More Money More Problems?

The Relationship Between Materialistic Goals

and

Well-Being

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Abstract

This cross-sectional study examined the relationship between materialism and well-being among students (n=125) and non-students (n=87). Students were recruited via Dublin Business School and non-students via informal networks. Participants completed quantitative self-report questionnaires related to materialism, well-being, satisfaction with life and religiosity. Measures included the Aspiration’s index, the Satisfaction with Life Scale the General Health Questionnaire and the Duke University Religion Index. Results showed that there was no overall relationship between materialism and well-being. Students were more extrinsically orientated than non-students. Finally, younger people and those with lower levels of education were more likely to be extrinsically orientated. These findings indicate that the incidence of materialism reported in research may be exaggerated due to the reliance on student samples.
Introduction

In today’s world there is an ever-increasing emphasis on striving towards and achieving wealth, status and material possessions in the hope that these materialistic gains will bring happiness. In many societies these ideals are actively encouraged as a means of attaining the “good life” (Ryan et al., 1999, p. 1510). Recent work, mainly focused among University students in the United States, has shown that materialistic goals are associated with negative well-being. This study aims to explore the relationship between materialism and well-being among students and non-students in order to ascertain if this relationship is replicated among a broader sample in a different cultural context.

Materialism

Materialism can be defined as: a combination of values and beliefs about the importance of possession’s in one’s life (Richins & Dawson, 1992). Kasser and Ryan (1996) explain the concept of materialism in terms of extrinsic versus intrinsic goals. People who are motivated by extrinsic goals are concerned by financial success, materials possessions, appearance and popularity (Schmuck, Kasser, & Ryan, 2000). People who value intrinsic goals are more motivated by relationships with significant others, personal growth and community affiliation (Schmuck et al., 2000). This concept of intrinsic and extrinsic goals is based on self-determination theory and humanistic theory (Kasser & Ahuvia, 2002). According to self-determination theory basic psychological needs for competence, autonomy and relatedness need to be fulfilled in order for us to achieve our goals (Deci & Ryan, 2000). Humanistic theorists propose that we are more likely to achieve self-actualisation and reach our
full potential as human beings by focusing on activities that promote growth and well-being (Maslow, Frager, & Fadiman, 1970; Rogers, 1961).

Findings from the American Freshman Survey (annual survey conducted since 1966 (N = 8.7 million)) indicate that today’s generation, referred to as “Generation Me” (Twenge, Campbell, & Freeman, 2012, p. 1045) are less likely to donate to charity and work in altruistic occupations and express less empathy for others compared to previous generations (Twenge et al., 2012). They are also more likely to place significant emphasis on being financially well off. This is worrying in light of the negative consequences of materialism for both the individual and society. Despite the increasing trend in materialism, research indicates that overall, people value intrinsic aspirations at a higher level than extrinsic aspirations (Ryan et al., 1999; Schmuck, Kasser, & Ryan, 2000) which confirms that intrinsic aspirations reflect innate human needs.

Causes of Materialism

Experts have proposed a number of explanations for the emphasis on materialistic values and goals in the world today. Advertising and consumer culture has undoubtedly had a role in to play. Belk, Pollay, Hirschman, & Holbrook (1985) conducted content analyses of US magazine advertising over the course of eight decades from 1900 to 1980 and reported an increase in the focus on materialistic themes related to luxury and status. While a retrospective study employing a content analysis methodology cannot categorically show that advertising is the sole cause of materialism, the relationship nevertheless outlines emerging themes of materialism over time. The wider range of advertising mediums today “provides a chorus of commercial communication, harmonious and consistent in its value basis” (Pollay,
It is also likely that the rise in incomes and the wide range of consumer goods and technologies now available has had a role to play in the evolution of our culture of consumption and materialistic values (Belk, 1985).

Chang and Arkin (2002) propose that people use materialism as a crutch to help cope with life’s uncertainties. This notion has been further explored by Arndt et al. (2004) who suspect that an awareness of mortality and a fear death causes people to spend money and surround themselves with more material goods than necessary in an attempt to distance themselves from the “disturbing realisation that they are animals destined to die” (Arndt et al., 2004, p. 203). It has been suggested by other experts that materialism may be a temporary, knee-jerk response to a fear of death but ultimately this mortality saliency theory may offer an oversimplified explanation for the complex causes of materialism (Rindfleisch & Burroughs, 2004).

Consequences of Materialism

For society.

Some authors argue that materialism may have positive societal consequences as it can result in economic growth and employment (Brdar, Rijavec, & Miljković, 2009). This may be the case but evidence of the negative social consequences far outweighs any economic gains. A survey of 1000 people showed that people who are motivated by materialistic gain are less likely to be concerned about environmental issues (Good, 2007). Similar results were observed in an Australian study where people who favoured materialistic values were less likely to engage in environmentally friendly practices and did not place high value on environmental issues (Saunders & Munro, 2000). These findings are somewhat expected as overconsumption is one of the principal causes of environmental problems (Kasser, 2003, p. 92). This attitude lends
itself to narcissism, a trait that is correlated with materialism (Kasser, 2003, p. 12). If people are wrapped up in themselves and focused on achieving goals that are related to status, money and material gain, they are less likely to be concerned about environmental issues which may not impact their own lives directly but will impact the lives of future generations.

Extrinsic goal orientation is also associated with racial prejudice according to a cross-sectional correlational study conducted among high-school students in Belgium (Duriez, Vansteenkiste, Soenens, & De Witte, 2007). These findings were also replicated by Van Hiel et al., (2010). Both studies were based on student samples in Belgium. It is important to determine if similar findings are observed in more heterogeneous samples in other countries. Nevertheless these findings are a concern for communities and society alike given that multiculturalism is now commonplace in most western countries and cities.

**For the individual.**

Evidence suggests that people striving for extrinsic goals such as wealth, appearance and recognition are more likely to be unhappy, anxious and depressed (Kasser & Ryan, 1996). The rationale proposed for this relationship is that focusing our energy on attaining these extrinsic goals undermines our satisfaction of the things that are truly important in life – love, relationships, feeling connected with communities and autonomy (Deci & Ryan, 2000; Kasser, 2003). However, the exact mechanisms by which our values and goals impact on our mental health has not been explored in any great detail to date (Sagiv & Schwartz, 2000).

As previously stated materialistic goals are associated with narcissism (Kasser & Ryan, 1996) which is correlated with emotional problems such as depression
due to an inability to deal with criticism and a difficulty maintaining relationships. It is also associated with paranoia, hypomania and narcissistic personality disorder (Twenge et al., 2010). Those who pursue intrinsic goals are more empathic, more likely to engage in environmental and community related activities and have better friendships and relationships (Kasser, 2003). As the correlation between materialism and well-being is the focus of this study this relationship will be discussed in greater detail.

**Well-being**

Kasser & Ahuvia (2002) reported on findings from three studies conducted with college students in the US which examined the relationship between goal contents and motives on well-being. These studies employed different study designs and used different measures of goal orientation to examine the nature of the goals pursued, the motives for pursing these goals and well-being. All three studies found a negative relationship between extrinsic goal orientation and well-being. Similar findings were reported in two earlier cross-sectional studies conducted with both adults and students in the US (Kasser & Ryan, 1996).

A sample of 92 business students in Singapore were asked to complete the Aspiration index as well as a number of measures related to well-being and psychological stress (Kasser & Ahuvia, 2002). The findings revealed that students who value money, possessions and appearance are more likely to report higher levels of anxiety and unhappiness. Kasser & Ahuvia (2002) suggest that the relationship between goal orientation appears to be steadfast across different cultural contexts. In light of the small sample size in this study it is important to look at other studies conducted in different countries in order to further test this hypothesis.
Brdar, Miljković, & Rijavec (2011) explored this relationship in a group of 835 college students in Croatia using the Aspirations Index and a number of measures related to well-being and life satisfaction. Variables were grouped differently in this study compared with the Kasser & Ahuvia (2002) study. In this instance the sample was divided into 4 groups according to their goal orientation: those with mainly intrinsic goals, mainly extrinsic goals, both intrinsic and extrinsic goals and no important life goals. The findings conflicted what what might be expected as those who valued both intrinsic and extrinsic goals rated highest on well-being measures.

There are a number of potential explanations for these findings which conflict with much of the current literature. The authors propose that goal orientation may differ in less well-off countries like Croatia where “extrinsic goals could represent a means for achieving other more important intrinsic goals” (Brdar et al., 2011, p. 703) such as earning money in order to help their parents live a more comfortable life. In light of these findings it seems that cultural context may determine the effect that goal orientation has on well-being. It is important that similar research is conducted in countries outside of the US in order to further explore this possibility. In addition, most other studies apply a single score for materialism, an overall extrinsic score and an overall intrinsic score rather than the groupings of analysis used by Brdar et al., (2011). Hence it is difficult to draw direct comparisons between this study and other studies due to the unique grouping variables used for analysis.

Exploring the goals and values of people living in individualistic verus collectivist countries and their well-being is another way of obtaining data on the impact of culture on goal orientation. Most western nations are classified as individualistic insofar as they encourage freedom, autonomy, equality and justice (Kim, Kasser, & Lee, 2003). In contrast, collectivist cultures, common in Asia, value
social harmony, praise, social rewards and obedience. A study comparing the goals and associated impact on well-being among a sample in the US and South Korea showed that the US group scored higher on intrinsic aspirations and reported higher self-actualisation and happiness and less anxiety compared with the South Korean group (Kim et al., 2003). These results are surprising in light of the abundance of US research highlighting the increasing focus on extrinsic aspirations. In addition, one might expect those in collectivist countries to be less concerned with goals related to status and financial gain and more concerned with goals related to community affiliation and togetherness.

**Problems in Interpreting Research on Materialism and Well-being**

Many of the studies conducted to date on value orientation and well-being have used cross-sectional study designs and have been based on self-report, which carry certain limitations in terms of reliability. Furthermore, they focus on the importance placed on materialistic goals rather than the impact of attaining such goals. A longitudinal experimental study randomly assigned students to pursue either three extrinsic goals or three intrinsic goals over a four week period (Sheldon, Gunz, Nichols, & Ferguson, 2010). At the end of the four weeks those who attained intrinsic goals were happier than those who attained extrinsic goals. Despite these findings, participants reported believing that attaining extrinsic goals was the route to happiness. It seems that people may be flawed in their estimation of the psychological benefits of achieving material gain.

Some experts suggest that the relationship between materialism and well-being may be more complex than we think and argue that it is important to examine this relationship in the context of one’s wider value systems (Burroughs &
Rindfleisch, 2002; Sagiv & Schwartz, 2000). For example an individual may value materialistic gain but may also be religious (intrinsic value). It is important to understand how conflicting values might affect health. Researchers have shown that these conflicting value systems can present themselves as an internal struggle or psychological tension with negative consequences on well-being (Sagiv & Schwartz, 2000). Burroughs & Rindfleisch (2002) explored this hypothesis in greater detail and showed that materialism produces significant internal conflict among people who hold strong religious values and beliefs but not so for those who are not religious. It is necessary therefore to explore the interaction between materialism and well-being in the context of a person’s wider value system (for example religious values) in order to be able to fully appreciate the complexities of such interactions. Much of the research conducted to date in this area does not take wider values into account.

Finally much of the available research has been conducted in the US, a weakness acknowledged by Ryan et al. (1999). Therefore it is not known of the relationship between materialism and well-being is specific to US populations or if it is a cross-cultural phenomenon.

*Satisfaction with Life*

Galinha & Pais-Ribeiro (2012, p. 35) refer to subjective well-being (SWB) as a “broad concept, which has a cognitive and an affective dimension, separated and moderately correlated”. The affective aspect relates to feeling of happiness/sadness and the cognitive aspect related to person's satisfaction with life (Sagiv & Schwartz, 2000). In the materialism related research there is much variation with regard to the measures employed to assess SWB. Some studies employ both cognitive and affective measures of well-being (Brdar et al., 2011; Sagiv & Schwartz, 2000) and others
choose either a cognitive (Roberts & Clement, 2007; Vansteenkiste, Duriez, Simons, & Soenens, 2006) or an affective measure (Kasser & Ahuvia, 2002). Some experts in this field advise that it is necessary to use a number of measures of both cognitive and affective SWB in order to fully understand the complexities of this variable (Sagiv & Schwartz, 2000).

The majority of studies examining well-being show that materialistic values are related with lower satisfaction with life (Roberts & Clement, 2007; K.M. Sheldon, Ryan, Deci, & Kasser, 2004; Vansteenkiste et al., 2006). Among those studies that use both cognitive and affective measures of well-being, most demonstrate that the affective dimension correlates well with the cognitive dimension as expected (Brdar et al., 2011; K.M. Sheldon et al., 2004). However conflicting results were observed by Sagiv & Schwartz (2000) in their study as materialistic values were negatively correlated with the affective component of well-being but not with the cognitive component (satisfaction with life). The authors suggest that life satisfaction largely reflects goal attainment given the nature of the questions posed in the satisfaction with life scale (e.g. ‘so far I have gotten the important things I want in life’). Therefore well-being may depend on how successful we have been at achieving our goals as well as the importance placed on goals (Sagiv & Schwartz, 2000). Both cognitive and affective measures of well-being will be employed in this proposed study in order to obtain a more holistic view of subjective well-being.

**Materialism among Business and Psychology Students**

Psychology and business students have been included as participants in a number of studies related to materialism for comparative purposes in relation to goal orientation (Sagiv & Schwartz, 2000; Schmuck et al., 2000). Psychology is a caring profession
focused on the mental health and welfare of others. Business on the other hand is focused on making money and being more successful than the competition. Therefore it seems likely that psychology students will place higher value on intrinsic goals and business students will place more value on extrinsic goals.

Sagiv and Schwartz (2000) measured values related to power and achievement and well-being in business and psychology students in the US. As predicted business students attributed higher importance to power and achievement values but the important difference was that these values were positively related to well-being. As expected values related to benevolence and universalism were higher among psychology students and were also associated with higher well-being. Sagiv and Schwartz (Sagiv & Schwartz, 2000) propose that environmental congruency has a significant impact on whether or not our goals and values effect well-being. If people’s goals match those, which are emphasised or supported by their environments, these goals are likely to be positively related to well-being. Similarly if materialistic goals are incongruent with other salient values such as religiosity an internal conflict may occur resulting in psychological distress (Burroughs & Rindfleisch, 2002).

These findings conflict with the results from a subsequent study also from the US highlighting that materialistic values are linked with lower self-actualisation and happiness among business students in Singapore (Kasser & Ahuvia, 2002). These results do not support the environmental congruency explanation proposed by Sagiv and Schwartz (2000) as Singapore is a country that encourages financial gain. A number of differences between these two studies may account for these different findings. Firstly, different measures were used to test materialism. Sagiv and Schwartz (2000) used the Schwartz Value Inventory (Schwartz, 1992) to explore
values and asks respondents to rate the importance attributed to 58 values and Kasser & Ahuvia (2002) used the Aspirations index (AI). The Schwartz Value Inventory does not capture the breadth of extrinsic values as extensively as the AI as it only includes one question related to financial gain compared with four questions in the AI and it does not include questions about popularity, image and possessions unlike the AI (Kasser & Ahuvia, 2002). Secondly, Sagiv and Schwartz (2000) included measures of both cognitive and affective aspects of well-being whereas Kasser & Ahuvia (2002) just measured the affective component.

The AI will be used in this proposed study to measure the values of psychology and business students, as it was developed to distinguish between intrinsic and extrinsic values.

The Impact of Demographic Factors on Materialism

The relationship between demographic factors and goal orientation is rarely examined (Kilbourne & LaForge, 2010) and has been identified by Burroughs & Rindfleisch, (2002) as a gap in the literature. From the research that exists findings regarding gender differences and materialism are conflicting. Men and women did not differ significantly in terms of their ratings of intrinsic and extrinsic aspirations in Kasser & Ryan’s (1996) study. In other cases men appear to be more materialistic than women (Ryan & Dziurawiec, 2001) and vice versa (Roberts, 2000). This relationship needs to be further explored.

It is important to invite a broad cross-section of people of all ages to participate in this type of research in order to investigate how values and goals differ across the lifespan. Kasser & Ryan (1996) and Roberts & Clement (2007) invited participants of all ages to participate in their studies and revealed that older people are
more likely to value intrinsic rather than extrinsic goals. Similarly Belk (1985) explored materialism across three generations (youngest: 13 years or older; middle: married with children; oldest: grandparents) and noted that those in the middle generation were most materialistic and the oldest generation were the least materialistic. The mortality salience thesis proposed by Arndt et al. (2004) may offer an explanation for these findings. Perhaps as we age we become less terrorised by the notion of death and make peace with our mortality and therefore don’t feel the need to distract ourselves with material pursuits. Or maybe the realisation dawns over time that money doesn’t necessarily lead to happiness.

It is impossible to ignore the likely relationship between waning religious faith and rising consumerism. Religion is linked with collective values which conflict with the individualistic orientation of materialistic values (Burroughs & Rindfleisch, 2002). This relationship requires further investigation. Very little is reported on the impact of education on materialism apart from a lack of association reported by Roberts & Clement (2007). It is likely that education has not been explored in detail to date again because of the overreliance on student populations and the inability to conduct meaningful analyses across different levels of education.

**Study Rationale**

Most of the research on materialism has been conducted in America, generally among the student population. It is important to examine the values of people living in other countries such as Ireland as data from the US cannot be generalised across all Western countries due to cultural differences. The main similarities between Ireland and the US are that both countries are democracies but America could be perceived as being more individualistic and capitalistic (Schmuck et al., 2000) than Ireland.
Furthermore, Irish society has experienced many changes in recent years such as the economic downturn and the diminishing role of the church and religion in people’s lives. Consequently, it is timely to examine levels of materialism and value systems in an Irish sample and potential effects on well-being, as there is no published data in this area.

A measure of religiosity will be included in an attempt to examine values and goals in the context of wider value systems as suggested by experts (Burroughs & Rindfleisch, 2002; Sagiv & Schwartz, 2000). This measure will also provide information on the relationship between religiosity and value orientation – an area that has not been explored in great depth to date.

This study will utilise a cross-sectional design and will involve a student sample and a non-student sample. The student sample will compare intrinsic and extrinsic values and their impact on well-being across psychology and business students in order to determine if business students value extrinsic goals at a higher level than psychology students and to examine the relationship goal orientation has on the well-being of these two subsets of students to shed light on the conflicting results raised Kasser & Ahuvia (2002) and Sagiv & Schwartz, (2000).

The non-student sample will include a broad cross-section of people of different ages and levels of education allowing analysis of the relationship between demographic factors and materialism, which has been limited in the available evidence due to the over reliance on student samples. Including both students and non-students will allow for materialism levels to be compared across both groups. There is no published evidence in this regard but given the increasing trends of materialism observed among American college students (Twenge et al., 2012) there is
reason to believe that students may value materialistic goals at a higher level than non-students.

**Hypotheses**

1. Overall, participants will value intrinsic goals at a higher level than extrinsic goals

2. A focus on intrinsic goals will be associated with greater well-being and a focus on extrinsic goals will be associated with poorer well-being.

3. There will be a significant difference between student and non-student groupings with regard to goal orientation
   a. Student will be more extrinsically orientated compared with non-students.
   b. Business students will be more extrinsically orientated than psychology students

4. There will be significant associations between demographic factors and value orientation.
   a. Age will be significantly correlated with goal orientation as younger people will be more extrinsically orientated than younger people
   b. Education will be significantly correlated with goal orientation
   c. There will be significant differences in goal orientation between males and females.
   d. Religiosity will be associated with intrinsic goals
Methodology

Design
The study design was cross-sectional and correlational. The predictor variables were total importance, intrinsic and extrinsic goals and the criterion variables were satisfaction with life and general well-being.

Participants
212 people participated in this study, 120 of which were female and 92 were male. 125 students participated and 87 non-students participated. Among the student sample, 45 were studying psychology and 74 were studying business. Students were recruited via the School of Business and School of Arts in Dublin Business School. With the permission of academic staff, the researcher attended class and asked students to complete paper-based questionnaires (see appendix) during class time. Non-students completed the questionnaire online via Google Docs and were recruited via informal networks through word of mouth.

Procedure
Participants were informed that the study was about the relationship between life goals and well-being and were offered the opportunity of debriefing post-completion. Anonymity and confidentiality was assured and the researcher’s contact details were provided if participants wished to obtain a copy of the study findings on completion. Participants were also made aware that by completing the questionnaire they were providing implied consent. Contact details for support services were also provided in case the questions posed raised negative feelings for participants. The researcher
incentivised participation by donating €1 for each completed questionnaire to a mental health charity. The DBS Ethics Committee granted ethical approval for this study.

**Materials**

**Materialism**

The Aspiration Index (Kasser & Ryan, 1996) is a 42-item questionnaire which asks participants to rate how important and how likely it is that certain goals will be achieved in the future based on a 5-item scale (see AI in appendix). Importance rating were only included in this study as likelihood rating were not pertinent to the research questions. Participants were asked to circle the importance of achieving each aspiration in the future according to a 5-item Likert scale ranging from “not at all important” to “very important”.

The aspiration subscales relate to both intrinsic and extrinsic goals. Intrinsic goals include: self-acceptance (e.g. “You will know and accept who you really are”), affiliation (e.g. “You will have good friends that you can count on”), physical fitness (e.g. You will be physically healthy”). Extrinsic goals include: financial success (e.g. “You will have a lot of expensive possessions”), attractive appearance (e.g. “You will have people comment often about how attractive you look”) and social recognition (e.g. “Your name will be known by many people”). The seven aspirations are developed by computing raw subscale scores. Seven extra questions are included in the AI to ensure that participants cannot detect the intrinsic and extrinsic values in the measure. These 7 distractors were not included in scoring of intrinsic and extrinsic subscales.
The AI yields a total importance score by averaging the seven overall aspirations or subscales. To determine the relative importance of each of the subscale scores the total importance score is subtracted from each of the subscales to yield mean-corrected subscale scores for each type of aspiration. The intrinsic score was calculated by averaging these mean-corrected scores for self-acceptance affiliation, community feeling, physical fitness and the extrinsic score were calculated by averaging the mean-corrected subscale scores for financial success, attractive appearance and social recognition. The overall total importance and mean corrected scores are then used for analysis purposes.

The Aspiration Index (AI) has been used in several studies (Brdar et al., 2009; Kasser & Ryan, 1996; Ryan et al., 1999; Schmuck et al., 2000; Kennon M Sheldon & Kasser, 2008) and has demonstrated good internal reliability (Kasser and Ryan, 1996). In this sample the cronbach’s α for the combined intrinsic subscales was .641 and for the combined extrinsic subscales was .829.

**General well-being questionnaire (GHQ).**

The 12-item GHQ was used as a self-report measure of affective well-being and psychological health (Goldberg, 1992). The questions ask whether the respondent has experienced a particular symptom or item of behaviour recently using a four-point scale based on the following responses: “less than usual”, “no more than usual”, “rather more than usual” or “much more than usual” (see GHQ in Appendix). Examples of questions include: “have you recently lost much sleep over worry”, “have you recently felt that you are playing a useful part in things” and “have you recently felt capable of making decisions about things”? Responses are assigned a score ranging from 0-3. These scores are computed resulting in a scale ranging from 0
to 36 with higher scores indicative of psychological disorders however cut-offs have not been validated for Likert scoring (Goldberg, 1992). Cronbach’s α was .860.

**Satisfaction with life scale.**

The Satisfaction with Life Scale (SWLS) is a measure of cognitive well-being (Diener, Emmons, Larsen, & Griffin, 1985). It is a brief five-item measure (e.g. “In most ways my life is close to my ideal” and “the conditions of my life are excellent”) measured on a 7-point scale (coding is 1-7) ranging form “strongly disagree” to “strongly agree” (see SWLS in Appendix). An overall SWLS score is achieved by computing all 5 subscale scores. Scores range from 5-35 and higher scores are indicative of higher levels of satisfaction. Cronbach’s α was .880.

**Religiosity.**

The Duke University Religion Index (DUREL) (Koenig & Büssing, 2010) is a brief five-item measure of religiosity which assesses three types of religious practice (see DUREL in Appendix). Organised religious activity (ORA) which involved attending mass and participating in group-related religious activity such as prayer groups (e.g. “how often do you attend church or other religious meetings”). Non-organised religious activity (NORA), which relates to religious activities performed in private, such as prayer (e.g. “How often do you spend time in private religious activities, such as prayer, meditation or Bible study?”). Intrinsic religiosity (IR) measures degree of personal dedication to religion (e.g. “In my life, I experience the presence of the divine God”). Responses are based on a likert scale of responses ranging from “never” (coding =1) to “more than once a week” (coding = 6). Question one relates to ORA (raw data reflects ORA score), question two relates to NORA (raw data reflects
NORA score) and questions three to five are computed to attain a score for IR (cronbach’s $\alpha .927$). Summing all three variables to attain one overall score for religiosity is not recommended as subscale scores may cancel each other out (Koenig & Büssing, 2010).

**Demographic Variables.**

Questions relating to gender, age, nationality, level of education and student/non-student status were also included in the questionnaire.

**Data Analysis**

Data was analysed using SPSS Statistics Version 20. The online surveys were downloaded from MS Excel into SPSS and merged with the data file from the paper-based surveys.
Results

Descriptive statistics

Sample Characteristics

Table 1 outlines the main characteristics of the sample. There were 212 participants in this study, including 125 (59%) students and 87 non-students (41%). The majority of participants (121) were in the 25-34 age group. The 47 people (22%) who were not Irish represented 21 countries including Britain, Zimbabwe, Australia and Iran to name but a few. The majority of participants had attained a postgraduate level of education or higher.

Table 1 Sample Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>92</td>
<td>43.4</td>
</tr>
<tr>
<td>Female</td>
<td>120</td>
<td>57</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>16</td>
<td>7.6</td>
</tr>
<tr>
<td>25-34</td>
<td>123</td>
<td>58.3</td>
</tr>
<tr>
<td>35-44</td>
<td>52</td>
<td>24.6</td>
</tr>
<tr>
<td>45-54</td>
<td>12</td>
<td>5.7</td>
</tr>
<tr>
<td>55-64</td>
<td>6</td>
<td>2.8</td>
</tr>
<tr>
<td>&gt;65</td>
<td>2</td>
<td>0.9</td>
</tr>
<tr>
<td>Student/non-student</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td>45</td>
<td>21.2</td>
</tr>
<tr>
<td>Business</td>
<td>74</td>
<td>34.9</td>
</tr>
<tr>
<td>Other student(^1)</td>
<td>6</td>
<td>2.8</td>
</tr>
<tr>
<td>Non-student</td>
<td>87</td>
<td>41</td>
</tr>
<tr>
<td>Level of education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary school</td>
<td>4</td>
<td>1.9</td>
</tr>
<tr>
<td>Secondary school</td>
<td>64</td>
<td>30.3</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>66</td>
<td>31.3</td>
</tr>
<tr>
<td>Postgraduate or higher</td>
<td>77</td>
<td>36.5</td>
</tr>
<tr>
<td>Nationality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irish</td>
<td>164</td>
<td>77.7</td>
</tr>
<tr>
<td>Non-Irish</td>
<td>47</td>
<td>22.3</td>
</tr>
</tbody>
</table>

\(^1\) Students not studying business or psychology
**Religiosity**

Figure 1 represents the frequency with which participants attend church or religious meetings.

![Bar chart showing the frequency of church attendance]

Figure 1 *How Often Participants Attend Church or Religious Meetings*

Participants were asked how often they spend in non-organised religious practices such as prayer, meditation or Bible study. Figure 2 provides a summary of responses and shows a similar trend to figure 1, as the majority of respondents do not partake in non-organised religious activity.
Figure 2 How Often Participants Spend Time in Private Religious Activities

The mean score for intrinsic religiosity was 7.0 (SD = 3.9). On this scale 3 is indicative of a low score and 15 is indicative of a high score. Therefore a score of 7 is considered as a low-medium level of intrinsic religiosity.

Satisfaction With Life

Figure 3 outlines the level of satisfaction with life among participants. Overall participants were satisfied with life.
Figure 3 *Satisfaction with Life Among Study Participants*

**General Health – GHQ**

The mean General Health Questionnaire (GHQ) score for all participants was 11 (SD = 5.93). A score of 11 is indicative of good overall psychological health.
Inferential Statistics

Hypothesis 1: Overall, Participants Will Value Intrinsic Goals at a Higher Level than Extrinsic Goals

A paired sample t-test was conducted to test this hypothesis. The mean score for intrinsic goals was 0.74 (SD = 0.36), which was significantly higher than the score for extrinsic goals at -0.98 (SD = 0.45). The 95% confidence limits shows that the population mean difference of the variables lies somewhere between 1.61 and 1.83 (t(205) = 31.6, p = <0.001)). Therefore the null hypothesis is rejected.

Table 2 outlines the means and standard deviation scores for the total importance, intrinsic importance and extrinsic importance from the Aspirations Index. The means are presented in ascending order therefore it is clear that intrinsic goals (affiliation, self-acceptance, physical fitness and community feeling) are rated as more important than extrinsic goals (financial success, appearance and social recognition). Of the intrinsic aspirations, affiliation was rated highest overall and financial success was rated the highest of the three extrinsic aspirations.

Table 2: Means and Standard Deviations of the Mean-Corrected Subscale Scores on the Aspiration Index.

<table>
<thead>
<tr>
<th>Importance</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>3.65</td>
<td>0.41</td>
</tr>
<tr>
<td>Intrinsic</td>
<td>0.74</td>
<td>0.34</td>
</tr>
<tr>
<td>Extrinsic</td>
<td>-0.98</td>
<td>0.45</td>
</tr>
<tr>
<td>Affiliation</td>
<td>0.98</td>
<td>0.44</td>
</tr>
<tr>
<td>Self-acceptance</td>
<td>0.89</td>
<td>0.44</td>
</tr>
<tr>
<td>Physical fitness</td>
<td>0.95</td>
<td>0.45</td>
</tr>
<tr>
<td>Community feeling</td>
<td>0.013</td>
<td>0.65</td>
</tr>
<tr>
<td>Financial Success</td>
<td>-0.43</td>
<td>0.63</td>
</tr>
<tr>
<td>Appearance</td>
<td>-1.05</td>
<td>0.67</td>
</tr>
<tr>
<td>Social recognition</td>
<td>-1.47</td>
<td>0.58</td>
</tr>
</tbody>
</table>

*Additional analysis.*
- A one-sample t-test was conducted in order to test if there was a significant difference between the overall materialism values in this sample compared to other existing published data. The 119 student participants in this sample were selected for analysis to ensure comparability with a similar sample of 120 US students reported in Schmuck et al., (2000). The US students were studying a range of different University courses. There were no significant differences observed in intrinsic or extrinsic scores between the Irish and US samples. With regard to the subscale scores the Irish students scored significantly higher than the US students for self-acceptance, physical fitness and financial success and significantly lower for community affiliation. See table 3 for an outline of the means and significant differences according to one-sample t-test analyses between Irish students and US students for each of the subscales on the Aspirations index.

Table 3: A One-Sample T-Test Table Displaying the Differences Between Irish and US Students for Aspirations Index Scores.

<table>
<thead>
<tr>
<th>Importance</th>
<th>Irish students</th>
<th>US students</th>
<th>T value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Total</td>
<td>3.65</td>
<td>0.41</td>
<td>3.97</td>
</tr>
<tr>
<td>Intrinsic</td>
<td>0.74</td>
<td>0.34</td>
<td>0.59</td>
</tr>
<tr>
<td>Extrinsic</td>
<td>-0.98</td>
<td>0.45</td>
<td>-0.78</td>
</tr>
<tr>
<td>Affiliation</td>
<td>0.85</td>
<td>0.44</td>
<td>0.78</td>
</tr>
<tr>
<td>Self-acceptance</td>
<td>0.85</td>
<td>0.44</td>
<td>0.78</td>
</tr>
<tr>
<td>Physical fitness</td>
<td>0.81</td>
<td>0.45</td>
<td>0.61</td>
</tr>
<tr>
<td>Community feeling</td>
<td>0.03</td>
<td>0.65</td>
<td>0.20</td>
</tr>
<tr>
<td>Financial success</td>
<td>-0.27</td>
<td>0.63</td>
<td>-0.45</td>
</tr>
<tr>
<td>Appearance</td>
<td>-0.91</td>
<td>0.67</td>
<td>-0.84</td>
</tr>
<tr>
<td>Social recognition</td>
<td>-1.36</td>
<td>0.58</td>
<td>-1.07</td>
</tr>
</tbody>
</table>

*p < .05, **p<.01, ***p<.001
**Hypothesis Two: A Focus on Intrinsic Goals Will be Associated With Greater Well-Being and a Focus on Extrinsic Goals will be Associated with Poorer Well-Being**

Tests for normal distribution revealed that both Satisfaction with Life and General Health Score (GHQ) were not normally distributed as the Shapiro-Wilk statistic was significant for both variables (p<0.05) therefore the non-parametric correlation statistic Spearman’s rho was used to test these relationships.

There was no significant relationship between intrinsic goal orientation and satisfaction with life (rs (200) = .080, p = 0.26) or GHQ (rs (203) = -0.07, p = 0.36). Neither was there was a significant relationship between extrinsic goal orientation and satisfaction with life (rs (200) = -0.08, p = 0.27) or GHQ (rs (203) = 0.06, p = 0.37). Therefore the null hypothesis was accepted.

**Additional analysis.**

- A spearman’s rho correlation found that for non-students there was a weak positive significant relationship between intrinsic aspirations and satisfaction with life (rs (85) = .227, p < 0.05) and a weak negative significant relationship between extrinsic aspirations and satisfaction with life (rs (85) = -0.225, p < 0.05).

- There was no significant association between extrinsic or intrinsic goal orientation and well-being (GHQ) when all students or Irish people were selected in isolation for analysis. Similarly there was no relationship between well-being and goal orientation among business students or psychology students.
**Hypothesis 3: There will be a Significant Difference Between Student and Non-Student Groupings With Regard to Goal Orientation**

A one-way Analysis of Variance (ANOVA) was conducted in order to explore the differences in materialism across students/nonstudents in this sample. This variable consisted of four categories: business students, psychology students, other students and non-students. There was a significant difference between non-student groupings for total importance, extrinsic goals and intrinsic goals (df=3, 202, p = <0.001). Results are presented in table 4 and graphically in figure 4. Therefore the null hypothesis is rejected.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Total importance</th>
<th>Intrinsic goals</th>
<th>Extrinsic goals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Business</td>
<td>3.78</td>
<td>0.44</td>
<td>0.54</td>
</tr>
<tr>
<td>Psychology</td>
<td>3.76</td>
<td>0.37</td>
<td>0.77</td>
</tr>
<tr>
<td>Other</td>
<td>3.33</td>
<td>0.32</td>
<td>0.72</td>
</tr>
<tr>
<td>student Non-student</td>
<td>3.50</td>
<td>0.35</td>
<td>0.88</td>
</tr>
<tr>
<td>F value</td>
<td>9.32***</td>
<td>15.81***</td>
<td>15.81***</td>
</tr>
</tbody>
</table>

***p<.001

**H3a: Students will be more extrinsically orientated compared with non-students.**

A one-way ANOVA showed that there was a significant difference in the importance placed on extrinsic goals across all student/non-student groups (df =3, 202, p = <0.001). Business students placed significantly greater importance than non-students
on extrinsic goals. See figure 4 for a graph of the Tuckey HSD post hoc analysis for extrinsic goal orientation.

Furthermore, the student groupings (business, psychology and other students) were recoded into one variable in order to see if there were significant differences among all students and non-students with regard to extrinsic goals. An independent t-test showed that all students (M=3.80, SD = 0.42) placed greater value on extrinsic goals compared with non-students (M=3.51, SD = 0.35). The 95% confidence interval limits shows that the population lies somewhere between 0.21 and 0.44 (t (204) = 0.30, p = < 0.001). Therefore the null hypothesis can be rejected.

![Figure 4: Graph of Tuckey Post-Hoc Analysis of Intrinsic and Extrinsic Goal Importance by Student Category.](image-url)
H3b: Business students will be more extrinsically orientated than psychology students
A significant difference was observed between psychology and business students in terms of extrinsic goal orientation, as business students placed more emphasis on extrinsic goals compared with psychology students (df =3, 202, p = .0001). Therefore the null hypothesis is rejected. See Figure 4 for a graph of the Tuckey HSD post hoc analysis for extrinsic goal orientation.

In addition, business students (M=3.73, SD = 0.78) valued financial success at a higher level than psychology students (M=3.19, SD = 0.82) which was confirmed by an independent t-test (t (111) = -5.17, p < 0.001).

Additional Analysis.
- A one-way ANOVA showed that there was a significant difference in the importance placed on intrinsic goals across all student/non-student groups (df =3, 202, p = <0.001). Psychology students placed greater importance than business students on intrinsic goals ((df =3, 202, p = 0.001). In addition, non-students valued intrinsic goals at a higher level than business students (df =3, 202, p = <0.001). See figure 4 for a graph of the Tuckey HSD post hoc analysis for intrinsic goal orientation.
- An independent samples t-test found that non-students (M =0.29) were significantly more likely to place importance on community feeling compared with students (M = 0.03) (t (204) = -2.9, P < 0.05).
**Hypothesis 4: There will be Significant Associations Between Demographic Factors and Value Orientation**

H4a: Age will be significantly correlated with goal orientation as younger people will be more extrinsically orientated than younger people

H4b: Education will be significantly correlated with goal orientation

H4c: There will be significant differences in goal orientation between males and females.

H4d: Religiosity will be associated intrinsic goals

Table 5 presents the differences in overall materialism and intrinsic and extrinsic goals across gender, age, education and nationality.
Table 5: Demographic Differences Across Three Aspiration Variables Conducted Using ANOVA and Independent T-Tests.

<table>
<thead>
<tr>
<th></th>
<th>Total importance</th>
<th>Intrinsic goals</th>
<th>Extrinsic goal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>3.58</td>
<td>0.45</td>
<td>0.70</td>
</tr>
<tr>
<td>Female</td>
<td>3.70</td>
<td>0.37</td>
<td>0.76</td>
</tr>
<tr>
<td><strong>t value</strong></td>
<td>-2.26</td>
<td></td>
<td>-1.28</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>3.82</td>
<td>0.52</td>
<td>0.50</td>
</tr>
<tr>
<td>25-34</td>
<td>3.73</td>
<td>0.34</td>
<td>0.70</td>
</tr>
<tr>
<td>35-44</td>
<td>3.51</td>
<td>0.44</td>
<td>0.86</td>
</tr>
<tr>
<td>&gt;45</td>
<td>3.40</td>
<td>0.44</td>
<td>0.91</td>
</tr>
<tr>
<td><strong>f value</strong></td>
<td>7.66***</td>
<td></td>
<td>7.86***</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary school</td>
<td>3.69</td>
<td>0.46</td>
<td>0.62</td>
</tr>
<tr>
<td>Degree</td>
<td>3.64</td>
<td>0.43</td>
<td>0.76</td>
</tr>
<tr>
<td>Postgrad or higher</td>
<td>3.62</td>
<td>0.35</td>
<td>0.82</td>
</tr>
<tr>
<td><strong>f value</strong></td>
<td>0.47</td>
<td></td>
<td>7.03***</td>
</tr>
<tr>
<td>Nationality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irish</td>
<td>3.63</td>
<td>0.40</td>
<td>0.75</td>
</tr>
<tr>
<td>Non-Irish</td>
<td>3.72</td>
<td>0.40</td>
<td>0.70</td>
</tr>
<tr>
<td><strong>t value</strong></td>
<td>-1.23</td>
<td></td>
<td>0.94</td>
</tr>
</tbody>
</table>

*p < .05, **p<.01, ***p<.001

**H4a: Age will be Significantly Correlated with Goal Orientation as Younger**

People will be more Extrinsically Orientated than Younger People

As outlined in table 5, a one-way ANOVA showed that there was significant difference across age categories for total importance (df = 3, 201, p = 0<.001,) intrinsic goals (df = 3, 201, p = 0<.001) and extrinsic goals (df = 3, 201), p = 0<.001,

See figure 5 for a graph of the Tuckey HSD post hoc analysis which outlines the clear declining trend in importance of extrinsic goals with increasing age. Moreover the importance placed on intrinsic goals decreases with age. Therefore the null hypothesis was rejected.
Figure 5: *Graph Of Tuckey Post-Hoc Analysis of Intrinsic And Extrinsic Goal*  
*Importance by Age groups.*

**H4b: Education will be Significantly Correlated with Goal Orientation**

A one-way ANOVA also showed that there was significant difference across level of education for importance of intrinsic goals (df = 2, 202, p = 0.001) and extrinsic goals (df = 2, 202, p =0.001). Tuckey HSD post hoc analysis confirmed that participants who had secondary school education only were more likely to value extrinsic goals. The converse was true for intrinsic aspirations which were more highly valued by those with higher levels of education (means outlined in table 5). See figure 6 for a graph of the Tuckey HSD post hoc analysis which outlines the clear declining trend in importance of extrinsic goals with increasing education and vice versa for intrinsic goals. Therefore the null hypothesis was rejected.
Figure 6: Graph of Tuckey Post-Hoc Analysis of Intrinsic and Extrinsic Goal Importance by Level of Education.

**H4c: There Will be Significant Differences in Goal Orientation Between Males and Females**

There was no significant difference the materialism levels of males and females. Therefore the null hypothesis was accepted.

**H4d: Religiosity will be Associated with Intrinsic Goals**

The Shapiro-Wilks test of normality indicated that intrinsic religiosity was not normally distributed (p = <0.001) therefore the spearman’s rho test was used. There was no relationship between intrinsic goals and any of the three religiosity subscales. Therefore the null hypothesis was accepted.
Additional analysis.

- An independent samples t-test showed that there was no significant statistical difference between the materialism levels of Irish and non-Irish participants. Therefore the null hypothesis was accepted.

- Multiple regression showed that the relationship between intrinsic religiosity and extrinsic goals combined did significantly predict satisfaction with life ($R^2 = 0.04$, $F(2, 197) = 4.78$, $P < 0.005$) but on closer examination this relationship was mainly due to the predictive nature of intrinsic religiosity ($\beta = 0.21$, $P < 0.005$) rather than extrinsic goals ($\beta = -0.07$, $P = 0.34$).
Discussion

The aim of this study was to examine the relationship between materialistic values and well-being in a student and non-student sample. The results supported the first hypothesis as participants’ valued intrinsic goals at a higher level than extrinsic goals. There was no relationship between well-being and materialism overall therefore the second hypothesis was not supported. However there was a relationship between goal orientation and satisfaction with life among non-students. The third hypothesis was supported as students were more extrinsically orientated compared with non-students and similarly business students were more materialistic than psychology students as expected. The fourth hypothesis was partly supported, as there were significant differences in value orientation across age and level of education but not for gender and nationality. Finally, there was no association between religiosity and intrinsic goals.

Hypothesis 1

The finding that participants valued intrinsic goals at a higher level than extrinsic goals (p. 30) was expected in accordance with the literature (Romero, Gómez-Fraguela, & Villar, 2012; Ryan et al., 1999; Schmuck et al., 2000). Intrinsic aspirations are characterised by self-acceptance, affiliation, community feeling and physical fitness are said to linked with satisfying basis psychological needs (Kasser, 2003). In contrast extrinsic goals are motivated by a need for recognition and financial gain and are associated with higher rates of narcissism, poor psychological wellbeing and antisocial behavior (Duriez et al., 2007; Kasser, 2003; Roberts & Clement, 2007; Saunders & Munro, 2000; Vansteenkiste et al., 2006).
As much of the research on materialism has been conducted in the United States it is important to compare levels of materialism from other countries in order to make cross-cultural comparisons. The aspirations of the US student sample published in Schmuck et al. (2000) were compared against the Irish students in this study in order to facilitate a meaningful comparison (p. 31). There were no significant differences in intrinsic or extrinsic goals between the two groups. However, Irish students rated the aspiration of financial success more highly than US students. This is surprising as achieving financial success is core to the “American Dream”. A possible reason for this result may be that the value and importance of money is particularly salient at present for Irish people in light of the current recession as many people are living on vastly reduced budgets and salaries compared to what they would have been number of years ago. This is supported by Sheldon & Kasser’s (2008) study which revealed that when students were presented with an artificial scenario outlining economic threat they were more likely to prioritise materialistic goals compared with a control group (Sheldon & Kasser, 2008).

Hypothesis 2

The result that materialism was not associated with well-being was unexpected (p. 32) in light of the body of evidence that suggests otherwise (Kasser & Ryan, 1996; Kasser, 2003; Schmuck et al., 2000; Vansteenkiste et al., 2006). It is important to note however that a weak negative relationship existed among non-students, between extrinsic goals and satisfaction with life and an inverse positive relationship was noted for intrinsic goals. This relationship was not observed for the GHQ measure of well-being however.
Firstly with regard to the overall findings, there are a number of possible explanations for the absence of a relationship between materialism and well-being. Given that most of the research confirming this association has been conducted with US populations perhaps there are cultural differences between Ireland and the US that could account for these differences. Support for this idea is strengthened by studies which show that the negative relationship between materialism and well-being does not hold for Dutch and Romanian people (Dawson & Bamossy (1991); Ger & Belk (1996), as cited in Burroughs & Rindfleisch, 2002).

Across the three extrinsic subscale measures, participants in this study attached most importance to financial success and much less importance to social recognition and appearance. According to Grouzet et al. (2005) and Brdar, Miljković, & Rijavec (2011) in circumstances of financial difficulty, financial success is likely to be more intrinsically oriented than goals related to looks and status, given that money represents a means for ensuring intrinsic goals are met (Brdar et al., 2011). This proposition could explain why extrinsic aspirations are not related to negative well-being in this sample as participants may be aspiring for financial attainment for reasons related to comfort and quality of life rather than greed and status. However this does not account of the lack of a relationship between intrinsic goals and positive well-being.

Sagiv and Schwartz’s (2000) environmental congruency hypothesis also offers an explanation about the lack of a relationship between materialism and well-being among non-students. This hypothesis suggests that this relationship depends on the congruency between people’s values and goals and those that prevail within their immediate environment. Therefore if extrinsic goals such as money and status are prevalent in College then a materialistic outlook would be congruent with these
priorities and would not cause distress or internal conflict. Most of the studies
consducted to date have focused on the value systems of students and not the College
environment itself so it is not known if materialistic goals are generally encouraged
within third level education.

Regarding the relationship between satisfaction with life and goal orientation
among non-students (p.32), Sagiv & Schwartz (2000) propose that the satisfaction
with life scale reflects goal attainment in light of some of the questions posed (e.g. ‘so
far I have gotten the important things I want in life’). It has also been suggested that
when extrinsic goals are attained they are not as fulfilling as intrinsic goals (Kasser &
Ryan, 1996b). Perhaps non-students have had more direct experience of attaining
extrinsic goals that have not met their expectations. Or maybe their dissatisfaction
stems from striving for extrinsic goals but failing to achieve them.

Furthermore non-students demonstrated significantly higher community
feeling scores (a subscale indicative of collective values) compared to the non-
students. Value orientation needs to be considered in the context of an individual’s
wider value system (Sagiv & Schwartz, 2000). If value systems conflict this would
explain why materialistic goals are related to poorer well-being among non-students.
It is important to note that the relationship between materialism and well-being
among students was only true for the cognitive measure of well-being (Satisfaction
with Life Scale) and not the affective measure (General Health Questionnaire).

Hypothesis 3

Students were significantly more materialistic and less intrinsically orientated
than non-students (p.33-34). There is no published literature available comparing
materialism among students and non-students therefore it is not known if this is a
typical finding. Non-students were on average older than students in this sample (48% of non-students over 35 years compared with 25% of students) therefore the younger age of students could be a reason for the fact that they are more are more materialistic than non-students. The relationship between age and materialism will be discussed in greater detail on page 46. As previously stated the value systems that are promoted in third-level education need to be explored to establish if they support materialism among students. These findings indicate that the levels of materialism highlighted in the literature may be exaggerated due to the reliance of student samples in these studies.

As expected the business students attached more importance to extrinsic goals than psychology students (p.35) while simultaneously attaching less importance to intrinsic goals compared with the psychology students. These findings are in line with those reported by Vansteenkiste, Duriez, Simons, & Soenens (2006); Sagiv & Schwartz (2000) and Kasser & Ahuvia (2002). The greatest difference between the two groups was in relation to financial success which business students ranked as more important than psychology students. This finding is expected as business students are aspiring to work in a profession that emphasises financial gain. Conversely psychology attracts individuals who are interested in the welfare of others and is more intrinsically orientated. Unlike the aforementioned studies (Kasser & Ahuvia, 2002; Vansteenkiste et al., 2006) however, there was no association between extrinsic goal orientation and poor well-being among business students. The explanations highlighted in the previous section (p. 43-44) for the lack of a relationship between goal orientation and well-being among students may account for this finding.
**Hypothesis 4**

Materialism declined with age (p.37-38) among participants as expected in line with research conducted by Belk (1985), Roberts & Clement (2007) and Kasser & Ryan (1996). As people get older it seems they gain perspective on what really matters in life, relationships, connectedness and making a meaningful contribution to society – goals that are associated with self-actualisation (Kasser & Ahuvia, 2002). These findings are supportive of the mortality salience theory (Arndt et al., 2004) which proposes that we pursue material gain at a younger age as a way of coping with mortality but this tendency diminishes as we get older. Rindfleisch and Burroughs, (2004) suggest that a materialistic outlook is more characteristic of younger people and “is merely an initial and temporary manifestation of a more complex coping process” (Rindfleisch & Burroughs, 2004, p. 220). This transitory materialism proposed by Rindfleisch and Burroughs, (2004) was supported by a longitudinal study conducted among college students in the US which showed that as students progressed through college their motivations shifted from extrinsic to intrinsic goals even over a short four year period (Kennon M Sheldon, 2005).

The decreasing trend in materialism with increasing education (p. 38-39) is a novel finding. Materialism has not been analysed across different levels of education in the literature due to the homogeneity of samples. Sagiv & Schwartz's, (2000) theory about goal attainment could explain these results. Well-educated people are more likely to have achieved goals related to financial gain and recognition. Once extrinsic goals are achieved it has been suggested (Sheldon, 2005) that a shift in focus occurs towards more intrinsic values. Those with less education may still be striving towards their goals, which explains their extrinsic orientation.
The lack of a relationship between religiosity and materialism (p.39) contradicts the research, as religiosity is linked with collective intrinsically oriented values (Burroughs & Rindfleisch, 2002). In addition religiosity and materialism did not predict well-being. It is important to note that the vast majority of participants in this study were not religious therefore it is difficult to draw firm conclusions about the role of religiosity and materialism from this study.

**Limitations**

There are a number of limitations to this study that must be acknowledged. The study design was cross-sectional and correlational; therefore the author can refer to relationships and associations between materialism and other variables but can not infer causality. Furthermore the survey was based on self-reports of aspirations, satisfaction with life, general well-being and religiosity therefore respondents may have felt compelled to respond in line with socially desirable norms.

Despite the efforts made to include a more heterogeneous sample, it is acknowledged that many participants were aged between 25-44 and were highly educated, limiting the generalisability of these findings to older people and those with less education. Similarly the sample of psychology students was smaller (74 business students and 45 psychology students) than the business students, which may limit the generalisability of these results.

**Strengths and Areas for Future Research**

Research on materialism is largely focused on US students in their early twenties. By focusing on such a narrow subset of the population, researchers are at risk of overgeneralising the problem of materialism given that rates of materialism are high
among US college students (Twenge et al., 2012). This is one of the few studies that allows for comparisons between different nationalities due to the predominantly Irish sample. These findings demonstrated that there was no association between goal orientation and well-being in this predominantly Irish sample. Participants from other countries need to be included in future research in order to explore how materialism interacts with psychological health cross-culturally.

This study included both a student and non-student sample in order to allow for comparisons between these two cohorts and showed that non-students are more likely to be intrinsically orientated compared with students. This confirms the aforementioned suspicion that solely focusing on student samples is likely to exaggerate the incidence of materialism.

Including non-students in the study allowed for analysis across age and level of education. This showed that materialism decreased with increasing age and also decreased with increasing education level. The motivation for this reorientation of core values across the lifespan and across education levels needs to be further investigated. A longitudinal study measuring aspirations at several time points throughout adulthood with participants from different background would help to uncover trends in value changes throughout life.

The emphasis on financial success, in this study, particularly among the student sample, should be considered in the context of the current economic difficulties in Ireland, in line with Sagiv & Schwartz, (2000) theory about environmental congruency. Environmental value measures should be included in future research to determine how goals are influenced by wider micro or macro environmental factors.
It is also important to understand the motivations behind aspirations. The terror management account and mortality salience theory proposed by Arndt et al., (2004) offer one possible account but there are likely to be other explanations. Qualitative research is needed to unravel the factors that influence goal orientation and its impact on well-being.

**Practical Implications**

In light of the association between materialism and lower satisfaction with life among non-students there are strategies that could be employed to help people to challenge value systems and adopt a more intrinsically oriented outlook. A research project conducted in the UK, demonstrated that asking extrinsically orientated people to reflect on intrinsic issues such as child poverty and climate change can lead to notable positive changes in the way that people express feelings of responsibility to others (Chilton, Crompton, Kasser, Maio, & Nolan, 2012). Furthermore, once intrinsic goals were invoked, these individuals were less likely to identify self-interest or financial gain as salient issues. These results may have applications in a therapeutic setting. Challenging value systems or simply encouraging reflection on goals and values may help to reorientate values in line with intrinsic goals which may subsequently improve well-being.

Despite the lack of an association among students between extrinsic goals and well-being there is no assurance that this relationship will not emerge in the future when students leave third-level education. Therefore preventative strategies can be implemented in secondary school, particularly in transition year by encouraging involvement in volunteering and charity work in order to increase intrinsic aspirations
such as community affiliation – an aspiration that was not deemed important by the students in this sample.

**Conclusion**

These findings indicate that overall people place greater importance on intrinsic goals related to relationships, community feeling, self-acceptance and physical fitness compared with extrinsic goals such as money, recognition and vanity. There were clear differences however, between students and non-students in this regard as students were significantly more materialistic than non-students. This variance could be explained in terms of differences in age, life experience, or environmental value systems. Overall, there was no relationship between materialism and poor psychological health, in contrast with the studies that suggest otherwise. However, this finding did not remain true for all groups in the sample, as goal orientation and satisfaction with life were associated among non-students. Furthermore, materialism differed across age and education, which suggests that the levels of materialism reported in the literature, may overstate the problem due to the reliance on college student in previous studies. Future research needs to include more diverse sample populations in order to fully understand the prevalence of materialism and its related psychological consequences.
References


effects of goal contents and motives on well-being: It’s both what you pursue
475–486.

and individual differences. *Journal of Research in Personality, 39*(2), 209–
223.


Twenge, J. M., Campbell, W. K., & Freeman, E. C. (2012). Generational differences
in young adults’ life goals, concern for others, and civic orientation, 1966–

Twenge, J. M., Gentile, B., DeWall, C. N., Ma, D., Lacefield, K., & Schurtz, D. R.
(2010). Birth cohort increases in psychopathology among young Americans,
1938–2007: A cross-temporal meta-analysis of the MMPI. *Clinical

Van Hiel, A., Cornelis, I., & Roets, A. (2010). To Have or To Be? A Comparison of
Materialism-Based Theories and Self-Determination Theory as Explanatory

and Well-Being Among Business Students: Further Evidence of Their
Appendix

Questionnaire pack

Research study: The relationship between life goals and well-being

My name is Orla Walsh and I am conducting research in the Department of Psychology in Dublin Business School that explores the relationship between life goals and well-being. This research is being conducted as part of my studies and will be submitted for examination.

You are invited to take part in this study and participation involves completing and returning the attached anonymous survey. The questionnaire should take 5-7 minutes to complete. While the survey asks some questions that might cause some minor negative feelings, it has been used widely in research. If any of the questions do raise difficult feelings for you, contact information for support services are included on the final page.

Participation is completely voluntary and so you are not obliged to take part. For every person who does take part I will donate €1 to the Samaritans on your behalf.

Participation is anonymous and confidential. Thus responses cannot be attributed to any one participant. For this reason, it will not be possible to withdraw from participation after the questionnaire has been collected.

The questionnaires will be securely stored and data from the questionnaires will be transferred from the paper record to electronic format and stored on a password protected computer.

It is important that you understand that by completing and submitting the questionnaire that you are consenting to participate in the study.

Should you require any further information about the research or if you would like me to provide you with the results of my findings, please contact me at [redacted]

My supervisor is Dr. Patricia Frazer and can be contacted at: [redacted]

Thank you for taking the time to complete this survey.
PLEASE TICK ONE ANSWER ONLY

Gender
Male □
Female □

Age
18-24 □
25-34 □
35-44 □
45-54 □
55-64 □
>65 □

What is the highest level of education you have completed?
No schooling completed □
Primary school completed □
Secondary school completed □
Bachelor's Degree □
Postgraduate or higher □

Please tick the box which best describes you:
I am a psychology student □
I am a business student □
I am a student but not in business or psychology □
I’m not a student □

Nationality:
Irish □
Not Irish □
If not Irish please state your nationality ________________

ASPIRATION’S INDEX

This set of questions asks you about the future. Rate each item by circling how important it is to you that it happen in the future.

In the future...

You will be physically healthy.
Importance not at all a little so/so pretty important very important

Your name will be known by many people.
Importance not at all a little so/so pretty important very important
You will have people comment often about how attractive you look.

**Importance**  not at all  a little  so/so  pretty important  very important

You will have a lot of expensive possessions.

**Importance**  not at all  a little  so/so  pretty important  very important

You will be famous.

**Importance**  not at all  a little  so/so  pretty important  very important

You will donate time or money to charity.

**Importance**  not at all  a little  so/so  pretty important  very important

You will feel good about your level of physical fitness.

**Importance**  not at all  a little  so/so  pretty important  very important

You will be the one in charge of your life.

**Importance**  not at all  a little  so/so  pretty important  very important

You will have good friends that you can count on.

**Importance**  not at all  a little  so/so  pretty important  very important

You will keep up with fashions in hair and clothing.

**Importance**  not at all  a little  so/so  pretty important  very important

You will teach others the things that you know.

**Importance**  not at all  a little  so/so  pretty important  very important

You will have a job that pays well.

**Importance**  not at all  a little  so/so  pretty important  very important
You will exercise regularly.

**Importance**  
not at all  a little  so/so  pretty important  very important

You will share your life with someone you love.

**Importance**  
not at all  a little  so/so  pretty important  very important

You will be admired by many people.

**Importance**  
not at all  a little  so/so  pretty important  very important

At the end of your life, you will look back on your life as meaningful and complete.

**Importance**  
not at all  a little  so/so  pretty important  very important

You will avoid things bad for your health (such as smoking, excessive alcohol, etc.)

**Importance**  
not at all  a little  so/so  pretty important  very important

You will have people who care about you and are supportive.

**Importance**  
not at all  a little  so/so  pretty important  very important

You will work for the betterment of society.

**Importance**  
not at all  a little  so/so  pretty important  very important

You will be married to one person for life.

**Importance**  
not at all  a little  so/so  pretty important  very important

You will be your own boss.

**Importance**  
not at all  a little  so/so  pretty important  very important

You will achieve the "look" you've been after.
<table>
<thead>
<tr>
<th>Importance</th>
<th>not at all</th>
<th>a little</th>
<th>so/so</th>
<th>pretty important</th>
<th>very important</th>
</tr>
</thead>
</table>

You will deal effectively with problems that come up in your life.

<table>
<thead>
<tr>
<th>Importance</th>
<th>not at all</th>
<th>a little</th>
<th>so/so</th>
<th>pretty important</th>
<th>very important</th>
</tr>
</thead>
</table>

You will feel energetic and full of life.

<table>
<thead>
<tr>
<th>Importance</th>
<th>not at all</th>
<th>a little</th>
<th>so/so</th>
<th>pretty important</th>
<th>very important</th>
</tr>
</thead>
</table>

You will have a job with high social status.

<table>
<thead>
<tr>
<th>Importance</th>
<th>not at all</th>
<th>a little</th>
<th>so/so</th>
<th>pretty important</th>
<th>very important</th>
</tr>
</thead>
</table>

You will have good, open relationships with your children.

<table>
<thead>
<tr>
<th>Importance</th>
<th>not at all</th>
<th>a little</th>
<th>so/so</th>
<th>pretty important</th>
<th>very important</th>
</tr>
</thead>
</table>

You will work to make the world a better place.

<table>
<thead>
<tr>
<th>Importance</th>
<th>not at all</th>
<th>a little</th>
<th>so/so</th>
<th>pretty important</th>
<th>very important</th>
</tr>
</thead>
</table>

You will successfully hide the signs of aging.

<table>
<thead>
<tr>
<th>Importance</th>
<th>not at all</th>
<th>a little</th>
<th>so/so</th>
<th>pretty important</th>
<th>very important</th>
</tr>
</thead>
</table>

Your name will appear frequently in the media.

<table>
<thead>
<tr>
<th>Importance</th>
<th>not at all</th>
<th>a little</th>
<th>so/so</th>
<th>pretty important</th>
<th>very important</th>
</tr>
</thead>
</table>

You will know people that you can have fun with.

<table>
<thead>
<tr>
<th>Importance</th>
<th>not at all</th>
<th>a little</th>
<th>so/so</th>
<th>pretty important</th>
<th>very important</th>
</tr>
</thead>
</table>

You will be relatively free from sickness.

<table>
<thead>
<tr>
<th>Importance</th>
<th>not at all</th>
<th>a little</th>
<th>so/so</th>
<th>pretty important</th>
<th>very important</th>
</tr>
</thead>
</table>
You will help others improve their lives.

Importance not at all  a little  so/so  pretty important  very important

Your body shape and type will be fairly close to ideal.

Importance not at all  a little  so/so  pretty important  very important

You will buy things just because you want them.

Importance not at all  a little  so/so  pretty important  very important

You will know and accept who you really are.

Importance not at all  a little  so/so  pretty important  very important

You will eat healthfully and moderately.

Importance not at all  a little  so/so  pretty important  very important

You will be financially successful.

Importance not at all  a little  so/so  pretty important  very important

You will do something that brings you much recognition.

Importance not at all  a little  so/so  pretty important  very important

You will help people in need.

Importance not at all  a little  so/so  pretty important  very important

You will have a couple of good friends that you can talk to about personal things.

Importance not at all  a little  so/so  pretty important  very important

You will be talked about years after your death.

Importance not at all  a little  so/so  pretty important  very important
Your image will be one others find appealing.

**Importance**  
not at all  a little  so/so  pretty important  very important

**THE DUKE UNIVERSITY RELIGION INDEX**

**How often do you attend church or other religious meetings?**
- Never [ ]
- Once a year or less [ ]
- A few times a year [ ]
- A few times a month [ ]
- Once a week [ ]
- More than once/week [ ]

**How often do you spend time in private religious activities, such as prayer, meditation or Bible study?**
- Rarely or never [ ]
- A few times a month [ ]
- Once a week [ ]
- Two or more times/week [ ]
- Daily [ ]
- More than once a day [ ]

The following section contains 3 statements about religious belief or experience. Please mark the extent to which each statement is true or not true for you.

**In my life, I experience the presence of the Divine (i.e., God)**
- Definitely not true [ ]
- Tends not to be true [ ]
- Unsure [ ]
- Tends to be true [ ]
- Definitely true of me [ ]

**My religious beliefs are what really lie behind my whole approach to life**
- Definitely not true [ ]
- Tends not to be true [ ]
- Unsure [ ]
- Tends to be true [ ]
- Definitely true of me [ ]

**I try hard to carry my religion over into all other dealings in life**
- Definitely not true [ ]
- Tends not to be true [ ]
- Unsure [ ]
- Tends to be true [ ]
- Definitely true of me [ ]
THE GENERAL HEALTH QUESTIONNAIRE

Please read the sentences below and tick the answer which indicates how much the statement applies to you

Have you recently:

Been able to concentrate on whatever you're doing?
Better than usual ☐
Same as usual ☐
Less than usual ☐
Much less than usual ☐

Lost much sleep over worry?
Not at all ☐
No more than usual ☐
Rather more than usual ☐
Much more than usual ☐

Felt that you are playing a useful part in things?
More so than usual ☐
Same as usual ☐
Less useful than usual ☐
Much less useful ☐

Felt capable of making decisions about things?
More so than usual ☐
Same as usual ☐
Less so than usual ☐
Much less capable ☐

Felt constantly under strain?
Not at all ☐
No more than usual ☐
Rather more than usual ☐
Much more than usual ☐

Felt you couldn't overcome your difficulties?
Not at all ☐
No more than usual ☐
Rather more than usual ☐
Much more than usual ☐

Been able to enjoy your normal day-to-day activities?
More so than usual ☐
Same as usual ☐
Less so than usual ☐
Much less than usual ☐
**Been able to face up to your problems?**
- More so than usual
- Same as usual
- Less able than usual
- Much less able than usual

**Been feeling unhappy and depressed?**
- Not at all
- No more than usual
- Rather more than usual
- Much more than usual

**Been losing confidence in yourself?**
- Not at all
- No more than usual
- Rather more than usual
- Much more than usual

**Been thinking of yourself as a worthless person?**
- Not at all
- No more than usual
- Rather more than usual
- Much more than usual

**Been feeling reasonably happy, all things considered?**
- More so than usual
- About same as usual
- Less so than usual
- Much less than usual
THE SATISFACTION WITH LIFE SCALE

Below are five statements with which you may agree or disagree.

Using the 1-7 scale below, indicate your agreement with each item by placing the appropriate number in the line preceding that item.

1 = Strongly Disagree
2 = Disagree
3 = Slightly Disagree
4 = Neither Agree or Disagree
5 = Slightly Agree
6 = Agree
7 = Strongly Agree

1. In most ways my life is close to my ideal.
2. The conditions of my life are excellent.
3. I am satisfied with life.
4. So far I have gotten the important things I want in life.
5. If I could live my life over, I would change almost nothing.

Thank you very much for taking the time to complete this questionnaire. I will be delighted to donate €1 to the Samaritans on your behalf.

If any of the questions raised difficult feelings for you I’d like to refer you to the contact number for the Samaritans who run a helpline 24 hours a day, 365 days a year: 1850 60 90 90.

In addition if you are a DBS student, please contact student services who provide students with a referral to a professional counsellor student.services@dbs.ie This service is free and confidential.

I would be happy to provide you with overall feedback on my findings once the study is completed. If you would like overall feedback please get in touch at