group.

2.3   There was no significant relationship between occupational
        status and religious intensity for any of the three religious
        groups.

2.4   There was no significant relationship between religious
        tolerance and peer interaction for any group.

2.5   Only the Christian male subjects (13 to 14 years) realized
        a significant relationship between peer interaction and
        occupational status ($p < ,05$).

2.6   With respect to the relationship between religious tolerance
        and occupational status only the Hindu male subjects of both
        age groups reached significance ($p < ,01$).

In conclusion it may be pointed out that the information obtained from
this research may be used to generate further research which can have
great practical potential.

APPENDIX A

SURNAME _____

NAME _____

NAME OF SCHOOL _____

STANDARD _____   SEX _____

1.   Where do you pray, Church, Mosque or Temple?
     I pray in a _____.

2.   What are you, Christian, Hindu or Muslim?
     I am a _____.

3.   If you are a Christian, how many times a week do you go to Church?

| ONCE | MORE THAN ONCE | NOT AT ALL |

Make a cross in the box that applies.

4.   If you are a Muslim, how many times a week do you go to a Mosque or Madressa?

| ONCE | MORE THAN ONCE | NOT AT ALL |

Make a cross in the box that applies.

5.   If you are a Hindu, how often is the holy lamp lit in your home?

| EVERYDAY | ONCE A WHILE | NOT AT ALL |

Make a cross in the box that applies.

6.   Make crosses in the boxes to show the religions to which three of your best friends belong.   Make a cross for each friend.

| CHRISTIAN | HINDU | MUSLIM |

DO NOT TURN OVER.   WAIT UNTIL YOU ARE TOLD WHAT TO DO.

CAR

PRETTY	:	2	:	1	:	0	:	1	:	2	:	UGLY
+		very +		somewhat +		not + not -		somewhat -		very -		-

GOOD	:	2	:	1	:	0	:	1	:	2	:	BAD
+		very +		somewhat +		not + not -		somewhat -		very -		-

HARD	:	2	:	1	:	0	:	1	:	2	:	SOFT
+		very +		somewhat +		not + not -		somewhat -		very -		-

CLEAN	:	2	:	1	:	0	:	1	:	2	:	DIRTY
+		very +		somewhat +		not + not -		somewhat -		very -		-

STRONG	:	2	:	1	:	0	:	1	:	2	:	WEAK
+		very +		somewhat +		not + not -		somewhat -		very -		-

HOT	:	2	:	1	:	0	:	1	:	2	:	COLD
+		very +		somewhat +		not + not -		somewhat -		very -		-

SHARP	:	2	:	1	:	0	:	1	:	2	:	DULL
+		very +		somewhat +		not + not -		somewhat -		very -		-

FAST	:	2	:	1	:	0	:	1	:	2	:	SLOW
+		very +		somewhat +		not + not -		somewhat -		very -		-

LARGE	:	2	:	1	:	0	:	1	:	2	:	SMALL
+		very +		somewhat +		not + not -		somewhat -		very -		-

CHRIST

CLEAN +	:	2	:	1	:	0	:	1	:	2	:	DIRTY -
		very +		somewhat +		not + not -		somewhat -		very -		

FAST +	:	2	:	1	:	0	:	1	:	2	:	SLOW -
		very +		somewhat +		not + not -		somewhat -		very -		

SHARP +	:	2	:	1	:	0	:	1	:	2	:	DULL -
		very +		somewhat +		not + not -		somewhat -		very -		

LARGE +	:	2	:	1	:	0	:	1	:	2	:	SMALL -
		very +		somewhat +		not + not -		somewhat -		very -		

PRETTY +	:	2	:	1	:	0	:	1	:	2	:	UGLY -
		very +		somewhat +		not + not -		somewhat -		very -		

STRONG +	:	2	:	1	:	0	:	1	:	2	:	WEAK -
		very +		somewhat +		not + not -		somewhat -		very -		

GOOD +	:	2	:	1	:	0	:	1	:	2	:	BAD -
		very +		somewhat +		not + not -		somewhat -		very -		

HARD +	:	2	:	1	:	0	:	1	:	2	:	SOFT -
		very +		somewhat +		not + not -		somewhat -		very -		

HOT +	:	2	:	1	:	0	:	1	:	2	:	COLD -
		very +		somewhat +		not + not -		somewhat -		very -		

DEEPAVALI

PRETTY +	:	2	:	1	:	0	:	1	:	2	:	UGLY -
		very +		somewhat +		not + not -		somewhat -		very -		

GOOD +	:	2	:	1	:	0	:	1	:	2	:	BAD -
		very +		somewhat +		not + not -		somewhat -		very -		

HARD +	:	2	:	1	:	0	:	1	:	2	:	SOFT -
		very +		somewhat +		not + not -		somewhat -		very -		

CLEAN +	:	2	:	1	:	0	:	1	:	2	:	DIRTY -
		very +		somewhat +		not + not -		somewhat -		very -		

STRONG +	:	2	:	1	:	0	:	1	:	2	:	WEAK -
		very +		somewhat +		not + not -		somewhat -		very -		

HOT +	:	2	:	1	:	0	:	1	:	2	:	COLD -
		very +		somewhat +		not + not -		somewhat -		very -		

SHARP +	:	2	:	1	:	0	:	1	:	2	:	DULL -
		very +		somewhat +		not + not -		somewhat -		very -		

FAST +	:	2	:	1	:	0	:	1	:	2	:	SLOW -
		very +		somewhat +		not + not -		somewhat -		very -		

LARGE +	:	2	:	1	:	0	:	1	:	2	:	SMALL -
		very +		somewhat +		not + not -		somewhat -		very -		

MOSQUE

LARGE +	:	2	:	1	:	0	:	1	:	2	:	SMALL -
		very +		somewhat +		not + not -		somewhat -		very -		

FAST +	:	2	:	1	:	0	:	1	:	2	:	SLOW -
		very +		somewhat +		not + not -		somewhat -		very -		

PRETTY +	:	2	:	1	:	0	:	1	:	2	:	UGLY -
		very +		somewhat +		not + not -		somewhat -		very -		

STRONG +	:	2	:	1	:	0	:	1	:	2	:	WEAK -
		very +		somewhat +		not + not -		somewhat -		very -		

GOOD +	:	2	:	1	:	0	:	1	:	2	:	BAD -
		very +		somewhat +		not + not -		somewhat -		very -		

HOT +	:	2	:	1	:	0	:	1	:	2	:	COLD -
		very +		somewhat +		not + not -		somewhat -		very -		

SHARP +	:	2	:	1	:	0	:	1	:	2	:	DULL -
		very +		somewhat +		not + not -		somewhat -		very -		

CLEAN +	:	2	:	1	:	0	:	1	:	2	:	DIRTY -
		very +		somewhat +		not + not -		somewhat -		very -		

HARD +	:	2	:	1	:	0	:	1	:	2	:	SOFT -
		very +		somewhat +		not + not -		somewhat -		very -		

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CHURCH

SHARP +	:	2	:	1	:	0	:	1	:	2	:	DULL −
		very +		somewhat +		not + not −		somewhat −		very −		

HOT +	:	2	:	1	:	0	:	1	:	2	:	COLD −
		very +		somewhat +		not + not −		somewhat −		very −		

HARD +	:	2	:	1	:	0	:	1	:	2	:	SOFT −
		very +		somewhat +		not + not −		somewhat −		very −		

PRETTY +	:	2	:	1	:	0	:	1	:	2	:	UGLY −
		very +		somewhat +		not + not −		somewhat −		very −		

GOOD +	:	2	:	1	:	0	:	1	:	2	:	BAD −
		very +		somewhat +		not + not −		somewhat −		very −		

FAST +	:	2	:	1	:	0	:	1	:	2	:	SLOW −
		very +		somewhat +		not + not −		somewhat −		very −		

LARGE +	:	2	:	1	:	0	:	1	:	2	:	SMALL −
		very +		somewhat +		not + not −		somewhat −		very −		

CLEAN +	:	2	:	1	:	0	:	1	:	2	:	DIRTY −
		very +		somewhat +		not + not −		somewhat −		very −		

STRONG +	:	2	:	1	:	0	:	1	:	2	:	WEAK −
		very +		somewhat +		not + not −		somewhat −		very −		

GITA

GOOD +	:	2	:	1	:	0	:	1	:	2	:	BAD -
		very +		somewhat +		not + not -		somewhat -		very -		

SHARP +	:	2	:	1	:	0	:	1	:	2	:	DULL -
		very +		somewhat +		not + not -		somewhat -		very -		

LARGE +	:	2	:	1	:	0	:	1	:	2	:	SMALL -
		very +		somewhat +		not + not -		somewhat -		very -		

FAST +	:	2	:	1	:	0	:	1	:	2	:	SLOW -
		very +		somewhat +		not + not -		somewhat -		very -		

HARD +	:	2	:	1	:	0	:	1	:	2	:	SOFT -
		very +		somewhat +		not + not -		somewhat -		very -		

PRETTY +	:	2	:	1	:	0	:	1	:	2	:	UGLY -
		very +		somewhat +		not + not -		somewhat -		very -		

STRONG +	:	2	:	1	:	0	:	1	:	2	:	WEAK -
		very +		somewhat +		not + not -		somewhat -		very -		

CLEAN +	:	2	:	1	:	0	:	1	:	2	:	DIRTY -
		very +		somewhat +		not + not -		somewhat -		very -		

HOT +	:	2	:	1	:	0	:	1	:	2	:	COLD -
		very +		somewhat +		not + not -		somewhat -		very -		

ALTAR

LARGE +	:	2	:	1	:	0	:	1	:	2	:	SMALL -
		very +		somewhat +		not + not -		somewhat -		very -		

PRETTY +	:	2	:	1	:	0	:	1	:	2	:	UGLY -
		very +		somewhat +		not + not -		somewhat -		very -		

SHARP +	:	2	:	1	:	0	:	1	:	2	:	DULL -
		very +		somewhat +		not + not -		somewhat -		very -		

HOT +	:	2	:	1	:	0	:	1	:	2	:	COLD -
		very +		somewhat +		not + not -		somewhat -		very -		

STRONG +	:	2	:	1	:	0	:	1	:	2	:	WEAK -
		very +		somewhat +		not + not -		somewhat -		very -		

GOOD +	:	2	:	1	:	0	:	1	:	2	:	BAD -
		very +		somewhat +		not + not -		somewhat -		very -		

CLEAN +	:	2	:	1	:	0	:	1	:	2	:	DIRTY -
		very +		somewhat +		not + not -		somewhat -		very -		

FAST +	:	2	:	1	:	0	:	1	:	2	:	SLOW -
		very +		somewhat +		not + not -		somewhat -		very -		

HARD +	:	2	:	1	:	0	:	1	:	2	:	SOFT -
		very +		somewhat +		not + not -		somewhat -		very -		

KORAN

CLEAN +	:	2	:	1	:	0	:	1	:	2	:	DIRTY -
		very +		somewhat +		not + not -		somewhat -		very -		

STRONG +	:	2	:	1	:	0	:	1	:	2	:	WEAK -
		very +		somewhat +		not + not -		somewhat -		very -		

SHARP +	:	2	:	1	:	0	:	1	:	2	:	DULL -
		very +		somewhat +		not + not -		somewhat -		very -		

HARD +	:	2	:	1	:	0	:	1	:	2	:	SOFT -
		very +		somewhat +		not + not -		somewhat -		very -		

FAST +	:	2	:	1	:	0	:	1	:	2	:	SLOW -
		very +		somewhat +		not + not -		somewhat -		very -		

LARGE +	:	2	:	1	:	0	:	1	:	2	:	SMALL -
		very +		somewhat +		not + not -		somewhat -		very -		

HOT +	:	2	:	1	:	0	:	1	:	2	:	COLD -
		very +		somewhat +		not + not -		somewhat -		very -		

PRETTY +	:	2	:	1	:	0	:	1	:	2	:	UGLY -
		very +		somewhat +		not + not -		somewhat -		very -		

GOOD +	:	2	:	1	:	0	:	1	:	2	:	BAD -
		very +		somewhat +		not + not -		somewhat -		very -		

MURTHI

CLEAN +	:	2	:	1	:	0	:	1	:	2	:	DIRTY -
		very +		somewhat +		not + not -		somewhat -		very -		

HOT +	:	2	:	1	:	0	:	1	:	2	:	COLD -
		very +		somewhat +		not + not -		somewhat -		very -		

GOOD +	:	2	:	1	:	0	:	1	:	2	:	BAD -
		very +		somewhat +		not + not -		somewhat -		very -		

HARD +	:	2	:	1	:	0	:	1	:	2	:	SOFT
		very +		somewhat +		not + not -		somewhat -		very -		

STRONG +	:	2	:	1	:	0	:	1	:	2	:	WEAK -
		very +		somewhat +		not + not -		somewhat -		very -		

SHARP +	:	2	:	1	:	0	:	1	:	2	:	DULL -
		very +		somewhat +		not + not -		somewhat -		very -		

PRETTY +	:	2	:	1	:	0	:	1	:	2	:	UGLY -
		very +		somewhat +		not + not -		somewhat -		very -		

LARGE +	:	2	:	1	:	0	:	1	:	2	:	SMALL -
		very +		somewhat +		not + not -		somewhat -		very -		

FAST +	:	2	:	1	:	0	:	1	:	2	:	SLOW -
		very +		somewhat +		not + not -		somewhat -		very -		

BIBLE

FAST +	:	2	:	1	:	0	:	1	:	2	:	SLOW −
		very +		somewhat +		not + not −		somewhat −		very −		

SHARP +	:	2	:	1	:	0	:	1	:	2	:	DULL −
		very +		somewhat +		not + not −		somewhat −		very −		

PRETTY +	:	2	:	1	:	0	:	1	:	2	:	UGLY −
		very +		somewhat +		not + not −		somewhat −		very −		

GOOD +	:	2	:	1	:	0	:	1	:	2	:	BAD −
		very +		somewhat +		not + not −		somewhat −		very −		

CLEAN +	:	2	:	1	:	0	:	1	:	2	:	DIRTY −
		very +		somewhat +		not + not −		somewhat −		very −		

LARGE +	:	2	:	1	:	0	:	1	:	2	:	SMALL −
		very +		somewhat +		not + not −		somewhat −		very −		

HARD +	:	2	:	1	:	0	:	1	:	2	:	SOFT −
		very +		somewhat +		not + not −		somewhat −		very −		

STRONG +	:	2	:	1	:	0	:	1	:	2	:	WEAK −
		very +		somewhat +		not + not −		somewhat −		very −		

HOT +	:	2	:	1	:	0	:	1	:	2	:	COLD −
		very +		somewhat +		not + not −		somewhat −		very −		

MOHAMMED

PRETTY +	:	2	:	1	:	0	:	1	:	2	:	UGLY -
		very +		somewhat +		not + not -		somewhat -		very -		

GOOD +	:	2	:	1	:	0	:	1	:	2	:	BAD -
		very +		somewhat +		not + not -		somewhat -		very -		

CLEAN +	:	2	:	1	:	0	:	1	:	2	:	DIRTY -
		very +		somewhat +		not + not -		somewhat -		very -		

HARD +	:	2	:	1	:	0	:	1	:	2	:	SOFT -
		very +		somewhat +		not + not -		somewhat -		very -		

SHARP +	:	2	:	1	:	0	:	1	:	2	:	DULL -
		very +		somewhat +		not + not -		somewhat -		very -		

HOT +	:	2	:	1	:	0	:	1	:	2	:	COLD -
		very +		somewhat +		not + not -		somewhat -		very -		

STRONG +	:	2	:	1	:	0	:	1	:	2	:	WEAK -
		very +		somewhat +		not + not -		somewhat -		very -		

FAST +	:	2	:	1	:	0	:	1	:	2	:	SLOW -
		very +		somewhat +		not + not -		somewhat -		very -		

LARGE +	:	2	:	1	:	0	:	1	:	2	:	SMALL -
		very +		somewhat +		not + not -		somewhat -		very -		

TEMPLE

STRONG +	:	2	:	1	:	0	:	1	:	2	:	WEAK −
		very +		somewhat +		not + not −		somewhat −		very −		

FAST +	:	2	:	1	:	0	:	1	:	2	:	SLOW −
		very +		somewhat +		not + not −		somewhat −		very −		

CLEAN +	:	2	:	1	:	0	:	1	:	2	:	DIRTY −
		very +		somewhat +		not + not −		somewhat −		very −		

HARD +	:	2	:	1	:	0	:	1	:	2	:	SOFT −
		very +		somewhat +		not + not −		somewhat −		very −		

HOT +	:	2	:	1	:	0	:	1	:	2	:	COLD −
		very +		somewhat +		not + not −		somewhat −		very −		

PRETTY +	:	2	:	1	:	0	:	1	:	2	:	UGLY −
		very +		somewhat +		not + not −		somewhat −		very −		

LARGE +	:	2	:	1	:	0	:	1	:	2	:	SMALL −
		very +		somewhat +		not + not −		somewhat −		very −		

GOOD +	:	2	:	1	:	0	:	1	:	2	:	BAD −
		very +		somewhat +		not + not −		somewhat −		very −		

SHARP +	:	2	:	1	:	0	:	1	:	2	:	DULL −
		very +		somewhat +		not + not −		somewhat −		very −		

EID

HARD +	:	2	:	1	:	0	:	1	:	2	:	SOFT −
		very +		somewhat +		not + not −		somewhat −		very −		

SHARP +	:	2	:	1	:	0	:	1	:	2	:	DULL −
		very +		somewhat +		not + not −		somewhat −		very −		

STRONG +	:	2	:	1	:	0	:	1	:	2	:	WEAK −
		very +		somewhat +		not + not −		somewhat −		very −		

FAST +	:	2	:	1	:	0	:	1	:	2	:	SLOW −
		very +		somewhat +		not + not −		somewhat −		very −		

HOT +	:	2	:	1	:	0	:	1	:	2	:	COLD −
		very +		somewhat +		not + not −		somewhat −		very −		

LARGE +	:	2	:	1	:	0	:	1	:	2	:	SMALL −
		very +		somewhat +		not + not −		somewhat −		very −		

PRETTY +	:	2	:	1	:	0	:	1	:	2	:	UGLY −
		very +		somewhat +		not + not −		somewhat −		very −		

CLEAN +	:	2	:	1	:	0	:	1	:	2	:	DIRTY −
		very +		somewhat +		not + not −		somewhat −		very −		

GOOD +	:	2	:	1	:	0	:	1	:	2	:	BAD −
		very +		somewhat +		not + not −		somewhat −		very −		

CHRISTMAS

FAST +	:	2	:	1	:	0	:	1	:	2	:	SLOW -
		very +		somewhat +		not + not -		somewhat -		very -		

PRETTY +	:	2	:	1	:	0	:	1	:	2	:	UGLY -
		very +		somewhat +		not + not -		somewhat -		very -		

CLEAN +	:	2	:	1	:	0	:	1	:	2	:	DIRTY -
		very +		somewhat +		not + not -		somewhat -		very -		

STRONG +	:	2	:	1	:	0	:	1	:	2	:	WEAK -
		very +		somewhat +		not + not -		somewhat -		very -		

HOT +	:	2	:	1	:	0	:	1	:	2	:	COLD -
		very +		somewhat +		not + not -		somewhat -		very -		

LARGE +	:	2	:	1	:	0	:	1	:	2	:	SMALL -
		very +		somewhat +		not + not -		somewhat -		very -		

HARD +	:	2	:	1	:	0	:	1	:	2	:	SOFT -
		very +		somewhat +		not + not -		somewhat -		very -		

GOOD +	:	2	:	1	:	0	:	1	:	2	:	BAD -
		very +		somewhat +		not + not -		somewhat -		very -		

SHARP +	:	2	:	1	:	0	:	1	:	2	:	DULL -
		very +		somewhat +		not + not -		somewhat -		very -		

RAMA

CLEAN +	:	2	:	1	:	0	:	1	:	2	:	DIRTY -
		very +		somewhat +		not + not -		somewhat -		very -		

FAST +	:	2	:	1	:	0	:	1	:	2	:	SLOW -
		very +		somewhat +		not + not -		somewhat -		very -		

SHARP +	:	2	:	1	:	0	:	1	:	2	:	DULL -
		very +		somewhat +		not + not -		somewhat -		very -		

HOT +	:	2	:	1	:	0	:	1	:	2	:	COLD -
		very +		somewhat +		not + not -		somewhat -		very -		

LARGE +	:	2	:	1	:	0	:	1	:	2	:	SMALL -
		very +		somewhat +		not + not -		somewhat -		very -		

STRONG +	:	2	:	1	:	0	:	1	:	2	:	WEAK -
		very +		somewhat +		not + not -		somewhat -		very -		

PRETTY +	:	2	:	1	:	0	:	1	:	2	:	UGLY -
		very +		somewhat +		not + not -		somewhat -		very -		

GOOD +	:	2	:	1	:	0	:	1	:	2	:	BAD -
		very +		somewhat +		not + not -		somewhat -		very -		

HARD +	:	2	:	1	:	0	:	1	:	2	:	SOFT -
		very +		somewhat +		not + not -		somewhat -		very -		

KAABA

LARGE +	:	2	:	1	:	0	:	1	:	2	:	SMALL −
		very +		somewhat +		not + not −		somewhat −		very −		

CLEAN +	:	2	:	1	:	0	:	1	:	2	:	DIRTY −
		very +		somewhat +		not + not −		somewhat −		very −		

STRONG +	:	2	:	1	:	0	:	1	:	2	:	WEAK −
		very +		somewhat +		not + not −		somewhat −		very −		

HARD +	:	2	:	1	:	0	:	1	:	2	:	SOFT −
		very +		somewhat +		not + not −		somewhat −		very −		

FAST +	:	2	:	1	:	0	:	1	:	2	:	SLOW −
		very +		somewhat +		not + not −		somewhat −		very −		

PRETTY +	:	2	:	1	:	0	:	1	:	2	:	UGLY −
		very +		somewhat +		not + not −		somewhat −		very −		

HOT +	:	2	:	1	:	0	:	1	:	2	:	COLD −
		very +		somewhat +		not + not −		somewhat −		very −		

GOOD +	:	2	:	1	:	0	:	1	:	2	:	BAD −
		very +		somewhat +		not + not −		somewhat −		very −		

SHARP +	:	2	:	1	:	0	:	1	:	2	:	DULL −
		very +		somewhat +		not + not −		somewhat −		very −		

APPENDIX B

STATISTICAL   ANALYSES

1.   THE x^2 TEST OF SIGNIFICANCE OF THE DIFFERENCE BETWEEN OCCUPATIONAL   STATUS AND PEER INTERACTION AMONG 50, 13 to 14 YEAR OLD CHRISTIAN MALES

		OCCUPATION		
		HIGH	LOW	TOTAL
PEER INTERACTION	HIGH	12 (a	15 (b	27 (m
	LOW	18 (c	5 (d	23 (n
TOTAL		30 (k	20 (l	50 (N

(Downie, N.M. & Heath, R.W. (1965)
Basic Statistical Methods, Harper, N.Y.)

$$x^2 = \frac{N\left[(ad)-(bc)-\frac{N}{2}\right]^2}{(k)\ (l)\ (m)\ (n)}$$

$$= \frac{50\left[(12\times5)-(18\times15)-\frac{50}{2}\right]^2}{27 \times 23 \times 30 \times 20}$$

$$= \frac{50\left[270-60-25\right]^2}{372600}$$

$$= \frac{50\left[185^2\right]}{372600}$$

$$= \frac{50 \times 34225}{372600}$$

$$= \frac{1711250}{372600}$$

$$= 4,592$$

$$= \underline{P < ,05}_{\searrow}$$

2. ANALYSIS OF VARIANCE OF SEX, AGE, RELIGIOUS GROUP AND CONCEPT RATING OF 600 URBAN INDIAN SCHOOL CHILDREN (A X B X C X D)

TABLE   50 X A X B X C X D

AGE GROUP	SEX	CONCEPT RATINGS OF RELIGIOUS GROUPS								
		HINDU S_s RATINGS OF THE CONCEPTS OF			MUSLIM S_s RATINGS OF THE CONCEPTS OF			CHRISTIAN S_s RATINGS OF THE CONCEPTS OF		
		Hinduism	Islam	Christianity	Hinduism	Islam	Christianity	Hinduism	Islam	Christianity
8 to 9 yr	Male	8872	8713	8836	9130	9402	9176	8712	8913	9399
	Female	8760	8619	8668	8811	9217	8908	8744	8814	9440
13 to 14 yr	Male	8766	8364	8375	8339	8790	8422	8190	8207	9081
	Female	9370	8923	8992	8681	9146	8826	8417	8754	9487

1.   Lindquist, E.F. (1953), *Design and Analysis of Experiments in Psychology and Education,* Houghton, Miffin, Co., Boston.

2.   Winer, B.J. (1962), *Statistical Principles in Experimental Design,* McGraw-Hill, N.Y.

G   318264

N   1800

$$I = \frac{G^2}{N}$$

$$= \frac{318264^2}{1800}$$

$$= 56273319$$

$\sum a^2 = 160577$

$\sum b^2 = 157130$

$\sum c^2 = 106848$

$\sum d^2 = 105862$

$a1^2 = 24865189969$

$a2^2 = 25784972929$

$b1^2 = 25964165956$

$b2^2 = 24689836900$

$c1^2 = 11079246564$

$c2^2 = 11416495104$

$c3^2 = 11269520964$

$d1^2 = 10981363264$

$d2^2 = 11206763044$

$d3^2 = 11579912100$

$\sum A = 50650162898$

$\sum B = 50654002856$

$\sum C = 33765262632$

$\sum D = 33768038408$

$$A = A' - I = \frac{a^2 - I}{Nai}$$

$$= \underline{+4640} \rightarrow$$

$$B = B' - I = \frac{b^2 - I}{Nbi}$$

$$= \underline{+8906} \rightarrow$$

$$C = C' - I = \frac{c2 - I}{Nci}$$

$$= \underline{+2119} \rightarrow$$

$$D = D' - I = \frac{d^2 - I}{Ndi}$$

$$= \underline{+6745} \rightarrow$$

$$AB = \lessgtr 81153^2, \quad 79981^2, \quad 76534^2, \quad 80596^2$$

$$= \underline{25335938142} \rightarrow$$

$$AC = \lessgtr 51926^2, \quad 53332^2, \quad 53259^2, \quad 53589^2, \quad 52502^2, \quad 53656^2$$

$$= \underline{16884340042} \rightarrow$$

$$AD = \lessgtr 52009^2, \quad 52783^2, \quad 52389^2, \quad 53473^2, \quad 53289^2, \quad 54321^2$$

$$= \underline{16885438782} \rightarrow$$

$$BC = \lessgtr 52468^2, \quad 52790^2, \quad 54644^2, \quad 52204^2, \quad 54022^2, \quad 52136^2$$

$$= \underline{16887438456} \rightarrow$$

$$BD = \lessgtr 53029^2, \quad 51763^2, \quad 53678^2, \quad 52184^2, \quad 54427^2, \quad 53183^2$$

$$= \underline{16886710368} \rightarrow$$

$$CD = \lessgtr 35768^2, \quad 34961^2, \quad 34063^2, \quad 34619^2, \quad 36555^2, \quad 34688^2,$$
$$34871^2, \quad 35332^2, \quad 37407^2$$

$$= \underline{11263530358} \rightarrow$$

$ABC = \sum 26421^2, 27708^2, 27024^2, 26047^2, 26936^2, 26998^2, 25505^2,$
$\qquad 25551^2, 25478^2, 27285^2, 26653^2, 26658^2$

$\qquad = \underline{8446975098}$

$BCD = \sum 17632^2, 17332^2, 17504^2, 17941^2, 18619^2, 18084^2, 17456^2,$
$\qquad 17727^2, 18839^2, 18136^2, 17287^2, 17367^2 \; 17020^2,$
$\qquad 17936^2, 17248^2, 16607^2, 16961^2, 18568^2$

$\qquad = \underline{5633599896}$

$ACD = \sum 17638^2, 17077^2, 17211^2, 17469^2, 18192^2, 17598^2, 16902^2,$
$\qquad 17120^2, 18480^2, 18130^2, 17542^2, 17660^2, 17492^2, 18363^2,$
$\qquad 17734^2, 17161^2, 17568^2, 18927^2$

$\qquad = \underline{5632353054}$

$ABD = \sum 26714^2, 27028^2, 27411^2, 25295^2, 25361^2, 25878^2, 26315^2,$
$\qquad 26650^2, 27016^2, 26468^2, 26823^2, 27305^2$

$\qquad = \underline{8446359090}$

$ABCD = \sum 8872^2, 8713^2, 8836^2, 9130^2, 9402^2, 9176^2, 8712^2,$
$\qquad 8913^2, 9399^2, 8766^2, 8364^2, 8375^2, 8339^2, 8790^2,$
$\qquad 8422^2, 8190^2, 8207^2, 9081^2, 8760^2, 8619^2, 8668^2,$
$\qquad 8811^2, 9217^2, 8908^2, 8744^2, 8814^2, 9440^2, 9370^2,$
$\qquad 8923^2, 8992^2, 8681^2, 9146^2, 8826^2, 8417^2, 8754^2,$
$\qquad 9487^2$

$\qquad = \underline{2817925146}$

$AB = \sum \dfrac{AB^2}{Nab}$

$\qquad = \underline{56302085}$

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$$AC \quad = \; \measuredangle \frac{AC^2}{Nac}$$

$$= \; \underrightarrow{56281134}$$

$$AD \quad = \; \measuredangle \frac{AD^2}{Nad}$$

$$= \; \underrightarrow{56284796}$$

$$BC \quad = \; \measuredangle \frac{BC^2}{Nbc}$$

$$= \; \underrightarrow{56291462}$$

$$BD \quad = \; \measuredangle \frac{BD^2}{Nbd}$$

$$= \; \underrightarrow{56289035}$$

$$CD \quad = \; \measuredangle \frac{CD^2}{Ncd}$$

$$= \; \underrightarrow{56317652}$$

$$ABC \quad = \; \measuredangle \frac{ABC^2}{Nabc}$$

$$= \; \underrightarrow{56313167}$$

$$BCD \quad = \; \measuredangle \frac{BCD^2}{Nbcd}$$

$$= \; \underrightarrow{56335999}$$

$$ACD \quad = \; \measuredangle \frac{ACD^2}{Nacd}$$

$$= \; \underrightarrow{56323531}$$

$$ABD \quad = \; \measuredangle \frac{ABD^2}{Nabd}$$

$$= \; \underrightarrow{56309061}$$

$$ABCD \quad = \; \measuredangle \frac{ABCD^2}{Nabcd}$$

$$= \; \underrightarrow{56358502}$$

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$$S'\ A'B'C' = \underline{57832831}_{\rightarrow}$$

$$S'\ A'B'C'D' = \underline{58191345}_{\rightarrow}$$

$$A'B'C'\ SD = (S'-I)\ (D'-I)\ A'B'C'$$

$$= \underline{+313179}_{\rightarrow}$$

$$S'\ A'B'C' = S\ A'B'C' - A'B'C'$$

$$= \underline{+1519664}_{\rightarrow}$$

$$A'B' = AB - A - B + I$$

$$= \underline{+15220}_{\rightarrow}$$

$$A'C' = AC - A - C + I$$

$$= \underline{+1056}_{\rightarrow}$$

$$A'D' = AD - A - D + I$$

$$= \underline{+92}_{\rightarrow}$$

$$B'C' = BC - B - C + I$$

$$= \underline{+7118}_{\rightarrow}$$

$$B'D' = BD - B - D + I$$

$$\underline{+65}_{\rightarrow}$$

$$C'D' = CD - C - D + I$$

$$= \underline{+35469}_{\rightarrow}$$

$$A'B'C' = ABC - AC - BC - AB + A + B + C - I$$

$$= \underline{+789}_{\rightarrow}$$

$$B'C'D' = BCD - BC - CD - BD + B + C + D - I$$

$$= \underline{+2258}_{\rightarrow}$$

$$A'C'D' = ACD - AC - CD - AD + A + C + D - I$$

$$= \underline{+89}_{\rightarrow}$$

$$A'B'D' \quad = \quad ABD - AB - AD - BD + A + B + D - I$$

$$\quad = \quad \underrightarrow{+74}$$

$$A'B'C'D' \quad = \quad ABCD - ABC - BCD - ACD - ABD + AB + AC + AD + BC + BD +$$

$$CD - A - B - C - D + I$$

$$\quad = \quad \underrightarrow{+541}$$

AN AXBXCXD ANALYSIS OF VARIANCE WITH REPEATED MEASURES ON D TO

EXAMINE THE EFFECTS OF THE MAJOR VARIABLES ON CONCEPT RATINGS

SOURCE	SS	df	MSS	F-Ratio	p<
I	+56273319	1	+56273319	+21777,6	
Sex	+ 4640	1	+ 4640	1,79	
Age Groups	+ 8906	1	+ 8906	+ 3,45	
Religious Groups	+ 2119	2	+ 1060	+ 0,41	
Sex & Age Groups	+ 15220	1	+ 15220	+ 5,89	p<,05
Sex & Religious Groups	+ 1056	2	+ 528	+ 2,04	
Age & Religious Groups	+ 7118	2	+ 3559	+ 1,37	
Sex, Age & Religious Groups	+ 789	2	+ 359	+ 0,15	
Error for Between Factors	+ 1519664	588	+ 2584		
Concepts	+ 6745	2	+ 3373	+ 12,68	p<,01
Sex & Concepts	+ 92	2	+ 46	+ 0,17	
Age Groups & Concepts	+ 65	2	+ 33	+ 0,12	
Religious Groups & Concepts	+ 35469	4	+ 8867	+ 33,26	p<,001
Sex, Age & Concepts	+ 74	2	+ 37	+ 0,14	
Sex, Religious Groups & Concepts	+ 89	4	+ 22	+ 0,08	
Age, Religious Groups & Concepts	+ 2258	4	+ 565	+ 2,12	
Sex, Age, Religious Groups & Concepts	+ 541	4	+ 135	+ 0,50	
Error for Within Factors	+ 313179	1176	+ 266		

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