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Humour Styles and their Relationships with Wellbeing and Social Support, and an Introduction to Reappraisal Theory

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Jamie Kane McEwan 2013

Abstract

Humour can have both positive and negative effects on individuals, teams and organisations. Recent research has identified a humour styles model that separates humour usage into four psychological categories: self-enhancing humour, self-defeating humour, affiliative humour and aggressive humour. This study replicates previously established bivariate relationships between the humour styles, social support, and wellbeing. Building on existing research, a multivariate framework is also investigated with each of the humour styles, looking at how social support factors into their relationship with wellbeing.

Using a survey of 174 participants, two of the four humour styles were confirmed and support was found for the majority of the bivariate hypotheses, particularly regarding self-enhancing humour. Most significantly, both of the self-oriented humour styles were found to relate to wellbeing independently of social support. Implications of these findings are discussed for the workplace, with an emphasis on humour styles as an indicator of emotional wellbeing. It is suggested that the findings of this study support the theory of humour as a coping mechanism.

Finally, as the existing theories of humour are argued to be insufficient, a contribution to the theoretical discussion of humour, introduced as reappraisal theory, is presented and discussed.

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CHAPTER ONE: UNDERSTANDING HUMOUR

Two hunters are out in the woods when one of them collapses. He doesn't seem to be breathing and his eyes are glazed. The other guy whips out his phone and calls the emergency services. He gasps, "My friend is dead! What can I do?" The operator says "Calm down. I can help. First, let's make sure he's dead." There is a silence, and then a shot is heard. Back on the phone, the guy says "OK, now what?" (Shermer, 2007).

Humour, from Latin, originally meant "body fluid" and, as in ancient Greece, it was believed that emotions were governed by the balancing of the bodily fluids (Martin, 2007). There have been many definitions and explanations of humour since then — some scientific, some social and some artistic. In a meta-analysis of humour research, Mesmer-Magnus, Glew and Viswesvaran (2012) found several ways that humour has been operationalised in research in the modern era. These range in specificity from a 1972 study that defines humour as "any communicative instance which is perceived as humorous" (Martineu, 1972, p114), which is quite general and perhaps too obvious to be useful, to a more recent definition that suggests that humour is "an intentional form of social communication delivered by a 'producer' toward an 'audience'" (Robert & Yan, 2007, p57), which is too specific to include all that humour encompasses, such as group humour.

¹ Over one hundred thousand people from around the world voted this joke to win a survey searching for the joke with the highest universal appeal (Shermer, 2007).

Mesmer-Magnus et al. (2012) conclude that "whether it is a stimulus, a cognitive process, an emotional or behavioral response, or all of these, remains somewhat of a debate among researchers" (p158), which, while being the strongest definition, also gives an indication as to the state of humour research in modern academia. That is, current definitions of humour are as varied as the current state of humour research itself. This chapter provides a background into the ways in which humour has been thought of over the course of recent history.

It is important to note that this study focuses on in the humour used by regular people in their everyday lives rather than comedians. Analogous to focusing on comedians would be a researcher setting out to investigate the personal and social effects of playing music and only having people like Neil Finn or Kiri Te Kanawa as participants, or doing research about the effects of participation in sport and looking only at Valarie Adams or Richie McCaw. Much like a successful musician or a top sports star, the "comedian" is an outlier, someone who has a particularly high level of the construct of interest. While there is probably value in investigating the experience of outliers, it is much less relevant when the researcher hopes to make conclusions about regular people and wants to base suggestions on these conclusions for regular people. As such, humour ability and quality are not of interest in this study.

Samson and Gross (2012) discuss how Freud saw humour as a "sympathetic, tolerant, and benevolent amusement at the imperfections of the world and the foibles of human nature in general" (p376). In fact, Freud separated this idea of humour from other phenomena like sarcasm, wit, joking and irony, all of which he describes

as phenomena that induce laughter. What is apparent now is that Freud was beginning to describe what we currently refer to as coping humour, and that he was separating this concept from the more basic explanation that humour is simply something that makes us laugh.

Modern discussions of humour present three central theories: superiority theory, incongruity theory and relief theory (Crichtley & Kearney, 2002), which are discussed below.

1.1 Superiority Theory

When making King Arthur aware of his relative status in *Monty Python and the Holy Grail*, a French soldier proclaims, "I don't want to talk to you no more, you emptyheaded animal food-trough wiper. I fart in your general direction. Your mother was a hamster and your father smelt of elderberries" (Forstater, White, Gilliam & Jones, 1975), which is a perfect example of the oldest of the three theories of humour: superiority theory. It is evident in the works of Plato, Aristotle and, most significantly, Hobbes, and suggests that humour arises out of a need to place oneself above others through observation of personal characteristics such as ability, property, situation and so forth (Crichtley & Kearney, 2002).

This theory encompasses gender-specific, racial, sexual orientation and class-based humour. Such humour, it is argued, allows an in-group to feel superior to an outgroup, through the effect of diminishment. A familiar workplace example arises when subordinates joke about their superiors. This could be in any organisation: a

work environment such as a factory floor or a corporate boardroom; a political environment, such as a city council or a party conference; or in a military environment. The most prevalent examples of this theory may include humour based on race, gender or sexual orientation, whereby the in-group differentiates itself from an out-group by way of some arbitrary personal characteristics (Romero & Pescosolido, 2008).

The superiority theory of humour is insufficient to explain all forms of humour though as it only encompasses a small portion of the humour that we might experience day-to-day. It does not include many kinds of humour such as self-defeating humour, slapstick humour or positive team-building humour. It is perhaps understandable that this theory was once dominant given history's lack of what we would now describe as political correctness. It can be argued that racist and sexist humour would likely have been much more prevalent in the past, so it would follow that superiority theory could have been seen as an adequate and satisfactory theory at that time.

Despite its limited applicability, superiority theory is important for its introduction of the concept of diminishment, which appears to be significant for most humour, especially coping humour. However it is no longer limited to humour that demeans a group or individual. Diminishment in this circumstance means to make something less significant. While superiority theory describes just one example of this process, using humour to reframe an issue in order to make it easier to cope with is a consistent thread throughout humour theory discussion.

1.2 Relief Theory

In a moment of high tension in the film *Airplane!*, veteran pilot Ted Striker exclaims "surely you can't be serious!" to which the protagonist, Dr. Rumack replies, "I am serious, and don't call me Shirley" (Davison, Koch, Abrahams, Zucker & Zucker, 1980), which is a classic example of what has been described as the relief theory of humour. Relief theory was developed in the nineteenth century and suggests that humour exists to break tension and provide relief (Crichtley & Kearney, 2002). This can be as simple as the tension created by not knowing where the setup of a joke is going, to something more complex such as making light of someone's embarrassment or faux pas. In these cases tension is built up because of the situation or story being told, and the humorous comment, reaction or punch line relieves that tension, causing us to feel pleasure manifested in amusement or laughter. In Freud's view, the energy released would otherwise be repressing psychological activity (Crichtley & Kearney, 2002).

It can be argued, however, that relief theory is merely a description of the setup or environment in which humour might occur. It is a logical fallacy to suggest it is an all-encompassing theory of humour because not all situations in which tension is broken are humorous. Also, there are times when humour is not providing relief, such as when friends are reminiscing about an amusing experience. So while the breaking of tension is a common occurrence in many forms of humour, and while the theory itself is useful in consideration of humour, it is insufficient as a comprehensive explanation of humour.

1.3 Incongruity Theory

In his 2006 documentary, *An Inconvenient Truth*, Al Gore introduced himself with the line "I'm Al Gore, I used to be the next president of the United States" (Bender, Burns, David & Guggenheim, 2006). Gore's introduction is amusing because of the incongruity of the sentence's meaning and grammar. It forces us to think twice about its meaning and recall that the sentence is, somewhat humorously, true. Incongruity theory was discussed by Kant, Schopenhauer and Kierkegaard, and it holds that humour occurs when a novel and incongruous connection is made between two separate objects (Crichtley & Kearney, 2002). This is commonly found in what we describe as a joke: a story is told, and at some point a connection is made (usually the punch line) and we are entertained by the novelty of the connection. Within this theory, humour can be seen as "incongruity problem solving, which when moderately difficult, results in pleasure (e.g. laughter) when resolved" (Romero & Pescosolido, 1996, p398).

As with superiority theory, incongruity theory is a useful explanation of humour but only for the portion of humour that it encompasses. While it does include most jokes, puns and irony, it does not account for the negative forms of humour such as sarcasm, nor does it account for positive functions such as coping.

1.4 Theory Summary

What is interesting about these three theories of humour is that they can be viewed as responses to three different questions. Superiority theory is an answer to the question

"why does humour happen?" (answer: because one person or group wants or needs to make him or her-self feel superior to another). Incongruity theory is an answer to the question "how does humour happen?" (answer: because we are pleasantly surprised by novel connections), and relief theory is an answer to the question "when does humour happen" (answer: when tension is broken).

Not only are the individual theories insufficient for the reasons discussed in the sections above, but because they are answering different questions they cannot individually give a full description of humour. A "grand unified theory of humour", if ever to exist, would need to encompass the questions of why and how humour exists but not necessarily the question of when it exists, as the "when" should logically follow.²

Having found all three of the traditional theories of humour to be insufficient, this study turns to more recent developments in psychological humour research, that while not aiming for the goal of an overarching abstract understanding of humour, do provide us with a roadmap for practical humour research. The model of humour styles developed by Martin, Puhlik-Doris, Larsen, Gray and Weir (2003) is central to this work. This theory of humour styles presents a 2x2 model that contrasts social vs. self-oriented humour with positive vs. negative humour, and is explored below. Secondly, Apter's (1989) Reversal Theory, which argues that we have motivational states rather than personality traits, is important to this study and is discussed last in this chapter.

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² An elegant example would be a physics theory such as velocity (v=d/t), which does not need to describe all the situations in which velocity might occur, and for this reason is useful. In psychology,

The present study focuses on humour as a psychological function, both personal and social, therefore consideration is not given to several related fields of theory, such as how or why particular things are humorous, how or why some people have a stronger sense of humour than others, or the biological or neurological aspects of humour. Humour as a social skill or as a cognitive ability are alternative, and certainly interesting, areas for research and analysis, but they are not within the scope of this work. The range of possible perspectives on humour further reinforces how wide the scope of humour research is, and how difficult it would be to ever summarise it into a grand "unified theory of humour" that can improve upon those discussed here. It is hoped that work towards such a goal is not lost.

1.5 The Humour Styles Model

Martin's humour styles model (Martin et al., 2003) was chosen as the model for this study primarily because it, and its corresponding instrument, are at the forefront of current humour research. While previous models aimed to describe and measure all humour or just one specific portion of it, the Humour Styles Questionnaire (HSQ) measures dimensions of humour. It was developed through the factor analysis of hundreds of self-report humour items from a survey of several hundred participants, and the various types, styles and kinds of humour were reduced into a simple and elegant model.

we can define and explain stress without needing to provide a complete list all of the "whens" in which it occurs. One would hope that a future theory of humour would be similarly useful.

An important note regarding this model is that when the phrase "humour style" is used in conversation or in print, many people assume that it is a classification of types of comedy, such as slapstick, jokes, sarcasm, and so forth. While types of comedy may or may not fall into Martin's humour styles models, this is not where this model of humour is aimed. The four humour styles are instead psychological categories (Martin et al., 2003).

The model contrasts social versus self-oriented humour as well as whether the humour is positive or negative, which gives a 2x2 model of four humour styles (Figure 1). Note that negative humour is not to be confused with poor or weak humour such as an unsuccessful punch line; rather, it is the kind of humour that has a negative affect on its producer, intended audience or unintended audience.

	Social Orientation	Self Orientation
Positive	Affiliative humour	Self-enhancing humour
Negative	Aggressive humour	Self-defeating humour

Figure 1. The Humour Styles Model. Adapted from Martin et al., (2003).

Looking first at the self-oriented styles, self-enhancing humour encompasses all kinds of coping humour and manifests itself in individuals who remain positive and are able to see the light side of unpleasant or stressful situations (Martin et al., 2003). Self-enhancing humour is often manifested in being able to cheer oneself up and experiencing amusement without the need for other people to be around. Noticing amusing aspects of everyday life is also a common example of this style. Winnie the

Pooh is a familiar character with this attitude, as in this example: "Weeds are flowers too, once you get to know them" (Milne, 1926).

Self-defeating humour is simply humour in which someone amuses other people by putting him or herself down. Commonly an attempt at pleasing other people or getting some kind of approval from a group, this style also includes incidents in which someone laughs along with humour made at their expense (Martin et al., 2003). While the class-clown might be the most familiar example, Woody Allen's self-depreciating humour also falls into this category, as demonstrated in this passage from *Annie Hall:*

I feel that life is divided into the horrible and the miserable. That's the two categories. The horrible are like, I don't know, terminal cases, you know, and blind people, crippled. I don't know how they get through life. It's amazing to me. And the miserable is everyone else. So you should be thankful that you're miserable, because that's very lucky, to be miserable (Rollins & Allen, 1977).

Looking next at the social styles of humour, affiliative humour is the style that encompasses positive humorous interaction found in groups. It reduces tension and helps to build relationships, and is most commonly manifested in banter, humorous observations and jokes (Martin et al., 2003). People who often use this style can have an ability to bring groups together and create a positive atmosphere. Stand-up comedians such as Jerry Seinfeld are a good example of this positive humour style: "Make no mistake about why these babies are here - they are here to replace us." (Charles & Cherones, 1991).

Finally, aggressive humour is the style encompassing negative attempts at group humour, most commonly manifested in behaviour such as teasing, sarcasm, disparagement and ridicule (Martin et al., 2003). It can be manipulative or simply ignorant of others' feelings. It includes the humour described in Chapter Two under superiority theory: the negative experience of someone encountering or overhearing humour at the expense of a group that they are a part of, such as their gender identity, ethnic identity, religious affiliation, sexual orientation, or vocation. Bullies are the classic example of a group that uses this humour style, such as Marty McFly's *Back to the Future* nemesis Biff Tannin: "Hey butthead!" (Canton, Gale & Zemeckis, 1980).

1.6 Reversal Theory

The humour styles are a descriptive model attempting to classify different forms of humour, rather than a theory attempting to explain humour. As noted above, robust theory in this field is still lacking, but as Martin (2007) notes, one of the most promising theories for use in humour research comes from Michael Apter who developed what he called reversal theory. Reversal theory suggests that instead of the Big 5 personality traits that are widely reported in the work psychology literature (Neal, Yeo, Koy & Xiao, 2012), there are five pairs of meta-motivational states, and at any given time we are in one of two states for each pair (Apter, 1989). When we change from one state to another, Apter describes this as reversing. Rather than having consistency across personality traits, individuals are said to have a dominant state from each of the five pairs (Apter, 1989).

The five pairs of meta-motivational states in reversal theory are as follows:

- 1. telic (serious, goal-oriented) vs. paratelic (playful)
- arousal-avoiding (seeking tranquility) vs. arousal-seeking (seeking excitement)
- 3. conformist (rule following) vs. negativistic (rule breaking)
- 4. *mastery* (seeking control) vs. *sympathy* (seeking intimacy)
- autic (concerned with own well-being) vs. alloic (concerned with others' well-being)

Apter (1989) argues that conventional personality theory is insufficient because it does not allow for (or show the potential for) people to act differently in different situations or to change over time – whether it be within a day or over the course of several years. While the Big 5 personality model (Neal et al., 2012) may classify an individual as an extravert or an introvert or somewhere in-between (and then describe that person using this categorisation), reversal theory suggests that each individual may go back and forth between states but may perhaps be more likely to be in one state rather than the other, for example the serious and goal-oriented *telic* state rather than the playful paratelic state, or vice versa (Apter, 1989).

In addition to describing state-of-mind dominance in individuals, reversal theory can be used to describe someone's motivational state in a particular situation. To give an example, as I write this now I could be described as being in a *telic*, *arousal-avoiding*, *conformist*, *sympathetic*, *autic* frame of mind. The *telic* state will be dominating as I am working on achieving the goal of completing my thesis project.

In the *telic* state, a high level of arousal is perceived as anxiety while a low level of arousal is felt as calmness, so *arousal-avoidance* follows. Because I am writing a highly structured document I am in the *conformist* state (although writing briefly in the first person does hint at rule-breaking). *Sympathy* will be dominating over *mastery* because this work is predominantly for those who hold power over it (markers), as opposed to a work that holds power over its readers, such as a contract or act of law. Lastly, I am likely in the *alloic* state as I am completing this project for my own achievement, that is, I am primarily concerned with myself not others.

Importantly, reversal theory acknowledges that people change, both in the short-term throughout their day, and in the long-term as they mature and their personal circumstances change throughout life (Apter, 2001). This theory describes why individuals behave inconsistently, particularly as they move from one situation to another.

1.6.1 Humour Research and Reversal Theory

If reversal theory can gain traction in modern psychological research, then it will be the *telic-paratelic* pair that is potentially most useful to the study of humour, as it contrasts the playful state with the more focused achievement state. As mentioned above, in the telic state we find low arousal pleasurable and high arousal unpleasant. In the paratelic state we want the opposite, as high arousal is felt as fun and excitement while low arousal is felt as boredom (Apter, 1989). The logic of humour as a coping tool is derived directly from this theory because in the paratelic state, humour allows individuals to diminish what was previously intimidating or a source

of stress. The source of negative emotion can be a person, a situation or an object, but in all cases the paratelic state makes that source "less": less "important, dignified, serious, valuable, worthy of respect" (Martin, 2007, p. 77) and so forth. Conversely, in the more serious *telic* state, humour is seen as an annoyance or hurdle impeding progress towards a goal.

Reversal theory may be the only over-arching psychological theory that provides an explanation for the inverse connection between humour and stress. In their meta-analysis, Mesmer-Magnus et al. (2012) found that the Coping Humour Scale (CHS), developed by Martin and Lefcourt (1983) and predating the humour styles model, had significant negative relationships across a range of studies with variables such as stress (Q = -0.25), burnout (Q = -0.22) and workplace withdrawal (Q = -0.16). It would be argued that if reversal theory is valid, then individuals who score highly on the CHS have a preference towards the paratelic state and are also less likely to experience negative outcomes related to stressors, although the mechanisms for this pattern of findings has yet to be established. There is little information at this stage on what controls the reversal process between telic or paratelic states, or on the specific mechanisms that allow humor to reduce stress in a paratelic state. It appears unlikely, for example, that all forms of humour will be equally relevant to reducing tension.

One of the most constant and significant hurdles encountered psychological research into humour is that whenever experimental studies are done, participants' minds are invariably put into the *telic* state by merely participating (Martin, 2007) because almost all experiments involve being asked to do something. This can vary from

performing a particular activity or task, to watching something and completing a questionnaire, to participating in a discussion. In each of these cases, participants will have unwittingly been put into the goal-oriented *telic* state, which will almost certainly have had an effect on the outcome of an experiment into humour, unless researchers can make a special effort to somehow ensure that participants are kept in the *paratelic* state. As with many other aspects of reversal theory, this has yet to be systematically explored.

While it was initially a goal of this research to incorporate reversal theory into its methodology, it became apparent that the reversal theory instrument, the Telic Dominance Scale (TDS), was not compatible enough with the humour styles model to justify a combined research question. The TDS suffers from weak psychometric properties, particularly across cultures (Lafreniere & Cramer, 2006) and it was thought that the TDS requires further development and validation before it is used in conjunction with other measures. Also, as reversal theory argues against inherent personality traits, using a personality-style questionnaire for its measurement instrument was thought to be inconsistent.

Nevertheless, reversal theory has informed much of the more abstract considerations of this research, particularly given the deficiencies of the other psychological theories of humour. Another effect that the investigation into reversal theory has had on this project was its discouragement against using an experimental design. While the idea that measuring something spontaneous such as humour in an experimental setting has long been criticized, reversal theory provides a real explanation as to why

it is impractical. Consistent with reversal theory, it was decided that this study would use a survey design.

CHAPTER TWO: HUMOUR IN THE WORKPLACE

The workplace is an interesting setting for social and psychological analysis simply because individuals are placed together through occupational circumstances, rather than interpersonal choice. For some, their co-workers are team members with whom they share responsibilities, tasks and goals, while for others, co-workers are simply people with whom they happen to share the same occupational space. From the party organiser to the police force, from the museum to the morgue, and from the dance instructor to the diplomat, it is reasonable to suppose that humour plays a role within the workplace environment and that workers are affected by it in some way.

The types of humour prevalent across workplaces can vary widely. In one workplace, colleagues might be on equal footing, sharing anecdotes, jokes and funny observations; while in another workplace there might be one or two "comedians" who, whether by their own accord or the encouragement of those around them, dominate the humour landscape and keep the rest of the team in the role of "audience". For some people, their experience of humour might be as the butt of other people's jokes, and while laughing along, they may be experiencing deeper effects than others realise. For others, humour may be used as a coping mechanism, a way of managing emotions in a stressful job. For these individuals, the ability to bring humour to a situation might be more a matter of their own emotional wellbeing than entertaining their colleagues.

Humour can have both positive and negative effects on people, teams and organisations (Martin, 2007). While positive effects, such as the release of tension

and the improvement of morale, are somewhat predictable findings, Martin (2007) identified a range of additional functions: "increasing cohesiveness, facilitating communication, and reducing interpersonal tensions, ... communicating disagreement, enforcing norms, excluding individuals, and emphasizing divisions between groups" (p364). These functions will be explored further in this chapter, and it will become evident that the current understanding is insufficient.

Humour entered the realm of organisational psychology research in the 1980s with a number of researchers investigating the ways in which humour affected workplace productivity (see, for example, Duncan, 1985; Nezu, Nezu, & Blissett 1988; Parsons, 1988). A number of researchers connected humour to important organisational constructs such as creativity, socialization, employee bonding, rapport and morale (Mesmer-Magnues et al., 2012). Mesmer-Magnus et al., (2012) in their meta-analysis of humour research, concluded that while positive humour in the work environment was often associated with effective employee performance, significant differences were found in the way various studies defined, conceptualised and measured humour.

Mesmer-Magnus et al. (2012) broke down the "complexity of the humour construct" (p156) into four factors: 1) the semantic issues arising from the use of both "humour" and "sense of humour", 2) the innate multi-dimensionality of humour (and diversity of these dimensions), 3) the various ways in which these humour dimensions have been quantified, and 4) the more recent theory that there are different "styles" of humour that can be positive or negative.

In a study of humour, stress and personality qualities, Cann and Etzel (2008) found support indicating that humour allows "people to positively construe and reframe stressors to facilitate coping" (p173), and noted that this could be due to its potential to encourage positive personality traits allowing for the use more effective coping skills. While Cann and Etzel's study was limited since it not use the humour styles model, the conclusion is a well-put summary of the effect that positive humour might have on the people who use it.

Looking more widely, it is challenging to assimilate the range of various research findings when they are based on differing theories, which have, in turn, given rise to differing measures, which calls into question the construct validity of some humour research. While there is no doubt that past research shows that humour plays some part in our lives, we must question the utility of the varying conclusions made, particularly with research that pre-dates the concept of negative humour. From this large pool of findings, the present study focuses on the relationships between humour styles, social support and wellbeing.

2.1 Organisations and Humour

The role of humour in organisations is important, and in some instances, can become a significant part of an organisation's internal culture (Martin, 2007). Romero and Cruthirds (2006) in their investigation of several companies in the United States found that some businesses, such as Ben & Jerry's and Sun Microsystems, were primary examples of this development: suggesting that by taking a humorous approach to corporate culture, this strategy trickled-down to the team and individual

worker level, providing employees with associated positive effects such as optimism and coping. USA-based Southwest Airlines is another organisation well known for its culture of humour. Quick (1992) argued that in maintaining this culture, Southwest Airlines not only gained the organisational benefits associated with humour, but they have grown a reputation for being an enjoyable and cheerful workplace to be employed in and an attractive airline to fly with. Thus, the internal organisational benefits of humour can also lead to external benefits.

Whether the goal is optimistic contented employees or a positive marketing image, all of the associations with humour must be at play in the organisation. Romero & Cruthirds (2006) contended that from an organisational culture standpoint, humour encourages a positive environment, which in turn allows more ideas to flow, relationships to grow and performance to improve.

2.2 Social Support

Social support is an important positive factor for psychological wellbeing (Urchino, Bowen, Carlisle & Birmingham, 2012). Sarason, Levine, Basham & Sarason (1983) described social support as "the existence or availability of people on whom we can rely, people who let us know that they care about, [and] value ... us" (p127).

In their review of the extant literature on social support, Sarason et al. (1983) identified that while there had been some past work confirming that social support was an important area for wellbeing, the field lacked an instrument that reliably measured social support on the dimensions that they thought were significant. In

order to meet this need, they created the Social Support Questionnaire (SSQ), which uses two dimensions: the amount of social support we perceive ourselves to have, and the satisfaction we have with that support. Correlational analyses of the SSQ showed strong evidence for relationships between the two social support dimensions and a number of well-being outcomes, particularly for female respondents (Sarason et al., 1983). For example, both the amount of and satisfaction with support had significant negative relationships with anxiety, depression and hostility for women, while for men this was true for depression and hostility. Lastly, there was no correlation between either of the SSQ subscales and a measure of social desirability, which indicated that respondents were unlikely to answer in a self-conscious way in order to be perceived as being "good" or correct".

2.3 Humour & Social Support

As social connections are a key and usually positive factor for our wellbeing (Sarason et al., 1983), it is important to note the ways in which humour can affect social life. As collegial support has been found to be a buffer against work-related stress (Fenlason & Beehr, 1994), consideration of the kinds of humour used to maintain these social bonds is essential to understand workplace social support. While positive humour styles can help regulate tension, invoke positive impressions and reduce stress, negative humour styles will likely have the opposite effect; that is, people who use these humour styles may "have difficulty initiating and maintaining close relationships" (Martin, 2007, p298), which can lead to lower levels of wellbeing. Research into humour styles has led to the conclusion that positive humour can be thought of as a social competence, while negative humour can be

viewed as a deficit in social skill (Martin, 2007). It can therefore be inferred that social support may play an important role in the relationship between humour and wellbeing.

The positive relationship between humour and social support has been confirmed by a number of researchers, often with differing arguments for the 'why' and 'how' of this relationship. Martin and Lefcourt (1983) suggested that humour is a means for communication that enables us to frame something distressing less stressfully, which is consistent with the discussion in Chapter 2 regarding the effect of humour in relief theory. In this argument, humour is a communication tool that has the power to reduce stress in social situations. With a quite different view, Factor (1997) argued for an indirect relationship between social support and humour, suggesting that use of humour would attract people, which would in turn increase social support and thus wellbeing. In this argument, humour is a tool for drawing people nearer, increasing social support and thus wellbeing, rather than being a primary coping tool.

These two arguments: that humour reduces stress directly, or reduces it via mediating processes of social support, have strong face validity and the same expected outcome (a positive correlation between humour and wellbeing), but the proposed mechanisms are different. These are two examples among many, and this discussion exemplifies the murkiness around current humour research. It is likely that both of these arguments are correct to an extent: that humour attracts other people thereby increasing support and wellbeing, and humour can relieve stress in

social situations thereby increasing wellbeing, so the arguments are not mutually exclusive. The humour research landscape as yet lacks an all-encompassing vista.

Investigating the effect of humour on team environments, Mesmer-Magnus et al. (2013) found in their meta-analysis that humour was associated with team cohesion, possibly because of the smoothing effect it can have on intense interactions and the way in which team members can be brought closer together in terms of their social distance when humorous perspectives are shared. This is consistent with the view of Martin and Lefcourt (1983) who posit that humour allows groups to re-frame a stressor, and it could be argued that these two findings both reflect the underlying theme of humour as a communication tool. Similarly, Fine and De Sourcey (2005) discuss how humour can be seen as a kind of "social lubrication" (p. 9) used to get through tense or awkward moments in a conversation, so when in groups, a joking comment can have the power to remind individuals that they share some commonalities, such as experiences or beliefs, and that a topic that is potentially causing discord is not as serious as it may have seemed. It can provide a "we're stronger than this" moment, reducing the power of a disagreement and allowing people to maintain the social order of the group. This theme of social lubrication connects well with the relief theory of humour previously mentioned, though in a group context rather than an individual context. Consistent with this, Francis (1994) found that humour was strongly associated with group cohesiveness, which, it was suggested, allows team members to bond and reduce external threats. Lastly, Romero and Pescosolido (2008) argue that humour promotes both the quantity and the quality of group communication, which in turn is connected with higher levels of consensus and a performance-based group culture, all posited to lead to increased group productivity.

Relating this discussion to the humour styles model, the arguments above are consistent with the view that the affiliative humour style can be beneficial to both the person displaying it and to those around him or her, as those high in affiliative humour are often more likely to initiate relationships, have more positive interactions with other people and have higher intimacy in existing relationships (Martin, 2007). These findings all point toward a more positive and enjoyable experience for those around individuals who are high in affiliative humour, which is likely lead to stronger overall group bonding. But while all of these arguments around the social lubrication effects of humour have face validity, they do not encompass or acknowledge the potential effects of negative humour styles. All of the above might be true only for positive uses of humour, namely affiliative humour, and since the humour styles model has been developed to encompass all styles of humour, it would seem necessary to revise the above theories with an amendment such as "while these findings may be true for positive humour styles, it is not yet known whether negative humour styles provide the same or opposite effects, or have no effect at all". In fact, an initial study found that self-enhancing humour had a positive relationship with social support satisfaction (r = .30) while self-defeating humour had a negative relationship (r = -.21) with it (Martin et al., 2003), which indicates that one of the two negative humour styles certainly does have a negative relationship with social support, though we cannot yet assume how wellbeing factors into this interaction.

2.4 Humour & Wellbeing

Man goes to doctor. Says he's depressed. Says life seems harsh and cruel. Says he feels alone in a threatening world where what lies ahead is vague and uncertain. Doctor says, "Treatment is simple. Great clown Pagliacci is in town tonight. Go and see him. That should pick you up." Man bursts into tears. Says "But Doctor... I am Pagliacci." (Moore, Gibbons & Higgins, 1987).

Positive humour styles have a positive relationship with wellbeing, while negative humour styles have a negative relationship with wellbeing as first established by Martin et al. (2003) in the initial validation study of the HSQ. These findings are presented in detail to emphasize the consistency with which this finding has been confirmed. Five instruments were used to measure wellbeing in this study: the Center for Epidemiological Studies Depression Scale (CESD), the State-Trait Anxiety Inventory (STAI), the Rosenberg Self-Esteem Inventory (RSEI), the Index of Self-Esteem (ISE) and the State-Trait Cheerfulness Inventory (STCI). As expected, the two positive humour styles (affiliative and self-enhancing humour) had significant positive relationships with the RSEI, the ISE and the STCI's Cheerfulness, and significant negative relationships with the CESD, the STAI and the STCI's Bad Mood. Looking at the negative humour styles, self-defeating humour had positive relationships with the STAI, the CESD and the STCI's Bad Mood, and negative relationships with the RSEI and the ISE (Martin et al., 2003). It is argued that this evidence implies that while the HSQ has some overlap with the emotion measures, the "HSQ subscales occupy somewhat different locations in the threedimensional factor space" (Martin, 2003, p65). That is, we are assured that the four

humour styles are new and separate constructs from the traditional wellbeing measures.

In line with previous findings, it is first hypothesized that:

H1a: The two positive humour styles, self-enhancing humour and affiliative humour, will be positively related to i) social support and ii) positive affect, and negatively related to iii) negative affect.

H1b: The two negative humour styles, self-defeating humour and aggressive humour, will be negatively related i) social support and ii) positive affect, and positively related to iii) negative affect.

H1c: Social support will be positively related to i) positive affect and ii) negative affect.

The following discussion presents theory and evidence as to why and how humour may have an effect on wellbeing, and concludes with further hypotheses.

2.4.1 Humour Styles and Coping

In arguing that humour serves as a buffer against stress, Mesmer-Magnus et al. (2012) suggest that the self-enhancing humour style in particular may be a form of coping humour. Martin et al. (2003) found that self-enhancing humour had a strong relationship with the Coping Humour Scale (r = .55), which measured the use of humour for coping without differentiating humour styles (Martin, 1996). Humour may therefore be related to reduced stress through its function as a possible coping mechanism (Romero & Cruthirds, 2006). Arguing that humour is merely a tool for

coping is inadequate however, as humour is also prevalent in non-stressful situations. A counter-argument would be that "life is suffering", implying that any manifestation of humour, regardless of whether it takes place during a time of high stress or not, is being used as a coping mechanism. That is, all humour is relief from the suffering of life. This view is not being endorsed here so the argument that all humour is coping humour remains inadequate.

In an experimental study investigating humour and coping, Samson and Gross (2012) investigated the effect of humour on emotions when viewing unpleasant stimuli. The participants were exposed to negative photographs accompanied by positive or negative humour, or no humour as a control, and were asked to rate their emotional response to each photograph. Analysis of the results found that humour had allowed participants to better cope with the photographs as compared with the group that did not receive a humorous message. Furthermore, contrary to their hypothesis that any humour would be good for coping because it would distract participants from the negative stimuli, the researchers found that positive humour was much more powerful than negative humour in raising positive emotions and lowering negative emotions. This experimental study further supports the theory that positive humour is an effective coping tool, although, as argued previously, humour in experimental research may not be spontaneous and related to comfortable settings and comfortable company, and may lead to participants being in the telic state as defined by reversal theory (Apter, 1982).

A separate argument is that humour can allow people to maintain a sense of control over their situation, even when objectively they have very little control, such as with

factory-floor workers or prisoners of war (Henman, 2001). Henman interviewed a large number of repatriated Vietnam prisoners of war and found that, for many, the presence of humour was a crucial factor in their ability to cope with the circumstances of their imprisonment. In this argument, a process of diminishment may be taking place; humour may be allowing people to view something traumatic through a different lens, and allowing them to be more optimistic about it. A positive link between optimism and humour has been found (Martin, 1983), but the research does not confirm causation. It may be that some third variable is causing high levels of optimism to coincide with high levels of humour, or perhaps a mediating model is more accurate, as was concluded by Cann and Etzel (2008) who found that humour predicted optimism, which in turn predicted perceptions of stress. This supports the premise that humour allows perceived control and positive wellbeing through diminishment of stressful demands. However, as with many of the arguments discussed above, this argument is limited because it does not provide any insight into the underlying mechanisms of the finding.

2.4.2 Humour Pathways

It is evident that there is currently a large gap in the literature on the manner in which humour relates to wellbeing with regards to the role that social support plays. We have seen that the four humour styles relate to wellbeing across a range of studies and with a number of wellbeing measures (Henman, 2001; Martin at al., 2003; Martin, 2007; Cann & Etzel, 2008; Samson & Gross, 2012), and that they relate to social support across a range of studies (Francis, 1994; Martin et al., 2003; Martin, 2007; Fine & De Sourcey, 2005). We have also seen that social support

relates to wellbeing (Sarason et al., 1983; Sarason et al., 1987; Urchino et al., 2012). What we do not know is whether some or all of the four humour styles are merely relating to social support, which is in turn relating to wellbeing, or if the humour styles relate to wellbeing independently of social support. The hypotheses listed below describe the ways in which this study aims to explore this identified gap in the current literature using regression models wherein each of the humour styles are used simultaneously with social support to predict positive and negative wellbeing outcomes.

In line with previous findings, it is hypothesized that:

H2a: Self-enhancing humour will account for additional variance in wellbeing, over and above the effects of social support: specifically, i) its positive relationship with positive affect, and ii) its negative relationship with negative affect.

H2b: Self-defeating humour will account for additional variance in wellbeing, over and above the effects of social support, specifically, i) its negative relationship with positive affect, and ii) its positive relationship with negative affect.

H2c: Affiliative humour will not account for additional variance in wellbeing, over and above the effects of social support; specifically, it will not have i) a positive relationship with positive affect, nor ii) a negative relationship with negative affect.

H2d: Aggressive humour will not account for additional variance in wellbeing, over and above the effects of social support; specifically, it will

not have i) a negative relationship with positive affect, nor ii) a positive relationship with negative affect.

CHAPTER THREE: METHOD

3.1 Participants and Procedure

Data were collected by means of a 20-minute self-report online survey (Appendix A). The 224 participants came from two sources: Madison Recruitment, a large New Zealand recruitment agency, and the Massey University *psych-grad* mailing list. Permission for eliciting Madison Recruitment employees was given by the company's Chief Executive Officer (Appendix B). The survey was made available through Qualtrics, an online survey provider, and was distributed via email. Responses were anonymous and confidential. Gender and age group were the only demographic information collected. The survey link was first sent on the 6th of September 2012 and was closed on the 2nd of November 2012. Of 226 participants, 174 (77%) usable responses were received. It had been calculated with the G*Power program (Field, 2009) that with 6 predictor variables, a 5% level of significance and an expected small effect size (f² = .15) that 74 participants would be the minimum required.

An email message (Appendix C) was sent containing summarised information about the survey, an outline of the ethical approval, and a hyperlink to the website hosting the survey. The email to employees of Madison Recruitment was sent internally, as the researcher is an employee of Madison Recruitment so was familiar to the recipients. The email to Massey University's "psych-grad" mailing list was sent from the researcher's personal Gmail account and so included some additional identifying information about the researcher.

3.2 Measures

Missing data were random for all scales except the Social Support Satisfaction scale (MCAR test of SSQ-S: Chi-Square = 67.01, Sig = .001), so that scale was dropped from subsequent analyses. All missing data for the remaining scales were replaced using expectation-maximisation estimation, which was chosen for its position as a general all-purpose imputation algorithm (Schafer & Olsen, 1988). Estimated means for all scales can be found in Appendix D.

3.2.1 Demographics

Of the 174 respondents, 30 (17.2%) were "25 and under", 114 (65.6%) were from "26 to 45" and 30 (17.2%) were "46 and over". Regarding gender, 128 (73.6%) were female and 44 (25.3%) were male, while 2 (1.1%) respondents elected to not disclose this information.

3.2.2 Humour Styles

The 32-item Humour Styles Questionnaire (HSQ) (Martin et al., 2003) was used to measure participants' use of the humour styles (Appendix A). It contains eight items for each of four humour styles: affiliative humour, aggressive humour, self-

enhancing humour and self-defeating humour. Respondents indicated whether each item was true or false for them. For example, a self-enhancing humour item was "If I am feeling upset or unhappy I usually try to think of something funny about the situation to make myself feel better", while a self-defeating humour item was "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". Several items were reversed-scored, such as this aggressive humour item: "Even if something is really funny to me, I will not laugh or joke about it if someone will be offended". After coding the reverse-scored statements, all items were summed across each scale, giving four humour style scores per respondent.

While the internal consistency of the self-defeating humour scale was satisfactory (α = .783) the remaining three scales were problematic; self-enhancing humour: α = .691, affiliative humour: α = .646 and aggressive humour: α = .580. Only the self-defeating humour scale had an acceptable Cronbach's alpha value (Field, 2009), while the aggressive humour scale and the affiliative humour scale were both too unreliable to analyse further.

Field (2009) has argued that as psychological constructs become increasingly diverse and specific, lower Cronbach's alpha values can be expected (as the .7 minimum was initially established for ability assessments rather than highly-specialised personality constructs). As the self-enhancing humour scale was so close to .7 it was retained for analysis, with the caveat that conclusion based upon this scale should be treated with some caution.

The 6-item Social Support Questionnaire (SSQ) (Sarason et al., 1987) was used to measure respondents' perceived social support (Appendix A). Each item queried on a particular form of social support: for example, item 5 was "Who can you really count on to help you feel better when you are feeling generally down-in-the-dumps?" The items were followed by two questions: how many people provided that form of social support to the respondent (up to a total of 9) and how satisfied the respondent was with that form of social support (rated 0 = very dissatisfied to 6 = very satisfied). Each question type was summed to give two outcomes: a total number of sources of social support (SSQ-N) and a total rating of social support satisfaction (SSQ-S). Reliability was high for both, SSQ-N: $\alpha = .903$ and SSQ-S $\alpha = .892$.

Decisions had to be made when plural responses were given, e.g. "friends", "parents", "children", "family", "friends" and "workmates". Because it was impossible to consistently infer how many people the respondents were thinking of when they wrote these responses, all such cases were counted as 2. For example, respondent number 4 wrote "partner, colleagues" which was scored 3, respondent number 20 wrote "fiancé, parents, brothers, friends" which was scored 7 and respondent 66 wrote "parents, wife, 2 brothers, KB, BH, JR, JC" which was scored 9. A number of non-human responses were reported which were all coded as 0. These were: "dogs", "reality TV", "God", "alcohol" and "animals". Finally, when "myself" was written this was also coded 0 as it is not social support. On several occasions the instruction to limit the list to 9 was ignored. Because the instruction

was explicit and most respondents followed it (with several limiting their responses at 9) all those who listed more than 9 were scored as 9. For example, respondent number 150 wrote "ta – friend, ma – mum, da – dad, 3 x sisters, 3 x brothers, hh – friend, pd – friend, gg – friend, kk – friend", which was coded as 9 though it totaled 13.

3.2.3 Positive and Negative Affect

Emotional wellbeing was measured using the 20-item Positive Affect Negative Affect Scale (PANAS) (Watson, Clark & Tellegen, 1988). The PANAS contains a list of twenty emotions, to which respondents indicated the level that they had experienced each in the past few weeks on a 5-point Likert-style scale (1 "very slightly or not at all" to 5 "extremely"). Ten items were positive emotions and ten were negative emotions. Scale scores were sums of the 10 positive and 10 negative items. In this study, the internal consistency of the scales was strong: Positive Affect: $\alpha = .858$, Negative Affect: $\alpha = .879$.

3.3 Ethical Consideration

Ethics approval was gained through a low risk notification submitted to the Massey University Human Ethics Committee (Appendix E).

3.4 Data Analysis

3.4.1 Factor Analysis

Because of low reliability, an exploratory factor analysis was done on the HSQ items. Principal component analysis with oblique rotation (direct oblimin) was used to allow for the possibility of inter-correlations between factors (Appendix E).

3.4.2 Skew and Kurtosis

Assumptions of normality were tested for all scales. Self-enhancing humour had a positive skew of .5 and self-defeating humour had a negative skew of -.68.

Additionally, self-defeating humour had a kurtosis score of -.79 indicating that its distribution was steep. Log transformation, square root transformation and reciprocal transformation were attempted but did not improve the distribution, so untransformed variables were used for the remainder of the analysis.

The social support number scale was negatively skewed with a level of .67, while its level of kurtosis was not an issue (-.07). Similarly, the PANAS scales were also somewhat skewed, as positive affect was -.47 and negative affect was .78. Kurtosis was not a problem for the PANAS scales though. As with the humour styles, transformation could not improve the data for these scales and untransformed variables were used.

3.4.3 Hypothesis Testing

The bivariate hypotheses (hypotheses 1a, 1b and 1c) were tested using the Pearson's Product-Moment Correlation Co-efficient. The multivariate hypotheses (hypotheses 2a, 2b, 2c and 2d) were tested using simultaneous multiple regression models.

3.4.4 Independence of Errors

The assumption of independence of errors was confirmed for the multiple regression analyses by the Durbin-Watson test. In all cases, the score was near 2, indicating that the assumption of independent errors was maintained. For the model that used self-enhancing humour and social support as predictors of positive affect, the statistic was 2.3. For the model that used self-enhancing humour and social support as predictors of negative affect it was 2.0. For the model that used self-defeating humour and social support to predict positive affect, the Durbin-Watson statistic was 2.2, and lastly, the score for the model that used self-defeating humour and social support to predict negative affect was 1.9.

CHAPTER FOUR: RESULTS

4.1 Exploratory Factor Analysis

The four factors that emerged from the exploratory factor analysis (Appendix E) of the HSQ were not largely different from the original four sub-scales originally prescribed by Martin et al. (2003). Several items moved to a different scale, however the overall structure was mostly unchanged. That is, the four scales were mostly made up of the same humour-style items. The internal consistency of the new scale factors was "affiliative humour": α = .692, "self-defeating humour": α = .783, "aggressive humour": α = .568, and "self-enhancing humour": α = .665, and as these were not an improvement, the original scales were used for the study. Two original scales were dropped due to poor reliability (affiliative humour, α = .646 and aggressive humour, α = .580).

4.2 Bivariate Correlational Analysis

A two-tailed Pearson's Product-Moment Correlation Co-efficient analysis was done for the bivariate hypotheses (Table 1). Supporting hypothesis 1a, self-enhancing humour was positively related to (i) social support and (ii) positive affect, and negatively related to (iii) negative affect (Table 1). Partially supporting hypothesis 1b, self-defeating humour was positively related to (iii) negative affect but had no significant relationship with (i) social support or (ii) positive affect. Supporting hypothesis 1d, social support was positively related to (i) positive affect and negatively related to (ii) negative affect.

Table 1
Summary of Intercorrelations, Means, and Standard Deviations for Self-enhancing Humour, Self-defeating Humour, Social Support, Positive Affect and Negative Affect

	М	1	2	3	4
	(SD)				
Self-enhancing Humour (1)	5.5		· · · · ·		
	(2.0)				
Self-defeating Humour (2)	3.0	.03			
	(2.3)				
Social Support (3)	21.3	.25	01		
	(11.9)				
Positive Affect (4)	35.8	.37	08	.16	
	(6.7)				
Negative Affect	20.3	24**	.28	15	36``
	(7.4)				

N = 174; *p < .05; **p < .01

4.3 Multiple Regression Analyses

The second level hypotheses, that the humour styles either would or would not maintain their relationships with wellbeing in light of social support, were tested using four regression analyses, as self-enhancing humour and self-defeating humour were each examined separately as predictors of positive and negative affect.

4.3.1 Self-enhancing Humour and Affect

Supporting hypothesis 2a, self-enhancing humour was positively related to (i) positive affect in the regression model with social support (Table 2). This model indicates that a single standard deviation change in self-enhancing humour resulted in a .36 standard deviation change in positive affect, independent of social support. Social support did not maintain its significant relationship with positive affect from

the bivariate correlation analysis here. From the adjusted R² statistic, we see the two predictors in this model accounting for 14% of the variance in positive affect.

Table 2
Self-enhancing Humour and Social Support as Predictors of Positive Affect

	В	SE B	Beta
Self-enhancing humour	1.24	.25	.36*
Social support	.02	.04	.07
R	.38		
Adj R²	.14		
F	14.81*		

N = 174; *p < .000

Also supporting hypothesis 2a, self-enhancing humour explained additional variance in (ii) negative affect over and above the effects of social support (Table 3).

Specifically, a standard deviation increase in self-enhancing humour resulted in a .22 standard deviation decrease in negative affect in this model. Combined, self-enhancing humour and social support accounted for 6% of the variance in negative affect. Again, while social support was significantly related to negative affect in the bivariate analysis, it was no longer significant when combined with self-enhancing humour.

Table 3
Self-enhancing Humour and Social Support as Predictors of Negative Affect

	В	SE B	Beta
Self-enhancing humour	83	.29	22*
Social support	06	.05	10
R	.26		
Adj R ²	.06		
F	6.31**		

N = 174; *p < .005; *p < .001

In sum, as expected, self-enhancing humour was related to increased levels of positive affect, and decreased levels of negative affect, independent of social support.

4.3.2 Self-defeating Humour and Affect

At the bivariate level, social support was positively related to positive affect but self-defeating humour was not (Table 1). The first part of Hypothesis 2b was not supported, as self-defeating humour did not have a significant relationship with (i) positive affect in the regression model with social support (Table 4). Neither predictor made a significant unique contribution (though the Beta for social support was unusually higher than self-defeating humour) nor was the overall model significant, explaining only 2% of the variance of positive affect.

Table 4
Self-defeating Humour and Social Support as Predictors of Positive Affect

	В	SE B	Beta
Self-defeating humour	22	.22	08
Social support	.09	.04	.16
R	.17		
Adj R ²	.02		
F	2.71		

N = 174

The second part of hypothesis 2b was supported as self-defeating humour maintained its significant relationship with (ii) negative effect in the regression model with social support (Table 5). A standard deviation change in self-defeating humour resulted in .28 of a standard deviation change in negative affect. This was the strongest of all four regression models. Consistent with those above, social support

did not have a significant relationship with negative affect in this model. Overall, this model explained 9% of the variance in negative affect.

Table 5
Self-defeating Humour and Social Support as Predictors of Negative Affect

	В	\$E B	Beta
Self-defeating humour	.87	.23	.28*
Social support	10	.05	15
R	.32		
Adj R ²	.09		
F	9.43*		

N = 174; * p < .000

In sum, as expect, self-defeating humour was related to increased levels of negative affect, independent of social support, but was not related to positive affect.

Implications will be discussed in the next chapter.

CHAPTER FIVE: DISCUSSION

This study investigated bivariate and multivariate relationships between two humour styles, social support and wellbeing (positive and negative affect). Having confirmed that there are at least two separate humour styles, the study confirmed that self-enhancing humour was related to wellbeing independently of social support, which was true for both positive and negative affect. Self-defeating humour appeared to be less well connected with wellbeing than had been expected, as it related only to negative affect, though this was still independent of social support. Most of the initial correlational hypotheses were confirmed, all for self-enhancing humour but just one for self-defeating humour. These findings are discussed below along with research limitations, some potential applications, suggestions for future research, and a discussion of the future of humour theory.

5.2 Self-Oriented Humour

Martin et al. (2003) proposed four humour styles, which have been confirmed in a number of studies (Martin, 2007). While this study attempted to use the same model, only two humour styles were confirmed, which implies that either this study's sample was too small, the HSQ is flawed as a measure, or that the model itself is flawed. For example, it may be more accurate to suggest that there are two overarching humour styles (positive and negative, as supported in this study) with each being describable in terms of both its "social" and its "self" properties.

Regardless, the two humour styles identified by this study have been analysed in depth and are discussed below.

5.2.1 Self-enhancing Humour

First, the bivariate correlational findings for self-enhancing humour imply that those who use self-enhancing humour most often are also likely to have more social support around them, and to experience more positive emotions and less negative emotions than others. Given that social support is demonstrably a positive construct and positive affect is inherently a positive construct, these findings indicate self-enhancing humour is also a positive construct.

Of course, a correlational analysis does not provide information about causality, so it is entirely feasible that someone with a positive disposition may have more friends and also may make more use of positive coping humour. While the details of where self-enhancing humour fits into a humour model of wellbeing will take further analysis and discussion, we can already reliably describe it as a desirable and positive behaviour. At the very least, it can be argued that use of self-enhancing humour is a positive indicator of wellbeing.

The regression analysis found that self-enhancing humour maintained its significant positive relationship with positive affect once social support was accounted for. Likewise for negative affect, the significant negative relationship was maintained in light of social support. This indicates that self-enhancing humour relates to wellbeing independently of social support. This is logical given that it is considered the "coping" humour style (Martin, 2007).

The use of humour is generally a social act; that is, it happens in social situations, but this result shows us that when people use this kind of humour, they may actually be doing so for their own benefit, not for those around them. Examples of self-enhancing humour from the HSQ are "My humorous outlook on life keeps me from getting overly upset or depressed about things" and "It is my experience that thinking about some amusing aspect of a situation is often a very effective way of coping with problems". Both statements show themes of managing one's emotions by way of humour. While we cannot infer causation, the "positive outlook" image (exemplified earlier by the Winnie-the-Pooh quote) certainly appears to apply to this discussion. Along this line of thinking, people might use self-enhancing humour to manage their emotions, appraise stressors and bring levity to negative situations. While self-enhancing humour may or may not have an effect on the audience, these findings confirm that it is certainly a positive indicator for the person using it.

The process of diminishment may be at play with regard to self-enhancing humour. As has been posited, manifested first within superiority theory, an element of humour is thought to be its ability to make intimidating or frustrating things less overwhelming, and this effect appears to be strongest in self-enhancing humour. These findings are consistent with this argument.

5.2.2 Self-defeating Humour

This study found that self-defeating humour had a positive relationship with negative affect but no relationship with social support or positive affect. As with self-enhancing humour, the positive relationship between self-defeating humour and

negative affect does hold interesting information. Consistent with past research, this correlation reinforces that self-defeating humour is likely a non-desirable construct. Identifying that the behaviour of putting oneself down goes hand in hand with the experience of negative emotions may not be a surprising result, but it suggests that observation of someone using this type of humour indicates that they are, to an extent, more likely to be experiencing negative emotions than others.

The regression results showed that self-defeating humour maintained a nonrelationship with positive affect, as expected. What is interesting here is that social support no longer had the significant relationship with positive affect that had been found in the correlational analysis. However, that initial relationship had been weak, and self-defeating humour, while not significant, evidently must have played enough of a part to lead to this result. The final regression model found that self-enhancing humour maintained its significant positive relationship with negative affect, while social support lost its significant relationship. From this finding we can infer that the use of self-defeating humour goes hand-in-hand with the amount of negative emotions one feels, and that this relationship is independent of the social support that one has around him or her. Examples of self-defeating humour from the HSQ itself that illustrate the construct are "I will often get carried away in putting myself down if it makes my family or friends laugh" and "I often try to make people like or accept me more by saying something funny about my own weaknesses, blunders, or faults". We can see from these examples that there are themes of needing attention, low selfesteem and low social status, which are consistent with the findings here related to wellbeing.

5.2.3 Summary

Relating the findings of this study with previous research can be done for the bivariate correlational analysis as it had been done on several previous occasions, but not for the regression analysis, as these models had not previously been tested. As can be inferred from the discussion of support found for the hypotheses, most of the bivariate results were consistent with previous research. The self-enhancing humour scale was particularly strong in this regard as all of its hypotheses were supported. The self-defeating humour scale was a weaker replication of previous research in that most of the bivariate correlations were not significant.

Nevertheless, these findings are definitive support for the suggestion that, at least for the "self" dimension of the humour styles model, it is the tone of the humour — positive or negative — that relates to one's wellbeing, and the amount of social support (or lack thereof) does not play a significant part in this relationship. Even if alternative models are suggested, such as the input of potential mediators (e.g., life experiences, coping strategies, or familial and cultural humour norms), we might expect the above relationship to be maintained.

5.3 Limitations

A limitation of survey-based research methodology is that it can be difficult to infer causation from the research data. So while humour theory may argue that humour styles influence wellbeing, it is certainly feasible that the opposite may also be true. The survey design was chosen intentionally as it is believed that in an experimental

design participants are put into what reversal theory describes as a telic state of mind, implying that participants do not react or behave naturally with regard to humour. However, Cann and Etzel (2008) noted that survey designs such as this can only go so far, and a longitudinal study would be required for full confirmation of these hypotheses.

Second, all self-reports have the potential to suffer from positive response bias.

Looking at this study, the SSQ and the PANAS measures are very widely used and have been validated consistently across a range of settings. While the HSQ measure has also been validated, it has not been replicated nearly as many times as the two older measures. Further research investigating its factor structure would benefit its ongoing use, as would further cross-cultural validation.

Third, because of a lack of male participants, gender differences were not analysed in this study so conclusions regarding gender cannot be presented.

Fourth, having to omit the two "social" humour styles, while not a debilitating development, was certainly not optimal. In addition to making two of the second-level hypotheses untestable (H2c and H2d), it meant that no discussion could be made regarding any relationships or effects involving affiliative and aggressive humour, nor any overall comparison of the "social" and "self" humour style model dimensions. Further research is required for such discussion.

Lastly, the self-enhancing humour scale was used in light of a questionable level of reliability, so conclusions from its use are made with caution.

5.4 Applications for Organisations

5.4.1 Humour and Workplace Culture

This study has established that positive humour relates to positive wellbeing while negative humour relates to negative wellbeing, and while consistent with past research, this has some important implications for organisations. From the standpoint of organisational culture, the findings of this study indicate that not all humour is good humour. Where it might be assumed that humour can only be a positive construct, we now see that negative humour in the workplace, particularly through a culture of self-defeating humour, is a very undesirable outcome. This would likely be manifested in employees putting themselves or their work down, or going along with humour made at their expense. Managers who become aware of self-defeating humour could take steps to reduce it. Correspondingly, while the aggressive humour dimension was not confirmed in this study, past research would suggest that it is also undesirable within workplace cultures and likely to be manifested as teasing and sarcasm.

Consistent with this theme, encouraging a culture of self-enhancing humour would likely be beneficial to workplace culture, though this comes with the important caveat that consideration should be given to the appropriateness of such a suggestion. Instructing employees to make light of stressful tasks might be useful for some creative or problem solving fields, such as design or research, but would certainly be less appropriate for the police force or investment staff. If an

organisation can facilitate the acceptance of this kind of humour as part of their institutionalized culture then we would hope that all of the benefits discussed might become second nature to their employees.

5.4.2 Humour and Individuals

If self-enhancing humour assists in coping and does so without the need for or influence of social support, as has been found here, then a case can be made for valuing a high level of this humour type within leadership positions. Self-enhancing humour as a leadership quality is a strong and useful concept as those in leadership positions may often have less social support around them within the work environment. So being able to cope with work stressors in a way that is not reliant on social support is therefore a useful skill, and it appears here as though self-enhancing humour is exactly this kind of coping. There is potential for an organisation to use the HSQ (if it can be further validated and accepted) to measure the kinds of humour prospective leaders are prone to use, and consider these scores when matching candidates for role suitability. In fact, one past study found that humor usage by leaders was positively related to an increase in perceived effectiveness by their subordinates (Martin, 2007). While there is a marked difference between perceived effectiveness and real effectiveness, this finding is at least a positive indicator of the effect suggested.

Not only with regard to leaders, it appears that the use of self-enhancing humour is desirable for all employees and should be considered as such. Self-enhancing humour's positive relationship with both social support and wellbeing implies that it

can be considered a positive behavioral indicator. That is, observation of its use indicates that a person is more likely than others to experience positive emotions and have stronger social support. This is potentially useful when considering design and performance of teams. As encouraging a culture of self-enhancing humour is likely to be beneficial, identifying individuals likely to encourage that culture would likely also be a sensible initiative. Further to the usefulness of the HSQ, self-defeating humour would be a negative indicator for employees, as it is evident that even social support may not assist in raising the spirits of those who use this humour style.

Though the HSQ still requires further validation, comparing employees on these scales has the potential to show who is likely to experience positive emotions and who is likely to experience negative emotions: they provide an indication of likely behaviours and wellbeing. Had affiliative humour and aggressive humour been explored in this study as had been planned, they would likely have inspired further discussion here about workplace culture and team-fit.

5.5 Future Humour Styles Research

As this study identified only two reliable humour styles, further research is required to investigate the validity of the humour style model. It may be that humour is better divided into two components: positive and negative, as was found in this study.

As previously discussed, a survey-based methodology has limitations in assessing causality. While an experimental-based design was ruled out due to reversal theory's concerns with placing participants in the telic state of mind, this leaves the potential

for a future longitudinal study, which could examine the same three groups of variables: humour styles, social support and wellbeing, and the ways in which these variables interact with each other over time. This methodology would allow researchers an opportunity to identify links over time and potentially identify their underlying causes.

Another avenue for future research is the effect that humour can have on its audience. While this study investigated only the person producing humour, a future study could investigate the humour styles produced by the social support. The HSQ could potentially be converted into an external measure for such a task. For example, the self-enhancing humour item "My humorous outlook on life keeps me from getting overly upset or depressed about things" could be converted into "My colleagues' humorous outlook on life keeps me from getting overly upset or depressed about things". With such an instrument, future research could uncover relationships between the humour styles that we are exposed to and how they relate to wellbeing outcomes.

This study suggests that in the context of workplace culture, it may be appropriate in some cases for particular humour styles to be encouraged while others should be discouraged. Future research could investigate how various job types relate to the usage of humour styles, e.g., which humour styles are most and least effective for employee wellbeing across different types of roles.

One of the inferred conclusions of this study is that high self-enhancing humour would be an attractive quality for those in leadership positions. Future research could

endeavour to explore whether or not this finding is demonstrably true by testing workers in leadership roles for self-enhancing humour and a range of effectiveness outcomes.

Consistent with the discussion of stress and coping, further research could measure differences in humour style usage across various situations. For example, it may be found that self-enhancing humour is more common when individuals are experiencing high levels of stress, as this is when it may be most useful as a coping mechanism.

5.6 Contribution to Humour Theory: Introducing Reappraisal Theory

Having spent an extended period of time reading, thinking and writing about humour, I believe I am in a position to offer an educated opinion on the humour theories discussed in Chapter 1. Given that the three traditional theories of humour were deemed insufficient and the humour styles model, while useful, is a psychological categorisation rather than a complete theory, there is room for a theoretical contribution. Having considered the function and effects of the self-enhancing and self-defeating humour styles in this study, it is my view that humour breaks down the psychological structures and models we use to comprehend and organise our external environment providing the mind with the opportunity to rebuild them. When something (such as a problem, task or other potential stressor) has become too large or complex to comfortably cope with, humour can break all of this down enabling the mind to reappraise what is and is not pertinent, how the various components relate to each other, and to identify alternative ways in which it can be

better structured or modeled in the mind. This process allows us to re-configure the given model or structure in a simpler and more cognitively efficient way. This is consistent with the theme of diminishment that has featured throughout this work.

It could be something large such as a stressful task at the workplace, wherein the mind, feeling overwhelmed, can re-appraise the situation with the clarity provided by humour, and see it in a new and more manageable light. Or it could be something as simple as a joke, wherein the mind is managing the various components, creating a model in real-time as it keeps up with the story and the pace of the joke teller, and then at the moment of the punch-line the model is instantly simplified, and this perceived clarity and the pleasure of the reconfiguration process manifests as humour. In the first example (the stressful task) humour is working for us, providing a function. In the second example (the joke) we are working for humour. That is, we are creating the specific circumstances necessary to summon humour simply for our own pleasure.

Tying this concept – coined here as the reappraisal theory of humour – to the findings of this study, self-enhancing humour is the reappraisal theory process functioning properly. It makes stressors more manageable and has a positive relationship with our emotional wellbeing. In contrast, self-defeating humour is the reappraisal theory process not functioning properly. It does not improve how we view stressors and has a positive relationship with negative emotions. This self-enhancing humour item from the HSQ exemplifies the theory almost perfectly: "It is my experience that thinking about some amusing aspect of a situation is often a very effective way of coping with problems." Conversely, this self-defeating humour item

may be giving added insight into the process at work: "I often try to make people like or accept me more by saying something funny about my own weaknesses, blunders, or faults." In both cases, the person has identified a stressor to make light of; the difference is that the self-enhancing humorist is using humour to reappraise an external stressor, while the self-defeating humorist is, less effectively, using humour to attempt to have other people reappraise their own internal stressor. It is the same underlying process so both humour style situations are consistent with reappraisal theory.

5.6.1 Reappraisal Theory and Previous Theory

Comparing reappraisal theory with the three traditional theories, we can see how they each relate to and are encompassed by it. First, superiority theory is encompassed by reappraisal theory in the sense that by fun of people in superior positions or other groups, the social hierarchy or power relationship is broken and reformed, as described by reappraisal theory. In the reconfigured structure, the intimidating object has lost its power. The criticism of superiority theory, that it is insufficient because it does not include all forms of humour, is resolved as it is now one example of reappraisal theory.

Next, relief theory is encompassed by reappraisal theory, as tension-breaking relief is simply the experience of the reappraisal process. Reappraisal theory suggests that a complicated cognitive model or structure is simplified, making it more manageable; this logically ties to relief theory as the tension previously experienced is dissipated through this process. As with superiority theory, the criticism leveled against relief

theory – that it is insufficient for merely describing the setup for humour – is resolved as reappraisal theory describes the actual psychological mechanism of the relief experienced.

Lastly, incongruity theory is also easily encompassed by reappraisal theory, as the creation of novel connections is an integral part of the reappraisal process. As part of this process, mental models are broken down and reassessed and while some components and their connections may remain unchanged, some will be reformed in a novel way. The criticism laid against incongruity theory was that it does not recognizably encompass all forms of humour; for example, it explains how punch lines work but not why coping humour works. This is resolved by reappraisal theory, in that the forming of incongruous connections is incorporated into the overall process.

Finally, reappraisal theory is consistent with reversal theory. Recall that reversal theory suggests that there are five pairs of meta-motivational states, and that the pair most pertinent to humour is telic (serious, goal-oriented) versus paratelic (playful, pleasure-oriented). In this model, someone in the telic state of mind is frustrated by humour as it is not directly focused on dealing with the task at hand, and because the reappraisal process is not a direct problem-solving activity it is equally undesirable. Someone in the paratelic state of mind, however, welcomes the reappraisal process because it is novel, pleasurable, exploratory and allows for incongruity. Therefore the two theories are completely consistent with each other. As an example, humour has consistently been found to have a positive relationship with creativity (Romero & Cruthirds, 2006). It could be argued that reversal theory's paratelic state combined

with the reappraisal process provides a reasonable explanation for this finding; that is, the paratelic state of mind facilitates the reappraisal process that describes the creative way in which humour works.

5.6.2 Future of Reappraisal Theory

Chapter 1 concluded that the humour field lacked a useful "grand unified theory" and this section has proposed that reappraisal theory may have potential to fill this role. Reappraisal theory will require further research and analysis to test this proposal.

One limitation of reappraisal theory is similar to the criticism previously laid against relief theory – that not all instances of relief are humorous – so the theory is insufficient. Likewise, not all instances of the reappraisal process are necessarily humorous, so the theory is similarly not entirely satisfactory. Nevertheless, I maintain that reappraisal theory is a more useful concept as it encompasses all three of the traditional theories of humour, is consistent with both reversal theory and the humour styles model, and provides the strongest description of the psychological mechanism that may be at work.

5.7 Conclusion

This study investigated how the four humour styles (Martin et al., 2003) are related to both social support and wellbeing. The humour styles are a recent development and a gap in the current literature was identified regarding the ways in which they

interact with social support to influence wellbeing outcomes. This study found that the positive self-oriented humour style – self-enhancing humour – had a positive relationship with wellbeing that is not influenced by the level of social support one is receiving. It also found that the negative self-oriented humour style – self-defeating humour – has a positive relationship with negative emotion that is also not influenced by received social support. The study concludes that these two types of humour are indicators of the effectiveness of coping ability as well as wellbeing. Some applications for organisations are made, including the suggestion that self-enhancing humour would make a valid contribution as a psychometric predictor for leadership roles, and that self-defeating humour may be a behavioral indicator of negative affect.

Additionally, the study presents a novel development for the theory of humour; namely reappraisal theory, which suggests that humour serves a function whereby in the moment of mirth, the mind reappraises its structures and reconfigures them into a more elegant and manageable form, and it is this process that we perceive as amusement.

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Appendix A: Online Questionnaire

Humour & Well-being

INFORMATION SHEET

I am Jamie McEwan and this survey is for my Masters thesis at Massey University.

My project is an investigation into the relationships between various styles of

humour, social support and emotional wellbeing. It is hoped that the results will

provide insights into the ways in which we are affected by humour.

The survey will take approximately 10 to 15 minutes and your participation implies

consent. It is entirely anonymous and the data is stored securely at Massey

University. The information will be submitted for assessment as part of my Masters

degree and may be published in scientific journals or presented at scientific

conferences.

At the end of the survey there will be an opportunity for you to request that the

findings from this survey be sent to you upon the completion of my thesis.

If you have any questions, please feel free to make contact. A detailed report

outlining the findings of this research study will be available to all participants, on

request, in March 2013.

Thank you,

Jamie McEwan

Contact information:

Researcher

Jamie McEwan

School of Psychology

Supervisor

Dr Dianne Gardner

School of Psychology

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Massey University
Private Bag 102-904
North Shore Mail Centre
Auckland 0745

New Zealand jamiekmcewan@gmail.com

Massey University Private Bag 102-904 North Shore Mail Centre Auckland 0745

New Zealand

+64 9 414-0900 ext 41225

Massey University School of Psychology – Te Kura Hinengaro Tangata Albany Village, Auckland, New Zealand T: +64 9 414-0800 ext 41244 W: psychology.massey.ac.nz

This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named above are responsible for the ethical conduct of this research.

If you have any concerns about the conduct of this research that you wish to raise with someone other than the researcher(s), please contact Professor John O'Neill, Director, Research Ethics, Massey University. Telephone 06 350 5249, email: humanethics@massey.ac.nz

Respondent Consent

Thank you for participating in this questionnaire.

Your participation implies consent.

You have the right to decline to answer any particular question.

I have read and understood the information sheet for this study and consent to collection of my responses. (Please click on the 'Yes' choice if you wish to proceed.)

Yes \square

No 🗆

Demographics

What is your gender?

Male								
Female	D							
How old are y	ou?							
25 and under								
26 to 45								
46 and over								
	Humour Styles							
_	Please respond to the following items by indicating whether you consider them to be true or false for you.							
		True	False					
1. I usually do	n't laugh or joke around much with other people.							
2. If I am feeli humor.	ng depressed, I can usually cheer myself up with							
3. If someone	makes a mistake, I will often tease them about it.							
4. I let people than I should.	laugh at me or make fun at my expense more							
	e to work very hard at making other people a to be a naturally humorous person.		0					
6. Even when absurdities of	I'm by myself, I'm often amused by the 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.	ū	0
11. When telling jokes or saying funny things, I am usually not very concerned about how other people are taking it.	0	
12. I often try to make people like or accept me more by saying something funny about my own weaknesses, blunders, or faults.	-	o
13. I laugh and joke a lot with my closest friends.		
14. My humorous 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 an 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.	Q.	
20. I often go overboard in putting myself down when I am making jokes or trying to be funny.	0	_
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.		٥
27. If I don't like someone, I often use humor or teasing to put him or her 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.	0	
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.	0	0
31. Even if something is really funny to me, I will not laugh or joke about it if someone will be offended.	a	ā
32. Letting others laugh at me is my way of keeping my friends and family in good spirits.	a	

Social Support

The following questions ask about people in your environment who provide you with help or support. Each question has two parts. Firstly, list all the people you know who you can count on for help or support in the manner described. You may either enter the person's initials or their relationship to you (for example: "JM" or "father"). For the second part, select how *satisfied* you are with the overall support

you have. If you have no support for a question, write the word "No one," but still rate your level of satisfaction. You can list up to nine people per question.

How satisfied are Very Dissatisfied	e you with thi	is support? Somewhat					
□ Very □		0					
Very D	_	_					
*	Dissatisfied	Somewhat					
Dissatisfied			Somewhat	Satisfied	Very		
	······	Dissatisfied	Satisfied	····	Satisfied		
2. Who can you r		on to help you fe	eel more relaxed	l when you are	under		
pressure or tense	? Answer:						
How satisfied are	e you with thi	is support?					
Very L	Dissatisfied	Somewhat	Somewhat	Satisfied	Very		
Dissatisfied		Dissatisfied	Satisfied		Satisfied		
Who accepts y How satisfied are			ur worst and be	st points? Ansv	ver:		
_	Dissatisfied	Somewhat	Somewhat	Satisfied	Very		
Dissatisfied		Dissatisfied	Satisfied		Satisfied		
4. Who can you really count on to care about you, regardless of what is happening to you? Answer:							
How satisfied are	you with thi	s support?					
		Ó					
Very [Dissatisfied	Somewhat	Somewhat	Satisfied	Very		
Dissatisfied	. <u>.</u>	Dissatisfied	Satisfied		Satisfied		

5. Who can you really count on to help you feel better when you are feeling generally

down-in-the-d	lumps? Answer:	<u> </u>			
20111 10 tilo-0	po. / 1110 fr OI.	•			
How satisfied	are you with th	is support?			
Very	Dissatisfied	Somewhat	Somewhat	Satisfied	Very
Dissatisfied		Dissatisfied	Satisfied		Satisfied
6. Who can yo	ou count on to co	onsole you whe	en you are very	upset? Answer:	
How satisfied	are you with th	is support?			
	O				
Very	Dissatisfied	Somewhat	Somewhat	Satisfied	Very
Dissatisfied		Dissatisfied	Satisfied		Satisfied
		Wellbe	ing		
		,, спос	*** S		
m:		6 1 1	. 1 . 11 . 11 . 6	. 6 1:	*
	sists of a number			•	
emotions. Rea	d each item and	then mark the	appropriate ans	swer in the spac	e next to
that word.					
Indicate to wh	at extent you ha	ave felt this way	during the pas	st few weeks.	
Use the follow	ring scale to rec	ord vour answe	re		
1: very slightly	-	ord your answe	15.		
2: a little	y of not at an				
3: moderately					
4: quite a bit					
5: extremely					
2. 0//0//1015					
Interested	1	2 3	4	5	
Strong	1	2 3	4	5	
Enthusiastic	1	2 3	4	5	
Ashamed	1	2 3	4	5	

Attentive	1	2	3	4	5
Distressed	1	2	3	4	5
Guilty	1	2	3	4	5
Proud	1	2	3	4	5
Inspired	1	2	3	4	5
Jittery	1	2	3	4	5
Excited	1	2	3	4	5
Scared	1	2	3	4	5
Irritable	1	2	3	4	5
Nervous	1	2	3	4	5
Active	1	2	3	4	5
Upset	1	2	3	4	5
Hostile	1	2	3	4	5
Alert	1	2	3	4	5
Determined	I	2	3	4	5
Afraid	1	2	3	4	5

Completion

Thank you for your responses.

If you would like to be provided with a summary of results at the conclusion of this study, please click on the following link and leave your contact details.

There will be no way that the researcher can trace this back to your questionnaire if you choose to supply this contact information.

Thank you,

Jamie McEwan

Results

Would	ou like to receive a summary of the findings of this research project?
Yes:	
No:	

email

Appendix B: Workplace Permission

1. Email to Simon Bennett, Madison Recruitment CEO:

On 9/07/2012, at 12:18 PM, "Jamie McEwan" < jamie.mcewan@madisongroup.co.nz> wrote:

Hi Simon.

I'm applying for ethics approval for my masters project and need to get a thumbs-up from all potential participants. I would love to include Madison. It will just mean sending out a group email containing the testing link. Participation is completely optional but I need your approval to send the email.

Thanks,

Jamie McEwan People and Performance Advisor

Madison Recruitment

Phone: 09 303 4455 Fax: 09 303 4452

Email: jamie.mcewan@madisongroup.co.nz

Website: www.madisongroup.co.nz

Level 6, 203 Queen Street, PO Box 105 675, Auckland 1143, New Zealand

This email may contain confidential information and may also be legally privileged. It is intended only for the individual or entity named above. If you are not the intended recipient you are hereby notified that any use, review, dissemination or copying of this document is strictly prohibited.

2. Reply from Simon Bennett, Madison Recruitment CEO:

On 9/07/2012, at 1:25 PM, "Simon Bennett" wrote:

Yep fine by me. Cheers

Appendix C: Survey Email

Subject: "Research on Humour?! Surely not..."

From: Jamie McEwan <jamiekmcewan@gmail.com>

To: "psych-grad"

Hello world,

My name is Jamie McEwan and I am carrying out some research for my Masters degree here at Massey University. Dr Dianne Gardner is my supervisor and my thesis is on humour and well-being. I would appreciate it if you could take 10 minutes to complete my online survey. Taking part is completely voluntary and all of the responses will be anonymous. If you would like to take part, please click on the link below.

https://qasiasingleuser.asia.qualtrics.com/SE/?SID=SV_4VERLGjbCShCqHj

If you have any students, friends, family, colleagues, enemies or acquaintances that you think might also complete the survey, then please forward it on to them too. If you are interested in my findings, you can request a copy of the summary report at the end of the survey.

If you have already seen this message somewhere then I apologise for the cross-over. Finally, if you have any questions don't hesitate to ask.

Many thanks,

Jamie

Appendix D: Estimated Means

1. Estimation-Maximisation Means: Humour Styles Questionnaire

Affiliative Humour^a

HSQ1	HSQ5	HSQ9	HSQ13	HSQ17	HSQ21	HSQ25	HSQ29
1.94	1.70	1.88	1.98	1.90	2.00	1.94	1.76
a. Little's MCAR test: Chi-Square = 6.870, DF = 27, Sig. = 1.000							

Self-Enhancing Humour^b

HSQ2	HSQ6	HSQ10	HSQ14	HSQ18	HSQ22	HSQ26	HSQ30	
1.75	1.87	1.55	1.67	1.46	1.52	1.82	1.88	
b. Little's MCAR test: Chi-Square = 11.945, DF = 20, Sig. = .918								

Aggressive Humour^c

HSQ3	HSQ7	HSQ11	HSQ15	HSQ19	HSQ23	HSQ27	HSQ31
1.43	1.47	1.24	1.32	1.50	1.74	1.12	1.49
c. Little's MCAR test: Chi-Square = 10.909, DF = 13, Sig. = .618							

Self-Defeating Humour^d

HSQ4	HSQ8	HSQ12	HSQ16	HSQ20	HSQ24	HSQ28	HSQ32	
1.28	1.32	1.56	1.46	1.18	1.21	1.36	1.59	
d. Little's MCAR test: Chi-Square = 48.579, DF = 41, Sig. = .194								

2. Estimation-Maximisation Means: Social Support Questionnaire

Social Support Number^a

SS1n	SS2n	SS3n	SS4n_	SS5n	SS6n	
3.87	3.05	4.11	4.01	5.52	2.99	
a. Little's MCAR test: Chi-Square = 18.425, DF = 19, Sig. = .935						

Social Support Satisfaction^b

SS1s	SS2s	SS3s	SS4s	SS5s	SS6s
5.20	5.22	5.41	5.43	5.19	5.19

b. Little's MCAR test: Chi-Square = 67.008, DF = 36, Sig. = .001

3. Estimation-Maximisation Means: Positive Affect Negative Affect Scale^a

Interested	Strong	Enthusiastic	Ashamed	Attentive	Distressed	Guilty
4.03	3.48	3.76	1.65	3.62	2.35	1.89
Proud	Inspired	Jittery	Excited	Scared	Irritable	Nervous
3.29	3.44	1.99	3.57	1.95	2.59	2.34
Active	Upset	Hostile	Alert	Determined	Afraid	_
3.45	2.23	1.62	3.37	3.80	1.74	-

APPENDIX E: EXPLORATORY FACTOR ANALYSIS

Factor Loadings for Exploratory Factor Analysis with Oblimin Rotation of the Humour Style Questionnaire

	Component	· · · · · · · · · · · · · · · · · · ·		
Item	1	2	3	4
Affiliative 2	.683		.222	
Affiliative 3	.615			.201
Self Enhancing 2	.575			
Affiliative 8	.541			
Affiliative 4	.528			
Affiliative 5	.503		.288	
Affiliative 1	.499			
Self Enhancing 8	.465			
Self Enhancing 4	.445			.402
Aggressive 5	.328	.217	.325	
Affiliative 6	.208			
Self Defeating 2		.721		
Self Defeating 4		.678	.218	
Self Defeating 3		.676		
Self Defeating 5		.637		
Self Defeating 8		.636		
Self Defeating 6		.569		
Self Defeating 1		.566		
Self Defeating 7		.486		
Aggressive 6			.681	
Aggressive 8			.649	
Aggressive 4			.616	
Aggressive 2			.495	
Aggressive 3			.404	
Aggressive 1	.222		.318	
Affiliative 7	.242		.310	
Self Enhancing 3				.706

Self Enhancing 5	.221	.694
Self Enhancing 7		.585
Self Enhancing 1	.325	.553
Self Enhancing 6	.299	.526
Aggressive 7		

Note: Factor loadings > .40 are in boldface. Factor loadings < .20 are omitted. Items are named as per their original subscale designation.