Humour Styles: Predictors of
Perceived Stress and Self-Efficacy
with gender and age differences.

Thea Sveinsdatter Holland

Submitted in partial fulfilment of the requirements of the Bachelor of Arts Honours in Psychology at Dublin Business School,
School of Arts, Dublin.

Supervisor: Margaret Quinn Walsh
Programme Leader: Dr R. Reid (BA)

March 2016
Department of Psychology
Dublin Business School

Student number: 10029691
# Table of contents

Acknowledgements .................................................................................................................. 3

Abstract .................................................................................................................................... 4

Introduction ................................................................................................................................. 5

General humour and stress ......................................................................................................... 7

The Humour styles and current literature .................................................................................. 10

Affiliative humour ....................................................................................................................... 10

Self-enhancing humour .............................................................................................................. 10

Aggressive humour ..................................................................................................................... 10

Self-defeating humour ............................................................................................................... 10

General humour and self-efficacy ............................................................................................... 15

The current study ......................................................................................................................... 17

Methodology ................................................................................................................................ 20

Participants ................................................................................................................................. 20

Design .......................................................................................................................................... 20

Materials ...................................................................................................................................... 21

Procedure .................................................................................................................................... 23

Results .......................................................................................................................................... 24

Descriptive analysis .................................................................................................................... 24

Inferential analysis ....................................................................................................................... 26

Hypothesis 1 ................................................................................................................................. 26
Acknowledgements

First and foremost, would I like to give a big thank you to my supervisor, Margaret Quinn Walsh. She has shown outstanding support and help, without her involvement would I not have been able to finish this research.

Furthermore, would I like to give a thank you to Professor Sven Svebak, for additional help and an inspiring conversation on humour research.

Lastly would I like to give a thank you to everyone that participated in this study.
Abstract

The aim of this study was to investigate the relationship between humour styles, perceived stress, self-efficacy, gender and age. A 109 self-selecting participants took part in this online correlational study, 31 males and 78 females. A Google-document permalink gave access to the questionnaire booklet. Analysis showed that greater reports of self-defeating humour correlated with greater perceived stress and greater use of self-enhancing humour correlated with lower levels of perceived stress. Greater engagement with affiliative and self-enhancing humour correlated with greater levels of self-efficacy. Males reported a greater engagement with aggressive humour, and the youngest age group reported a greater engagement with affiliative and aggressive humour. Additional analysis showed that self-efficacy, self-defeating and self-enhancing humour together predicted 30% of the variance in perceived stress. It was therefore concluded that humour styles correlate with stress and self-efficacy, and that there is a difference between the genders and age on humour styles.
Introduction

Coping with stress and other changes in everyday life is something every person can relate to. Coping have been defined as a person’s ability to constantly change cognitive and behavioural demands to manage specific external or internal demands that exceed the person’s resources (Brannon and Fiest, 2007, p. 109). Coping with stress is something that is learned and it requires an effort from the person (Brannon and Fiest, 2007, p. 109). There are many mechanisms that are well known as coping strategies, humour are one such mechanism that have been found to play a significant role in coping (Abel, 2002; Olsson, Backe and Sörensen, 2002; Martin and Lefcourt, 1983; Martin, Kuiper, Olinger and Dance, 1993; Martin, Puhl-Doris, Larsen, Gray and Weir, 2003). Humour has been defined as something that above all is an emotional experience, that may provide everything between laughter and tears and it may provide both possibilities and obstacles in situations together with being able to function as both a weapon and protection in situations (Olsson et al. 2002).

In the old Greek society, Hippocrates identified four humours that can be argued as the first identification of different types of humour. However, the psychological values of these humours was not emphasised until Galen reintroduced this (Martin, 2010). In the English speaking world humour was rather seen as a personality trait of an unbalanced person during the sixteenth-century, at this time someone being “humorous” meant an odd, eccentric or peculiar person (Martin, 2010). The term humourist did not get its modern meaning, as someone who can create something called humour until late nineteenth-century (Martin, 2010).
Martin (2010) proposes that there are currently five major groupings of humour theories. The First theory, is the psychoanalytic theory where Freud (1905, p. 179-180) emphasised jokes and their relation to the unconscious. This theory suggests that jokes are one of many ways the content of the unconscious can be expressed.

The second theory, is the superiority theory which proposes that people use humour because of feelings of superiority or triumph over other people (Meyer, 2000). In other words, people laugh inwardly or outwardly at other people because of feelings of triumph or superiority. For example, adults often find acts and sayings of children humourous, and this theory then proposes that this is because the adults feel superior to the children (Meyer, 2000).

The third is the arousal theory, which are most known for the nineteenth-century works of Herbert Spencer and his theory based around the “hydraulic” theory of nervous energy that builds up and needs to be released through muscular movements, laughter is here a specialised method for releasing this energy (Martin, 2010). Shurcliff (1968) argue that this theory, which can also be referred to as the relief theory are based on humour as something dependant on relief from a state of anticipated unpleasantness, and therefore involving heightened arousal.

The fourth theory, is the cognitive incongruity theory which suggests that it is the person’s perception of incongruity, i.e. something that is peculiar or surprising, that determine if something is humorous or not (Martin, 2010). In other words, the discrepancy between an expected and actual outcome of for example a comment is what is often perceived as humour (Deckers and Kizer, 1975).
Finally, the social psychological theory emphasises the importance of humour as a social phenomenon because, people generally use humour more in social settings and people who appreciate and understand humour are generally more popular amongst peers (Meyer, 2000)

However, moving well into the twentieth-century more research started to emphasises the role of humour in mental health and especially the role it has in coping.

*General humour and stress*

Abel (2002) argue that there is a profuse number of studies that support humour and sometimes laughter as important for coping with stress and anxiety. For example, has it been suggested that students who use humour more actively also are more likely to employ successful strategies for coping with stress (Artemygeva, 2013). Humour used to cope with stressful life events have also been proposed to be positively related to how enjoyably a person experience social interactions, and that people using humour as coping are more confident when interacting with others (Nezlek and Derks, 2001). In addition, has it been proposed that humour is important in building bridges between people from different cultures and backgrounds (Olsson *et al.* 2002), which is arguably just the more important today with the increasing blending of several cultures in societies.

One of the early investigations of humour and mental health were done by Martin and Lefcourt (1983) on the impact of stressful life events. Stress has been defined as all reactions to happenings that disturbs or threaten to disturb cognitive processes or physical health (Baron, Branscombe, & Byrne, 2008, p. 436). Greater student stress has for example been linked with greater depression and anxiety levels (Iqbal, Gupta and Venkatarao, 2015). In
addition, have early life exposure to prolonged stress been found to be connected to development of behavioural disorders and depression (Kolb and Whishaw, 2011, p.228). These connections are only a minor part of the research and findings done on stress, making stress an important factor for psychological research as it greatly impacts physical and mental health.

The Martin and Lefcourt (1983) study found that North-American undergraduate students who scored lower on a humour test had a higher correlation between negative life events and mood disturbances when compared with participants that scored higher on the humour test, further suggesting the important role of humour in stress mediation. This study was one of the earliest studies to look at coping humour specifically, therefore arguably being the foundation for later humour research that have emerged.

Further research by Martin et al. (1993) found that a greater level of humour was associated with a more positive self-concept and a more positive and self-protective cognitive appraisal in facing stress, here measured using the perceived stress scale (Cohen, Kamarck and Mermelstein 1983) as the current study also will. Martin and Lefcourt (1983) and Martin et al. (1993) have further been supported by Able (2002) who found that a high sense of humour appraised less stress and current anxiety when compared with a low sense of humour group, here stress was also measured using the Perceived stress scale (Cohen et al. 1983). The groups that scored high on humour was more likely to use positive reappraisal and problem-solving as coping strategies (Abel, 2002). Abel (2002) also reported that women experienced significantly more perceived stress, which is contradicting to the Martin and Lefcourt (1983) study where no gender difference was found. The Martin et al. (1993) study did not investigate any gender differences. However, did neither of the studies presented
above (Abel, 2002; Martin and Lefcourt, 1983; Martin et al. 1993) investigate the relationship between the variables on age differences. In addition, were no difference on humour reported for genders by those studies who did conduct such investigations (Abel, 2002; Martin and Lefcourt, 1983). Arguably, are the limited investigation into gender and age differences problematic in that these studies then offer limited understanding in what is happening with the relationship between the variables. In addition, are the use of an undergraduate student sample, as have been found for all three studies presented above, problematic as this may create biases in that students are often more familiar with self-report measures than the general public. An undergraduate sample also creates limitations in the results applicability to the general public as people taking higher education often stem from the same or similar socioeconomic groups. Furthermore, are the age range in an undergraduate sample often limited as the normal age for undertaking undergraduate studies usually are between late teens into early twenties. Finally, were all three of these studies tested in a North-American population, arguably not providing a broader cultural perspective on humour in coping with stress. These are all limitations the current study will aim to address by obtaining an online sample of participants, therefore aiming towards a broader age range and other occupations than undergraduate students. In addition, aiming towards a North-Western European sample of participants.

The current study will however, not focus on humour as a general coping mechanism, but rather use a measure of four different humour styles proposed by Martin et al. (2003)
**The Humour styles and current literature**

Martin *et al.* (2003) developed a self-report measure that looks at the use of four different humour styles;

*Affiliative humour* are used to enhance relationships to others. Individuals that use this type of humour tend to say funny things, joke and have spontaneous funny outbursts that can amuse others (Martin *et al.* 2003). It has also been argued that this type of humour can relate to extraversion and positive moods and emotions (Martin *et al.* 2003)

*Self-enhancing humour* are used for personal enhancement. An individual using this type of humour might be said to have a general humorous outlook on life (Martin *et al.* 2003). This humour is also argued to be related to openness to experience, psychological well-being and self-esteem (Martin *et al.* 2003). People engaging in this type of humour frequently find incongruities in life amusing (Martin *et al.* 2003)

*Aggressive humour* are used at the expense of others in aim of personal enhancement (Martin *et al.* 2003). This humour often involve sarcasm, ridicule of others, teasing, and is sometimes used to manipulate, often without any regards for the impact on others (Martin *et al.* 2003). This type of humour is argued to be related to neuroticism and hostility amongst other less preferred traits (Martin *et al.* 2003).

*Self-defeating humour* are used to enhance relationships with others at the expense of the person using this humour style (Martin *et al.* 2003). An individual engaging in this type of humour often expose themselves to excessive self-disparaging in hope of amusing others, in other words letting themselves be the object of ridicule, and it has been argued to be related to negative emotions such as anxiety and depression (Martin *et al.* 2003).
The main focus of previous research has arguably been coping humour, which have primarily been connected with affiliative humour (Martin et al. 2003), therefore suggesting that less desirable humour styles, i.e. aggressive and self-defeating humour had not yet been specifically investigated before the Humour styles questionnaire was developed (Martin et al. 2003). This questionnaire was developed using participants ranging from 14 to 87 years of age, in a North-American population. Findings of this study suggested that younger participants under 19 years of age scored higher on affiliative and aggressive humour than older participants. However, were contradicting results found on this when tested with a narrower age range in Italian students (Sirigatti, Penzo, Giannetti and Stefanile, 2014) and Martin et al. (2003) found no age difference for self-enhancing and self-defeating humour. In addition, was aggressive humour found to have a higher score for males, than females (Martin et al. 2003). This study addressed both gender and age investigations, suggesting that the Humour styles questionnaire can be applied to a broad sample in the population. However, are again geographical limitations applicable here as participants were all North-American, not being informing on its cultural limitations or strengths. Nonetheless, the Humour Styles questionnaire have later been used in a number of studies looking at different mental health issues. In addition, will this the Humour styles questionnaire also be used in the current study, applied to a majority of North-Western European participants, therefore aiming to overcome the cultural limitations of the Martin et al. (2003) study.

Further research has investigated how humour styles mediate the relations between self-evaluative standards and psychological well-being (Kuiper and McHale, 2009). This study found that positive self-evaluative standards seemed to lead to increased use of affiliative humour, which further lead to higher levels of social self-esteem and lower levels of depression scores. Reversed were negative self-evaluative standards found to lead to the
use of more self-defeating humour, which further lead to lower levels of self-esteem and higher levels of depression. However, no predictions of social self-esteem or depression for aggressive humour were found (Kuiper and McHale, 2009). These findings were further supported by Kuiper, Klein, Vertes and Maiolino (2014) who found that a higher intolerance of uncertainty correlated with a reduction in the use of affiliative humour, which then lead to excessive worry and increased anxiety in such individuals, here arguably similar to self-defeating humour leading to lower social self-esteem and greater depression levels (Kuiper and McHale, 2009), as these finding both arguably point to similar negative effects of engaging with self-defeating humour, or not engaging with the positive affiliative humour. Also, Kuiper, Kirsh and Leite (2010) were in support of these findings, suggesting that people are more likely to continue interacting with friends who usually use self-enhancing or affiliative humour, compared with self-defeating and aggressive humour. In addition, did the Kuiper et al. (2010) study suggest that the most detrimental effects on social relationship could be seen from the use of aggressive humour. The Kuiper et al. (2010) findings are also arguably supported by findings suggesting that insensitive joking can be experience as insensitive and offensive (Penson et al. 2005), here similar as aggressive humour has been argued to involve not regarding the effects of the joking on others (Martin et al. 2003). Further, do the Kuiper et al. (2010) study arguably support the findings from Kuiper and McHale (2009) in that social relationships and social-esteem seemed to be positively mediated by positive humour styles such as affiliative and self-enhancing humour. However, Kuiper and McHale (2009), Kuiper et al. (2010) and Kuiper et al. (2014) all similarly to previous studies, showed limitations in the population the sample were drawn from, again North-American undergraduate psychology students and limitations on presenting a more comprehensive view of the relationships between the variables as no age or gender
investigations were conducted. Therefore, can it be argued that findings from these studies, as well as previous, are problematic in application to a general public. In addition, would it arguably be problematic to generalise these findings over several cultures outside North-America. All limitations which the current study will aim to address to a greater extent.

Furthermore, have friendly humour, i.e. affiliative and self-enhancing humour, been found to possibly increase the likelihood of reaching retirement age (Svebak, Rommunstad and Holmen, 2010), which is interesting in regards to earlier findings suggesting that affiliative humour are more closely connected with good social support (Kuiper et al. 2010) and social-esteem (Kuiper and McHale, 2009), and good social support have also been correlated with greater mental well-being in older adults (Litwin and Shiovitz-Ezra, 2011). However, did the Svebak et al. (2010) study use a revised humour measure that only addressed friendly humour, linked to affiliative and self-enhancing humour. The study did not do any further investigations into the two other humour’s i.e. aggressive and self-defeating humour (Svebak et al. 2010). Nonetheless, as this was a part of a county-wide health study in Norway can it be argued to be a better measure of the general population as it reached individuals of many ages and of many social-economic groups. The findings of this study also suggested that sense of humour seemed to decrease with age. However, no significant difference was found between the genders (Svebak et al. 2010). The current study will as well aim to receive some participants from northern Europe and also address the two humour’s not addressed by Svebak et al. (2010).

Furthermore, have the Humour styles (Martin et al. 2003) have also been found to mediate for the association between pathological forms of narcissism and perceived stress (Besser and Zeigler-Hill, 2011). Besser and Zeigler-Hill (2011) suggested that humour alters
how different individuals perceive and react to stressful events. This study found that adaptive humour, i.e. affiliative and self-enhancing were associated with lower levels of perceived stress, and maladaptive humour, i.e. aggressive and self-defeating were associated with higher levels of perceived stress (Besser & Zeigler-Hill, 2011), here using both the Perceived stress scale (Cohen et al. 1983) and the Humour styles questionnaire (Martin et al. 2003). Further findings suggested that high levels of vulnerable narcissism may have been correlated with higher perceived stress because of those individuals refraining from using adaptive forms of humour, i.e self-enhancing and affiliative humour (Besser & Zeigler-Hill, 2011). Again this study is limited in its choice of socio-economic groups and age range as participants all were undergraduate students. However, Besser and Zeigler-Hill (2011) argue that the transition from high school to university is a stressful period and an ideal time to address a study looking at perceived stress levels and its correlation to other psychological phenomena. Nonetheless, no age and gender comparison were conducted here, arguably limiting the understanding of the relationship between the variables tested here. However, did this study strengthen the previously mention paucity of studies looking at other cultures than North-American as a Jewish-Israeli group of students were participants here. Arguably, suggesting that the Humour styles measure (Martin et al. 2003) are applicable outside a North-American culture. The current study will aim to address these limitations, by leaving participation open to anyone above 18 years of age.

A further study addressing the Humour styles measure (Martin et al. 2003) outside North-American culture looked at gelotophobia, a fear of being laughed at and self-esteem in relation to humour styles in Chinese and Indian students (Hianadani & Yue, 2014). This study found that Indian students seemed to rate humour as significantly more important than Chinese students. Indian students seemed to engage more with affiliative and self-enhancing
humour in addition to reporting a lower level of gelotophobia when compared with the Chinese. In addition, were males found to report a higher level of general humour use than females (Hianadani & Yue, 2014). However, no gender comparison was investigated for the Humour styles and no age comparison were conducted either. Nonetheless, does this study bring further support for the use of the Humour styles measure (Martin et al. 2003) outside a North-American sample.

As a further exploration of the relationship between the Humour styles measure (Martin et al. 2003) and psychological concepts will the current study also look at the General Self-efficacy measure (Schwarzer and Jerusalem, 1995), together with the Perceived stress measure (Cohen et al. 1983).

General humour and self-efficacy

There is currently a paucity of studies looking exclusively at the relationship between humour and self-efficacy. Self-efficacy is arguably an important factor contributing to an individual’s mental health, self-efficacy is the concept of believing that one can achieve personal goals as a product of personal actions (Baron et al. 2008, p. 127). High self-efficacy has been connected with positive friend support and lower self-efficacy have been connected with a tendency to be “expecting the worst” (Cicognani, 2011), which is arguably an important factor for a general positive attitude to life, here addressed by the General self-efficacy scale (Schwarzer and Jerusalem, 1995) (Cicognani, 2011). Further findings by Cicognani (2011) suggested that males generally reported greater self-efficacy. The importance of self-efficacy, addressed by the General self-efficacy measure (Schwarzer and Jerusalem, 1995) has also been found in its mediating role in work stress and stress symptoms (Liu, Siu and Shi, 2010), and its mediating role on the influence of life satisfaction
(Strobel, Tumasjan and Spörrle, 2011). Arguably, this is showing that self-efficacy is an important factor in general psychological well-being and it is therefore important that further investigations into self-efficacy is emphasised in research areas, such as its relation to humour styles, which will be investigated by the current study.

Further research on self-efficacy, have also correlated self-efficacy with humour. Marziali, McDonald and Donahue (2008) looked at coping humour, spirituality, self-efficacy, social support and physical and mental health in older adults. This study found that coping humour and self-efficacy together predicted mental and physical health status in older adults, and this study therefore argued that being able to use humour to cope might be a way of possessing self-efficacy (Marziali et al. 2008). However, no direct comparison between humour and self-efficacy were done in this study, creating problems with the proposed connection that using coping humour is a way of possessing self-efficacy (Marziali et al. 2008), as no statistical analysis were presented in support of this making this proposal merely a hypothetical suggestion. This is a problem that the current study aims to address as a correlation between humour styles and self-efficacy will be directly addressed in statistical analysis. Further limitations were arguably presented in that this study only used a sample of older North-American adults, arguably not being representative of other cultures. Other findings may have been found in a North-European culture as Svebak et al. (2010) found that the use of humour seemed to decrease with age. Furthermore, were no gender or age difference investigated either, arguably limiting a broader understanding of results. However, did this study seek out a narrower age group as older adults were the main interest, arguably justifying a limitation on the age comparisons.
Further research addressing humour and self-efficacy found a positive relationship between high humour perceptions and self-efficacy, specifically a strong relationship between social humour and instructional self-efficacy, in teachers who practice humour in challenging school environments (Evans-Palmer, 2010). Further findings suggested that specifically social humour were strongly related to achieving learning in class room behaviour (Evans-Palmer, 2010). However, this study focused more on the effect of self-efficacy and humour in a learning setting therefore also measured self-efficacy with a measure developed towards teachers, and not the General Self-efficacy scale (Schwarzer & Jerusalem, 1995). Nonetheless, this study arguably showed a strong correlation between humour and self-efficacy, suggesting that further research on this topic is needed to understand the relationship between humour and self-efficacy more comprehensively, which is what the current study will aim to investigate. The current study will also address humour and self-efficacy in a different culture than the Evans-Palmer (2010) study, i.e. North-Western European and not North-American as Evans-Palmer (2010), and investigate the relationship between age and gender which was not done for this study either.

The current study

Based the research and findings from the studies that have been presented here on the topic of humour, humour styles, self-efficacy, perceived stress and gender and age difference, will the current study expect to find a correlation between levels of perceived stress and the four Humour Styles, i.e. affiliative, self-enhancing humour, aggressive and self-defeating humour, as a correlation had been found here earlier (Besser and Zeigler-Hill, 2011). In addition, will an investigation of a correlation between humour styles and the self-efficacy be conducted, with an expectation of finding a correlation here based on earlier studies findings of a correlation between general humour and self-efficacy (Evans-Palmer,
Furthermore, is a difference between age and gender expected to be found for self-efficacy and perceived stress, as a difference have been found for stress and self-efficacy on gender in earlier studies (Abel, 2002; Cicognani, 2011). Finally, is a difference between age and gender expected to be found between the four Humour styles, as a difference have earlier been found here (Martin et al. 2003).

The current study will further address the limitations presented above. Such limitations include; only using a very specific part of the population, mainly undergraduate students, not including a comparison between age and genders, and limitations on humour and self-efficacy research. A wider age span and avoiding a focus on undergraduate students will be addressed as the current study will be distributed online, that allowing anyone who wishes above the age of 18 to participate. The missing self-efficacy link will be addressed by using the General Self-Efficacy measure (Schwarzer & Jerusalem, 1995) in comparison with the Humour styles measure (Martin et al. 2003). Lastly, will geographical limitations involving a majority of studies using a North-American population, with a few exceptions presented above (Besser and Zeigler-Hill, 2014; Hiranandani and Yue, 2014; Sirigatti et al. 2014; Svebak et al. 2010), be addressed. Here addressed by mainly covering people from or currently living in North-Western European countries, in addition to arguably obtain some participations from outside the European countries and people who are not from a European culture as this study will be distributed online. Therefore, asking; Is there a relationship between humour styles, perceived stress, and self-efficacy with any difference for gender and age? This will be investigated using the Humour Styles measure (Martin et al. 2003), Perceived stress measure (Cohen et al. 1983) and General Self-efficacy measure (Schwarzer & Jerusalem, 1995) with a comparison of age and gender on these measures.
The current study therefore hypothesises that;

H1 There will be a correlation between humour styles and perceived levels of stress.

H2 There will be a correlation between humour styles and general self-efficacy.

H3 There will be a difference between males and females on stress levels and self-efficacy.

H4 There will be a difference between the age groups on perceived stress and self-efficacy.

H5 There will be a difference between males and females on preferred humour styles.

H6 There will be a difference between the age groups on preferred humour styles.
Methodology

Participants

A self-selecting sample of convenience were accessed online through the researcher’s personal social network site, together with some snowball sampling as other individuals shared the questionnaire further online as well.

A total of a 109 people participated, 31 males and 78 females. Participants were asked to indicate their age within four pre-set age groups; 18-24, 25-31, 32-38 and 39+. Most of the participants were allocated to the first group 18-24 (N = 75, 68.8%), while the other groups had a significantly lower number for participants; 25-35 (N = 16, 14.7%), 32-38 (N = 2, 1.8%) and 39+ (N = 16, 14.7%).

It would be appropriate to argue that the population were mainly North-Western European individuals as this was the main trend of people engaging with the researcher’s personal social networking site. However, as the questionnaire was distributed online open to anyone above 18 years of age could it be argued that some participants might have been from other parts of the world and cultures. Participants did not receive any substitution for participating.

Design

A correlational design was used to investigate the predictor and criterion variables. Predictor variables were any of the four humour styles; affiliative, self-enhancing, self-defeating and aggressive together with age and gender. The criterion variables were perceived stress and perceived self-efficacy, with the four humour styles for certain hypotheses. For this research every participant answered each question and there were no other demographical’s than age and gender measured.
Materials

Firstly, was demographical questions on gender and age asked of the participant, here asking the participant to indicate gender i.e. male or female, and indicate which of the four previously mentioned age groups the participant belonged to, see appendix 5.

For the measure of humour style was the Humour style questionnaire (Martin et al. 2003) consisting of 32 questions where 4 questions measured affiliative humour, 4 questions measured self-enhancing humour, 4 questions measured self-defeating and the remaining 4 questions measured aggressive humour used, see appendix 1. An example of one such question would be “If I am feeling really down, I can usually cheer myself up with humour” this was one of the four questions measuring self-enhancing humour, participants rated how well such statements fitted on a Likert scale from 1 being “totally disagree” to 7 being “totally agree”. The Humour styles questionnaire (Martin et al. 2003) measures which of the four humours a participant seems to report the greatest use of, therefore each subsection is totalled and these totals are used as four separate scale variables in statistical analysis. Details on reliability showed a Cronbach’s alpha ranging from .77 to .81 for the Humour styles questionnaire (Martin et al. 2003).

For measuring perceived stress, was the Perceived stress scale (Cohen et al. 1983) consisting of 14 questions used, see appendix 2. An example of a question measuring stress would be “In the last month, how often have you been upset because of something that happened unexpectedly” such statements was then rate by participants on a Likert scale from 0 being “never” to 4 being “very often”. The perceived stress scale measures how much stress the person currently perceives (Cohen et al. 1983). Here the 14 questions are totalled and creates one scale variable for total stress in statistical analysis. Details on reliability
showed a coefficient alpha reliability between .84 and .86 over three samples of tests (Cohen et al. 1983).

Lastly, for the measure of self-efficacy was the General Self-efficacy scale (Schwarzer & Jerusalem, 1995) consisting of 10 questions used, see appendix 3. An example of a question measuring self-efficacy would be “I can always manage to solve difficult problems if I try hard enough” such questions were also rated by participants using a Likert scale, here ranging from 1 being “not at all true” to 4 “exactly true”. The Self-efficacy scale measures how much the person believes that they are capable on a level with others (Schwarzer & Jerusalem, 1995). This scale also totals the 10 questions into one scale variable that is used for statistical analysis. Details on reliability here showed a Cronbach’s alpha between .76 and .90 tested over 23 nations for the General self-efficacy measure (Schwarzer and Jerusalem, n.d.).

These questionnaires were all organised together in a Google survey document, which was then distributed through a permalink online for participants to “click” into.

Before each questionnaire the participant was presented with a little text stating the name of the questionnaire and how to answer i.e. that it was a Likert scale and what each number on that particular Likert scale stands for.

Lastly, were participants asked to answer “What does humour mean to you in your everyday life”, see appendix 4. This question was asked solely for the reason of discussion and not for any statistical analysis. Participants had complete control in how to answer and there was therefore not given any guidelines on how the participant was supposed to answer.
**Procedure**

Upon ethical approval from the Dublin Business School ethics committee was the permalink to the online questionnaire booklet shared on the researcher’s private social networking site. The permalink would open a Google document where the aims of the research and anonymity were explained in a consent form, no deception were applied for this study, see appendix 6. Participants was then presented with the option of accessing the questionnaires by ticking of that the explanation was understood and agreeing to participate in this research. Following this, participants was presented with the demographical questions on gender and age group. Furthermore, were the questions of the three questionnaires presented over a number of Google document pages. Before completion of the questionnaire booklet were the participant asked to write a small text to the question “What does humour mean to you in your everyday life?”. Upon completion of the questionnaires, was the participant presented with a “thank you”, help-lines and online resources for psychological distress in the case of any of the questions upsetting them, see appendix 7.
Results

Descriptive analysis

Statistical analysis conducted using SPSS version 22 showed descriptive statistics reporting the mean and standard deviation of the Humour styles measure, with the four sub-scales for humour; affiliative humour (M = 45.59, SD = 6.45), self-enhancing humour (M = 37.84, SD = 7.13), aggressive humour (M = 29.87, SD = 8.12) and self-defeating humour (M = 31.10, SD = 8.71). In addition, were descriptive statistics for perceived stress (M = 26.09, SD = 7.79) and self-efficacy (M = 31.20, SD = 4.88) reported, see table 1 for each of the descriptive statistics presented above.

Table 1 Descriptive statistics of psychological measures

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humour styles scale</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affiliative humour</td>
<td>45.59</td>
<td>6.45</td>
</tr>
<tr>
<td>Self-Enhancing humour</td>
<td>37.84</td>
<td>7.13</td>
</tr>
<tr>
<td>Aggressive humour</td>
<td>29.87</td>
<td>8.12</td>
</tr>
<tr>
<td>Self-defeating humour</td>
<td>31.10</td>
<td>8.71</td>
</tr>
<tr>
<td>Perceived Stress Scale</td>
<td>26.09</td>
<td>7.79</td>
</tr>
<tr>
<td>General Self-Efficacy</td>
<td>31.20</td>
<td>4.88</td>
</tr>
</tbody>
</table>

For the purpose of statistical testing was age groups 2 (25-31), 3 (32-38) and 4 (39+) merged into one group, now represented as the new group 2. The merging of the age groups
was done to get a more equal number of participants for each group, group 1 (18-24) stayed the same, see table 2 for descriptive statistics of the new age groups.

Table 2 Descriptive statistics of age

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number of participants</th>
<th>Percentage</th>
<th>Age range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age group 1</td>
<td>75</td>
<td>68.8%</td>
<td>18 – 24</td>
</tr>
<tr>
<td>Age group 2</td>
<td>34</td>
<td>31.2%</td>
<td>25-39+</td>
</tr>
</tbody>
</table>

In addition, did a statistical analysis of gender find that males (N = 31) and females (N = 78) resulted in 28.4% males and 71.6% females in the sample, see table 3.

Table 3 Descriptive statistics of gender

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number of participants</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>31</td>
<td>28.4%</td>
</tr>
<tr>
<td>Females</td>
<td>78</td>
<td>71.6%</td>
</tr>
</tbody>
</table>

Further analysis looking at the normality of the distribution of data revealed that Self-efficacy were significantly skewed (-0.90), with a significant Shapiro-Wilks (p < .001). In addition, were affiliative humour found to be significantly skewed (-0.58) with Shapiro-Wilks being significant (p = .001), and aggressive humour slightly skewed (0.13), also with a significant Shapiro-Wilks (p = .023) Therefore, was a normal distribution not assumed for these three variables and non-parametric analysis were conducted for further statistical testing.
Reliability analysis using Cronbach’s alpha showed good reliability over .80 for the total Humour styles questionnaire (α = .85), the Perceived stress scale (α = .83), the General Self-efficacy scale (α = .90) and the sub-scale self-defeating humour (α = .83). For the last three sub-scales of humour was acceptable reliability over .70 found; affiliative (α = .77), self-enhancing (α = .76) and aggressive (α = .78).

**Inferential analysis**

*Hypothesis 1* the relationship between humour styles and stress was investigated with a Pearson’s correlation coefficient, which found that there was a negative moderate significant relationship between self-enhancing humour (M = 37.84, SD = 7.13) and perceived stress (M = 26.09, SD = 7.79) \( r (109) = -0.37, p < .001 \). Here 13.69% accounted for the variance of scores. Further Person’s correlation coefficient analysis found that there was a positive weak significant relationship between self-defeating humour (M = 31.10, SD = 8.71) and perceived stress (M = 26.09, SD = 7.79) \( r (109) = 0.25, p = .010 \). Here 6.25% accounted for the variance of scores. However, analysis using a Spearman’s Rho statistical analysis found that there was no significant relationship between affiliative humour and perceived stress \( rs(109) = -0.16, p = .094 \) and no significant relationship between aggressive humour and perceived stress \( rs(109) = 0.11, p = .276 \), see table 4 for the above correlations. These correlations showed that greater report of self-enhancing humour seemed to be correlated with lower levels of perceived stress, and that greater report of self-defeating humour seemed to be correlated with greater levels of perceived stress.

*Hypothesis 2* the relationship between humour styles and self-efficacy was investigated using a Spearman’s rho statistical analysis, which found that there was a weak positive
significant relationship between affiliative humour (M = 45.59, SD = 6.45) and self-efficacy (M = 31.20, SD = 4.88) (rs (109) = 0.24, p = .012). This relationship accounted for 5.76% of the variation of scores. Further, found a second Spearman’s rho statistical analysis a weak positive significant relationship between self-enhancing humour (M = 37.84, SD = 7.13) and self-efficacy (M = 31.20, SD = 4.88) (rs (109) = 0.28, p = .003). This relationship accounted for 7.84% of the variance of scores. However, further analysis using the Spearman’s rho statistical analysis found no significant relationship between aggressive humour and self-efficacy (rs (109) = 0.09, p = .348) and no significant relationship between self-defeating humour and self-efficacy (rs (109) = -0.07, p = .467), see table 4 for the Spearman’s rho correlations presented above here. This analysis is therefore arguably suggesting that greater reported engagement with affiliative and self-enhancing humour was correlated with a greater level of self-efficacy.

Table 4 Correlation table for the Humour styles, Perceived stress and Self-Efficacy

<table>
<thead>
<tr>
<th>Variable</th>
<th>Affiliative</th>
<th>Self-Enhancing</th>
<th>Aggressive</th>
<th>Self-Defeating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Stress</td>
<td>-0.16</td>
<td>-0.37**</td>
<td>0.11</td>
<td>0.25**</td>
</tr>
<tr>
<td>Self-Efficacy</td>
<td>0.24*</td>
<td>0.28**</td>
<td>0.09</td>
<td>-0.07</td>
</tr>
</tbody>
</table>

**. The correlation is significant at the 0.01 level (2-tailed)

*. The correlation is significant that the 0.05 level (2-tailed)

Hypothesis 3 the difference between males and females on perceived stress and self-efficacy was investigated using an independent samples t-test, which found no significant difference between stress levels of males (M = 25.90, SD = 7.93) and females (M = 26.17, SD = 7.78) (t (107) = -0.16, p = .874, CI (95%) -3.56 – 3.03). Further, did a Mann-Whitney U
statistical analysis reveal that males (mean rank = 58.48) and females (mean rank = 53.62) did not differ significantly on Self-Efficacy measures either (Z = -0.73, p = .467). Therefore, cannot the null hypothesis be rejected for gender differences on perceived stress and self-efficacy.

**Hypothesis 4** the difference between the age groups on perceived stress and self-efficacy was investigated using an independent samples t-test, which showed that there was no significant difference between age group 1 (M = 27.01, SD = 7.93) and age group 2 (M = 24.06, SD = 7.16) on perceived stress (t(107) = 1.86, p = .066, CI (95%) -0.20 – 6.11). Furthermore, did a Mann-Whitney U reveal that age group 1 (mean rank = 54.85) and age group 2 (mean rank = 55.34) did not differ significantly on self-efficacy either (Z = -0.08, p = .940). Therefore, cannot the null hypothesis be rejected for age differences on perceived stress and self-efficacy either.

**Hypothesis 5** the difference between gender on preferred or most used humour style was investigated using a Mann-Whitney U, which revealed that males (mean rank = 73.56) and females (mean rank = 47.62) did significantly differ on the use of aggressive humour (Z = -3.87, p < .001). Here showing that males have a higher mean rank for aggressive humour, suggesting that males reported a greater engagement with aggressive humour, see table 5. However, no differences were found between males (mean rank = 60.90) and females (mean rank = 52.65) on affiliative humour (Z = -1.23, p = .218), see table 5. In addition, did an independent samples t-test revealed that there was no statistically significant difference between males (M = 31.87, SD = 7.81) and females (M = 30.79, SD = 9.07) on self-defeating humour (t(107) = 0.58, p = .563, CI (95%) -2.60 – 4.75), and no statistically significant difference between males (M = 36.48, SD = 8.96) and females (M = 38.38, SD = 6.24) on self-
enhancing humour \( t(42.09) = -1.08, p = .286, CI (95\%) \ -5.45 - 1.65 \). For the latter independent samples t-test results looking at self-enhancing humour, could equal variances not be assumed as Levene’s test were significant \( (p = .011) \), therefore was line number two for equal variances not assumed reported here. See figure 1 for the mean value of the four humour’s over the genders.

Table 5 A Mann-Whitney U table displaying the difference between males and females on affiliative and aggressive humour.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean rank</th>
<th>Z</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggressive males</td>
<td>73.56</td>
<td>-3.87</td>
<td>&lt; .001**</td>
</tr>
<tr>
<td>Aggressive females</td>
<td>47.62</td>
<td>-3.87</td>
<td>&lt; .001**</td>
</tr>
<tr>
<td>Affiliative males</td>
<td>60.90</td>
<td>-1.23</td>
<td>.218</td>
</tr>
<tr>
<td>Affiliative females</td>
<td>52.65</td>
<td>-1.23</td>
<td>.218</td>
</tr>
</tbody>
</table>

**. The difference is significant at the 0.01 level (2-tailed)

*. The difference is significant at the 0.05 level (2-tailed)
Hypothesis 6 the difference between the age groups on preferred humour style was investigated using a Mann-Whitney U, which revealed that age group 1 (mean rank = 60.70) and age group 2 (mean rank = 42.43) did significantly differ on the use of affiliative humour ($Z = -2.80, p = .005$), see table 6. A Mann-Whitney U also revealed that age group 1 (mean rank = 61.35) and age group 2 (mean rank = 41.00) also significantly differed on the use of aggressive humour ($Z = -3.12, p = .002$), see table 6. Here analysis suggested that age group 1 reported greater engagement with both affiliative and aggressive humour. However, an independent samples t-test found no statistically significant difference between age group 1 ($M = 37.61, SD = 7.19$) and age group 2 ($M = 38.35, SD = 7.08$) on self-enhancing humour ($t(107) = -0.50, p = .618, CI (95\%) -3.67 – 2.19$) and no statistical significant difference between age group 1 ($M = 31.83, SD = 8.70$) and age group 2 ($M = 29.50, SD = 8.62$) on self-defeating humour ($t(107) = 1.30, p = .197, CI (95\%) -1.23 – 5.89$). See figure 2 for the mean difference between the age groups on the Humour styles.

Table 6 A Mann-Whitney U table displaying the difference between age group 1 and 2 on affiliative and aggressive humour.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean rank</th>
<th>Z</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affiliative age 1</td>
<td>60.70</td>
<td>-2.80</td>
<td>.005**</td>
</tr>
<tr>
<td>Affiliative age 2</td>
<td>42.43</td>
<td>-2.80</td>
<td>.005**</td>
</tr>
<tr>
<td>Aggressive age 1</td>
<td>61.35</td>
<td>-3.12</td>
<td>.002**</td>
</tr>
<tr>
<td>Aggressive age 2</td>
<td>41.00</td>
<td>-3.12</td>
<td>.002**</td>
</tr>
</tbody>
</table>

**. The difference is significant at the 0.01 level (2-tailed)

*. The difference is significant at the 0.05 level (2-tailed)
The qualitative question was not statistically analysed, but seemed however to attract answers around the importance of humour in social bonding and in coping. For example, did one participant answered that “Humour is a great way to deal with events in life that make you upset. It is also a way to enhance an enjoyable situation - e.g. when hanging out with your friends, joking around with them or watching a funny movie together makes the time more enjoyable” and another participant answered that “It’s important to bond with other people and to enjoy life in general. I try to have a low threshold for things to be laughed at, myself included. This way, taboos turn into jokes, and things are made more approachable and less intimidating”. These examples are merely two of the many answers obtained. However, did the answers overall seem to show a trend that, for participants in this
particular study, humour was important in social bonding and coping, without being able to draw any correlational conclusions or otherwise from these answers.

Additional analysis

Further investigations into the relationship between variables were done using a Spearman’s rho statistical analysis, which found that there was a negative moderate significant relationship between perceived stress (M = 26.09, SD = 7.79) and self-efficacy (M = 31.20, SD = 4.88) (rs (109) = -0.41, p < .001), which accounted for 16.81% of the variance of scores, suggesting that great perceived stress correlated with lower levels of self-efficacy. As this Spearman’s rho test was found to be significant a multiple regression was used for further analysis of whether self-enhancing humour, self-defeating humour and self-efficacy together worked as predictors of perceived stress. The checks for the multiple regressions showed no multicollinearity, both tolerance and VIF values were within the cut off. In addition, were one mahalanobis outlier above the cut of value removed (Dancey and Reidy, 2011, p. 414). The result of the multiple regression indicated that all of the three predictors explained 30% of the variance in perceived stress ($R^2 = .30$, $F(3,104) = 16.38$, $p < .001$). It was found that self-enhancing humour significantly predicted perceived stress ($\beta = -.32$, $p < .001$, 95% CI = -.56 - -.17) as did self-defeating humour ($\beta = .26$, $p = .003$, 95% CI = .08 - .37) and self-efficacy ($\beta = -.32$, $p < .001$, 95% CI = -.86 - -.27), see table 7. A multiple regression was only used to predict stress as one of the assumptions of this test is a normally distributed criterion variable (Dancey and Reidy, 2011, p. 414). The multiple regression seemed to therefore suggest that greater reports of self-defeating humour, together with lower reports of self-enhancing humour and self-efficacy together predicted levels of stress.
Table 7 Multiple regression table displaying self-enhancing humour, self-defeating humour and self-efficacy as predictors of perceived stress.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Beta (β)</th>
<th>r</th>
<th>p</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-enhancing humour</td>
<td>-.32</td>
<td></td>
<td>&lt; .001**</td>
<td>-.56 - -17</td>
</tr>
<tr>
<td>Self-defeating humour</td>
<td>.26</td>
<td></td>
<td>.003**</td>
<td>.08 - .37</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>-.32</td>
<td></td>
<td>&lt; .001**</td>
<td>-.86 - -.27</td>
</tr>
<tr>
<td>All three variables together</td>
<td>.30</td>
<td></td>
<td>&lt; .001**</td>
<td></td>
</tr>
</tbody>
</table>

**. The difference is significant at the 0.01 level (2-tailed)

*. The difference is significant at the 0.05 level (2-tailed)
Discussion

The aim of the current study was to investigate the relationship between four different humour styles, perceived stress, self-efficacy, age and gender. Findings from the statistical analysis showed that greater reports of self-enhancing humour seemed to be correlated with lower levels of perceived stress. On the contrary, seemed greater reports of self-defeating humour to be correlated with greater levels of perceived stress. This supported hypothesis 1, and hypothesis 1 was therefore accepted. However, no relationship was found between affiliative humour, aggressive humour and perceived stress. Further analysis, showed that greater reports of affiliative and self-enhancing humour were correlated with greater levels of self-efficacy. This supported hypothesis 2, and hypothesis 2 was therefore accepted. However, on the contrary was no relationship found between aggressive and self-defeating humour for self-efficacy. Findings also suggested that lower self-enhancing humour, greater self-defeating humour and lowers levels of self-efficacy together predicted perceived stress.

Further analysis found no difference between the age groups or the genders on either perceived stress levels or self-efficacy. Hypothesis 3 and hypothesis 4 was therefore not accepted, and the null hypotheses was accepted instead. However, a significant difference between the gender groups was found for the use of aggressive humour, here males seemed to report an increased use of aggressive humour compared with females. This supported hypothesis 5, and hypothesis 5 was therefore accepted. In addition, suggested findings that age group 1 with the younger participants seemed to report greater engagement with both affiliative and aggressive humour use when compared with age group 2, the older ages. This supported hypothesis 6, and hypothesis 6 was therefore also accepted. This may suggest
that younger people engage more in the use of humour in general, or maybe suggesting that the younger ages use the two strongest humours on each side of the spectrum more, i.e. either affiliative which is often argued as strongly positive or aggressive which is often argued as strongly negative. However, no support for this was investigated and further research should therefore be conducted.

Current findings and previous literature

Findings on hypothesis 1 supported the Besser and Zeigler-Hill (2011) study which found that self-enhancing humour was correlated with lower levels of perceived stress and self-defeating humour was correlated with higher levels of perceived stress. However, did the current study not find any relationship between affiliative and aggressive humour with stress as the Besser and Zeigler-Hill (2011) study did. The affiliative and aggressive humour might not have shown significant results in the current study due to sample size as time and resources only allowed for slightly more than a 100 participants for the current study, while the Besser and Zeigler-Hill (2011) had over 200 participants. In addition, were the two studies tested in difference cultures, the current in a North-Western European sample, and the Besser and Zeigler-Hill (2011) study in Jewish-Israeli students which might have impacted the difference in results. Further support was not found for the findings of hypothesis 1, however could previous findings that suggested that greater use of humour were associated with a greater positive affect in response to negative and positive life events (Martin et al. 1993) and less appraised stress (Abel, 2002), might point to something similar as what was found in the current study, as increased engagement with self-enhancing humour also might be argued as a form of greater use of humour. Both the Abel (2002) and the Martin et al.
(1993) study did, alike to the current study, measure stress with the perceived stress scale (Cohen et al. 1983), however the predictor values of humour were not the Humour Styles Questionnaire (Martin et al. 2003) rather other measures of general humour use, which is why no conclusion of support can be drawn from this latter point, rather just an observation.

Findings on hypothesis 2 were not supported by any of the previous research presented. Arguably, because there is a paucity of previous research that have investigated the relationship between humour and self-efficacy, and seemingly no research investigating the relationship between the Humour Styles and self-efficacy before the current study. Nonetheless, previous research on general humour and self-efficacy do seem to point in the direction of some sort of relationship being there, alike to the current findings (Evans-Palmer, 2010; Marziali et al. 2008), suggesting that further research should look at investigating the many aspects of humour and its relation to self-efficacy.

Findings on hypothesis 3 were not significant. This may be as a result of a skewed relationship between number of female and male participants, and a skewed a relationship between the different age groups. However, cannot such a conclusion be drawn without any more investigations into these findings which was not done for the current study. Nonetheless, gender difference has previously been found for other research on perceived stress (Abel, 2002).

Findings on hypothesis 4 were also not significant, possibly again due to the skewed relationship between the ages and genders in the sample. However, as mentioned before cannot such a conclusions be drawn with any certainty without any further investigations.

Findings on hypothesis 5 supported the Martin et al. (2003) research which also found that males reported a greater engagement with aggressive humour. In addition, without
being in direct support of the current study, was a higher general humour use reported for males by Hinanadani and Yue (2014) as well, maybe suggesting that there could be something similar there. However, again a conclusion of similarity cannot be drawn between the current study and the Hinanadaini and Yue (2014) study, an observation is merely reported.

Findings on hypothesis 6 also supported the Martin et al. (2003) research where the younger participants were found to engage more in both aggressive and affiliative humour. These results might suggest that the younger participants engage more in humour in general. A suggestion that the younger participants might engage more with humour, might also be similar to Svebak et al. (2010) findings that engagement with humour seemed to decrease with age. However, no conclusions of similarity can be drawn between the Svebak et al. (2010) study and the current study, as no investigation of this has been conducted. It is therefore suggested that future research on age differences could be interesting. In addition, could another explanation be that younger participants engage more in the strong opposites of humours, as affiliative can be seen as the most positive humour and aggressive as the most detrimental humour. However, this last proposal has not been tested either and no conclusions can be drawn at this point, which is also why future research on age difference between humour styles are proposed.

Strengths, weaknesses and problems

The current study did present a number of strengths. By distributing the questionnaire booklet online, was a broader range of socio-economic, cultural and geographical difference in participants implicated compared with earlier studies mainly using a North-American
undergraduate sample of participant. Therefore, strengthening the results applicability to the general public. In addition, were participants most likely of North-Western European cultures as this would have been the majority of people engaged with the researcher’s social networking site. A North-Western European sample do arguably add to the current research by implicating other cultures than a North-American. Therefore, also strengthening the applicability of the Humour styles relationship with stress and self-efficacy over a North-Western European culture as well.

Furthermore, did the current study arguably broaden the research on humour styles by investigating the relationship between humour styles and self-efficacy. Humour styles and self-efficacy have seemingly not been found in previous research. Therefore, strengthening the current understanding of the separate Humour styles relationship with psychological concepts and well-being. Further understanding of the importance of humour was also arguably strengthened by the use of a qualitative question, which have not been found in any of the previous research presented. Here main trends seemed to show that participants emphasised humour as important in coping and in social bonding, arguably contributing with a more comprehensive understanding of the importance of humour. However, no conclusion can be drawn from the qualitative question as answers were purely subjective, and no statistical analysis were applied. In addition, did arguably an investigation into the difference between gender and age groups also give a more comprehensive understanding of the Humour styles. From the results obtained, humour styles might be applied to future interventions for stress management, for example by providing classes on humour and which types of humours may be damaging for stress, and which might be a protective factor against stress. The current study, does however not propose any specific application or
implication for the findings onto real-life at this point, which is therefore suggested for future research.

However, research does not come without problems and limitations. Limitations for the current study are presented in that the relationship between male and female participants was found to be greatly skewed, having twice as many female participants as male participants. This could arguably have been problematic for results on the differences between genders on humour styles, as aggressive humour were the only variable found to differ across the genders. Further limitations, is proposed for the skewedness of the age groups, age group 1 had a significantly greater number of participants, also after merging of the three older age groups. Gender differences have been found by some earlier research on stress (Abel, 2002) and the skewedness may therefore have been problematic with the lack of significant differences found in the current study for stress and self-efficacy.

Furthermore, online distribution of the questionnaires through the researcher’s social network site may be argued as problematic. Due to resources and time did the majority of participants most likely belong to similar socioeconomic groups, and within the same geographical areas, here being North-Western Europe. Therefore, arguably not being representative of the general public. In addition to this, were no geographical or occupational data recorded which could have given a clearer understanding of differences within the data.

Online distribution also implicates problems of controlling who participate, there may be a certain “type” of person, or people with a certain personality that seek out and do participate in answering research questionnaires. For example, it could be argued that other individuals taking higher education might be more empathetic to participation or that
people choosing to participate might have quite strong opinions. Therefore, creating implications of results being applicable to the general public here as well.

*Future recommendations*

Future research on the topic is therefore needed to address current limitations. Here including trying to obtain a more even sample of males and females, a broader and more even sample of age groups, a greater number of participants, a broader socio-economic and cultural sample, preferably a sample striving towards random selection of participants and a recording of differences in geographical belonging, occupation and socio-economic group is suggested for future research as investigations into these difference may reveal a greater understanding of the applicable areas of the Humour styles. In addition, is it suggested from the current findings that future research into the difference between older and younger ages on preferred humour styles should be conducted. This suggestion is also arguably supported by the Martin *et al.* (2003) findings on the difference between the age groups on humour style engagement and Svebak *et al.* (2010) findings that humour seemed to decrease with age. Further, is it suggested that future research could investigate how the younger and older age groups engage with different humour styles as this might obtain a greater understanding of the age differences. In addition, are future investigations into the Humour Styles relationship with self-efficacy encouraged as this area is currently marginal. Furthermore, is an investigation into the effectiveness of the different Humour styles as a coping mechanism between the genders encouraged as only a paucity of the studies presented here have presented a gender comparison, and the current study did find a greater engagement with aggressive humour for males which suggests that more research is
needed on gender differences. Lastly, is it proposed that future research should address the applications and implications of humour styles in stress and self-efficacy for real-life settings as this was not done by the current study.

Conclusion

The findings of the current study showed that greater reports of self-enhancing humour seemed to be correlated with lower levels of stress. Greater reports of self-defeating humour seemed to be correlated with increased levels of stress, which was both in support of the Besser and Zeigler-Hill (2011) findings. However, no relationship was found between affiliative humour, aggressive humour and stress. Further findings showed that greater reports of affiliative and self-enhancing humour seemed to be correlated with higher levels of self-efficacy. These findings arguably contributed to the current research as the Humour styles seemingly has not been directly investigated with self-efficacy earlier. However, no relationship was found between aggressive and self-defeating humour with self-efficacy. A multiple regression seemed to show that lower levels of self-efficacy, greater engagement with self-defeating humour and lower engagement with self-enhancing humour together predicted perceived stress, more specifically 30% of the variance in stress levels. Further analysis also showed that males seemed to engage more with aggressive humour compared with females. In addition, did findings suggest that the younger age group seemed to engage greater with affiliative and aggressive humour compared the older age group. The age and gender findings here was found to support the Martin et al. (2003) research. However, no gender difference was found for the three other humours and no age difference were found for self-defeating and self-enhancing humour. Nonetheless, did the age and gender findings
arguably contribute significantly as a minority of the research presented have investigated this directly. The qualitative question arguably seemed to show social bonding and coping as a trend for the importance of humour for the participants.

It was therefore concluded that there is a relationship between the Humour styles, stress and self-efficacy and that there is a difference between genders and age groups on the Humour styles. In addition, has the current study arguably contributed to the current research pool on investigations into the Humour styles relationship with stress, self-efficacy, gender and age.
References


*Middle East Journal of Scientific Research, 16*(3), 348-351.


Boston: Pearson education Inc.


California: Thomson Wadsworth


*Journal of Applied social psychology, 41*(3), 559-578.


Essex: Pearson Education Limited.


*Journal Of Psychology, 90*(2), 215.


London: Vintage Books

and Indian university students.


doi:10.1111/ajsp.12066


*Indian Journal Of Medical Research*, 141354-357


*Europe’s Journal of Psychology, 6*(3), 236-266.


*Europe’s Journal Of Psychology, 10*(3), 543.

doi:10.5964/ejop.v10i3.752


Journal of personality and social psychology, 45(6), 1313.


Humor, 6, 89-89.


Journal of research in personality, 37(1), 48-75.


Marziali, E., McDonald, L., & Donahue, P. (2008). The role of coping humor in the physical and mental health of older adults.

Aging & Mental Health, 12(6), 713-718.

doi:10.1080/13607860802154374


Communication theory, 10(3), 310-331.


Humor, 14(4), 395-414.


doi:10.1046/j.0966-0429.2001.00272.x


Appendices

Appendix 1 – The Humour styles questionnaire (Martin et al. 2003)

Response format:
All items are answered using a 7-point Likert scale ranging from 1. totally disagree to 7. totally agree.

Score format:
Items marked with an asterisk (*) are reverse keyed. I.e. the greater the disagreement, the higher the score. (Martin et al.2003). The score for each sub-scale are obtained creating four factors for humour (Affiliative, Aggressive, Self-enhancing and self-defeating) (Martin et al. 2003). Questions 1, 5, 9, 13, 17, 21, 25 and 29 is categorised as affiliative humour measures, questions 2, 6, 10, 14, 18, 22, 26 and 30 is categorised as self-enhancing humour, questions 3, 7, 11, 15, 19, 23, 27 and 31 is categorised as aggressive humour, and questions 4, 8, 12, 16, 20, 24, 28 and 32 is categorised as self-defeating humour (Martin et al. 2003).

Each sub-section of the 32 items questionnaire scores between 8 and 56 points.

1. I usually don’t laugh or joke around much with other people *
2. If I am feeling really down, I can usually cheer myself up with humor
3. If someone makes a mistake, I will often tease them about it
4. I let people laugh at me or make fun at my expense more than I should
5. I don’t have to work very hard at making other people laugh – I seem to be a naturally humorous person
6. Even when I’m by myself, I’m often amused by the absurdities of life
7. People are never offended or hurt by my sense of humor *
8. I will often get carried away in putting myself down if it makes my family or friends laugh
9. I rarely make other people laugh by telling funny stories about myself *
10. If I am feeling upset or unhappy I usually try to think of something funny about the situation to make myself feel better
11. When telling jokes or saying funny things, I am usually not very concerned about how other people are taking it
12. I often try to make people like or accept me more by saying something funny about my own weaknesses, blunders or faults
13. I laugh and joke a lot with my closest friends
14. My humourous outlook on life keeps me from getting overly upset or depressed about things
15. I do not like it when people use humor as a way of criticizing or putting someone down *
16. I don’t often say funny things to put myself down *
17. I usually don’t like to tell jokes or amuse people *
18. If I’m by myself and I’m feeling unhappy, I make and effort to think of something funny to cheer myself up
19. Sometimes I think of something that is so funny that I can’t stop myself from saying it, even if it is not appropriate for the situation
20. I often go overboard in putting myself down when I am making jokes or trying to be funny
21. I enjoy making people laugh
22. If I am feeling sad or upset, I usually lose my sense of humor.*
23. I never participate in laughing at others even if all my friends are doing it.*
24. When I am with friends or family, I often seem to be the one that other people make fun of or joke about.
25. I don’t often joke around with my friends.*
26. It is my experience that thinking about some amusing aspect of a situation is often a very effective way of coping with problems.
27. If I don’t like someone, I often use humor or teasing to put them down.
28. If I am having problems or feeling unhappy, I often cover it up by joking around, so that even my closest friends don’t know how I really feel.
29. I usually can’t think of witty things to say when I’m with other people.*
30. I don’t need to be with other people to feel amused – I can usually find things to laugh about even when I’m by myself.
31. Even if something is really funny to me, I will not laugh or joke about it if someone will be offended.*
32. Letting others laugh at me is my way of keeping my friends and family in good spirits.
Appendix 2 – The Perceived stress scale (Cohen, Kamarck, and Mermelstein, 1983)

Response format:
Each questions are answered from the following Likert scale alternatives: 0. never 1. almost never 2. sometimes 3. fairly often 4. very often.

Score format:
Questions marked with an asterix (*) are reversed keyed.
After reversed questions have been calculated, the score from all 14 questions are summed. The higher the score give a stronger likelihood of a high feeling of perceived stress. (Cohen et al. 1983).

1. In the last month, how often have you been upset because of something that happened unexpectedly?
2. In the last month, how often have you felt that you were unable to control the important things in your life?
3. In the last month, how often have you felt nervous and "stressed"?
4. In the last month, how often have you dealt successfully with irritating life hassles?*
5. In the last month, how often have you felt that you were effectively coping with important changes that were occurring in your life? *
6. In the last month, how often have you felt confident about your ability to handle your personal problems? *
7. In the last month, how often have you felt that things were going your way?*
8. In the last month, how often have you found that you could not cope with all the things that you had to do?
9. In the last month, how often have you been able to control irritations in your life?*
10. In the last month, how often have you felt that you were on top of things?*
11. In the last month, how often have you been angered because of things that happened that were outside of your control?
12. In the last month, how often have you found yourself thinking about things that you have to accomplish?
13. In the last month, how often have you been able to control the way you spend your time?* 14. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?
Appendix 3 - The General self-efficacy scale (GSE) (Schwarzer & Jerusalem, 1995)

Response Format:

1 = Not at all true   2 = Hardly true   3 = Moderately true   4 = Exactly true.

Score format:

The score from each question is summed up and gives a score between 10 and 40, whereas the higher the scores is the higher the person perceived self-efficacy is according to the test. (Schwarzer and Jerusalem, 1995).

1. I can always manage to solve difficult problems if I try hard enough.
2. If someone opposes me, I can find the means and ways to get what I want
3. It is easy for me to stick to my aims and accomplish my goals.
4. I am confident that I could deal efficiently with unexpected events.
5. Thanks to my resourcefulness, I know how to handle unforeseen situations.
6. I can solve most problems if I invest the necessary effort.
7. I can remain calm when facing difficulties because I can rely on my coping abilities.
8. When I am confronted with a problem, I can usually find several solutions.
9. If I am in trouble, I can usually think of a solution.
10. I can usually handle whatever comes my way.
Appendix 4 – Qualitative question

This question has been inspired by, but slight modified from Olsson et al. (2002) study.

“What does humour mean to you in your everyday life?”

Score format:

This qualitative question will not be scored in any way, and is purely asked for the purpose of discussion.
1. Gender:
   Female or male

2. Age:
   18-24, 25-31, 32-38 or 39+
Appendix 6 – Cover letter

Dear participant,

My name is Thea and I am a third year BA psychology student at Dublin Business School.

I would like to invite you to take part in my undergraduate research project that is examining the effects of different humour styles on perceived stress and self-efficacy.

Completing the study should only take you about 15 minutes.

By participating in this study you will be asked different multiple choice questions that are a measure of any particular humour style, your perceived stress levels and your perceived self-efficacy. Before each questionnaire, you will have written instructions on how to answer the questions given to you. You will also be asked to indicate your gender and your age within a certain pre-set range. Lastly, you will be asked to answer one open-ended question.

There are no right or wrong answers in this study; you should answer each question as honest as possible.

This is a completely anonymous study, you will not be asked to identify yourself in any way. Because you as a participant are completely anonymous it will not be possible to retrieve any submitted data, as there will be no way of differentiating your data from someone else’s data.

The data retrieved from this study will be kept safely in a password-protected file.

Results from the analysed data will be presented at Dublin Business School as a part of my undergraduate research project. The results may also be released on other platforms.

By continuing, you consent to participate in this study, agree to the publishing of any analysed data and state that you are above 18 years of age.

Thank you for helping me out with my undergraduate thesis.

Yes – I consent to participate in this research
Appendix 7 – Debriefing sheet

Thank you for participating in my research.

All though these are all standardised measures you may have found some part of this study upsetting or uncomfortable, if this is the case please be advised of any of these support sites and agencies:

Letsomeoneknow.ie

Aware.ie or their support phone: 1890 303 302 open form 10am to 10pm everyday

Mind.org.uk

Samaritan 24 hours emotional support phone: 116 123 or email: jo@samaritans.org

You can also find more information and other mental helplines at:

Mentalhelp.ie

If you have any questions or wish to retrieve a copy of the completed research, please contact Thea Holland at xxxx@xxxx