Personality, Religion and Character Traits:

Are Personality Traits Better Predictors of Happiness than Religiosity?

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Abstract

The aim of this study was to investigate the effect religion, age and gender have on happiness and to identify any differences that may be evident. Questionnaires were given to participants by hard copy or email link. The participants (N=76) consisted of 41 males (n=41) and 35 females (n=35) and it was a sample of convenience with a snowballing effect. Results showed that there was a statistically significant main effect for religion, although no significant effect was found for age or gender. Positive correlations were found between some character traits and happiness. Linear regression modelling provided a 1.2% change in results when adjusted for religion. The study shows that character traits were better predictors for happiness than religion.
Introduction

Happiness

Happiness has been the goal of scholars, philosophers, rich and poor, old and young, indeed all humanity since the dawn of our intellectual being. For a concept almost as old as we ourselves are, it appears to be incredibly hard to define. Each person asked will give differing opinions as to what makes him or her happy. Happiness appears to be an emotion, and, similar to other emotions defies quantification. We all know the feeling of happiness, but describing it can prove problematic. This dilemma of quantifying happiness has provided an obstacle to scientists like psychologists for many years. Positive psychology has turned many aspects of psychology on its head, claiming that psychology only looks at reasons for un-happiness, discontentment and suffering, positive psychology seeks to understand what makes a more normal life more fulfilling, or happier (Passer & Smith, 2008, p. 403).

Our search for happiness can be traced back to the ancient Greek philosophers. Socrates, arguably the father of western philosophy, believed that there are five differing “parts” when describing the concept of Arete. Arete is commonly translated as virtue, but may be more accurate to translate the word as meaning; being the best one can be, and can be linked with human knowledge or the pursuit thereof. These five constituent parts are, andreia (“manliness”, “courage”) sophrosyne (“temperance”, “moderation”) dikaiosyne (“justice”, “righteousness”) hosiotics (“piety”, “holiness”) and sophia (“wisdom”). Further, the concept of eudemonia, can be translated into something akin to happiness,
but as with much ancient Greek, the slight nuances are lost in the translation process. Human flourishing maybe proposed as a more accurate translation (Guthrie, 2006).

Socrates believed that happiness was the result of a life dedicated to these five “virtues”. However, Socrates held a radicalised belief system on these virtues and in Plato’s Meno he states “all undertaking of the spirit, and all that it endures, lead to happiness when guided by wisdom, but when by folly, to the opposite” (Guthrie, 2006, p. 105).

Plato, student of Socrates and mentor to Aristotle (teacher to Alexander the Great) believed that happiness can be achieved in the pursuit of “eudaimonia”. For Aristotle, this state of eudaimonia, is central to his writing on ethics and may be gained by living up to ones full potential. This belief system, is still investigated today by psychologists to try to define and quantify this most elusive of conditions.

The current study uses a measure called the Oxford Happiness Questionnaire (OHQ) to measure perceived happiness in the participants. Designed by Michael Argyle and Peter Hills in 2001, its internal reliability has been tested by Robbins, Francis and Edwards (2010) and has demonstrated good internal reliability, with a Cronbach’s alpha score of .90.

Positive psychology has its roots in the humanistic psychology of Abraham Maslow and Carl Rogers. Carl Rogers Human Potential Movement was a response to the psychoanalytical movement, which claimed that unconscious desires drive the person, and the Skinnerian view that the body is simply responding to external reinforcement (Pervin, 2003). The focus for
Rogers was a move by the person towards growth and self actualisation. Through his work as a clinician and rigorous scientist, he discovered that clients, when talking about their problems, focused on their own experiences as an individual. This he discovered was in contradiction to what he previously believed that the *self* was a vague and scientifically meaningless term. Abraham Maslow, the other major leader in the Human Potential Movement, suggests a hierarchical view of human motivation. Maslow constructed a model shaped like a pyramid. On the lowest levels reside the most basic human requirements for life, food, water, sex, excretion, sleep, breathing and homeostasis. The next level contains security and safety, of the body, the family, health and property. Love and belonging, social needs, are placed on the next level. The need for a partner, friendship and family are the prerequisites on this level. Esteem and self-esteem are above them, the desire to be respected by others and respect for others, achievement and confidence are here. The pinnacle of the pyramid is self-actualisation. Acceptance of facts, morality, advanced problem solving, and a throwing off of the shackles of whatever society demands of us. Maslow states that to be happy we must satisfy the needs on the level of the pyramid we are on before we can move onto the next. This seminal work on the hierarchy of needs has been a guiding force in the path that positive psychology has taken (Passer & Smith, 2008, p. 366).

Martin Seligman and Mihaly Csikszentmihalyi expanded on these concepts in their seminal work, *Positive Psychology: An Introduction*. This series of papers explain that by reinforcing positive experiences within the self, a reduction of pathological problems may be observed. They explain “a science of positive subjective experience, positive individual traits, and positive
institutions promises to improve quality of life and prevent the pathologies that arise when life is barren and meaningless. The exclusive focus on pathology that has dominated so much of our discipline results in a model of the human being lacking the positive features that make life worth living. Hope, wisdom, creativity, future mindedness, courage, spirituality, responsibility, and perseverance are ignored or explained as transformations of more authentic negative impulses” (Seligman & Csikszentmihalyi, 2000, p. 7).

**Trait Theory**

Traits can be defined as consistent patterns of behaviour, feelings and thinking demonstrated by a person (Cervone & Pervin, 2008). These traits should therefore be both consistent and distinctive. Distinctive in that they are peculiar to a particular set of people, one that makes them different from another set. This will give them a typical response to a given situation or a particular outlook on life. Knowing how an individual or set of individuals will react to a given situation allows us to predict behaviour in the future and this can be a powerful tool in psychology. Indeed, it is one of the cornerstones of all sciences.

Gordon Allport, an early trait theorist, became critical of psychoanalysis whilst travelling through Europe in his early twenties. Allport decided to meet with Sigmund Freud and was amused to find Freud trying to analyse him, even though his call was purely social. This led Allport to conclude that psychoanalysis may go too deep into the psyche, and that manifest motives should be ruled out before probing into the unconscious (Cervone & Pervin, 2008). Allport’s work concluded that personality can be categorised into three
differing groups, traits, states and activities. His traits are then further organised into cardinal traits, central traits and secondary traits, depending on the strength and regularity of the occurrences of the behaviour exhibited (Cervone & Pervin, 2008).

The work of Raymond Cattell provides us with two distinct concepts in his version of trait theory. This is similar work to Allport’s in that traits are arranged hierarchically, with some being more readily observable than others. These he called surface traits. Surface traits are closely intercorrelated, and are to an extent, reliant on one another. By measuring these forty surface traits, using factor analysis, Cattell was able to summarise these correlations between surface traits and distil from them sixteen source traits, which he further grouped into three categories, ability, temperament and dynamic. Each of these describing a capability to function in any situational demand (Cervone & Pervin, 2008).

Hans Eysenck maintained that normal personality could be understood in terms of two basic dimensions such as the introversion-extraversion and stability-instability (neuroticism) (Passer & Smith, 2008). These dimensions are based upon the ancient Greek assumption of four basic personality types, sanguine (pleasure-seeking and sociable), choleric (ambitious and leader-like), melancholic (introverted and thoughtful), and phlegmatic (relaxed and quiet) (Guthrie, 2006). Eysenck superimposed his two dimensions over these four concepts and found a correlation between particular traits and the ancient Greek personality types. Eysenck later added a third factor into his model, traits that if taken to extremes of behaviour may become abnormal. This “super
factor” is psychoticism (Cervone & Pervin, 2008). These traits formed the basis of the five-factor model used in the current study.

Costa and McCrae in 1985 expanded on previous research and proposed the five-factor model which was distilled from previous, similar theories that had been around for some three decades before (Passer & Smith, 2008). This five-factor model consists of the traits openness, conscientiousness, extraversion, agreeableness and neuroticism. Together they form an acronym, OCEAN. Exponents of the five-factor model contend that when a person is placed on a position in the model, by means of psychological testing, behaviour or behaviour ratings can be shown or predicted (Passer & Smith, 2008). The current study uses the modified version of this model put forward by John and Srivastava. This tool has show that specific traits in the OCEAN model are consistent across the globe. All these traits appear in all cultures, globally, and are useful when two cultures have been sampled, as in the study presented (John & Srivastava, 1999).

Evaluation of these and other trait theories become more complex when we try to describe causation between the traits and behaviours. To say that someone is fun loving and gregarious, because she scores highly on extraversion, only describes their behaviour with a trait name, not the inner disposition of a person’s personality, or the factors that produced such a disposition (Passer & Smith, 2008).

Twin studies may provide an insight into the possible genetic indicators of personality. The so-called ‘Jim’ twins, Jim Lewis and Jim Springer, were identical twins, separated at four weeks, who never met again for thirty-nine
years. Despite this long separation, their lives ran almost parallel to one another, both in event and in personal interests and actions. The Jim twins were part of a larger study that demonstrated that genetic factors can account for approximately 40-50% of variance among people in trait scores (Passer & Smith, 2008, p. 475).
Religion

Religion has been the subject of innumerable psychological studies since the conception of the discipline. Like happiness, everybody feels the effects of religion, and every individual has a differing experience of it. Be it the Abrahamic religions such as Christianity, Judaism or Islam, or any of the religions of the world found wherever humans exist, it would be impossible to find any society on the face of the Earth that have no experience with deity or deities of one sort or another. Sigmund Freud, the father of psychoanalysis, in his 1955 paper on group psychology and the analysis of the ego, describes religion as having its roots in totemism (Freud, [1921], 1985). Totemism removes the paternal “chief” and replaces him with the fraternal brotherhood. The act in which the desire to kill the father and replace him as head of the tribe, taking all the father owns, including the mother, is acted out, with the totemic animal becoming a symbol for the father. This sacred and revered animal is killed and eaten, in an act of unconscious, symbolic cannibalism. This is followed by the incestuous relationship unconsciously desired by the would-be murderer or murderers, which form the basis of Freud’s Oedipus Complex. The Oedipus Complex, forms the cornerstone of Freud’s psychoanalysis paradigm. The murder of the father and incestuous relationship with the mother create great distress within the psyche. These thoughts must be repressed if the person is to have any sort of normal existence and any chance of a happy life. However, psychoanalysis tells us that whatever has been repressed must return, albeit in a transformed state, creating anxiety and many forms of psychological distress. He applies the idea of the Oedipus complex before stating in his work, The
Future of an Illusion, that religion, is a fantasy, which must be shrugged off if man is to move towards maturity. He says “Men cannot remain children forever; they must in the end go out into ‘hostile life’. We may call this ‘education to reality’ ” (Freud, [1927], 1985). The teachings of Freud and others during the early twentieth century, concerning the neurotic influences of religion, have had an enormous impact on the field, nullifying the quite favourable views toward religion held by certain nineteenth century psychiatrists (Koenig & Larson, 2001).

The connection between religion and happiness may seem redundant. Common sense tells us that religious people have better peace of mind, less worries about death and the afterlife and that the benevolent deity of their choice will provide for their needs. However, any deity requires sacrifice; can the demands of any god place their followers under pressure?

A study preformed on participants with spinal injuries showed a positive correlation between religiosity and post-traumatic stress disorder (PTSD). The higher the religiosity score the higher the PTSD score, this was concluded to be, by the researchers, because the participants believed that their injuries were some kind of punishment by their God upon them (Chen & Koenig, 2006). Further studies show that both positive and negative coping strategies towards stressful events have implications for the individual, both in their mental and physical well being. (Pargament, Smith, Koenig, & Perez, 1998). Little or no research has been done on the relationship between happiness and atheism. The researcher of the current study could find no studies on the relationship between
atheism and mental health. Using the EBSCOhost, and the Boolean phrases, atheism, happiness and mental health, only one paper was returned. This paper declared that the reason for this lack of study was the difficulty in measuring atheism for use as a variable in studies (Whitley, 2010). However, there has been much research done on the relationship between religion and happiness. A study performed in Germany in 2003 found there was no correlation between happiness and religiosity. (Francis, Ziebertz, & Lewis, 2003). Using the OHQ, the Francis Attitude towards Christianity Questionnaire and a short form Eysenck Personality questionnaire, results found that there was no link between happiness, religion and personality. These findings were reproduced in Wales, England and in the United States. It was found that higher scores on the Francis Scale were associated with higher scores on the Depression Happiness Scale, the Oxford Happiness Inventory, the Purpose In Life questionnaire, and the Index of Self Actualisation questionnaire, providing evidence for a positive association between religiosity and these facets of subjective well-being. However, partial correlations suggested that the association between religiosity and happiness is a function of purpose in life (French & Joseph, 1999). This runs concurrently to conclusions reached by several, similar studies in continental Europe and the U.K. Robbins and Francis (2002) note that the relationship between religiosity and happiness varies according to the precise measures used and the samples studied. These findings are despite the fact that the same measures were used in both designs. Results from the census, taken in the United Kingdom in 2001 state that younger people more than older people are likely to be non-religious reflecting the trend towards a more secular society. In the age group 16-34 almost 23% stated non-religious, this is compared to
only 5% in the age group 65+. Islam is the only group, according to the same census, that states that men outnumber women in religiosity, 52% for men against 48% women. Other groups are either evenly distributed or have more women. This may be due to the fact that women live longer. Islam has the youngest age demographic in the UK, accounting for 34% of children under the age of 16 in 2001. Jewish and Christian hold the older age profile with one in five aged 65 years or over (22% and 19% respectively) (Employers Forum on Belief, 2001).

Happiness among undergraduate students was again compared against religiosity in Northern Ireland. In 2002, Lewis found no correlation between frequency of church attendance and happiness, measured on the Depression-Happiness Scale, rather that the findings of any research can be predicted by the culture the research is performed in (Lewis, 2002).

In defence of the positive correlation between religion and happiness paradigm, a study performed in 2010 in Germany found that long-term religious practice has long-term benefits. The study found that those who record long term religious practice also record high subjective well being (SWB) scores, whilst those who’s religious practices had declined recorded lower SWB scores (Headey, Schupp, Tucci, & Wagner, 2010). Further studies have shown a positive correlation between religion and happiness regardless of denomination, however, the study does show that people with more liberal religious beliefs have higher scores on the happiness inventory than those of a more fundamentalist persuasion (Green & Elliot, 2010).
There can be no doubt that Ireland is a deeply religious nation. Statistics from the 2006 census show that of the 4,172,013 people living in Ireland, only 242,002 recorded they had either no stated religion or were not religious. Numbers of nonreligious people have risen steadily since 1961 as this was the first time a respondent could indicate non/other religion (Central Statistics Office, 2006). Inglis (2007) suggests that in modern Ireland, Catholicism is no longer about adherence to a set of doctrinal rules, but is more to give a sense of belonging to a set of people, a communal heritage and an ancestry that is so deeply ingrained in the Irish national identity that it cannot be removed. Indeed, it is part of being Irish. This trend of drifting away from religion, although studies show that it enhances one's happiness and SWB, only appears to be the case in westernised, modern societies, where religious freedom is more widespread. Higher religiosity can be found in countries where life is harder in general, due to hunger or widespread disease, and can be seen to lend support and offer emotional well-being to the people of that country (Diener, Tay, & Meyers, 2011). Trends in the study suggest that wherever there is a need for hope because of poor government, natural disaster or other unfortunate circumstances, then the religiosity score increases and alongside it, happiness. However, it could also be mentioned that education levels also drop as religiosity increases, with atheists scoring six IQ points higher than religious people (Paton, 2008). This study also has support from Harvard University in the United States, which also included possible causes for this. The study suggests that there are two forms of thinking for the general population, intuitive and scientific. A series of problems were given to participants to determine their mode of cognition. Then religiosity tools were employed to determine how
religious they were. Correlations were found and causality was determined to be because scientific thinkers will reflect on the problem after answering, and try to modify or expand on their answer whereas, the intuitive thinkers will ‘react’ to their question and move on quickly. Scientific thinkers usually have higher levels of education and therefore higher IQ. This could possibly mean higher IQ causes disbelief in God, not because of raw cognitive ability, but because it increases the odds of reflective thinking on the question at hand (Shenhav, Rand, & Greene, 2011).

According to Ferriss, our instruments for measuring happiness are intrinsically linked to religion and may provide the answer to why happiness scores are significantly correlated to frequency of religious practices. He goes on to state, “Our cultural definition of the QOL (Quality of Life) rests heavily upon Judeo-Christian ideals. Societal values reflect religious values. The case for happiness to be highly associated with religion, then, to a degree, was predetermined.” (Ferriss, 2002, p. 210) These goals we set out to achieve (i.e. Happiness) are set by our cultural beliefs. Success, in most of the western world is linked to happiness, if we are successful, then we will be happy, if we have more money we will be happier, if we win we will be happier. Other cultures will have different cultural ideals on what you require to fulfil a happier life. A study in Japan showed again that happiness and subjective well being are significantly correlated (Roemer, 2010), even in non-Abrahamic denominational religions. The link is therefore unclear; there is a growing amount of research being currently published that contradicts the findings of previous research that religion is a potent predictor of happiness.
Personality

Can personality then, provide a good indicator of happiness in people? Previous research seems to support this claim. Studies using personality traits as indicators for perceived happiness levels show that traits like neuroticism would not score highly on the happiness scale and these results were indeed confirmed (Furnham & Christoforou, 2007). Robbins et al. (2010) found that there was a significant correlation between prayer and happiness, but after adjusting the scores for personality factors, the correlation association vanished. A study on psychology students by Silva and Laher found that religion and personality were intertwined but the extent to which personality could predict a certain religion were undeterminable (Silva & Laher, 2011). Further studies on personality as a predictor of religious orientation showed that, contrary to previous research, scores on religiosity increased as scores on psychoticism decrease (Beit-Hallahmi & Argyle, 1997). These results are misleading unless they are interpreted in terms of the religiosity of the populations to which it applies. (Francis, 2010)

The present studies seeks to add to the current body of work and answer the question, are religious people happier or is happiness due to character traits? In this more secular society, does religion provide a clear indication of the personality type of the average Irish citizen? This study will use statistical tests to assess the relationship between religion and happiness from an Irish perspective. These results will be compared to other results that have measured the correlation between happiness and character traits as measured by a
personality questionnaire. These scores will indicate which correlation is greater and therefore which has stronger significance statistically. As Ireland is becoming a more secular society, it is important to define what it is that religion contributes to society itself. Certainly, religion has had a lot of bad press in recent years, with many charges being laid at the door of religion, church attendance is lowering throughout the nation, and talk of churches closing being uttered by the clergy themselves (McGarry, 2011). Religion seems to have many detractors in the past few years, Richard Dawkins, to name the most outspoken and prolific of these, has dedicated his life to the pursuit of science, and ironically has, however unwittingly, advertised religion to a greater audience than the church itself. However if the research is to believed, there is a case for the argument that religion leads towards a happier life. If this is indeed the case, then research like his and other studies like it will be invaluable in the regeneration of the belief of the Irish People in themselves, as this will become the cornerstone of future economy recovery. A happy worker is a productive worker, is a hypothesis spanning many decades, and has been the subject of many studies interested in productivity in the workplace. Recently results from such studies have found that people who typically experience more positive affect are more productive, and that people are more productive when experiencing their more positive moods (Zelinski, Murphy, & Jenkins, 2008).
Age

Happiness and Subjective Well Being (SWB) are not stable across the life course, and many factors can influence how we perceive our SWB and change our perception of how we view our lives. Developmental psychologists such as William Fleeson have determined that self-reported personality trait changes recorded in late adulthood show more loss of positive personality traits such as open-mindedness when younger and a loss to this score in late adulthood (Fleeson & Heckhausen, 1997, p. 125). The most influential work on life time and personality has been arguably been performed by Costa and McCrae, who found that, contrary to the findings of Fleeson, no discernible changes to their Five-Factor Model (FFM) were observed between the ages of 18-35 (Berryman, Smythe, Taylor, Lamont, & Joiner, 2006, p. 282).

Gender

Data collected from Christian adults in the United States revealed no statistically significant differences in religious participation between men and women (Simpson, Cloud, Newman, & Faqua, 2008). However it has long been the belief that women are more religious than men. Socio economic factors can provide insight into the dynamic at work here. Women raised by high-socioeconomic status (SES) mothers are less religious than women raised by low-education mothers, but mother's SES has little effect on men's chances of
being irreligious and father's SES has a negligible effect on the gender difference in religiosity (Collett & Lizardo, 2009).
Methods

The sample was gathered by means of convenience with an element of snowball sampling. Participants were invited to complete the survey, firstly by the distribution of hard copies, followed by the survey being put up online on the survey hosting website Kwiksurvey and a link being emailed to participants.

The amalgamated final questionnaire is comprised of four sections.

At the beginning are demographic variables asking the age and gender of the participants.

This was followed by the first set of questions on religion. This was taken from a modified Religiosity Measure Questionnaire compiled by Rohrbaugh and Jessor and consisted of seven multiple-choice questions with instructions and to opt for one answer only (Rohrbaugh & Jessor, 1975). The researcher removed the final question on the “comfort and security” that religion gives to the participant. This was removed to assure the participant that their level of religiosity was not being judged by the amount of reliance they had on religion. The write in answer box was used to record frequency of religious service attendance. Participants were asked to record the amount of occasions they had attended religious services including weddings funerals and christenings in the past year (See appendix). The questions fall into four categories, ritual religiosity, consequential religiosity, theological religiosity and experiential religiosity. The answers were all positively scored with the exception of question four, which was re-coded in SPSS.
The next section consists of the Oxford Happiness Questionnaire devised by Argyle and Hill in 2001. This was used to give an overall score for perceived levels of happiness. There are two types of questions in the questionnaire, one set being positive, and another set being phrased negatively. An example of a positive question being “I feel that life is very rewarding” and a negative question being “I am not particularly optimistic about the future”. This battery of questions consists of 29 items with responses given on a six point Likert scale; from “strongly disagree” to “strongly agree”. The higher scores correspond to higher levels of happiness. Negative scores were re-coded after the data was transferred to the SPSS program.

The final part of the completed questionnaire is the personality section and includes the Big Five Trait Taxonomy questionnaire complied by John and Srivastava, comprising of forty four questions on a Likert scale with only five possible responses from “strongly agree” to “strongly disagree” (John & Srivastava, 1999). The questionnaire statements are concerned with participant’s perception about themselves in a variety of situations. Questions fall into five categories representing the Big Five Traits, openness, conscientiousness, extraversion, agreeableness and neuroticism. These form the OCEAN acronym. All questions begin with the phrase “I see myself as someone who ....“; followed by the self reported measure. Sample questions are “I see myself as someone who is talkative”, measuring extraversion. “I see myself as someone who is helpful and unselfish with others” measuring agreeableness. “I see myself as someone who does a thorough job” measuring conscientiousness. “I see myself as someone who is depressed, blue.”, measuring neuroticism and “I see myself as someone who is original, comes up with new ideas.” measuring openness.
These five measures of personality are scored and recoded where require as per the instructions on the scoring sheet supplied with the questionnaire.

These individual parts of the questionnaire were amalgamated by the researcher to form an overall questionnaire consisting of eighty-one questions in total.

There were 20 hard copies of the questionnaire, completed and handed back to the researcher. This was to give an estimated, average timescale to complete the questionnaire. For the convenience of participants and the researcher it was decided to put the questionnaire online, using a survey-hosting website, Kwiksurvey, and an e-mail was sent to participants to ask them to complete the study. These participants were asked to click on the link within and complete the questionnaire. The option was given to pass on the e-mail to their friends so they could complete it also. This, snowball-sampling method has the advantage of gaining access to participants unknown to the researcher, and as such giving a more random sample, as the researcher has no control over who completes the questionnaire. Disadvantages however, are also due to lack of control over the participant population, and may not give an accurate cross section of the general population.

The survey-hosting website kwiksurvey.com, allows unlimited questions to be uploaded and respondents to answer questionnaires without the need for registration or log in. This will help encourage participants to become involved in the survey with the full knowledge that their responses are completely anonymous and confidential. This survey tool also allows the researcher to export the data to SPSS via Microsoft Excel for analysis.
At no time was the participant told what the research was being conducted on unless they had specifically asked. This was to ensure that as far as possible their religious convictions would not influence their answers to the questionnaire.

**Apparatus**

Apparatus used consisted of the hard copy questionnaires being printed on standard A4 paper and filled in with pen or pencil, provided by the participant. In the case of the on-line questionnaires the participant filled them in at their leisure on the home computer of their choice and submitted to the hosting web site.

The data submitted is then exported for analysis via Microsoft Excel to the software program SPSS 18 (Statistical Package for the Social Sciences), run on a Toshiba Satellite C650 Laptop Computer. This is also where the thesis was written.

**Participants**

Participants were gathered by convenience sampling with an element of snowballing. Friends and relatives were e-mailed and asked to complete the survey, and when completed they were asked to pass it on to their friend and relatives.

Participants are from a wide range of ages from 19 to 64 and were from various backgrounds and countries. This may have an effect on the religiosity scale shown as differing countries have different levels of religiosity and religious denomination. For example, religion is nearly twice as important to
Irish citizens as opposed to citizens of the United Kingdom (Crabtree & Pelham, 2009).

**Design**

The first hypothesis is twofold. The first part states that happiness will increase as levels of religiosity increase. The predictor variable in the first hypothesis is the religiosity level of the participants, measured in low medium and high religiosity. The criterion variable is the happiness score. The second part of the hypothesis is that happiness scores will increase as age increases. The criterion variable again was happiness. The predictor variable was age group.

The second hypothesis is also twofold, and deals with the relationship between age, gender and religion. The first part of the hypothesis states that religiosity will increase as age increases. The predictor variables being age group and gender, and the criterion variable being religion. The second part of the hypothesis states that women will be more religious than men. The predictor variable being gender and the criterion variable being religiosity.

The third hypothesis states that people with high religiosity scores will also have high happiness scores. This outcome should have a positive correlation when run by the SPSS program.

The final hypothesis is that religiosity scores will increase happiness scores when personality traits are adjusted for within the equation. This was done by means of hierarchical linear regression.
Procedure

Participants taking the hard copy questionnaire were asked if they would complete the questionnaire and return it to the researcher. This hard copy was then taken and the responses were then entered into the electronic version of the questionnaire by the researcher. This was done to give ease of transfer by the Excel program to the SPSS program.

Participants completing the questionnaire online were given exactly the same questionnaire though a different medium (electronically). This had the same text explaining their rights as a participant, their right to anonymity and their right to withdraw at any time. The test itself consisted of varying answers, of which the participant could only select one, or on two occasions write or type their answer in a box provided. These boxes were for two of the demographic variables, frequency of religious attendance and age of participant.

Data Analysis

Using SPSS 18 the data was used to generate results, utilising two-way ANOVA’s and a hierarchical multiple regression to determine which character traits can be used as a predictor for happiness, and does religion provide a statistically significant difference when measured against character traits.
Results

First, reliability tests were run to determine the internal reliability of the data. A cronbachs alpha score of .65 - .89 throughout the variables to be tested was recorded. This is within the ranges set out for reliability. The OHQ currently scoring a .9, the lowest score on the scale being less than .5. Secondly, histograms were generated to determine if the data would fall into the general range of normal distribution (bell shaped curve). This was to determine if any outliers would skew the data making further testing unreliable. All data fell within parameters of the bell shaped curve.

Descriptive Statistics

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<td>45</td>
<td>19</td>
<td>64</td>
<td>36.66</td>
<td>9.280</td>
</tr>
<tr>
<td>Gender</td>
<td>76</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1.46</td>
<td>.502</td>
</tr>
</tbody>
</table>

Inferential Statistics

Two two-way ANOVA’s were conducted. The first two-way ANOVA looks at religion and age differences relating to happiness (See figure 1). The second two-way ANOVA was looks at age and gender differences in relation to religion (see figure 2).

1) A two-way between-groups analysis of variance was conducted to explore the impact of religion and age groups on levels of happiness, as measured by the
Oxford Happiness Questionnaire (see Figure 1). Participants were divided into three groups according to their age. (Group 1: 18-29 years, Group 2: 30-39 years, Group 3: 40 years and above). The interaction effect between religion and age group was not statistically significant, $F(4, 67) = .88, p = .48$. There was a statistically significant main effect for religion, $F(2, 67) = 3.07, p = .05$; however, the effect size was small (partial eta squared = .05).

**Figure 1**

Estimated Marginal Means of TotalOHQ

<table>
<thead>
<tr>
<th>Age Groups</th>
<th>18-29 years</th>
<th>30-39 years</th>
<th>40+ years</th>
</tr>
</thead>
<tbody>
<tr>
<td>not religious</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mild</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>strong</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Religion Groups

Estimated Marginal Means
2) A two-way between-groups analysis of variance was conducted to explore the impact of Gender and Age groups on levels on religion, as measured by the religion questionnaire devised by Rohrbaugh and Jessor (see Figure 2). Participants were divided into three groups according to their age. (Group 1: 18-29 years, Group 2: 30-39 years, Group 3: 40 years and above). The interaction effect between gender and age group was not statistically significant, $F (2, 70) = .05, p = .95$. There was no statistical significance in relation to age $F (2, 70) = 2.99, p = .06$ although it was approaching significance.

**Figure 2:**

![Estimated Marginal Means of TotalRQ](image-url)
Table 1: Showing correlations between happiness, character traits and religiosity.

<table>
<thead>
<tr>
<th>Variable</th>
<th>OHQ</th>
<th>O</th>
<th>C</th>
<th>E</th>
<th>A</th>
<th>N</th>
<th>RQS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxford Happiness Questionnaire</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Openness</td>
<td>.16</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>.40</td>
<td>.14</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extraversion</td>
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<td>.20</td>
<td>.21</td>
<td>1</td>
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<tr>
<td>Agreeableness</td>
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<td>.23</td>
<td>.19</td>
<td>1</td>
<td></td>
<td></td>
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<tr>
<td>Neuroticism</td>
<td>-.56</td>
<td>-.16</td>
<td>-.23</td>
<td>-.39</td>
<td>-.27</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Religion Questionnaire Score</td>
<td>.11</td>
<td>.05</td>
<td>-.15</td>
<td>.01</td>
<td>.02</td>
<td>.09</td>
<td>1</td>
</tr>
<tr>
<td>Mean</td>
<td>74.78</td>
<td>37.26</td>
<td>35.11</td>
<td>27.72</td>
<td>30.92</td>
<td>21.75</td>
<td>1.7</td>
</tr>
<tr>
<td>Standard Deviations</td>
<td>18.03</td>
<td>5.34</td>
<td>5.59</td>
<td>5.98</td>
<td>5.31</td>
<td>6.16</td>
<td>.74</td>
</tr>
<tr>
<td>Range</td>
<td>31</td>
<td>22</td>
<td>24</td>
<td>27</td>
<td>23</td>
<td>29</td>
<td>2</td>
</tr>
<tr>
<td>Possible Range</td>
<td>27-49</td>
<td>21-45</td>
<td>12-39</td>
<td>17-40</td>
<td>9-38</td>
<td>1-3</td>
<td></td>
</tr>
<tr>
<td>Cronbach’s Alpha</td>
<td>.89</td>
<td>.69</td>
<td>.79</td>
<td>.82</td>
<td>.75</td>
<td>.81</td>
<td>.61</td>
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</table>
Hierarchical Multiple Linear Regression

Table 2. Hierarchical Multiple Linear Regression Table showing effects of religiosity upon trait scores.

<table>
<thead>
<tr>
<th>Model Summary</th>
<th>( r )</th>
<th>( r^2 )</th>
<th>( \Delta r^2 )</th>
<th>( B )</th>
<th>( SE )</th>
<th>( \beta )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>.67</td>
<td>.46</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>O</td>
<td>.00</td>
<td>.31</td>
<td>.00</td>
<td>.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>.77</td>
<td>.30</td>
<td>.24</td>
<td>2.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>.74</td>
<td>.30</td>
<td>.24</td>
<td>2.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>.38</td>
<td>.32</td>
<td>.11</td>
<td>1.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>-1.12</td>
<td>.29</td>
<td>-.38</td>
<td>-3.89</td>
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<tr>
<td>Step 2</td>
<td>.69</td>
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<td>.12</td>
<td></td>
<td></td>
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<tr>
<td>O</td>
<td>.03</td>
<td>.31</td>
<td>.00</td>
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</tr>
<tr>
<td>C</td>
<td>.84</td>
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<td>.26</td>
<td>2.7</td>
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<tr>
<td>E</td>
<td>.74</td>
<td>.29</td>
<td>.25</td>
<td>2.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>.39</td>
<td>.32</td>
<td>.11</td>
<td>1.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
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<td>.29</td>
<td>-.37</td>
<td>-3.7</td>
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<tr>
<td>Religion</td>
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<td>.33</td>
<td>.33</td>
<td>1.24</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\( r^2 \) = amount of variance explained by IVs.

\( r^2 \) Change = additional variance in DV.

\( B \) = Unstandardised Coefficient.

\( \beta \) = Standardised coefficient (values for each variable are converted to the same scale so they can be compared).

\( SE \) = Standard Error.

\( t \) = estimated coefficient (\( B \)) divided by its own \( SE \).
Hierarchical multiple regression was performed to investigate the ability of religion to predict levels of happiness, after controlling for personality factors such as the Big Five Character Traits, Openness, Conscientiousness, Extraversion, Agreeableness and Neuroticism. Preliminary analyses were conducted to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. Additionally, the correlations amongst the predictor variables (the big-five trait taxonomy) included in the study were examined to test for homogeneity. All correlations were weak to moderate. This indicates that multicollinearity was unlikely to be a problem (Tabachnick & Fidell, 2007). All predictor variables were statistically correlated with happiness scores, which indicate that the data was suitably correlated with the criterion variable for examination through multiple linear regression to be reliably undertaken. The correlations between the predictor variables and the criterion variable (happiness) were all weak to moderately strong.

In the first step of hierarchical multiple regression, five predictors were entered: openness, conscientiousness, agreeableness, extraversion, and neuroticism into one block. Secondly, the predictor for total religiosity was added, to determine any change in the scores recovered. This became the second block. The scores recovered were less than 0.04 difference, when adjusted for religiosity score. Therefore, they were not significant $p > .05$. However, scores on certain character traits were found to be higher when measured against happiness in correlational studies. These scores can be said to be approaching significance. Predictors for high happiness scores were found to be conscientiousness (.27), extraversion (.25), and agreeableness (.11). Neuroticism
was found to be inversely indicative of happiness (-.37), low scores on neuroticism negatively correlates to high scores on happiness. The total variance change explained by the model was 1.2% as a whole \( F (4, 67) = .88, p = .48 \).
Discussion

The purpose of this study was to examine the relationship between happiness, religiosity and personality. This study also aims to ascertain the relationship between age, gender and religiosity. The sample size of the study was 76 (N=76) were from multiple age demographics and cultures, ranging from various areas of Scotland, to various areas of The Republic of Ireland. All participants were over 18 and under 65 and were asked to complete a questionnaire either online or in hard copy paper format. The questionnaire contained demographic questions as well as three Likert scale format questionnaires, involving the Oxford Happiness Questionnaire, the Big Five Trait Taxonomy Questionnaire, and the religiosity measure questionnaire. Descriptive statistics and inferential statistics using SPSS 18 such as hierarchical multiple linear regression, correlation and two way ANOVA’s were conducted to analyse the data obtained from the 76 participants.

The first hypothesis stated that age and religiosity scores, both predictor variables, would affect happiness, the criterion variable. It was found that there was a statistically significant main effect for religion. Age was found to have a statistically non-significant effect. High numbers of participants recorded high numbers of non-religiosity (non-church attendance) scoring very highly on the happiness axis, leading to mild religiosity scoring much lower, than non-religiosity groups, rising finally towards high scores approaching that of the non-religious group for the strong religious conviction group. This trend however was only apparent when age was factored into the analysis. The results
become interesting when notice is taken of this predictor variable. Young participants, who score highly on non religiosity, drop sharply and then raise sharply, demonstrating that young people are either have strong religiosity or are not religious at all. The statistics would appear to demonstrate that mild religiosity is not conducive towards happiness. A study performed in the University of Bath showed that although religiosity had a positive correlation with Quality of Life, when the correlation was no more significant than any other measure used in the study (O'Connell & Skevington, 2010) Religiosity scores increase again when the forty + age group is examined, (see Figure 1).

The second hypothesis relates to religion and gender differences and age, the criterion variable being the religiosity score, and the predictor variables being gender and age. Age and gender were found to be non-statistically significant. Neither of them having any measurable effect on religiosity scores. However, it is interesting to note that young males score higher on their religiosity scores than older females. This runs contrary to popular public belief that older women are the mainstay of the church. Researchers in sociology have found that higher religiosity in females is one of their most consistent findings. Studies have explained this by proposing that religiosity in women is related to socio-cultural norms, such as females being taught to be more submissive, passive, obedient, and nurturing than their male counterparts, and that these traits are associated with higher levels of religiosity. (Miller & Hoffman, 1995) Researchers also in the United States of America have demonstrated that women participate more frequently than men in religious activities, and some have argued the differences may be attributable to gender orientation (feminine or
masculine) rather than sex (female or male). In contrast to previous studies, the data collected from the 190 Christian adults revealed no statistically significant differences in religious participation between men and women or among individuals categorized as feminine, masculine, or androgynous. Furthermore, men, women, and people from each gender orientation were equally aware of their relationship with God. The results suggest gender and sex differences within the psychology of religion are not as clear as previously proposed (Simpson, Cloud, Newman, & Faqua, 2008).

The second hypothesis also stated that age and gender would have an effect on religiosity score. The criterion variable being religiosity measured by the Religiosity questionnaire (RQ), and the predictor variables being age and gender. The age scores were broken down into three groups, 18-29, 30-39 and 40-64. This was done to make the data easier to interpret. As shown in the results section, (see figure 2) the interaction effect between gender and age group was not statistically significant. Although, in relation to age it was approaching statistical significance $p = 0.06$.

The third hypothesis states that there will be a correlation between happiness and religion and character traits as used in the Big Five Trait Taxonomy Questionnaire compiled by John and Srivastava. Results proved to be mixed with both support and contrary findings for previous research. Neuroticism was the only variable to score negatively. Demonstrating that neuroticism cannot be correlated with high religiosity as proposed by Sigmund Freud (Freud, [1921], 1985). The only statistically significant correlations were
found to be openness, extraversion and agreeableness, scoring .05, .01 and .02 respectively. Research performed in the United Kingdom, demonstrated that certain character types will become evident when exposed to questionnaires on religiosity and personality type and correlations will be observed. The results found, demonstrated that Anglican denominational worshipers have virtually the same character traits as those in the general population found in the UK (Francis, Robbins, & Murray, 2010). The present study provides support for these conclusions, supporting the premise that extraversion, agreeableness and openness are all positively correlated with religiosity. Neuroticism, in another study, has been found not to have any correlation with religiosity; this in-depth study broke down neuroticism into its component parts. These analyses demonstrated a significant positive correlation between religiosity and guilt, a significant negative correlation between religiosity and unhappiness, and no significant correlation between religiosity and low-self esteem, anxiety, dependency, hypochondriasis, or obsessiveness (Francis & Jackson, 2003). More recent studies have shown that agreeableness and religiosity seem to go hand in hand, the only significant association found by the data gathered within the study, were the positive correlation between intrinsic religiosity and agreeableness (Robbins M. , Francis, McIllroy, Clarke, & Prichard, 2010). Research conducted in Northern Ireland, demonstrated that there was no statistically significant correlation between happiness and religiosity, as measured by the frequency of religious attendance and the depression/happiness scale (Lewis C. A., 2002). The current study supports these results.
The fourth and final hypothesis determined that there would be no statistical variation in results when religiosity scores were added to the predictor variables of the Big Five Inventory. A Hierarchical Multiple Linear Regression (HMLR) was performed to determine if this was the case. The HMLR is a statistical tool in which predictor variables are grouped together, to create an output, then a second set output is generated with the addition of the criterion variable and to be compared with the first. The generated final output will determine which variables can be shown to have a significant effect on the set of primary scores. The first group (OCEAN) showed that character traits on their own explained 42.3% of the happiness scores when added together as a group. Individually they account for some of the scores, namely openness, extraversion and agreeableness approaching significance. When religion was added, only a further 1.2% increase in happiness was found. This, statistically speaking was only an increase of .04 and therefore not significant. This would not correspond with a study completed in Israel demonstrating that using Eysenck’s three-factor dimensional model of personality, the predictors being extraversion, neuroticism and psychoticism, when measured against the OHQ and the Katz-Francis scale of attitudes towards Judaism, show a small but statistically significant positive correlation between religiosity and happiness (Francis, Katz, Yablon, & Robbins, 2004). The study previously mentioned performed in Wales; found that while there was a simple correlation effect between prayer and happiness when the scores were adjusted for personality, by use of regression modelling, the apparent correlation disappeared. This finding is consistent with the views that Eysenck’s personality dimensions are powerful factors in shaping the predisposition to personal happiness, and that the apparent association between
prayer and happiness in the study was a result of individual differences in personality and not religious prayer (Robbins, et al, 2008).

Perhaps the most surprising result of the study was that young males appear to be more religious than previous studies would suggest. Results show what males between the ages of 18 and 29 scored higher on the religiosity scale than women aged from 40 to 64. This runs contrary to current studies in sociology. In their paper, Miller and Hoffmann (1995) theorized that because being irreligious entails risking the potential loss of supernatural rewards, and because men are consistently found to be more likely than women to engage in various forms of high-risk behaviours, men are more likely to take this particular risk—being irreligious—than women (Miller & Hoffman, 1995).

All of these studies mentioned have been performed on undergraduate students, a factor the current study has tried to avoid. Factors, which may have influenced the outcomes of this study are the low amount of questions on religiosity in the questionnaire. The Cronbachs Alpha score for the religiosity fell just short of good reliability standards at .61, the ideal score being .7. This may account for some of the more unexpected results. For future research it may be useful to give the participants a questionnaire which also measures mood and see if any correlations could be found with positive or negative moods. Also the fact that the questionnaire was largely filled in on line may also account for
some discrepancies. Online surveys are a quick and convenient way to collect data for research, but there is a certain amount of control relinquished when the researcher is not present when the participant is completing the questionnaire. The study itself may raise questions in the participant, for example the question could be asked “Do weddings and christenings count as attending church?” Future research would certainly benefit from a more comprehensive tool to measure not just religiosity, but also spirituality. Many people claim not to be religious but agree that they have a spiritual side. This spiritual side can be filled by other factors such as appreciation of the arts, travel in the form of exposure to other cultures and charity work.

For many people, religion is a touchy subject, guarded like a precious possession, and any perceived kind of threat of shaking whatever foundations they have, may cause the participant to give false answers. This factor is outside the control of the current study. The Big Five trait taxonomy scale may also be subject to participant bias, the current mood of the participant can influence the scores recorded and this may also be reflected in the data. As some of the participants were known to the researcher, this operational bias is another flaw which can be corrected for, in future studies. Using better sampling models, such as random sampling, will increase the likelihood of receiving data which has not be influenced by knowledge of the researcher. Also, the relative mood of the participant

Low sample size may also play a part in the results. Sample had only 76 participants and greater numbers would certainly give more comprehensive
statistical outcomes. Future studies should also take this into account when conducting research.

These results have both shown support and opposition for previous work conducted in this area. Popular general belief that religion can improve happiness levels, character traits, which are present at birth and develop throughout the life span, appear in this study to be better predictors than religious belief. However, that being said, notice should be taken of the social aspect of attending church. The social gathering gives individuals a chance to meet with like minded people, and through the organisation of the church, become involved in extracurricular activities outside of religious worship. In many small villages and communities, the church is the focal point, and with whichever denominational preacher tending to his flock, a sense of community and belonging is garnered towards the parishioners. The role of the church cannot be underestimated; it creates a sense of belonging to the culture of the region. Whether we accept it or not religion has touched all our lives. It is indiscriminate when it comes to selection of followers, and indeed, when used as a tool can be beneficial to those who practice. So called celebrities have made and lost careers out of their public outspokenness on their chosen path. Tom Cruise has been a long outstanding spokesperson for the church of Scientology, which has had many thousands of detractors both in the past and in the present. Although raised a catholic and with aspirations to become a priest, acting became his passion and he desired to pursue it. There has never been a psychological study performed on Mr. Cruise, but from all accounts from friends he was always “just a nice guy”, “charming”, and “kind”. These reports
would seem to indicate character traits indicative of a well rounded, happy human being. He never seemed to “find” religion, maybe it found him. Never know for his drinking, womanising and party lifestyle, Cruise seems to have used his religion to add to his happiness, not to supply it.

Other celebrities such as Madonna, Liam Neeson and Muhammad Ali are famous not just for their outspoken views on their religion but also of their desire to let the world know that they are changing it to some other form of worship. Madonna appears to flit between Catholicism and Kaballah, a form of Jewish mysticism. Liam Neeson recently announced his move towards Islam, because he has always felt that he was questioning his faith. We as scientists must surely feel proud that our path demands that we question our beliefs daily. It would appear to this researcher that people may be more inclined towards a mix of several types of worship or belief structure rather than sticking with only one. As with progress in psychology, parameters between variables are being blurred, with no single theory being adequate to explain phenomenon. Movement towards a more encompassing, full spectrum approach that better describes variables seems more economic and this may also be said of religion. Religion would seem to be as individual as the personality that prescribes to it. Indeed, if there were only two people left in the world, both the same religion, then they would find some way to hate each other. This is not the fault of religion; it is the innate violence that resides within us as a species. The problem may be that, in relatively small groups our society functions well. Problems arise when we take notice of other societies and say “You are doing it wrong” or
worse still, “We are doing it wrong”. The latter statement shaking the foundations of our specific culture and our self concept.
Reference Section


APPENDIX A

Religiosity Measure Questionnaire

Which of the following best describes your practice of prayer or religious meditation?

A. Prayer is a regular part of my daily life.
B. I usually pray in times of stress or need but rarely at any other time.
C. How many times have you attended religious services during the past year? ______ times.
D. I pray only during formal ceremonies.
E. I never pray.

When you have a serious personal problem, how often do you take religious advice or teaching into consideration?

A. Almost always
B. Usually
C. Sometimes
D. Never

How much influence would you say that religion has on the way you choose to act and the way that you choose to spend your time each day?

A. No influence.
B. A small influence.
C. Some influence
D. A fair amount of influence.
E. A large influence.

Which of the following statements comes closest to your belief about God?

A. I am sure that God really exists and that He is active in my life.
B. Although I sometimes question His existence, I do believe in God and believe He knows me as a person.
C. I don’t know if there is a personal God, but I do believe in a higher power of some kind.
D. I don’t know if there is a personal God or a higher power of some kind, and I don’t know if I ever will.
E. I don’t believe in a personal God or in a higher power.

Which one of the following statements comes closest to your belief about life after death (immortality)?

A. I believe in a personal life after death, a soul existing as a specific individual spirit.
B. I believe in a soul existing after death as a part of a universal spirit.
C. I believe in a life after death of some kind, but I really don’t know what it would be like.
D. I don’t know whether there is any kind of life after death, and I don’t know if I will ever know.
E. I don’t believe in any kind of life after death.

During the past year, how often have you experienced a feeling of religious reverence or devotion?

A. Almost daily
B. Frequently
C. Sometimes
D. Rarely
E. Never
APPENDIX B

Oxford Happiness Questionnaire

<table>
<thead>
<tr>
<th>1=strongly disagree</th>
<th>2=moderately disagree</th>
<th>3=slightly disagree</th>
<th>4=slightly agree</th>
<th>5=moderately agree</th>
<th>6=strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I don’t feel particularly pleased with the way I am</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am intensely interested in other people</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel that life is very rewarding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have very warm feelings towards almost everyone</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I rarely wake up feeling rested</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am not particularly optimistic about the future</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I find most things amusing</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am always committed and involved</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Life is good</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I do not think that the world is a good place</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I laugh a lot</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>I am well satisfied about everything in my life</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I don’t think I look attractive</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>There is a gap between what I would like to do and what I have done</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am very happy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I find beauty in some things</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I always have a cheerful effect on others</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>I can fit in everything I want to</td>
<td></td>
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</tr>
</tbody>
</table>
I feel that I am not especially in control of my life ______
I feel able to take anything on ______
I feel fully mentally alert ______
I often experience joy and elation ______
I do not find it easy to make decisions ______
I do not have a particular sense of meaning and purpose in my life ______
I feel I have a great deal of energy ______
I usually have a good influence on events ______
I do not have fun with other people ______
I don’t feel particularly healthy ______
I do not have particularly happy memories of the past ______
APPENDIX C

<table>
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<tbody>
<tr>
<td></td>
<td>Disagree</td>
<td>Disagree</td>
<td>Neither agree</td>
<td>Agree</td>
<td>Agree</td>
</tr>
<tr>
<td></td>
<td>Strongly</td>
<td>a little</td>
<td>nor disagree</td>
<td>a little</td>
<td>strongly</td>
</tr>
</tbody>
</table>

I am someone who…

Is talkative _____

Tends to find fault with others _____

Does a thorough job _____

Is depressed, blue _____

Is original, comes up with new ideas _____

Is reserved _____

Is helpful and unselfish with others _____

Can be somewhat careless _____

Is relaxed, handles stress well. _____

Is curious about many different things _____

Is full of energy _____

Starts quarrels with others _____

Is a reliable worker _____

Can be tense _____

Is ingenious, a deep thinker _____

Generates a lot of enthusiasm _____

Has a forgiving nature _____

Tends to be disorganized _____

Worries a lot _____

Has an active imagination _____

Tends to be quiet _____
Is generally trusting _____

Tends to be lazy _____

Is emotionally stable, not easily upset _____

Has an assertive personality _____

Can be cold and aloof _____

Perseveres until the task is finished _____

Can be moody _____

Values artistic, aesthetic experiences _____

Is sometimes shy, inhibited _____

Is considerate and kind to almost everyone _____

Does things efficiently _____

Remains calm in tense situations _____

Prefers work that is routine _____

Is outgoing, sociable _____

Is sometimes rude to others _____

Makes plans and follows through with them _____

Gets nervous easily _____

Likes to reflect, play with ideas _____

Has few artistic interests _____

Is easily distracted _____

Is sophisticated in art, music, or literature _____