

Self-Defeating vs Self-Deprecating Humour: A Case of Being Laughed At vs.
Laughed With?

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“Humour is mankind's greatest blessing.” - Mark Twain

"It is a curious fact that people are never so trivial as when they take themselves seriously." - Oscar Wilde

Abstract

Humour is a prominent feature within communication (Lynch, 2000), and subsequently plays an essential role in interpersonal relationships (Martin et al., 2003). As such, examining how humour is perceived is pertinent to better understanding how humour operates within social relationships. Researchers have come to view humour as consisting of styles (Martin et al., 2003) and these include; affiliative, aggressive, self-enhancing and self-defeating humour. This thesis focused on self-defeating humour, which refers to the excessive use of disparaging remarks about oneself as a means to ingratiate oneself with others. There is consistent evidence that has demonstrated that the use of self-defeating humour is negatively associated with self-esteem and emotional stability, and is consequently considered maladaptive in nature. However, there is evidence that the use of self-disparaging humour is not always associated with negative outcomes, and this type of self-disparagement is referred to as self-deprecating humour. Rawlings and Findlay (2013) confirmed that these two styles vary in that self-deprecating humour was positively associated with self-esteem. Thus, the conceptual differences have been established, although these styles present in the same way (i.e. a target telling a joke about themselves) which raised the question of how these two humour styles might be perceived by others.

The current thesis examined the perception of the two self-disparaging styles over three studies. The first study utilised video clips of stand-up comedians, whilst the second study used written vignettes containing jokes, and the third study used written jokes to examine the perception of humour. Participants were presented with

definitions of the five humour styles and were asked to categorise the clips. They were also asked to rate the target's self-esteem and how funny they found the joke. The results revealed that observers were able to differentiate between the humour styles, with one humour style selected by the majority of the participants. More specifically, the targets categorised as using self-deprecating humour were rated as having a higher self-esteem than their self-defeating counterparts. The first study revealed that the self-defeating targets were rated as being funnier than the self-deprecating targets, whilst the second two studies revealed that the self-deprecating targets were funnier than the self-defeating targets.

Results revealed that observer variables (e.g., self-esteem, personality, mood, humour styles) predicted the perception of humour, although there were no consistent trends. Only observer mood consistently predicted the ratings of target self-esteem, and funniness along with humour categorisation. The third study examined the effect of mood on humour perception and only revealed that the negative mood induction played a role in the ratings of funniness. It was postulated that the exposure to humour increased participant mood and subsequently the ratings of funniness. Future research was suggested to examine the effect of humorous stimuli on mood, which might inform existing treatment interventions.

In conclusion, across the three studies contained within this thesis, self-deprecating humour was consistently perceived as the psychologically healthier humour style (i.e. higher self-esteem) than the self-defeating target. This confirmed that humour styles signal information about the target in line with Zeigler et al. (2013). The use of humour was suggested as a strategy for therapists to help clients reframe their thinking styles (in line with CBT). Finally, it was proposed that future

research would benefit from examining the perception of humour using Internet Memes for a modern account of humour perception.

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Throughout my thesis journey I have been extremely fortunate in having a supportive team around me. Firstly, I would like to thank my incredible supervisory team, whilst it shifted and changed over the four years, I always felt a strong sense of stability.

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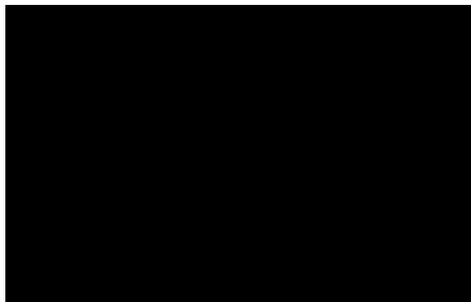
And finally, to my two cats, Bean and Ruby. You have provided endless joy and distraction when I needed it most!



Declaration

I confirm that the work contained herein:

1. contains no material which has been accepted for the award of any other degree or diploma, except where due reference is made in the text of the examinable outcome;
2. contains no material previously published or written by another person, to the best of the candidate's knowledge, except where due reference is made in the text of the examinable outcome; and
3. discloses the relative contributions of the respective workers or authors:
 - a. see Appendix C for Author Indication Forms



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List of Peer-Reviewed Publications from PhD by Publication

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Brown, R., Buzwell, S., Findlay, B.M., & Brinker, J. (2018). *I know you (they) don't really mean it: Perceptions of self-disparaging humour using written vignettes*. Manuscript submitted for publication.

Brown, R., Bullock, B., Meyer, D., Findlay, B.M. (2018). *In the mood to laugh: Does the perception of self-directed humour depend on how you are feeling?* Manuscript submitted for publication.

List of Conference Presentations and Posters

Findlay, B.M., & Brown, R. (2013). Emotional Intelligences mediates the relationship between Humour styles and psychological wellbeing, International Society for Intelligence Research, Melbourne, 2013

Rawlings, M., Findlay, B.M., & Brown, R. (2014). Further notions for a Scale of Self-Deprecating Humour, Australian Humour Studies Network, Wellington, 2014

Brown, R., & Brinker, J. K. (2015). Can observers distinguish between self-defeating and self-deprecating humour? Australasian Humour Studies Network, Adelaide, 2015.

Brown, R., & Brinker, J. K. (2017). The perception of humour using written vignettes. International Society for Humour Studies, Montreal, 2017.

Thesis Preamble

This PhD topic was born out of watching clips of an Australian stand-up comedian, Hannah Gadsby, who is renowned for her use of self-deprecating humour. When watching her comedy routines, I noticed that I often felt a sense of discomfort when laughing at her mocking herself. I recognized that a major cause of this might be the content of her comedy, which often targets her inability to fit in with others and regularly involved poking fun at her body shape:

“I’ve got a classic hour-glass figure, with about 10 minutes left. But I decided to join a gym to get into some sort of shape. I chose oblong.” - Gadsby (2008).

I questioned why I did not experience the same discomfort when watching other self-deprecating comics such as Joan Rivers and Louis CK, and noted that whilst Hannah considers her humour to be self-deprecating, it might be more reflective of another form of humour, known as self-defeating humour. Self-defeating humour is one of the four humour styles outlined by Martin and colleagues (2003) and it involves the excessive use of disparaging humour about the self and is subsequently associated with maladaptive outcomes. Self-deprecating humour, on the other hand, is considered to be the gently poking fun at oneself. Whilst referred to in popular media, self-deprecating humour had received very limited empirical attention until recently (Rawlings & Findlay, 2013).

McCosker & Moran (2012) argued that self-defeating humour does not accurately encapsulate self-disparaging within the Australian context and as such finding a place for self-deprecating humour in our theoretical models of humour is essential. As such, in collaboration with my Honours supervisors, Dr. Findlay and Dr. Rawlings, we developed and validated a scale to measure self-deprecating humour (Brown, Findlay, Rawling, 2012). This research revealed that self-defeating and self-

deprecating humour were independent humour forms and shared different correlations with personality and wellbeing. Self-deprecating humour was found to be related to healthier constructs, whilst self-defeating has consistently shown to be maladaptive in nature (Martin et al., 2003).

Coincidentally, in the final year of this thesis, Hannah Gadsby released her Netflix special called 'Nanette.' During this special, Hannah revealed that her excessive use of self-disparaging humour was "eroding her sense of self" (Gadsby, 2018) and that she had decided to end her career as a stand-up comic. Whilst I do not know Hannah Gadsby personally or know of her struggles, her comedy had subtly communicated these intentions to me, which might have explained my discomfort when watching her comedy. This highlighted something important – that self-defeating and self-deprecating humour present in a similar manner, (i.e. a joke directed at the target using humour). This revealed a social conundrum - when an audience is presented with self-disparaging humour, how is it perceived?

Martin et al., (2003) noted that self-deprecating and self-defeating humour would be difficult to tease apart by observers and this presented a gap in humour perception research. Not only is the perception of humour styles a growing area (Cann & Matson, 2014; Zeigler-Hill, Besser & Jett, 2013), but the perception of self-deprecating humour is non-existent. Taking this gap in the research into account, my primary aim was to investigate the perception of self-disparaging humour.

Chapter 1: Organisation of the Dissertation

This chapter will provide an overview of the thesis, along with a rationale for each study. Chapter two contains the literature review for this thesis. It begins with a summary of the conceptualisations of humour, humour functions and theories and humour measurement, with a particular focus on Martin et al's (2003) humour styles. Followed by this is a literature review of the *intra*-personal humour research, which examines the relationships between Martin et al's (2003) humour styles, personality, and wellbeing. Self-deprecating humour is then introduced and defined and a comparison between Martin et al's (2003) self-defeating humour and Rawlings and Findlay's (2013) self-deprecating humour is provided. This chapter then provides a literature review of the available, albeit limited, *inter*-personal humour research. A summary of the main aims, methodology and research questions is presented in Chapter Three.

The first study of the thesis, which explored whether observers are able to identify different humour styles, is presented in Chapter Four. The rationale for this exploration was to expand on research examining humour style perception (e.g. Cann & Matson, 2014; Ziegler-Hill & Besser, 2013), to include the perception of self-deprecating humour (Rawlings & Findlay, 2013) using video clips of stand-up comedians. The use of video clips presented confounding variables (e.g., delivery of the joke) and as such we created a pool of written humour stimuli to control for these effects. The results of the study are contained in Chapter Five, and the written humour stimuli were used within the remaining two studies of the thesis.

The second study, which used written vignettes to examine the perception of humour, is contained in Chapter Six. The rationale for using written vignettes was to

control for target variables that might impact on observer perceptions of self-esteem, which was shown to impact the perception of self-disparaging humour in the first study. The targets within each vignette varied in gender, physical attractiveness and confidence. Both the first and second studies revealed that observer mood played a role in humour perception, providing a rationale for the third study.

An individual's mood influences the way they interpret their environment (Forgas, Bower & Krantz, 1984) and is also related to the humour styles they engage in (Frewen, Brinker, Martin & Dozois, 2008). Taking this into account, it was anticipated that observer mood would affect the way in which they perceive humour. The third study experimentally manipulated mood to examine its effect on humour perception using written jokes (sourced from chapter five). This study is contained in Chapter Seven of this thesis.

Finally, Chapter Eight contains a summary of the results from across the three studies and links them to the primary research questions (presented in chapter three). This chapter also draws overall conclusions about the perception of self-disparaging humour, along with a summary of the methodological limitations, future research directions and the theoretical, applied, and clinical implications of the findings contained in the thesis.

Chapter 2: An Intra-and-Interpersonal Overview of Humour

2.0. Overview of Chapter.

Humour is considered a form of social play enabling fun (Dixon, 1980) and also serves a variety of psychological functions including enhancing interpersonal relationships and relieving tension (Martin, 2007). These functions are detailed in this chapter in relation to two main theories of humour, namely psychoanalytic and superiority theory. Following these conceptualisations of humour, this chapter defines Martin et al's (2003) humour styles along with Rawlings and Findlay's (2013) self-deprecating humour and provides a literature review of the relevant intrapersonal and interpersonal humour research.

2.1. Conceptualisations of Humour

Humour has been conceptualised as a healthy defence mechanism (Freud (1960 [1905])), and other personality theorists, including Eysenck (1942), Allport (1961), and Cattell (e.g., Cattell & Luborsky, 1947) have integrated humour in their theoretical models. These theorists have viewed a sense of humour as a habitual behaviour (either laughter or telling jokes), an ability (to produce humour), a temperament trait (related to cheerfulness), an attitude (positive or negative view of humour and humorous individuals), and a world view (nonserious outlook on life). Humour has also been conceptualised as an aesthetic response (enjoyment of humour) whereby humour elicits mirth and joy. Given the shift in psychology research towards that of positive emotions since the 1960s, humour is particularly germane to positive psychology. In fact, positive psychologists view the use of humour as a character strength that is associated with improving the wellbeing of others (Muller & Ruch, 2011), facilitating relationships (Treger, Sprecher & Erber, 2013) and as a buffer of

stress (Lurie & Monahan, 2014). Thus, the examination of humour is essential in advancing our understanding of positive psychology, which has the potential to inform interventions (Wellenzohn, Proyer & Ruch, 2016). For example, the use of humour has shown to be a coping mechanism (Kurie & Monahan, 2014) and to be particularly useful in the context of interpersonal relationships (Martin, 2007).

2.1.1 Humour as a coping mechanism

One conceptualization of humour that seems particularly relevant to positive psychology is the notion of humour as a means to cope with stress (Lefcourt, 2001; Martin, 2007, p. 19). Individuals might do so by making light of or transforming circumstances that threaten their wellbeing into something to be laughed about (Dixon, 1980). Consequently, the use of humour reduces feelings of depression and anxiety (Kurie & Monahan, 2014) and the reduction of these negative emotions is said to improve the engagement in creative problem solving (Fredrickson, 2004). Therefore, humour is considered to improve positive mood and operates as an adaptive means to solve problems.

From a theoretical standpoint, Freud (1928; 1960 [1905]) viewed humour as a means to cope with stress, where the response to humour (i.e. laughter) releases excess energy and repressed tension during distressing times. Freud's theory was aptly called 'relief theory' (1928; 1960 [1905]), and he proposed three different categories that best reflect the occurrence of laughter. The first category involves wit or jokes, the second involves humour while the third involves the comic (i.e. the person using humour), category involved a different mechanism by which psychic energy is saved and consequently dispelled in the form of laughter. The second category of humour, centers on humour as a coping mechanism. According to Freud (1928; 1960 [1905]) humour is the appraisal of comical features of an aversive

situation allowing for an altered perspective and enabling the avoidance of negative emotions. Thus, the pleasure of humour (as a coping strategy) arises from the release of energy (known as displacement) that would have caused a painful emotion but has now become superfluous. This process can be observed in individuals who are able to see the funny side of a negative experience (e.g., failing a test) and reflects an ability to laugh at one's own faults and social slip-ups. Thus, the term humour within this context refers specifically to the tension-release function of mirth and laughter, and its use in coping with stress.

Freud believed that it was essential to nurture a sense of humour as it aids in lifting repressions (Swaminath, 2006) and as such Freud (1928; 1960 [1905]) classed humour as a mature defense mechanism enabling the release of energy. The notion of humour as a defense mechanism remains credible today, as humour is listed as a mature defense mechanism (Vaillant, 2000) within the Diagnostic and Statistical Manual of Mental Disorders- Fifth Edition (American Psychological Association, 2013). Mature defenses are apparent amongst mentally healthy adults (Vaillant G, Bond, & Vaillant C, 1986) and improve pleasure, feelings of control and assists in integrating opposing emotions and thoughts. (Vaillant et al., 1986).

Thus, Freud saw jokes as serving a primarily intrapsychic function enabling the individual to express and enjoy drives that are normally repressed by one's conscience. Martin (2007, p. 42) noted that a limitation of Freud's theory was that it does not consider the social functions of humour, focusing instead on individuals' internal dynamics. Researchers have recently begun to focus more on the social aspects of humour, noting that jokes and other types of humour are essentially a form of communication between people (Lynch, 2002).

2.1.2. Humour as an Interpersonal Phenomenon

The use of humour is said to elicit the positive emotion of mirth, and together humour and mirth enable individuals to accomplish a variety of interpersonal tasks (e.g., identifying relationship partners; Martin, 2007). Thus, humour is often touted as a vessel for individuals to achieve prosocial goals (e.g. reducing conflict; Martin, 2007). On the flip side, humour can also be used to communicate aggressive intent (e.g., using ridicule to exclude individuals from a group). One theory that might offer an explanation for the use of aggressive humour is that of Superiority theory (Hobbes 1588-1679).

Superiority theory is the oldest theoretical approach to humour, dating back to classical philosophers Plato (428 – 348 B.C) and Aristotle (438-322 B.C) and centers on the notion that aggression and feelings of superiority are essential features of all forms of humour (Martin, 2007). Plato (as cited in Morreal, 1987) posited that individuals laugh at what is ridiculous in others, feeling enjoyment instead of discomfort when we see those in misfortune. In a similar vein, Thomas Hobbes (1588-1679) described humour as the “sudden glory” (as cited in Morreal, 1987, p.20) which occurs when another is mocked, which further reinforces the notion of humour as a means to attain superiority. Whilst superiority theory views humour negatively and as a means to show aggression, researchers have suggested that this aggression is shown in a playful, non-violent and socially acceptable way (Feinberg, 1978; Gruner, 1978). Of particular relevance to this thesis, according to Gruner (1967) this playful aggression can be directed towards the self when individuals laugh at themselves. By laughing at their past blunders, they are laughing at their former selves, and that being able to see where they went wrong makes them feel superior (Gruner, 1967).

In summary, humour elicits positive emotions and serves both intrapersonal (e.g., stress reduction) and interpersonal functions. These functions along with the theoretical groundwork for humour use have informed researchers on how to go about measuring humour (Martin et al. 2003).

2.2. Measuring Humour

The different features of a sense of humour can be measured using various approaches. These approaches might take the form of performance tests (e.g., humour as a cognitive ability), 'funniness' ratings, ratings by observers (e.g., Q-sort techniques for assessing humorous behaviour), as well as self-report scales. Humour researchers currently make use of self-report measures which assess aspects of humour such as; the response to humour using the Situational Humour Response Questionnaire (SHRQ; Martin & Lefcourt, 1984), coping aspects of humour using the Coping Humour Scale (CHS; Martin & Lefcourt, 1983) and the Sense of Humour - Metamessage Sensitivity scale (SHQ-MS) and the Sense of Humour Questionnaire Liking of Humour scale (SHQ-LH) measures other aspects of humour such as perceiving humorous aspects of the environment (SHQ-MS) and individual's attitudes towards humour (SHQ-LH; Svebak, 1974).

The aforementioned scales were developed based on the assumption that a sense of humour is inherently beneficial to mental health and well-being (Martin, 2007) Kuiper and Martin (1998) conducted five studies to confirm whether four self-report humour scales: SHRQ, CHS, SHQ-MS and SHQ-LH positively correlated with measures of aspects of mental health (e.g., psychological well-being, self-esteem, mood). The results revealed that these humour measures are only weakly positively related to mental health constructs such as optimism, self-esteem, depression and anxiety. Kuiper and Martin (1998) also concluded that these measures do not

distinguish dysfunctional forms of humour from those that are beneficial.

Considering this, Martin, Puhlik-Doris, Larsen, Grey and Weir (2003) developed a scale to comprehensively measure humour production, taking into account the adaptive and maladaptive forms of humour.

2.2.1 Humour Styles and their relationships with Personality and Wellbeing

Whilst humour can serve adaptive functions such as stress relief and fostering relationships, humour can be maladaptive in nature (Martin et al., 2003). Ruch (1996) noted that the existing measures of humour only assessed adaptive aspects of humour and thus do not address the specific ways in which individuals use or express humour, which Martin et al. (2003) referred to as *humour styles*. Subsequently, Martin and his colleagues (2003) developed the Humour Styles Questionnaire (HSQ) which takes into account both the purpose of humour (enhance self or enhance relationships with others) and whether it is adaptive or maladaptive in nature. Four humour styles emerged which are displayed in Figure 1 below.

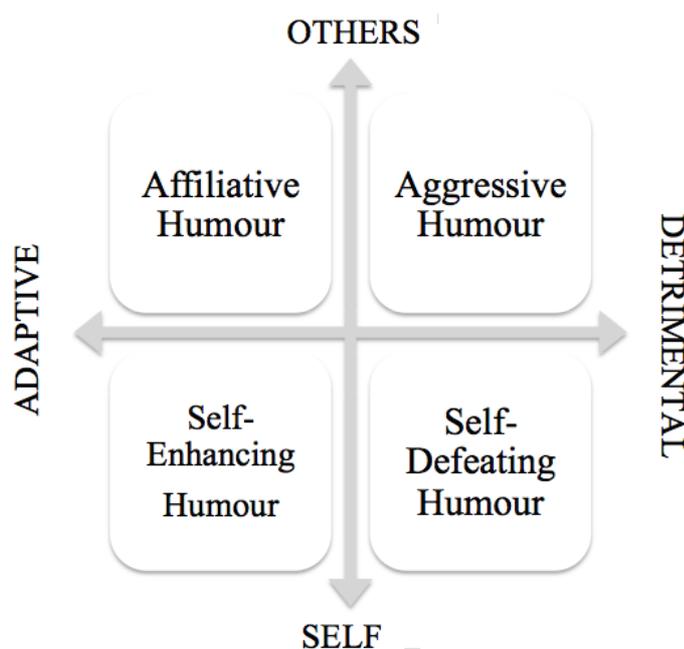


Figure 1. The four styles of the HSQ (Martin et al. 2003)

As can be seen in Figure 1 above, Martin et al's (2003) approach to humour neatly encapsulates the use of humour along two dimensions – (1) who the humour is directed at (i.e. the target) and (2) the nature of this humour (i.e. adaptive or detrimental). The HSQ (Martin et al., 2003) was developed to investigate humour in the context of mental health and personality and as such it has informed much of the humour research since its conception (Frewen, Brinker, Martin & Dozois, 2008; Saroglou, Lacour, & Demeure, 2010; Vernon, Martin, Schermer & Mackie, 2008). The literature along with the definitions of each humour style is summarised below.

2.2.1.1. The Adaptive Humour Styles

Affiliative humour, one of the “other” directed humour styles, is used to develop and enhance interpersonal relationships and hence is affiliative in nature (Martin et al. 2003). Individuals who employ this humour style are likely to tell benign jokes (i.e. jokes with no target) and to engage in witty banter to amuse others with the goal of fostering relationships, or reducing interpersonal tensions (Martin et al., 2003; Lefcourt, 2001). For this reason, affiliative humour is positively correlated with both extraversion (Vernon, Martin, Schermer & Mackie, 2008), where the use of affiliative humour might be a vessel to achieve the pro-social goals of those higher on extraversion (Costa & McCrae, 1992). In addition, affiliative humour is positively correlated with factors such as intimacy (Martin et al., 2003), relationship satisfaction and relationship persistence (Saroglou, Lacour, & Demeure, 2010), further reinforcing it as an adaptive strategy to enhance relationships.

Self-enhancing humour, an adaptive “self” directed humour style, emerged from Hobbes' description of laughter as “the sudden glory arising from some sudden conception of some eminence in ourselves...” (Ziv, 1984, p. 8). Self-enhancing

humour has also been described as a humourous outlook on life, and a tendency to be frequently amused by the incongruities of life (Martin et al., 2003). By being able to maintain a humourous perspective, this form of humour is used to cope with stress (Dixon, 1980; Lefcourt & Martin, 1986), as a defense mechanism (Freud, 1928), and as a form of tension relief (Obrdlik, 1942; Ziv, 1984). As such, it is unsurprising that self-enhancing humour is positively correlated with openness to experience (Vernon et al. 2008). Individuals who are high on openness to experience tend to be imaginative, creative and attentive to their inner feelings (Costa & McCrae, 1992). As such, these individuals are likely to engage in creative ways (e.g., humour) to cope with stress. The use of self-enhancing humour to cope with adversity also explains why this humour style is negatively correlated with neuroticism (Vernon, Martin, Schermer & Mackie, 2008).

Taking these relationships into account, it is unsurprising that the adaptive humour styles have consistently shown to be positively related to indicators of psychological health, well-being, subjective happiness (e.g. Frewen, Brinker, Martin & Dozois, 2008; Kazarian and Martin, 2006; Martin et al., 2003), optimism (Yue, Hao and Goldman, 2008), and have also shown to be a positive feature of interpersonal relationships. For example, within romantic relationships, Caird and Martin (2014) revealed that the daily use of affiliative and self-defeating humour increases individuals' perception of their relationship satisfaction. Within non-romantic interpersonal relationships, Kuiper, Grimshaw, Leite, & Kirsh, (2004) revealed that the use of adaptive humour is positively associated with successful initiation of social interactions which might manifest in starting conversations with strangers and initiating friendships. They also revealed, in accordance with Yip and Martin (2006), that adaptive humour is positively correlated with improved personal

disclosures, proposing that humour may be a useful strategy to reveal personal information about oneself to others. Taken together, the research summarised confirms that the affiliative and self-enhancing humour are beneficial to both the individual and their social relationships, which contrasts the literature on the maladaptive humour styles.

2.2.1.2. The Maladaptive Humour Styles

The second “other” directed humour styles is that aggressive humour, which, as the label suggests, relates to the tendency to express humour with little concern for its potential negative impact on others (e.g., racist humour). Aggressive humour often involves “sarcasm, teasing, ridicule, derision, ‘put-down,’ or disparagement humour[sic]” (Martin et al., 2003, p. 54) and subsequently leads to poorer relationships which might lead to the user feeling alienated (Martin et al., 2003). Galloway (2010) revealed that aggressive humour was positively correlated with both extraversion and neuroticism and negatively correlated with agreeableness and conscientiousness (Galloway, 2010). This pattern could be expected as individuals lower on agreeableness, with little concern for others, and those individuals lower on conscientiousness, who lack forethought, may be less likely to consider the effect of their disparaging humour on others’ feelings (Martin et al, 2003). Given that aggressive humour exists within a social space (i.e. teasing or ridiculing others), it makes sense that these individuals tend to be extraverted (Martin et al. 2003), and are less able to emotionally support to others and to manage conflict (Kuiper, Grimshaw, Leite, & Kirsh, 2004). This research emphasizes the detrimental role of aggressive humour use on interpersonal relationships.

The second self-directed humour style is that of self-defeating humour. Martin et al. (2003) defined this form of humour as the use of self-disparaging humour and

involves attempts to amuse others by doing or saying amusing things at one's own expense. The purpose is to ingratiate oneself or gain approval and might include allowing oneself to be the butt of another's joke and laughing along when being mocked or disparaged. Although individuals who use this form of humour may be seen as amusing (e.g., class clowns), there is an element of emotional neediness, avoidance and low self-esteem underlying their use of this humour style (Fabrizi & Pollio, 1987). Unsurprisingly, self-defeating humour has been shown to positively correlate with neuroticism (Martin et al., 2003) suggesting that those who are less emotionally stable, anxious and avoidant are likely to belittle themselves as a means to avoid confronting problems and dealing with their negative feelings (Ford, McCreight & Richardson, 2014). Self-defeating humour has also been found to be negatively correlated with conscientiousness, which suggests that those who are impulsive and lack forethought are unlikely to consider the effect of their self-denigration on their wellbeing (Galloway, 2010; Martin et al., 2003; Saroglou & Scariot, 2002; Vernon, Martin, Schermer, & Mackie, 2008; Veselka et al., 2010). The correlations between self-defeating humour and personality paint a clear picture of the effect the use of this humour style might have wellbeing variables.

For example, self-defeating humour is positively related to neuroticism, and therefore it is unsurprising that this form of humour also positively correlates with psychological distress and dysfunction, including depression and anxiety (Frewen, Brinker, Martin, & Dozois, 2008), and negatively correlates with self-esteem (McCosker & Moran, 2012). Research by Tucker et al. (2013) has also revealed that self-defeating humour moderates the relationship between interpersonal predictors of suicide and suicidal thinking and is positively correlated with shyness, loneliness, decreased self-esteem, and social intimacy (Fitts et al., 2009; Martin, 2007).

As such, Dozois et al., (2009) argued that whilst self-defeating humour may be motivated by a desire to assist in establishing social bonds, self-defeating humour may estrange oneself from others, resulting in feelings of loneliness and depression (Tucker et al., 2013). Therefore, its intended purpose (e.g., to ingratiate oneself) might not be effective. However, there is evidence that the skillful use of self-disparaging humour (e.g., stand-up comedians) are able to use self-disparaging humours to their advantage (e.g., being perceived as modest and charismatic) and this might be considered another humour style all together, called self-deprecating humour (Zeigler-Hill, Besser & Jett, 2013).

2.3. Are self-deprecating humour and self-defeating the same?

“The neurotic who learns to laugh at himself may be on the way to self-management, perhaps to cure” – Gordon Allport (1968).

Martin et al. (2003) recognized that individuals who engage in affiliative humour are likely to use self-deprecating humour to put others at ease. Figure 2 below provides an illustration of self-deprecating humour and the HSQ (Martin et al. 2003).

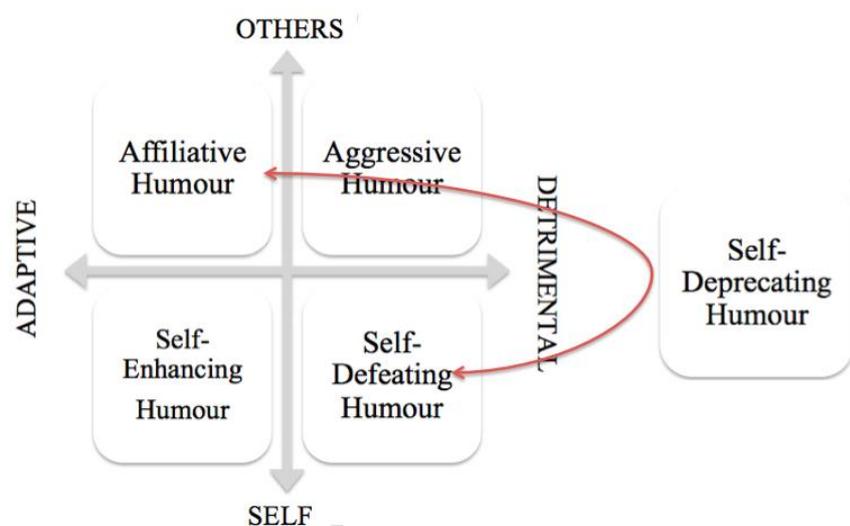


Figure 2. Self-deprecating humour as a humour style

As can be seen in Figure 2, individuals who engage in self-deprecating humour might have affiliative intentions, although its manifestation is similar to that of self-defeating humour in that it uses oneself as the target of the humour. One way in which self-defeating and self-deprecating humour might differ though is that whilst individuals tell jokes about themselves, those that use self-deprecating are able to do this in a lighthearted manner (Dozois, Martin & Bieling, 2009) whilst upholding a sense of self-acceptance (Vaillant, 1977). These definitions highlight a style of humour that differs to that self-defeating humour, however up until recently, there was limited means to measure this construct.

Martin et al. (2003) asserted that those who engage in affiliative humour are likely to engage in self-deprecating humour, although only one (reverse scored) item reflects self-deprecating tendencies (“I rarely make other people laugh by telling funny stories about myself”). Additionally, individuals who engage in self-defeating humour engage in excessively disparaging humour (e.g., “I will often get carried away in putting myself down if it makes my family or friends laugh”) and therefore the self-defeating sub-scale of the HSQ (Martin et al. 2003) does not accurately measure self-deprecating humour, which is considered light-hearted poking fun (Dozois et al. 2009). Australian researchers, McCosker and Moran (2012), also purported that Martin et al.’s (2003) self-defeating humour did not reflect the self-disparaging humour that Australians engage in that is primarily ironic in nature. Other Australian researchers, Rawlings and Findlay (2013) recognized the importance of examining self-deprecating humour within the Australian context, as a means to show modesty, and as such developed a questionnaire to measure this humour style.

Rawlings and Findlay (2014) used Exploratory and Confirmatory Factor Analyses to develop a scale for self-deprecating humour. They revealed that the items pertaining to self-deprecating humour form a separate scale to both the affiliative and self-defeating humour styles of the HSQ (Martin et al., 2003). Further to this, Rawlings and Findlay (2013) revealed that self-deprecating and self-defeating humour differed in their relationships with personality and wellbeing.

For example, self-deprecating humour positively correlated with extraversion and openness to experience and negatively correlated with neuroticism. The results indicated that this humour style operates similarly to affiliative humour, with those who are gregarious likely to use humour as a means to form and maintain social relationships (Martin et al. 2003). The content of self-deprecating jokes differ to that of affiliative jokes in that the self-deprecating targets use their own flaws as the ‘butt of the joke.’ This difference in content might explain the relationship between self-deprecating humour and openness to experience, with creative individuals engaging in self-disparaging humour to show others that they do not take themselves too seriously. Rawlings and Findlay (2013) also revealed that self-deprecating humour positively correlated with self-esteem and wellbeing, indicating that individuals who use this form of self-denigration are comfortable with their flaws and do not take their self-disparaging humour to heart. Taken together, these results confirmed that self-deprecating humour is an adaptive humour style that differs from self-defeating humour, which is positively correlated with neuroticism and negatively correlated with self-esteem (McCosker & Moran, 2012).

Taken together, the results summarised pertaining to the HSQ (Martin et al., 2003) provide a convincing argument that four humour styles exist with varying relationships with personality and wellbeing. The adaptive humour styles are

associated with positive outcomes such as high self-esteem whilst the maladaptive humour styles are associated with negative outcomes such as depression and low self-esteem. Whilst the HSQ offers a comprehensive overview of humour use, another humour style called self-deprecating humour, was introduced within this chapter and comparison drawn with self-defeating humour. Finally, this chapter summarised the abundance of research examining the intrapersonal associations between the HSQ and the personality and wellbeing; however, examining humour styles from an interpersonal perspective is a relatively limited area of research.

2.4. Moving Towards an Interpersonal Perspective

As previously noted, humour serves an important purpose within interpersonal relationships (Martin, 2007), however, the research examining how humour is perceived is scanty. Humour perception has been conceptualised as representing both humour comprehension and humour appreciation (Martin, 2007). Humour comprehension has been defined as the ability to perceive associations or ideas in incongruous ways, while humour appreciation is the ability to understand and get pleasure from humorous messages (Ziv, 1984). Therefore, humour perception involves a number of elements that are cognitive (i.e. getting the joke), emotional (i.e. improving mood) and social (i.e. laughter and improved connections; Ruch, 2001). Considering these elements, two theories to explain humour perception are summarised. The first, involve a group of theories called incongruity theories (e.g., Kant, 1724 – 1804) is purely focused on the cognitive aspects of humour, whilst the second theory, social transformation theory (Dunning & Hayes, 1996) takes into account the social and affective aspects of humour perception, particularly in relation to the observer's internal characteristics.

2.4.1. Incongruity Theories

Incongruity theories primarily focus on the cognitive aspects of humour (e.g., humour comprehension) with little attention given to the social and emotional components of humour (i.e., the appreciation of humour). Kant (1724 – 1804) postulated that humour ostensibly makes use of incongruity, which often results in a surprise punchline. For example - Two fish are in a tank when one turns to the other, and says, “do you know how to drive this thing?” The incongruity lies in the term ‘tank’, which readers might initially have thought was referring to a fish tank. Other researchers such as Eysenck (1942) have described laughter as resulting from “the sudden, insightful integration of contradictory or incongruous ideas, attitudes, or sentiments which are experienced objectively” (p.307), therefore confirming the notion that in order for something to be humorous, it needs to be incongruous in nature. Expanding on this, Koestler (1964) coined the term ‘bisociation’ to explain the cognitive processes involved in the comprehension of humour. Bisociation occurs when an idea or object is simultaneously associated with two fields that are usually unrelated (Martin, 2007). A play on words, such as a pun, is an example of bisociation (e.g., Two peanuts walk into a bar, and one was a-salted). Whilst incongruity theory is often used to explain the comprehension of jokes, Cundall (2007) posited that humour perception is more than a cognitive act recognising an incongruity.

The perception of humour entails complex mental acts that tap into cognitive resources, however, it extends beyond “getting the joke.” Humour perception also includes an affective response to the joke (i.e. how funny the audience found it; discussed in more detail in chapter 5) as well as the characteristics of the individual telling the joke. Since individuals who participate in the research contained within

dissertation will be asked rate the humour of unknown targets, a broader theory (e.g. Social Projection Theory, Dunning & Hayes, 1996) is considered.

2.4.1. Social Projection Theory: Predictors of Humour Perception

Humour appreciation is subjective and ostensibly in the eye of the beholder (Ruch, 2001) and as such it is likely that observer intrapersonal variables are likely to affect the perception of humour. Cronbach (1955) noted that intrapersonal characteristics generate significant self–other agreement in the absence of any true understanding of the target. He coined the term *assumed similarity* to describe how individuals see others and how they perceive themselves. Assumed similarity is the process by which observers use social projection (Bazinger & Kuhberger, 2012) and explains the automatic process involved in perceiving others, which is considered to occur mainly outside of conscious awareness with little control.

Social projection theory (Dunning & Hayes, 1996) asserts that individuals cannot help but project themselves onto others during perception, assuming that others are similar to themselves. For example, an individual who is higher on extraversion might perceive that others are also extraverted. This theory complements egocentric models of the Theory of Mind (Birch & Bloom, 2007; Gordon, 1986), which asserts that judgments of other minds are instinctively anchored on the self (Epley, Keysar, Van Boven, & Gilovich, 2004). Findings contained in Ready, Clark, Watson, and Westerhouse (2000) revealed that individuals rely on features of their own personality to rate others' social behaviours confirming the use of social projection (Winship & Stocks, 2016).

Given that humour is an extension of one's personality (Martin et al. 2003), it is plausible that participants might project their own personality traits during the perception of another individual's humour. For example, individuals high on

neuroticism might project this onto a target telling a joke, by perceiving their self-disparaging jokes as maladaptive (e.g., self-defeating humour) as they are likely to engage in this humour style (Martin et al. 2003). Social projection theory offers information about potential predictors of humour perception including personality and wellbeing variables. Mood is another intrapersonal variable that might play a role in humour perception (Forgas, Bower & Krantz, 1983).

2.5. The Effects of Mood on Humour Perception

Mood has been shown to affect how observers perceive their environment and others social behaviours (Forgas et al., 1983). Forgas et al. (1983) found that those in a negative mood were likely to interpret others' behaviours as negative in comparison to those in a positive mood state who interpreted the same behaviours as positive. This provides convincing evidence that observers might project their mood state onto the perception of others (Winship & Stocks, 2016), in line with social projection theory (Dunning & Hayes, 1996). Other research examining the effect of mood on humour evaluations (Deckers, 1998; Ruch & Kohler, 1998; Wycoff & Deckers, 1991) and has revealed that mood plays a role in the perception of humour. For example, Wycoff and Deckers (1991) induced participants into either a neutral, negative or positive mood and asked participants to rate the 'funniness' of cartoons. Female participants in a negative mood rated cartoons less funny compared to those females induced in a positive mood. This was consistent with Prerost (1983) who found that induced aggressive states predicted higher ratings of humour appreciation for aggressive humour, providing evidence for mood effects on humour.

Deckers (2010) argued for more research to examine the effects of mood on humour perception, and this will be addressed in the third study of the current

dissertation. In particular, the third study will investigate whether mood played a role in the perception of self-denigrating humour. For example, it was hypothesised that those in a positive mood would be likely to project their cheerful mood state onto humour targets therefore categorising their humour as self-deprecating humour (an adaptive humour style). Examining the way in which mood affects humour perception will add to the body of research examining the way in which mood affects the perception of social behaviours (Forgas et al., 1983).

2.6. Perception of Humour Styles: A Literature Review

The aim of the current dissertation is to explore the way in which two self-disparaging humour styles are perceived. Therefore, this section is dedicated to summarising the available, albeit limited, research within the realm of humour perception. Much of the research available on the perception of humour has examined the role of humour styles within romantic relationships (Cann, Zapata & Davis, 2011) or as a socially desirable signal (Cann & Matson, 2014; Zeigler-Hill et al., 2013) and this research is explored below.

2.6.1. Humour Style Perception in Mate Selection

Cann, Zapata and Davis (2011) revealed that an individual's perception of the way their partner uses humour is positively related to variables such as relationship satisfaction. In their study, they recruited a sample of university students in committed romantic relationships (of at least two months in duration). Both partners in the relationship were asked to complete questionnaires about their humour styles, their partner's perceived humour styles and their relationship satisfaction. The results revealed that only the other-directed humour styles were significantly associated with relationship satisfaction, with affiliative humour positively correlating and aggressive humour negatively correlated with relationship satisfaction (Cann et al., 2011). This

indicates that the two other-directed humour styles play a role in the expected way the individual perceives their humour use and this positively related to relationship satisfaction.

Confirming these results, Didonto, Bedminster, and Machel (2013) investigated the role of humour in romantic relationship initiation. Their results revealed that humour styles were considered important in evaluating partners for long-term suitability but not for casual encounters. In other words, individuals considered sense of humour to be of importance when seeking a committed relationship, highlighting the desirability of humour (Martin, 2007). Didanto et al.'s (2013) results revealed that affiliative humour sparked more romantic interest than aggressive humour across both genders, with potential partners engaging in affiliative humour perceived as being competent and warm. This illustrates that individuals are able to make assumptions (e.g., warmth) about a potential mate based on the type of humour they engage in, indicating that the use of positive humour could be a useful strategy in signalling characteristics about oneself to potential mates.

In a similar vein, Zeigler-Hill, Besser and Jett (2013) examined humour styles as an interpersonal signal. Participants (i.e., the perceivers) were asked to read personality descriptions that were written about targets of the opposite sex and were asked to complete evaluations of the targets' romantic desirability and overall mate value based solely on this restricted information. Consistent with predictions, targets utilising adaptive humour styles were perceived positively, as these targets were high on warmth-trustworthiness and attractiveness-vitality. These targets were also considered to be of higher mate value than the targets using maladaptive humour styles. These results are consistent with arguments surrounding the signaling property

of humour (Miller, 2000), which posit that humour serve as a means for targets to relay information about themselves.

2.6.2. Humour Style Perception in General

Prior to the development of the HSQ (Martin, et al., 2003), Cann and Calhoun (2001) conducted two studies to assess the specific characteristics associated with a sense of humour. In the first study, participants were asked to rate individuals described as varying in their sense of humour (e.g., well above average sense of humour, below average sense of humour or typical college student) based on 36 qualities (e.g., pleasant) selected from Alicke (1985). The results revealed that individuals considered as having a 'well above average' sense of humour, were rated as being more socially desirable and were also perceived as being lower on neuroticism and higher on agreeableness when compared to the others (those with typical or below average sense of humour). Cann and Calhoun's (2001) study confirmed that having a sense of humour is a useful social asset, as those with a well above average sense of humour are rated as more sociable (e.g., extraversion), more psychologically healthy (e.g., low neuroticism), and as more socially desirable (e.g., friendly) when compared to those with below average sense of humour.

The introduction of Martin et al's (2003) multidimensional model of humour provided opportunities to study the perception of specific styles of humour (rather than above or below average sense of humour, Cann & Calhoun, 2001). For example, Kuiper and Leite (2010) examined the personality impressions associated with Martin et al's (2003) humour styles. In their study, Kuiper and Leite presented vignettes that required the participant to imagine a person utilising higher or lower levels of a specific humour style, while providing a description of that humour style. Along with this, a set of personality socially desirable (e.g., considerate) and socially undesirable

(e.g., spiteful) attributes were listed, and participants were asked to rate the extent to which each attribute was believed to be characteristic of the person portrayed in that particular vignette. These ratings were compared to the neuroticism and extraversion ratings of a 'typical university student' to assess whether the presences of humour had an impact on these impressions. They found that the use of adaptive humour were positively associated with socially desirable attributes in contrast to the high levels of socially undesirable attributes associated with maladaptive humour. More specifically, aggressive humour, which entails negative humour directed towards others, was considered to be the most socially undesirable humour style. These findings suggest that people are able to distinguish between the various humour styles when forming impressions about others.

Ibarra-Rovillard and Kuiper (2011) examined the effects of humour styles on reactions to social comments. The Reactions to Social Comments Inventory (RSCI) was developed specially for this study to assess individuals' reactions to humorous and non-humorous social comments. The RSCI contains a brief scenario describing a conversation between school acquaintances on the first day, where one of the acquaintances makes a comment that reflects either affiliative, self-enhancing, aggressive or self-defeating intentions. There were four different versions of the scenario including; (1) Described the four comments without mentioning they were humorous; (2) Described the four comments as being humorous, (3) Described the four comments without mentioning they were humorous *and* identified the acquaintance as feeling depressed, (4) Described the four comments as humorous *and* identified the acquaintance as feeling depressed. Participants were asked to rate how the comment made them feel about themselves, the acquaintance and their interest in continuing the relationship with the acquaintance in the future.

The results pertaining to the depressed acquaintance revealed that participants reported more negative feelings about the self and towards the depressed acquaintance, and lower interest in continuing the relationship in the future. Despite the depressed target using humour, observers were still left feeling negative. This indicates that information about the target unsurprisingly impacts on how their humour is perceived. The results pertaining to the non-depressed acquaintance revealed that the social comments made in a humorous fashion led to more positive responses from the recipients of these comments, including positive feelings about the self and towards the acquaintance along with an increased interest in continuing the relationship in the future. Specifically, participants responded most positively to affiliative comments, most negatively to aggressive comments, and more positively to self-enhancing than self-defeating comments. Ibarra-Rovillard and Kuiper's (2011) results confirmed that humour functions as a useful social interaction tool (Martin, 2007).

In a similar vein, Zeigler-Hill, Besser and Jett (2013) examined whether targets' humour styles signalled information about their self-esteem, narcissism, personality traits, and aggression. Zeigler-Hill et al. (2013) asked participants to complete the HSQ (Martin et al. 2003) before they recruited their friends and family members who were asked to evaluate the target's humour styles, self-esteem, narcissism, personality traits, and aggression. The results revealed that targets perceived as using the adaptive humour styles were generally associated with positive perceptions (e.g., extraversion, openness and perceived self-esteem). These results support the notion that humour serves as a signal in that the targets' humour styles were associated with the way in which they were viewed by their friends and family members.

Similarly, Cann and Matson (2014) also found in two separate studies that participants were able to perceive a difference between adaptive and maladaptive humour styles. In addition, Cann and Matson (2014) found that humour styles aid in making social evaluations where perceived humour (i.e. those who demonstrate a certain humour style – Affiliative Humour) may be expected to have other characteristics commonly associated with that specific humour (e.g., perceived to be more sociable). This confirms findings contained in Zeigler-Hill et al. (2013) that humour signals information about the target to their social environment. They also found that individuals who utilised adaptive humour styles were perceived to possess a good sense of humour and were subsequently judged as more socially desirable in contrast to people who use the maladaptive humour styles. These findings are consistent with Cann, Zapata and Davis (2009) who noted that when judging others' uses of humour; perceivers noticeably differentiate between the negative and positive uses of humour.

Moreover, Cann and Matson (2014) found the prominent use of maladaptive humour styles within everyday social settings perplexing and presumed that they must have deliberate value in certain instances. Further, conceptual differences between self-deprecating and self-defeating humour have been illuminated (Rawlings & Findlay, 2013), however, there are no studies examining whether these differences are perceived. If humour is primarily used to enhance communication, understanding whether humour styles accurately communicate intentions is essential. Given that humour has shown to operate as an interpersonal signal, examining whether these two self-disparaging humour styles (i.e. self-defeating and self-deprecating humour) can be disentangled is an interesting avenue for research.

2.6.3. Self-Deprecating Humour Perception

The aim of the current thesis was to examine whether self-defeating and self-deprecating humour are perceived as individual humour style, as these two self-disparaging humour styles are likely to manifest in a similar manner (i.e. the target telling a joke about themselves). The perception of self-defeating humour has been somewhat explored in past research (e.g., Zeigler-Hill et al. 2013), however, there is limited research available that has examined the perception of self-deprecating humour.

Lundy et al (1998) examined the effect of self-deprecating humour use on target attractiveness ratings using the social transformation model of humour (Heider, 1958). The social transformation model (Heider, 1958) is used to explain the interaction between specific features of the target, (e.g., physical attractiveness), the audience, and the humour (e.g., joke), which might be essential in humour perception. As previously noted, humour perception involves cognitive and social transformations, and the social transformation model focuses on the latter. This social transformation involves a change in the audience's perception of the humourist, and thereby the relationship of the humorous speaker with the audience. According to this model, telling a joke may transform the listener's perception of the speaker (e.g., find them more attractive). The results contained in Lundy et al. (1998) revealed, in accordance with the Social Transformation Model (Heider, 1958), that the use of self-deprecating humour exacerbated the desirability of physically attractive targets. This result confirmed that self-deprecating humour conveys positive intentions (Lundy et al. 1998).

Studies outside of psychology that have examined the perception of self-deprecating leaders and have shown leaders ability to identify and laugh at their

weaknesses had an equaling effect on leader-follower relationships (Hopton, Barling & Turner, 2013) and was also associated with increased trust in the leader resulting in higher effectiveness ratings (Gkorezis & Bellou, 2016). The social transformation model (Heider, 1958) might explain these results. According to this model, highly desirable individuals (e.g., leaders) might be considered aloof, but their ability to poke fun at their flaws using self-deprecating humour, might reduce their preconceived aloofness making them more approachable.

The idea that self-disparaging humour may signal positive characteristics about high status individuals was confirmed (Greengross & Miller, 2008). These authors aimed to clarify the roles of self-deprecating and other-deprecating humour in sexual selection. They asked participants to listen to two audio performances. Prior to listening to the first performance, participants read a brief description of the presenter as an opposite sex college student of either high (e.g., owned a car) or low (e.g., owned a bicycle) status. Each performance was an anecdote told by the presenter as if it had happened to them and included four humour types for each description – a self-deprecating joke, other-deprecating joke, a non-deprecating joke, or a non-humorous story. After listening to the first performance, the participants completed a questionnaire assessing the presenter's funniness, status, apparent mate value, and attractiveness as a potential short-term or long-term sexual partner. The researchers found no main effects or interactions for short-term sexual attractiveness, but did unveil strong main effects and interactions in predicting long-term sexual attractiveness. More specifically, self-deprecating humour was considered much more attractive than other-deprecating humour when used by high-status potential mates, for both male and female raters.

Interestingly, when low-status potential mates used self-deprecating humour, there was little difference in long-term attractiveness between self- and other-deprecating humour. Greengross and Miller (2008) theorised that those of a higher-status could afford to make fun of themselves, and it might also have been a means to show modesty. Greengross and Miller (2008) used the term ‘self-deprecating humour’ in referring to Martin et al’s (2003) self-defeating humour. Rawlings and Findlay (2013) revealed that whilst self-deprecating and self-defeating humour are both self-disparaging in nature, they are individual humour styles with self-defeating humour sharing a negative association with self-esteem whilst self-deprecating humour is positively correlated with self-esteem. As such, another potential reason for low-status individuals being considered less romantically desirable long-term partners, might be that their status signalled low self-esteem (Zeigler-Hill, Besser, Myer et al. 2013). This low self-esteem might have led to the perception of the target using self-defeating humour rather than self-deprecating humour. This might explain why these targets were perceived as less desirable, although research is required to ascertain whether self-esteem ratings of targets using self-defeating humour differ from those of targets using self-deprecating humour.

2.6.3.1 The Role of Self-Esteem in Self-Disparaging Humour Perception

Self-esteem is an evaluative judgement, and as such is likely to be relevant to targets who engage in self-disparaging humour. The status-tracking model of self-esteem offers insight into how self-esteem is developed (Leary et al., 1995). According to this model, an individual’s level of self-esteem is reliant on their apparent relational value. In other words, self-esteem is considered to be a gauge of how much the individual believes that others recognize them. Zeigler-Hill, Besser, Myers et al. (2013) argued that this status-tracking model of self-esteem has focused on the

influence that one's perceived status may have on self-esteem, without addressing the possibility of the reverse. In other words, how one's self-esteem may also influence of how others perceive the individual. As such, they proposed a *status-signaling* model of self-esteem.

To test this model, Zeigler-Hill, Besser, Myers et al. (2013) conducted two studies. In the first study, participants rated the self-esteem of unknown targets based on a three-minute video, and in the second study observers rated the self-esteem of targets they knew well (i.e., friends and family members who also rated their own self-esteem). The results of the first study revealed that observers are able to discern self-esteem levels of targets even with limited amount of information about the targets. The second study's results showed that observers' ratings of target self-esteem were positively correlated with targets' self-reported self-esteem, indicating that observers are able to make relatively good accurate judgments of others' self-worth. These results provided evidence that observers can perceive self-esteem.

In another study examining humour as an interpersonal signal, Zeigler-Hill, Besser and Jett (2013) revealed that the target using self-defeating humour was perceived as having a low self-esteem. This provided evidence that self-esteem can be perceived by others based on the type of humour an individual engages in. Therefore, within the current thesis, participants were asked to rate the self-esteem of humorous targets to ascertain whether these targets differed in the perception of their self-esteem.

Chapter 3: The Current Thesis

Whilst the use of Martin et al's. (2003) humour styles have a specific purpose (e.g, decreasing intimidation; Greengross & Miller, 2008), whether this is achieved is largely unknown. Hence, adopting a nuanced and interpersonal view of humour is required to better understand the strategic use of humour and its numerous roles within social interactions (Cann & Matson, 2014). More specifically, the aim of the current program of research is to examine whether self-defeating and self-deprecating humour are perceived as individual humour styles. There are three primary research questions:

1. Are observers able to differentiate between self-deprecating and self-defeating humour?
2. Are self-deprecating and self-defeating targets perceived as differing in self-esteem and funniness?
3. Do observer intrapersonal variables (e.g., personality and humour styles) play a role in the perception of self-disparaging humour? In other words, do observers project their own characteristics to the perception of unknown targets, in line, with social projection theory (Dunning & Hayes, 1996)

3.1. Methodology

The data was collected using online questionnaires generated through an online survey generator (Qualtrics). Each survey was similar in format, and consisted of four main components listed below.

3.1.1. Demographic Information

Demographic information about the participants was collected in each of the three main studies. Participants were asked to indicate their gender (0 – male, 1 – female, 3 - other), their level of education (1 “Year 12 or Less”, 2 “Trade Certificate or equivalent”, 3 “Partially completed degree”, 4 “Degree” and 5 “Postgraduate degrees”) and to state their ethnicity (What is your ethnicity?) and age (What is your age?). Information collected from these measures informed the researcher about the demographic nature of the participants, and were also included as prospective predictors of humour perception in the three studies.

3.1.2. Measures

Participants were asked to complete a series of questionnaires assessing their self-esteem, humour style, negative and positive affect, and personality in each of the three studies (see Appendix A for full versions of the scales). The following concepts were measured to test the third research question.

Self-Esteem: Rosenberg’s Self-Esteem Scale (Rosenberg, 1965) was used to measure participant self-esteem. This measure consists of 10 items. Participants rate their agreement with the items on a four-point scale with responses ranging from 1 (Strongly Disagree) to 4 (Strongly Agree). An example of an item is “On the whole I am satisfied with myself.” Four items representing low self-esteem were reverse scored. Scores may range from 10 – 40 with higher scores representing higher self-esteem.

Personality: The International Personality Item Pool (IPIP-50; Goldberg, 1992) is a 50-item self-report personality questionnaire designed to measure the Five Factor Model, as expressed in Costa and McCrae’s (1992) revised NEO personality

inventory (NEO-PI-R). The five personality domains are Extraversion (e.g., “Am the life of the party”), Emotional Stability (reversed neuroticism; e.g., “Get stressed out easily”), Openness (e.g., “Have a rich vocabulary”), Agreeableness (e.g., “Make people feel at ease”) and Conscientiousness (e.g., “Am always prepared”).

Participants indicate the degree to which each statement accurately describes them on a five-point Likert scale with anchors 0 (This statement definitely does not describe you) and 4 (This statement describes you very well).

Affect: The Positive and Negative Affect Scale (PANAS; Watson, Clark & Tellegen, 1988) was used to measure participants’ level of current affect. This scale is comprised of 60 words describing different feelings and emotions, which falls into two factors; Positive Affect (e.g., “attentive”) and Negative Affect (e.g., “irritable”). Participants indicate the degree to which each word accurately describes their experience over the past day using a five-point Likert scale with anchors 0 (Very Slightly or Not at All) and 4 (Extremely).

Humour Styles: The Humour Styles Questionnaire (Martin et al., 2003) was used to measure the way in which participants use humour (Martin et al., 2003). The scale contains 32 items and produces four sub-scales: Affiliative (“I laugh and joke a lot with my closest friends”), Self-Enhancing (e.g., “Even when I’m by myself, I’m often amused by the absurdities of life”), Self-Defeating (e.g., “I often go overboard in putting myself down when I am making jokes or trying to be funny”), and Aggressive (e.g., “If I don’t like someone, I often use humour or teasing to put them down”) humour. Participant responses are on a 7-point Likert scale, with 1 (Totally Disagree) and 7 (Totally Agree).

Self-Deprecating Humour: The Self-Deprecating Scale (Rawlings & Findlay, 2013) was used to measure participants’ use of self-deprecating humour and

consists of 13-items divided into two sub-factors: Personal Self-Deprecating Humour (e.g., “Laughing at myself helps me not to take myself too seriously”) which consists of seven items and Social Self-Deprecating Humour (e.g., “People like me when I tell humorous stories about myself.”) which consists of six items. Participants recorded their responses on a 5-point Likert scale, with 1 (Strongly Disagree) to 5 (Strongly Agree).

3.1.3. The Humour Stimuli

Humour stimuli were presented to participants within each of the three studies to test the first and second research questions. The first study included existing video clips of comedians each lasting one minute in length. Each video was selected as an example of each of Martin et al’s (2003) humour styles as well as Rawlings’ (2014) self-deprecating humour. This selection was based on the researchers’ theoretical understanding of each of humour style. For example, a video clip of a comedian telling a benign joke with no obvious target was selected to illustrate affiliative humour, whilst a video clip of a comedian teasing or denigrating another person or group was selected to represent aggressive humour. The three researchers rated the humour style of each comedian and the video clips with the most agreement (two or three out of three) were selected to represent that humour style. A total of 15 video clips were shown to participants and following each video, participants were asked to answer the post humour stimuli questions (contained in section 5.1.4 below).

The author of this thesis considered the limitations present with the use of video clips of popular comedians (e.g., preconceived ideas about the comedian, delivery of the joke), which may affect the perception of humour. Therefore, a short study was conducted to validate humour stimuli that reflected self-defeating (Martin et al. 2003) and self-deprecating (Rawlings & Findlay, 2014) humour to be used for

the remainder of the thesis. Participants were presented with 50 jokes sourced from the internet, along with the definitions of each self-disparaging humour styles, and were asked to categorise the jokes accordingly.

Both the second and third study included these written jokes as their humour stimuli. The authors of the second study generated ten written vignettes of targets differing in variables considered to play a role in the perception of self-esteem and therefore play a role in the perception of self-disparaging humour. These target variables were sex (male and female), physical attractiveness (physically attractive male and female and physically unattractive male and female) and confidence (confident male and female and self-conscious male and female). The vignettes included a short (one sentence) description of the target followed by a self-disparaging joke (obtained from the aforementioned validating stimuli study) that they were hypothetically telling. Following each joke they completed the post humour stimuli questions (contained in section 5.1.4 below).

Finally, given that mood plays a role in the perception of one's environment (Forgas & Bower, 1987), participants in the third study were exposed to one of Velten's (1968) mood inductions to test whether mood affected humour perception. Participants were presented 32 jokes overall, half of the jokes were randomly presented to participants before the mood induction and the remaining 16 jokes were shown to the participants after the mood induction. Following each joke they completed the humour stimuli questions (contained in section 5.1.4 below).

3.1.4. Post Humour Stimuli Questions

Following each of the humour stimuli, participants were asked to rate on a Visual Analog Scale how funny they found the stimulus (1 = "Not Funny at All" to 5 = "Very Funny"), to rate the self-esteem of the target illustrating the humour style (1 =

“Very Low” to 5 = “Very High”), and to rate their mood (1 = “Very Low” to 5 = “Very High”). They were also provided definitions of each of self-defeating or self-deprecating humour styles and were asked to select which one they considered the target to be using.

Chapter 4: Study 1

4.0 Chapter Overview

This chapter contains a manuscript submitted to the *European Journal of Humour Research*, which examined the perception of humour styles. All three of the research questions posed by this thesis are test in this study in that the aims of this study was to investigate whether observers were able to differentiate between self-defeating and self-deprecating humour (RQ1). Another aim of this study was to examine whether this differentiation of humour styles was based on ratings of target self-esteem and funniness (RQ2). A final aim was to examine whether observer variables predicted humour perception (RQ3). The study's methodology, findings, and conclusions are detailed within this chapter.

4.1. Manuscript Preamble

Since the conception of the Humour Styles Questionnaire (Martin et al., 2003), numerous researchers have examined the way in which humour styles have correlated with various intrapersonal variables such as personality (Galloway, 2010; Martin et al., 2003; Saroglou & Scariot, 2002; Vernon, Martin, Schermer, & Mackie, 2008; Veselka et al., 2010 and wellbeing (Frewen, Brinker, Martin & Dozois, 2008; Kazarian & Martin, 2006; Martin et al., 2003; Yue, Hao, and Goldman, 2008). Whilst it is important to understand the effect that humour has on the individual, humour resides within a social sphere (Martin, 2007) and as such understanding how an observer perceives humour is essential. This paper presented video clips of comedians to participants and asked them to categorise their humour styles, and rate the comedian's self-esteem and funniness. The results and conclusions are outlined in the paper below.

This manuscript contains quantitative data. See Appendix A for the questionnaires.

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Individual differences in the way observers perceive humour styles

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Abstract

Humour has been conceptualised as styles, which vary based on their function (Martin, Puhlik-Doris, Larsen, Gray, and Weir, 2003). Research examining if and how observers perceive this intent is limited. The current study addresses this research gap by examining the perceptions of Martin et al.'s (2003) four humour styles. Additionally and of particular interest, was whether self-defeating humour and another self-disparaging humour style, self-deprecating humour, were perceived as two independent humour styles. Despite being similar in content, self-deprecating humour is associated with higher self-esteem and self-defeating humour with lower self-esteem. Two hundred and four students watched comedy clips and completed a survey online. Participants were asked to categorize each video clip by humour style and to rate the self-esteem of the target (i.e. producer). Results revealed that humour styles are distinguishable by observers with participants' predominantly selecting one humour style over the others for each clip. In support of the second hypothesis, targets who were categorised as using self-deprecating humour were perceived as having higher self-esteem than those categorised as using self-defeating humour, illustrating a distinction in the perception of these humour styles at an interpersonal level.

4.2. Introduction

Humour is conceptualised as an interpersonal phenomenon that influences social interactions (Martin, 2007). Having a *sense of humour* is important in establishing and maintaining social networks and is a means of signalling one's position within a social group (Zeigler-Hill, Besser & Jett, 2013). While humour is often touted as universally adaptive, Martin et al. (2003) proposed that humour consists of both adaptive and maladaptive styles. Research has investigated humour as *intrapersonal*,

focusing on the person's use of humour and their own characteristics (e.g., self-esteem, personality; Galloway, 2010; Martin et al., 2003; Saroglou & Scariot, 2002; Vernon, Martin, Schermer & Mackie, 2008; Veselka et al., 2010). Given that humour largely occurs within a social context, it is surprising there is only limited research examining humour *interpersonally*. There is research examining the appreciation of humour, however there is very little research investigating observers' perceptions of humour styles (Cann & Matson, 2014; Martin, 2006; Ruch, 1998).

4.2.1. Multidimensional Model of Humour: Humour Styles

The most popular contemporary model of humour views humour as *styles* based on their function, either adaptive or maladaptive (Martin et al., 2003). The first of the two adaptive styles is affiliative humour, which serves to enhance interpersonal cohesiveness and reduce tensions through the use of funny expressions, joke telling, and impulsive witty banter to amuse others. The second adaptive humour style is self-enhancing humour, which is the tendency to hold a humorous outlook on life even when one is unaccompanied, including regular amusement by the incongruities of life, remaining optimistic despite stress or adversity. Aggressive humour, the first maladaptive humour style, is defined as a means of enhancing oneself at the expense of relationships with others ridiculing or manipulating others, in the form of sarcasm, teasing, mockery, vilification and the use of offensive (e.g., racist) forms of humour. The second maladaptive humour style, self-defeating humour, is viewed as an attempt to gain the attention and approval of others at one's own expense. It is the over-use of self-disparaging humour to amuse others to ingratiate oneself as well as laughing along with others when being mocked or denigrated. It may be used as a form of defensive denial to hide one's inherent negative feelings or avoid dealing adaptively

with personal or interpersonal difficulties (Martin et al., 2003; McCosker & Moran, 2012).

Another perspective of self-disparaging humour has been proposed, called *self-deprecating* humour (Rawlings & Findlay, 2013). This form of humour involves making light of one's mistakes and faults in a self-accepting manner while not taking oneself too seriously. Rawlings and Findlay (2013) examined whether this form of joking about oneself and one's limitations is conceptually distinct from Martin's *self-defeating* humour. In examining the construct of *self-deprecating* humour, they revealed that *self-deprecating* humour was positively associated with self-esteem, extraversion, and psychological wellbeing (Rawlings & Findlay, 2013) and was therefore determined to be independent of *self-defeating* humour, which is negatively related to these individual variables (Martin et al., 2003).

4.2.2. Relationship between Humour Styles and Intrapersonal Variables

Martin and colleagues (2003) suggested that individuals use humour in ways that reflect their wider personality traits and mental health and there is a sizable body of research demonstrating a fairly consistent pattern of relationships between the four humour styles, personality traits, and wellbeing variables (e.g., Galloway, 2010; Martin et al., 2003; Saroglou & Scariot, 2002; Vernon, Martin, Schermer, & Mackie, 2008; Veselka et al., 2010). Self-reported use of affiliative humour correlated positively with extraversion and openness to experience (Martin et al., 2003) and agreeableness (Saroglou & Scariot, 2002). Given that affiliative humour is used to build and maintain social networks, it might be viewed as a vehicle to achieve the social goals of those higher on extraversion. For example, it has also been established that those higher on extraversion are more socially adept (Funder, 2000) and therefore are more likely to engage in adaptive humour styles that help in achieving pro-social

goals. Much like extraversion, affiliative humour is positively correlated with self-esteem, positive affect, optimism and social support (Dozois, Martin & Bieling, 2009; Kazarian & Martin, 2006; Martin et al., 2003).

Self-enhancing humour is positively correlated with extraversion, agreeableness and openness to experience, and is negatively correlated with neuroticism (Vernon, Martin, Schermer & Mackie, 2008). Openness to experience is associated with having a good imagination and being more attentive to one's inner feelings, allowing one to be more able to laugh at the eccentricities of life — a key function of self-enhancing humour (Martin et al. 2003). This form of humour involves the ability to laugh at one's circumstances and as such is useful in coping with stress. The use of humour as a coping mechanism might reduce the experience of depression and negative affect explaining the negative relationship between self-enhancing humour and these variables (Frewen, Brinker, Martin & Dozois, 2008). In addition, people scoring higher on neuroticism are more likely to worry excessively and might not engage in useful coping tools such self-enhancing humour explaining the negative relationship between this humour style and neuroticism. (Dozois et al., 2009; Kazarian & Martin, 2006; Martin et al., 2003).

The self-reported use of aggressive humour is positively associated with measures of neuroticism, hostility, aggression, and negatively correlated with agreeableness, conscientiousness and relationship satisfaction (Dozois et al., 2009; Martin et al., 2003; Galloway, 2010). Individuals who score lower on agreeableness are considered less co-operative and are less concerned with maintaining social harmony (Costa & McCrae, 1992), reducing their hesitancy to use humour that would hurt or demean others (Martin et al. 2003). Aggressive humour has also shown to be

positively correlated with neuroticism, indicating that those who use aggressive humour are also likely to be lower on emotional stability.

Self-*defeating* humour is positively related to neuroticism and negatively correlated with conscientiousness (Martin et al., 2003; Saroglou & Scariot, 2002; Vernon et al., 2008; Veselka et al., 2010). It is possible that people who experience emotional instability, and greater negative emotions, might have more negative perceptions of oneself and see demeaning themselves as fitting (Mendiburo-Seguel, Paez & Martinez-Sanchez, 2015). Conversely, those who make fun of themselves and accept others making fun of them could be experiencing more negative emotions in response to that. The facets associated with low scores on conscientiousness, such as higher levels of impulsiveness and lower levels of forethought may contribute to the use of self-*defeating* humour in social situations. Greater self-reported use of self-*defeating* humour is positively related to measures of psychological distress and dysfunction, including depression, anxiety, hostility, and psychiatric symptoms, and negatively related to self-esteem, psychological well-being, social support and relationship satisfaction (Frewen, Brinker, Martin, & Dozois, 2008; McCosker & Moran, 2012).

Rawlings and Findlay (2013) predicted that self-*defeating* humour would differ from self-*deprecating* humour based on their hypothesized conceptual differences. Because self-*defeating* humour is associated negatively with self-esteem and wellbeing, it was hypothesised that individuals using this humour style believe the jokes they make about themselves and more importantly take the jabs and barbs to heart. Conversely, those using self-*deprecating* humour might not believe what they are saying about themselves and even if there is truth behind the joke, the person is not hurt by the knowledge of their flaws. As such, it was predicted that self-

deprecating humour would correlate positively with self-esteem and psychological wellbeing. A factor analysis showed that the items measuring self-*deprecating* humour were independent of Martin et al's (2003) four humour styles (Rawlings & Findlay, 2013). Predictions were supported and self-*deprecating* humour was positively associated with extraversion, higher levels of self-esteem, higher emotional self-efficacy, and greater psychological wellbeing. It is possible that those who utilize self-*deprecating* humour are more comfortable with their faults and are able to make light of them. Rawlings and Findlay's (2013) research suggests that despite these jokes having the same content (i.e. a target making a joke about themselves), the targets differ on an *intrapersonal* level with those using self-*deprecating* humour being more extraverted and psychologically healthy than those using self-*defeating* humour.

4.2.3. An Interpersonal Approach to Humour Styles

Zeigler-Hill, Besser and Jett (2013) argued that humour styles operate as a signal, communicating information about the target to their social environment. They conducted two studies to explore this. The first study recruited a number of participants (i.e. targets) who completed measures of their self-esteem, humour styles, and personality features. The researchers then recruited friends and family members of the targets and asked them to rate the target's humour style, their perceived self-esteem level and perceived personality features. They found that the observers' ratings matched the target's ratings of their own humour styles. They also found both perceived and self-report humour styles were associated with the perceptions of the targets on other dimensions (e.g., self-report self-defeating humour was negatively correlated with perceived self-esteem). Their second study made use of written descriptions of a target to examine the romantic desirability of these targets based on

their humour style. They revealed that those who were perceived as using benign humour styles (e.g., affiliative humour) were perceived as possessing attractive qualities (e.g., warmth-trustworthiness) and as such were viewed as being more desirable romantic partners. Consistent with these findings, Cann and Matson (2014) found that observing humour helps in making social evaluations where the person using a particular humour style may be expected to possess other characteristics commonly associated with that humour style. For example, people seen to be using affiliative humour may be perceived to be more sociable.

4.2.3.1. Perceiving Self-Disparaging Humour

Of particular interest for the current project is whether self-defeating and self-deprecating humour styles would be perceived as being different given that they would present in the same way (i.e. a target making a joke about themselves). Is it possible for an observer to discern if a target is using self-defeating humour or self-deprecating humour? If they are able to differentiate, is this related to their perception of the target's self-esteem? Ziegler-Hill, Besser and Jett (2013) examined the perception of self-esteem, asking perceivers to rate a known target's self-esteem and they found observer ratings were reasonably close to the target's rating of themselves. Given the different relationship between self-esteem and the two self-disparaging humour styles, the current study will investigate if an observer can differentiate between self-deprecating and self-defeating humour and if their categorization is related to their perception of the target's self-esteem. Taking this into account, we hypothesized that participants would differentially categorize humour videos into self-*deprecating* and self-*defeating* and this categorization would relate to their ratings of the target's self-esteem. In other words, those targets rated as having a higher self-esteem, would more likely be categorized as using self-*deprecating* humour and those

rated as having a lower self-esteem would be categorised as using *self-defeating* humour.

4.2.3.2. Intrapersonal Variables as Contributing Factors in Perception

There is limited literature available on perceiving humour, but given humour's relationship to personality, an examination of the literature on the perception of personality may provide guidance for this research. Funder's (1995) Realistic Accuracy Model (RAM) claims that accuracy in judging traits in others is dependent on the "availability, detection, and utilization of relevant behavioural cues" (p. 656). The use of humour may act as a behavioural cue that others can detect and use to make judgments about the target's personality. As shown in Ziegler-Hill et al.'s (2013) and Cann and Matson's (2014) research, humour styles did signal a target's personality traits and self-esteem. Whilst RAM focuses on the accuracy of one's judgement of another's traits, assumed similarity, the extent to which an observer applies their perception of themselves to the target, might explain the process of humour perception more clearly. This self-based heuristic posits that observer's project their own characteristics onto others, especially in the absence of information, to assess a target (Ready, Clark, Watson, & Westerhouse, 2000). Research has found evidence of assumed similarity in the ratings of many traits and supports the suggestion that assumed similarity is a strategy to make judgments when we do not have sufficient information about a target's personality (Watson, Hubbard, & Wiese, 2000). If individuals use information about their own personality when asked to judge the personality of others, it is possible that when asked to rate the humour use in others, people would again project information about their own humour use. Therefore, it is possible that an individual's characteristics are not only related to their own use of humour, but also their perception of humour as an observer. There are a

number of explanations to illustrate this. Individuals who are higher on extraversion might be more likely to utilise adaptive humour styles, and therefore more likely to perceive this style. Another explanation might be that individuals higher on extraversion have higher self-esteem, and therefore are less offended by aggressive humour and ultimately less likely to see it as aggressive. Similarly, those who have higher levels of neuroticism may be more likely to use maladaptive humour styles, particularly *self-defeating* humour (Martin et al., 2003) and hence might perceive any self-disparaging joke as being *self-defeating*. The opposite might occur with individuals who have a higher self-esteem, who may perceive self-disparaging humour as *self-deprecating*. Despite our growing understanding of the use of different humour styles, little is known about the perception of it or what observer variables are related to that perception.

4.2.4. Research Questions and Aims

The current study examined whether observers are able to perceive the different humour styles, including self-deprecating humour. In particular, whether observers able to discern the subtle differences between *self-defeating* and *self-deprecating* humour, presenting a unique opportunity to explore the perception of humour styles. This paper also investigated whether observer characteristics (e.g., self-esteem, wellbeing, humour styles, mood and personality) related to their perception of the humour styles. For example, are positive traits (i.e. observer positive affect, extraversion, and higher self-esteem and wellbeing) positively related to the perception of self-deprecating humour?

4.3. Method

4.3.1 Participants

Students from a third year psychology class were invited to participate as part of their course, and to share the survey with friends and family members. Of the 204 participants, just over 70% were Australian born. There were 152 (75%) women and 52 (25%) men with a mean age range of 18-24. For 72% of the participants, their highest level of education was a partially completed degree, 13% of the participants had completed a degree and 2% of the participants had a postgraduate degree, indicating that over 80% of the sample was university educated.

4.3.2. Measures

An online survey was used for data collection including demographics (age, sex, nationality and first language) and a series of questionnaires. Due to the exploratory nature of this study, participants' self-esteem, humour styles, personality, mood, emotional intelligence, and wellbeing were measured and were included as potential predictors of humour perception in this study.

Self Esteem. The Rosenberg Self Esteem scale is a measure of self-worth and consists of 10 items. Participants rate their agreement with the items on a four-point scale with responses ranging from 1 (*Strongly Disagree*) to 4 (*Strongly Agree*). An example of an item is "On the whole I am satisfied with myself". Four items representing low self-esteem were reverse scored. Scores range from 10 – 40 with higher scores representing greater self-esteem. The scale has shown good internal consistency (Cronbach's $\alpha = .77$; Rosenberg, 1965)

Personality. The International Personality Item Pool-5-50 (Goldberg, 1992) is a 50-item self-report personality questionnaire designed to measure the Five Factor Model (as per Costa and McCrae's, 1992 revised NEO personality inventory NEO-PI-R). The five domains are Extraversion (e.g., "Am the life of the party"), Emotional

Stability (reversed neuroticism; e.g., “Get stressed out easily”), Openness (e.g., “Have a rich vocabulary”), Agreeableness (e.g., “Make people feel at ease”) and Conscientiousness (e.g., “Am always prepared”). Participants indicate the degree to which each statement accurately describes them on a five-point Likert scale with anchors 0 (*This statement definitely does not describe you*) and 4 (*This statement describes you very well*). The average rating across items on each factor was calculated. All scales have been shown to have good to excellent internal consistency (Extraversion $\alpha = .88$, Agreeableness $\alpha = .79$, Conscientiousness $\alpha = .81$, Emotional Stability $\alpha = .82$, and Openness $\alpha = .82$; Donnellan, Oswald, Baird & Lucas, 2006)

Affect. The Positive and Negative Affect Scale (PANAS; Watson, Clark & Tellegen, 1988) was used to measure participants’ level of current affect. This scale is comprised of 60 words describing different feelings and emotions, which falls into two factors; Positive Affect (e.g., “attentive”) and Negative Affect (e.g., “irritable”). Participants indicate the degree to which each word accurately describes their experience over the past day using a five-point Likert scale with anchors 0 (Very Slightly or Not at All) and 4 (Extremely). Both sub-scales showed good to excellent internal consistency (Positive Affect $\alpha = .90$ and Negative Affect $\alpha = .87$; Watson, Clark & Tellegen, 1988).

Wellbeing. The Attitudes to Life (Ryff, 1989) questionnaire was used to measure participants’ psychological wellbeing. This scale measures multiple facets of wellbeing including self- acceptance, positive relations with others, autonomy, environment mastery, purpose in life and personal growth, although the current study used the total score as a measure of general wellbeing. This version of the scale consists of 18 items and is measured on a 6-point Likert scale with anchors of 1 (*Strongly Disagree*) and 6 (*Strongly Agree*). The relevant items were reverse-coded,

and final scores for wellbeing were computed by summing all of the items. Whilst Ryff and Keyes (1995) suggested that the 18-item version is comparable to the original 120-item scale, the sub-scales have low to moderate internal consistency ($\alpha = .26 - \alpha = .52$; Clarke, Marshall, Ryff & Wheaton, 2001). However, the current study examined wellbeing as a whole and as such the 18-item scale was sufficient revealing excellent internal consistency within the current study ($\alpha = .86$).

Humour Styles. The Humour Styles Questionnaire (Martin et al., 2003) was used to measure the way in which participants use humour themselves (Martin et al., 2003). The scale contains 32 items and produces four sub-scales: Affiliative (“I laugh and joke a lot with my closest friends”), Self-Enhancing (e.g., “Even when I’m by myself, I’m often amused by the absurdities of life”), Self-Defeating (e.g., “I often go overboard in putting myself down when I am making jokes or trying to be funny”), and Aggressive (e.g., “If I don’t like someone, I often use humour or teasing to put them down”) humour. Participant responses are on a 7-point Likert scale, with 1 (*Totally Disagree*) and 7 (*Totally Agree*). The subscale scores are computed by summing the relevant items producing possible scores from 8 to 56, with higher scores indicating greater use of that humour style. Each sub-scale showed good reliability (Affiliative $\alpha = .80$, Self-Enhancing $\alpha = .81$, Aggressive $\alpha = .77$, and Self-Defeating $\alpha = .80$; Martin et al., 2003).

Self-Deprecating Humour. The Self-Deprecating Humour Scale (Rawlings & Findlay, 2013) was used to measure participants’ use of self-deprecating humour and consists of 13-items divided into two sub-factors: Personal Self-Deprecating Humour (e.g., “Laughing at myself helps me not to take myself too seriously”) and Social Self-Deprecating Humour (e.g., “People like me when I tell humorous stories about myself.”). Participants recorded their responses on a 5-point Likert scale, with 1

(*Strongly Disagree*) to 5 (*Strongly Agree*). The subscales have been shown to have excellent internal reliability (Personal $\alpha = .87$ and Social $\alpha = .85$; Brown & Findlay, 2013)

Emotional Self-Efficacy. The Emotional Self-Efficacy Scale (Kirk, Schutte, & Hine, 2008). was used to measure participants' confidence to act in an emotionally intelligent way. This scale consists of 32 items, with eight items for each of the four branches (sub-scales) of Emotional Intelligence proposed by Mayer, Salovey, & Caruso (2004). These are (a) Understand (e.g., "Understand what causes your emotions to change"), (b) Perceive (e.g., "Correctly identify your own positive emotions"), (c) Regulate (e.g., "Change your negative emotion to a positive emotion"), and (d) Facilitate emotions (e.g., "Get into a mood that best suits the occasion"). Participants are required to rate their confidence in their ability to enact each item on a five point Likert scale, from 1 (*Not at all confident*) and 5 (*Very confident*). For the purpose of the current study, two scores were computed. A total emotional self-efficacy score was computed by summing all of the items, with higher scores indicating higher levels of emotional self-efficacy. A second emotion perception score was also computed by summing all of the "perceive branch" items, with higher scores indicating higher levels of emotion perception. Kirk et al., (2008) revealed that the measure of emotional self-efficacy showed excellent internal consistency ($\alpha = 0.96$). The sub-scale, "Perceive Emotional Self-Efficacy" revealed good internal consistency ($\alpha = .80$) in Dacre Pool and Qualter's (2012) study.

4.3.3. Materials

4.3.3.1. Humour Style Video Clips

Fifteen short video clips of internationally known stand-up comedians obtained from an online video publisher (YouTube) were used to illustrate the five

humour styles. These videos were chosen based on the theoretical definitions of the humour styles, acknowledging the impossibility of knowing the intent of the comedians. For example, a video was chosen as an example of aggressive humour if it showed ridiculing others (i.e. individuals or groups), in the form of sarcasm, teasing, mockery or vilification. Videos showing a comedian telling benign jokes with the apparent aim of amusing the audience were selected as demonstrating affiliative humour. Because it was not yet possible to empirically discern self-*deprecating* from self-*defeating* humour, several videos were included where participants made jokes about themselves and were examined as possible illustrations for both.

4.3.3.2. *Post-Humour Stimuli Questions*

After viewing each video, participants were asked to rate how funny they found the video on a scale of 1 (“*Not at all*”) to 5 (“*Extremely*”), and their perception of the comedian’s self-esteem on a scale of 1 (“*Very Low*”) and 5 (“*Very High*”). Finally, the participants were provided with definitions of each of the humour styles and asked to select which style they thought the comedian was utilizing. The target’s self-esteem, funniness and humour style were the dependent variables of this study.

4.3.4. Procedure

Participants were provided with a link to the anonymous online survey via the course website. The first screen of the survey provided participants with information about the study and their rights as participants. Completion of the survey was taken as consent to participate. The survey began with demographic questions followed by the questionnaires and finally the videos and corresponding questions.

4.3.5. Statistical Analyses

4.3.5.1. Data Screening

The data were screened for out of range values, missing values and univariate outliers. There were no out of range values present in the dataset, however, there were a few missing values for individual questionnaire items. There was no pattern of missing values, with no missing values across cases on the same item. Prior to computing scores for each scale, all of the missing values were replaced with the mean of the remaining items in the scale for that case. The few univariate outliers for each of the variables were replaced with a value three standard deviations from the mean thus reducing these scores to normal (Tabachnik & Fidell, 2001).

4.3.5.2. Video Exemplars

One video for each humour style was selected as an exemplar for analyses. The video with the highest degree of variation in categorization was chosen to increase the variability that could be accounted for by observer characteristics. It is important to note that self-enhancing humour was not the most prominent humour style for any of the fifteen videos and hence there is no exemplar video for this humour style

4.4. Results

The means, standard deviations, reliability scores, and intercorrelations are displayed in Table 1 below.

Table 1
Means, Standard Deviations, Cronbach's Alphas, and Inter-Correlations for all of the Variables Examined in the Study

	Humour Styles						<i>M</i>	<i>SD</i>	Cronbach's <i>α</i>
	Affiliative	Aggressive	Self- Enhancing	Self- Defeating	Personal SDHum	Social SDHum			
Wellbeing Variables									
Wellbeing	.37**	-.31**	.30**	-.42**	.26**	-.25**	68.63	8.81	.86
Self-Esteem	.27**	-.22**	.45**	-.52**	.15*	-.37**	29.58	5.04	.90
Positive Affect	.24**	-.18**	.45**	-.29**	.16*	-.25**	30.45	8.35	.91
Negative Affect	-.29**	.28**	-.27**	.41**	-.23**	.14*	19.3	7.22	.89
Emotional Self-Efficacy	.31**	-.01	.37**	-.19**	.24**	-.02	120.88	14.000	.94
Perceive ESE	.32**	-.19**	.28**	-.16*	.33**	-.03	28.01	3.31	.82
Personality Variables									
Extraversion	.45**	.05	.27**	-.13	.21**	-.09	31.75	8.47	.91
Emotional Stability	.26**	-.21**	.48**	-.42**	.19**	-.20**	29.98	8.04	.88
Openness	.27**	-.13**	.30**	-.17*	.13	-.15**	37.37	4.88	.79
Agreeableness	.26**	-.41**	.22**	-.18**	.22**	-.17**	41.1	5.15	.84
Conscientiousness	.05	-.33**	.13	-.032	0.03	-.30**	34.43	6.78	.81
Humour Styles									
Affiliative Humour	-	-.01	.37**	-.06	.43**	.11	46.53	6.50	.86
Aggressive Humour		-	-.09	.31**	.01	.11	26.8	7.91	.87
Self-Enhancing Humour			-	-.12	.39**	.08	36.05	9.39	.84
Self-Defeating Humour				-	.20**	.61**	28.76	10.02	.84
Personal SDHum					-	.41**	25.98	3.95	.84
Social SDHum						-	18.32	4.88	.84

N = 204, ** = $p < .001$; * = $p < .05$. SDHum = Self-Deprecating Humour, SD = Standard Deviation, ESE = Emotional Self-Efficacy

Martin et al's (2003) humour styles shared associations with personality and wellbeing in the expected directions. For example, both affiliative and self-enhancing humour shared positive relationships with wellbeing self-esteem, positive affect and emotional stability, and negatively correlated with negative affect. Aggressive and self-defeating humour shared a negative relationship with self-esteem, wellbeing and positive affect and neuroticism. Whilst both forms of self-deprecating humour were positively correlated with self-defeating humour, personal self-deprecating humour only shared a small correlation with self-defeating humour. Personal self-deprecating humour is considered to more accurately represent true self-deprecating humour (Brown & Findlay, 2013), which was reflected in the positive correlations with self-esteem, wellbeing, extraversion and affiliative humour.

4.4.1. Perception of Humour Styles

To test the first hypothesis, a frequencies analysis was conducted to analyse which humour styles were most frequently selected to represent each video clip. The percentages for each video clip are shown in Table 2 below.

Table 2
Frequencies of Selected Humour Styles for Each Video

Video	Humour Style by Theoretical Definition	Most Common Categorization	# of Participants (%)
1	Affiliative Humour	Affiliative Humour	127 (62.3)
2	Self-Enhancing Humour	Self-Deprecating Humour	138 (67.7)
3	Aggressive Humour	Aggressive Humour	139 (68.1)
4	Self-disparaging Humour	Self-Defeating Humour	94 (46.1)
5	Affiliative Humour	Affiliative Humour	116 (56.9)
6	Aggressive Humour	Affiliative Humour	68 (33.3)
7	Self-Disparaging Humour	Self-Defeating Humour	108 (52.9)
8	Affiliative Humour	Affiliative Humour	126 (61.8)
9	Affiliative Humour	Affiliative Humour	92 (45.1)
10	Self-disparaging Humour	Self-Defeating Humour	102 (50.0)
11	Self-disparaging Humour	Self-Deprecating Humour	102 (50.0)
12	Aggressive Humour	Affiliative Humour	125 (61.3)
13	Self-disparaging Humour	Self-Defeating Humour	112 (54.9)
14	Self-Enhancing Humour	Self-Deprecating Humour	99 (48.5)
15	Self-Enhancing Humour	Self-Deprecating Humour	81 (31.7)

$N = 204$

Self-enhancing humour was not chosen as the predominant category for any of the videos. This is likely due to the internal nature of self-enhancing humour where its expression would inevitably be perceived as one of the remaining humour styles. In the current study it was most often interpreted as *self-deprecating*. Another interesting finding was that for the videos that were selected as displaying theoretical aggressive humour, two out of three of these videos were perceived as affiliative.

4.4.2. Individual Differences and Humour Style Perception

The results of the Multinomial Logistic Regressions, which analyzed the observer characteristics that predicted the categorisation of humour, are displayed in Table 3 below. The reference category for each video was the humour style with the greatest percentage (i.e. higher number of participants selecting the humour style to represent that video).

For the affiliative humour video, the overall model was significant ($\chi^2(60) = 82.94, p = .03$), but only a few of the observer variables independently predicted which category the participants chose. Participants who reported lower wellbeing were less likely to select affiliative humour over aggressive humour and self-enhancing humour. Participants with higher levels of perceived emotional self-efficacy were more likely to rate the video as aggressive over affiliative. Participants with higher levels of negative affect and emotional stability were less likely to rate the video as affiliative rather than self-enhancing. Finally, participants who report using less affiliative humour and those who rate higher on extraversion were more likely to categorize this clip as affiliative over *self-defeating*.

For the aggressive humour video, the overall model was significant ($\chi^2(60) = 88.84, p = .01$) but again, only some of the observer variables were independently related to which category they chose. Participants with lower levels of openness were more likely to categorize the video as affiliative over aggressive and those with higher self-reported negative affect were more likely to categorize the video as self-enhancing and *self-defeating* over aggressive humour.

For the *self-defeating* video, the overall model was significant ($\chi^2(60) = 92.75, p = .004$), but few observer variables were significantly related to categorization. Participants with lower levels of self-report perceive emotional self-efficacy were less likely to select affiliative humour over *self-defeating* and those with higher levels of self-reported emotional stability were more likely to select self-enhancing over *self-defeating* humour.

Finally, for what the participants most often interpreted as the *self-deprecating* video, the overall model was significant ($\chi^2(60) = 79.37, p = .05$) with some of the observer variables significantly predicting categorization. Participants with higher

self-reported positive affect were more likely to categorize the video as affiliative over self-*deprecating*. Higher self-reported use of affiliative humour use was related to the selection of self-*deprecating* humour over self-enhancing humour and self-*defeating* humour. Participants with higher levels of self-reported agreeableness were less likely to select self-*deprecating* over self-enhancing and self-*defeating* humour.

Table 3
Multinomial Logistic Regression Examining the Influence of Intrapersonal Variables on Humour Style Selection

Ref. Category	Other HS	Covariates	coeffb	s.e.	Wald	p-value	exp(b)	lower	upper
Affiliative									
	Aggressive	Wellbeing	-0.15	0.06	6.85	0.01	0.86	0.77	0.96
		Perceive ESE	0.29	0.11	6.53	0.01	1.34	1.07	1.67
	Self-Enhancing	Wellbeing	-0.13	0.06	4.98	0.03	0.88	0.78	0.98
		Negative Affect	0.12	0.05	5.45	0.02	1.13	1.02	1.24
		Emotional Stability	0.13	0.06	5.05	0.03	1.14	1.02	1.28
	Self-Defeating	Affiliative Humour	0.15	0.07	4.40	0.04	1.16	1.01	1.32
		Extraversion	-0.13	0.05	6.62	0.01	0.88	0.80	0.97
Aggressive									
	Affiliative	Openness	-0.10	0.05	3.96	0.05	0.90	0.82	1.00
	Self-Enhancing	Negative Affect	0.21	0.07	8.38	0.00	1.23	1.07	1.41
	Self-Defeating	Negative Affect	0.15	0.06	5.67	0.02	1.16	1.03	1.31
Self-Defeating									
	Affiliative	Perceive ESE	-0.34	0.16	4.69	0.03	0.71	0.52	0.97
	Self-Enhancing	Emotional Stability	0.11	0.05	3.99	0.05	1.11	1.00	1.23
Self-Deprecating									
	Affiliative	Positive Affect	0.19	0.08	5.64	0.02	1.20	1.03	1.40
	Self-Enhancing	Affiliative Humour	-0.11	0.06	3.92	0.05	0.89	0.80	1.00
		Agreeableness	0.22	0.08	6.86	0.01	1.24	1.06	1.46
	Self-Defeating	Affiliative Humour	-0.09	0.04	4.69	0.03	0.92	0.85	0.99
		Agreeableness	0.23	0.06	5.19	0.02	1.14	1.02	1.27

$N = 204$; ESE = Emotional Self-Efficacy; Ref. Category = Reference Category (the most frequently selected humour style for that particular video).

4.4.3 Self-Defeating Versus Self-Deprecating: An Interpersonal Perspective

Participants were asked to rate the funniness of each video and the comedian's self-esteem. Overall, average scores of funniness and self-esteem were computed for the videos most frequently identified as *self-deprecating* and *self-defeating*. This was achieved by summing the scores for three *self-defeating* videos and for the three *self-deprecating* videos and dividing them by the number of videos (three).

4.4.3.1. Perceived Self-Esteem

To examine whether there was a difference in the observer's perception of the comedians' self-esteem if the comedians were using humour most often identified as *self-deprecating* or *self-defeating*, a paired-sample t-test using the aforementioned average scores for each self-disparaging humour style was conducted. It revealed a significant difference ($t(203) = 10.26, p < .001$), where the average perceived self-esteem was significantly higher in the *self-deprecating* videos ($M = 4.80, SD = .85$) in comparison to the *self-defeating* videos ($M = 4.15, SD = 1.10$).

Three linear regressions were conducted to assess if any observer variables were significant predictors of perceived self-esteem for the *self-disparaging* videos. The first linear regression examined wellbeing variables as predictors ($F_{self-deprecating}(6, 203) = 1.32, p = .25$; $F_{self-defeating}(6, 203) = 2.20, p = .04$), the second regression examined observer humour styles as predictors, ($F_{self-deprecating}(5, 203) = .39, p = .86$; $F_{self-defeating}(5, 203) = 1.11, p = .36$) and the third regression examined personality variables as predictors of self-disparaging videos ($F_{self-deprecating}(5, 203) = .52, p = .76$; $F_{self-defeating}(5, 203) = 1.21, p = .31$). These results of the regression can be seen in Table 4 below.

Observer positive affect was the only significant predictor of self-esteem ratings for the target using *self-deprecating* humour, with higher levels of observer positive affect predicting higher levels of perceived self-esteem of the *self-deprecating* comedians. Observer self-esteem was the only significant predictor of how participants rated the self-esteem of the comedians illustrating *self-defeating* humour. Higher self-reported self-esteem in the observer predicted higher perceived self-esteem of the comedian.

Table 4
Regression Statistics of Predictors of Target Self-Esteem using Self-Disparaging Humour

Observer Variables	Variable	β		t-test	
		Self-Deprecating	Self-Defeating	Self-Deprecating	Self-Defeating
Wellbeing	Wellbeing	-0.04	-0.2	-0.34	-1.92
	Self-Esteem	-0.03	0.21	-0.31	2.01*
	Negative Affect	0.09	0.04	1.01	0.49
	Positive Affect	0.17	0.14	1.96*	1.54
	ESE	0.13	0.13	1.33	1.4
	Perceive ESE	-0.03	-0.12	-0.38	-0.14
Humour Styles	Aggressive	-0.01	0.09	-0.07	1.25
	Affiliative	0.09	-0.004	1.08	-0.05
	Self-Enhancing	0.04	0.09	0.55	1.18
	Self-Defeating	0.01	-0.13	0.12	-1.64
	Self-Deprecating	-0.04	-0.01	-0.46	-0.1
Personality	Extraversion	0.05	0.05	0.71	0.6
	Agreeableness	0.05	0.04	0.65	0.54
	Conscientiousness	0.02	-0.09	0.29	-1.21
	Emotional Stability	0.03	0.14	0.42	1.86
	Openness	-0.11	-0.09	-1.36	-1.15

N = 204, * p = .05; ESE = Emotional Self-Efficacy

4.4.3.2. Perceived Funniness Comparison

To examine whether there was a difference in participants' rating of funniness of the self-deprecating versus self-defeating videos, another paired-sample t-test using the aforementioned average scores for the self-disparaging humour styles was conducted. Participants rated the self-defeating videos to be more funny ($M = 4.37, SD = 1.25$) than the self-deprecating videos ($M = 4.12, SD = .96$) and this difference was significant ($t(203) = 3.16, p = 0.002$).

Three linear regressions were conducted using the mean perceived funniness for the self-disparaging videos as the dependent variable and the results are displayed in Table 5 below.

Table 5
Regression Statistics of Predictors of Target Funniness using Self-Disparaging Humour

Observer Variables	Variable	β		t-test	
		Self-Deprecating	Self-Defeating	Self-Deprecating	Self-Defeating
Wellbeing	Wellbeing	0.09	0.08	0.84	0.77
	Self-Esteem	-0.02	-0.16	-0.14	-1.50
	Negative Affect	0.16	0.17	1.95*	2.16*
	Positive Affect	0.07	0.09	0.77	0.98
	ESE	0.14	0.21	1.49	2.28*
	Perceive ESE	-0.06	-0.18	-0.64	-2.07*
Humour Styles	Aggressive	0.09	0.16	1.24	2.20*
	Affiliative	0.1	0.03	1.28	0.32
	Self-Enhancing	0.07	0.05	0.90	0.61
	Self-Defeating	0.06	0.16	0.73	2.13*
	Self-Deprecating	0.08	0.05	0.93	0.59
Personality	Extraversion	0.17	0.18	2.21**	2.47*
	Agreeableness	0.02	-0.1	0.24	-1.27
	Conscientiousness	-0.1	-0.19	-1.27	-2.66**
	Emotional Stability	0.08	-0.06	1.07	-0.87
	Openness	-0.11	0.002	-1.44	0.02

Similar to the self-esteem regression, the first regression examined wellbeing variables as predictors ($F_{self-deprecating}(6, 203) = 1.41, p = .21$; $F_{self-defeating}(6, 203) = 2.79, p = .01$) and the second regression examined humour styles as predictors ($F_{self-deprecating}(5, 203) = 2.14, p = .06$; $F_{self-defeating}(5, 203) = 3.23, p = .01$) and the third regression examined personality variables ($F_{self-deprecating}(5, 203) = 1.87, p = .10$; $F_{self-defeating}(5, 203) = 3.61, p = .004$) as predictors of the funniness for the self-disparaging videos. These results can be seen in Table 5 below.

Both self-reported extraversion and negative affect positively predicted of participants' ratings of funniness for the comedians illustrating both self-disparaging humour styles. Higher observer extraversion and negative affect predicted higher perceived funniness of the comedian. Observer self-reported use of aggressive humour and self-defeating humour along with emotional self-efficacy positively predicted the perception of funniness ratings of the self-defeating targets, whilst observer conscientiousness and the perceive branch of emotional self-efficacy negatively predicted funniness for the self-defeating videos.

4.5. Discussion

Humour predominately occurs within a social context and examining it from an interpersonal perspective might provide a clearer understanding of the strategic uses of humour within discourse (Cann & Matson, 2014; Martin, 2007). The current study investigated the perception of five humour styles and the observer variables that might relate to that perception. Most humour research has provided insight into the individual characteristics associated with humour production (i.e. the humour styles),

and this study aimed to examine how these observer characteristics are involved with the perception of humour styles.

The hypothesis that participants would differentially categorize the videos into humour styles was supported in that there was relatively consistent agreement in categorizing humour styles. Humour is considered an important form of communication (Lynch, 2002) and this finding provides compelling evidence that Martin et al's (2003) humour styles are apparent on an interpersonal level. The accuracy in categorizing the affiliative targets might indicate that affiliative may be more accurately perceived than self-enhancing and aggressive humour. The majority of the video clips selected as representing aggressive humour, were categorized as affiliative humour, which may suggest a few explanations. These findings might be explained by the context of the humour, which is likely to play a role in whether it is perceived as positive or negative. The video clips were of stand-up comedians teasing or ridiculing celebrities (e.g., Joan Rivers ridiculing Katie Holmes and Tom Cruise, Jack Whitehall mocking Robert Pattinson) or society as a whole (e.g., Stephen K Amos teasing Australia) and as a result may not have been construed as malicious. The delivery of stand-up comedy is likely to have removed the personal nature of the jokes, which may have been considered to be in good fun. Self-enhancing humour was not selected as the most common humour style for any of the videos presented, but this is likely due to the nature of self-enhancing humour which is used to benefit the individual rather than operate as a social tool (Martin et al., 2003). Interestingly, the majority of participants rated self-enhancing humour as *self-deprecating*. Given that the content of these video clips were optimistic in nature and revealed aspects of the comedian's internal dialogue (e.g., Ellen DeGeneres' thoughts on procrastination),

it might provide further evidence that self-deprecating humour is perceived as positive.

Whilst there was agreement for humour style selection, the agreement was not unanimous and the individual difference variables of the observers may provide some explanation. The results showed no consistency in observer variables relating to how participants categorized the different videos into humour styles, but some interesting trends did appear. Observers who reported using more affiliative humour themselves were more likely to categorize a video as *self-deprecating* over *self-defeating*. Past research has proposed that self-deprecating humour may be a sub-type of affiliative humour (Martin et al., 2003) and the current finding supports the assumed similarity research which would suggest that those who engage in positive humour styles are more likely to assume that others also engage in positive humour in the absence of any other information. In addition, higher levels of extraversion were associated with the selection of affiliative humour over self-defeating humour. Individuals who engage in affiliative humour tend to be higher on extraversion as both constructs are driven by a strong desire for good social relationships (Martin et al., 2003), so it is possible that observers higher on self-report extraversion are more likely to engage in affiliative humour and when exposed to humour that was pro-social were more likely to accurately recognize it and categorise the video as being such.

4.5.1. Focusing on the Self-Disparaging Styles

To examine the way in which the self-defeating and self-deprecating humour styles were perceived, the observer ratings of self-esteem of the targets illustrating each style was analysed. Rawlings and Findlay (2013) established that a key difference between self-defeating and self-deprecating humour was their correlation with self-esteem, with individuals using *self-deprecating* humour reporting a higher

sense of self-worth (Rawlings & Findlay, 2013). The current study confirmed that these subtle self-esteem differences were discernable on an interpersonal level and supported the hypothesis that the target categorized as using *self-deprecating* humour would be rated as having a higher self-esteem than those categorized as using *self-defeating* humour. This finding confirms Zeigler-Hill, Besser and Jett's (2013) findings that self-defeating targets are rated as having a lower self-esteem and further supports to the notion that *self-defeating* and *self-deprecating* humour are individual forms of humour with varying relationships with personality and wellbeing (Rawlings & Findlay, 2013).

In examining which observer variables predicted the ratings of target self-esteem, increased positive affect predicted higher ratings of self-esteem for the target using self-deprecating humour and increased observer self-esteem predicted the ratings of self-esteem for the target using self-defeating humour. This revealed that, in line with assumed similarity research (Ready, 2000), observers with higher positive affect and self-esteem were more likely to rate others as having higher self-esteem and behaving in ways consistent with positive affect. Interestingly, when examining ratings of funniness, participants found the targets using *self-defeating* humour slightly funnier than the comedians using *self-deprecating* humour. Higher self-reported extraversion predicted funniness ratings for both humour styles, supporting previous research indicating that extraversion is a predictor of humour appreciation (Moran, Rain, Page-Gould, & Mar, 2014). Higher observer negative affect also significantly predicted funniness ratings for both humour styles, and it is likely that when individuals who are experiencing negative affect (i.e. negative emotions) are exposed to humorous stimuli, they are relieved from their low emotional state thus exacerbating their response to the humour. Individual differences in personality often

underlie what individuals find humorous and therefore laughter (or the lack thereof) in response to humour serves as a signal about one's unconscious preferences (Lynch, 2010). As such, sharing the target's views may be significant in an individual's response to a joke. This might explain why the 'perceive' branch of emotional self-efficacy negatively predicted higher ratings of funniness for the targets using self-defeating humour, as these individuals are less confident in their ability to perceive others' emotions. In other words, these individuals were less likely to recognize the defeating undertones of this style and appreciate this humour irrespective. Observer use of aggressive humour also predicted higher funniness ratings. Aggressive humour often involves putting others down, and might explain why these individuals might have enjoyed the self-defeating target's humour (which involves putting oneself down).

4.5.2. Limitations and Future Directions

Whilst these findings are an exciting early step in the exploration of the perception of humour styles the conclusions drawn from these findings are limited. This study relied solely on pre-existing online videos and as such the comedian's humour styles were largely unknown. This meant that we were unable to provide self-other agreement measures as we were reliant on the theoretical definitions of the humour styles to select videos reflecting each humour style. These videos also present numerous confounding variables in the delivery of humour, which might provide information about the target's humour style over and above the content of the joke. For example, audience laughter might signal that the joke was successful and could play a role in whether perceivers view the joke as self-deprecating or self-defeating. The participants might also have preconceived ideas about the comedian, given that

they are popular, and this might have impacted on their ratings of the comedian's self-esteem and their humour styles outside of the video content. For example, if a comedian is known to be affected by mental illness this might play a role in how their self-esteem is perceived.

The results of this study indicate two clear paths for future research. A significant finding in this paper is that observers saw a measurable difference in the self-esteem of comedians using *self-deprecating* and *self-defeating* humour. Observers are likely to perceive self-esteem based on a number of target characteristics, such as physical appearance and confidence in delivering humorous material. Future research could focus more specifically on these contributing factors, for the perception of self-esteem and thus the categorization of humorous stimuli as *self-defeating* over *self-deprecating* or vice versa. This research might adopt the use of written humour stimuli, such as descriptions of targets (e.g., written vignettes) similar to that of Zeigler-Hill, Besser and Jett (2013) to control for these variables.

Affect predicted the perception of the two self-disparaging humour styles, with higher positive affect predicting higher ratings of self-esteem for both the self-defeating and self-deprecating comedians. This presents a second path for future research which might explore the effect of mood on humour style perception given that mood operates as a lens shaping one's experience and judgment of oneself and others (Forgas & Bower, 1987). For example, those in a positive mood might perceive self-disparaging content more positively (i.e. as self-deprecating). In addition, the current study revealed that higher negative affect predicted ratings of funniness of the targets using self-defeating humour. This was explained by the function of humour in potentially providing a temporary relief from their low emotional state thus exacerbating their response to the humour. As such, measuring observer mood

following the presentation of each self-disparaging humour stimulus might also provide information about how exposure to self-disparaging humour might affect mood.

The current study added to the body of literature examining humour as an interpersonal signal (Zeigler-Hill, Besser & Jett, 2013). The results demonstrated that the self-deprecating targets were rated as having a higher self-esteem than those using self-defeating humour, further illustrating that humour use can signal information about the target. These results confirmed the notion that self-defeating and self-deprecating humour are distinct humour styles. This has broader theoretical implications that might argue that the use of Martin et al's (2003) HSQ is not sufficient in capturing all types of humour. The results of the present study also revealed that observers' personality, humour styles and affect predicted the perception of not only the target's humour styles but also their self-esteem and funniness. This exploration confirms that the use of humour can effectively provide information about a target and offers an exciting platform for future interpersonal humour research to emerge.

Chapter 5: Written Humour Stimuli

5.0 Chapter Overview

A short study aimed at creating a pool of written humour stimuli is contained within this chapter. The aim of this study was to address the methodological limitations associated with using existing video clips of popular comedians by eliminating possible confounding variables present in these videos (e.g., the delivery of the joke, physical appearance of the comedian). At this stage, there are no validated humour stimuli that reflect Martin et al's (2003) humour styles and as such this study was conducted to do so. In creating validated humour stimuli, a more accurate examination of humour perception can be conducted throughout the remainder of this thesis.

5.1. Introduction

Humour pervades nearly every social context (O. Lynch, 2002) and it serves as a form of communication through the use of jokes, parody, sarcasm, teasing, riddles, and caricature (Apter & Desselles, 2012). One goal of humour is to induce feelings in mirth in oneself and in others, and much of the research on humour has focused on the appreciation of humour (Martin, 2007). Interestingly, many of the humour appreciation tests were developed by personality researchers to indirectly assess various personality traits as it was anticipated that the type of humour individuals enjoy might indicate various features about their personality (For a review, see Martin, 2007). Much of the research within the realm of humour appreciation has used jokes and cartoons as their stimuli (e.g., Wilson & Patterson, 1969). These jokes often reflected aggressive or sexual themes (e.g., psychoanalytic theory; Freud (1905]

or were related to the cognitive perception of humour perception (e.g. incongruous jokes). Contemporary conceptualizations of humour have come to view humour as styles that reflect the nuanced intentions of the humour producer (Martin et al., 2003).

Martin and his colleagues (2003) developed the Humour Styles Questionnaire (HSQ) to measure four styles of humour. These styles were said to differ across two dimensions –adaptive vs. maladaptive and aimed towards the self vs. others. Martin et al., (2003) labelled the humour style aimed at others with adaptive intentions as affiliative. This humour style is benign in nature and aimed at fostering relationships. The second adaptive humour style is self-enhancing humour, which is the propensity to have a humorous outlook on life. The two maladaptive humour styles include aggressive and self-defeating humour. As its label suggests, aggressive humour involves the use of mockery or teasing to put others down, whilst self-defeating humour involves excessively self-disparaging humour to ingratiate oneself with others (Martin et al. 2003). The focus of the current thesis is on self-defeating humour and another self-disparaging humour style called self-deprecating humour. Rawlings and Findlay (2013) defined this humour style as also involving disparaging comments about the self, however, the target using this style of humour is said to not take what they are saying about themselves to heart.

Rawlings and Findlay (2013) confirmed that self-defeating and self-deprecating humour differed conceptually in that self-defeating humour was negatively correlated self-esteem, whilst self-deprecating humour was positively correlated with self-esteem. Given that these humour styles would present in the same way (i.e. target poking fun at themselves), we were interested in how these humour styles would be perceived. In the first study of this thesis, the authors set out to test this by using video clips of popular comedians. They revealed that observers could

differentiate between the self-deprecating and self-defeating jokes, and that this was related to the self-esteem of the target with self-deprecating targets rated as having a higher self-esteem than their self-defeating counterparts. This confirmed that self-deprecating humour is considered the psychologically healthier humour style when compared to self-defeating humour, and this was evident on an interpersonal basis.

Unfortunately, the use of video clips likely contained confounding variables such as target sex and physical appearance, which may have affected how observers perceived target self-esteem (e.g., a physically attractive target in the video might have been perceived as having a higher self-esteem, Cialdini, 1993) which might have influenced the perception of their humour. Therefore, we decided to move towards the use of written humour to examine the perception of humour to eliminate or control for these variables. To date, no validated humour stimuli reflecting the HSQ styles exist so this study was conducted to create a validated pool of written humour to represent the four HSQ humour styles and self-deprecating humour.

5.1.1 The Evolution of Humour Appreciation Measures

Prior to the current measures of humour (e.g., HSQ; Martin et al., 2003) and personality (NEO-PI-R; Costa & McCrae, 1992), researchers questioned whether the type of humour a person finds amusing communicated information about their personality (Martin, 2007, p. 195). In fact, clinicians have postulated that asking clients to tell their favourite jokes may be a valuable projective test that could be analysed to diagnose their problems and identify their unresolved needs and conflicts (Martin, 2007, p. 196). This view underlies numerous humour appreciation tests that were developed by personality researchers to indirectly test various personality traits (e.g., Cattell & Tollefon, 1966). Whilst much of the research prior to the 1980s used

these measures, the humour appreciation approach is still popular today. In the humour appreciation approach, participants are presented a collection of jokes, cartoons, and other humorous stimuli and are asked to rate them on dimensions such as funniness, enjoyment and adversiveness. The humour stimuli are clustered into various categories either based on theory or by categories (i.e., factor analytic approaches).

5.1.1.1. Theoretically based categories

Humour stimuli, such as jokes and cartoons, have been categorised by the experimenters based on particular theories (Martin, 2007, p.196). For example, the relief theory (Freud [1905]) postulated that repressed sexual and aggressive drives are released through the use of humour, and that jokes typically contain sexual, aggressive and nonsense (also known as innocent) content. Research relating to psychoanalytic humour theory adopted this approach (Martin, 2007, p. 196). For example, The Mirth Response Test (Redlich, Levine, & Sohler, 1951) consisted of 36 cartoons that were judged to tap into various sexual and aggression-related themes. Participants' responses were considered to reflect their unconscious needs and unresolved conflicts particularly in relation to these themes. Additional research has provided evidence that the form of humour individuals appreciate is related to their personality traits. Grizwok and Scodel (1959) found that a preference for sexual and aggressive jokes was related to aggressive themes on the Thematic Apperception Test, and higher scores on extraversion (Grziwok & Scodel, 1956; Wilson & Patterson, 1969).

Whilst studies examining these approaches have found convincing results, Ruch (1993) noted that these measures did not test the reliability and validity of their humour classifications. In fact, individuals do not agree about which aspects of a joke

or cartoon they find relevant or why they perceive it to be funny or unfunny (Eysenck, 1972) and as such the dimensions used by a research in categorising humour stimuli may not be relevant to the way the participants perceive and respond to them. Thus, the use of factor analytic methods was offered as an alternative to the theoretically driven content-based method of categorizing humour (Martin, 2007. p.197).

5.1.1.2. Factor Analytic Methods

Using a factor analytic framework, jokes, cartoons and other humorous stimuli can be clustered together based on ratings of funniness (Martin, 2007, p. 198). An early study of humour appreciation Cattell and Luborsky (1947) presented 100 jokes that were considered to represent of a broad range of humour to a sample of 50 males and 50 female undergraduate students. Their results revealed five factors that related to themes of good natured assertion, rebellious dominance, easy going sensuality and so forth. They found that these factors related to the 12-16 general personality factors identified (Cattell 1947).

In another study, Wilson and Patterson (1969) presented a collection of verbal jokes, cartoons and incongruous photographs to participants and asked them to rank them in order of funniness. Three dimensions emerged and revealed three dimensions of humour labelled sexual vs nonsexual, simple vs complex and personal vs impersonal. When correlating these dimensions with personality and revealed that extraverts enjoyed sexual and simple jokes more, whilst complex and non-sexual jokes were enjoyed more by introverts (Wilson & Patterson, 1969). Ruch (1992) failed to replicate this finding and asserted that factor-analytic studies present numerous limitations.

These included low reliabilities (Yarnold & Berkeley, 1954) and the use of a forced-choice format resulting in the over-extraction of weak, unstable factors (Ruch,

1992). Ruch and his colleagues, examined the structure of humour appreciation in a more systematic manner over a number of factor-analytic studies (e.g., Hehl & Ruch, 1985; McGhee, Ruch & Hehl, 1990). These analyses included 600 jokes and cartoon obtained from a wide range of sources including popular magazine, jokes books and humour literature, and revealed three stable and robust factors that appeared to account for most of the variance in humour appreciation. The first factor is called incongruity-resolution humour which includes jokes where the “punch line can be resolved by information available elsewhere in the joke.” (Martin, 2007, p.200). The second factor is nonsense humour which contains jokes and cartoons that contain a “surprising or incongruous element, but the incongruity is not resolved giving the appearance of making sense without actually doing so.” (Martin, 2007, p. 201). The third and final factor relates to humour content and is called sexual humour. This is composed of jokes and cartoon with sexual themes.

Based on these factor-analytic studies, Ruch (1983) developed the 3 Witz-dimensionen (WD) humour appreciation test to assess individuals’ ratings of funniness and aversiveness of jokes and cartoons on the three aforementioned factors. Research examining how these three dimensions correlated with personality, revealed that total funniness ratings across the three factors have been found to positively correlate with extraversion, and the enjoyment of nonsense humour was positively correlated with openness with experience (Ruch, 2011). Interestingly, there have been no studies conducted examining the correlations between incongruity resolution and sexual humour and the Five Factor Model.

Many of the aforementioned measures, particularly the 3WD (Ruch, 1983), have clarified the individual differences in appreciation of jokes and cartoons, in relation to personality features. Whilst the authors of this thesis measured humour

appreciation (i.e. using funniness ratings), we wanted to examine humour perception beyond jokes and cartoons reflecting themes that are incongruous, sexual and/or aggressive, towards examining humour that is more nuanced. For example, creating a pool of stimuli that reflect Martin et al's (2003) four humour styles and Rawlings and Findlay's (2013) self-deprecating humour might be more relevant in contemporary research examining the perception of humour. The author of this paper was particularly interested in the self-disparaging humour styles (e.g., self-defeating and self-deprecating humour) given the content of this thesis and as such only the results pertaining to these two humour styles are included in this chapter. It is hypothesised that participants will agree in their categorisation of stimuli into these two styles (i.e. more than half of the sample will choose one humour style over the other).

5.2. Method

5.2.1. Participants

The sample consisted of 165 participants, with 115 females ($M = 32.62$ years, $SD = 11.17$) and 50 males ($M = 29.78$ years, $SD = 11.31$). Over half the sample was Australian and 46% were currently completing an undergraduate degree at the time of the survey.

5.2.2. Materials

Participants were asked to report their age, sex, nationality and highest level of education. Following this they were presented with 150 written humour stimuli. Each written stimulus was selected based on theoretical descriptions of Martin et al's (2003) humour styles and Rawlings and Findlay's (2014) self-deprecating humour. Example items included; "If reading makes you smart, then how come when you read a book, they have to put the title of the book at the top of every single page in that

book?” (Affiliative humour), “I was born to South American parents. My mother always told me “We need to keep true to our Spanish roots.” Needless to say my first words were *Knock Knock* “House Keeping” (Aggressive humour), “Saw this book: Building Chicken Coops for Dummies. Is this to show ME how to build a chicken coop? Or how to build a chicken coop for ME?” (Self-enhancing humour), and “I remember taking Spanish tests when I was in school, I would just take all the English words and add “o” to the end of them. I got an Fo.” (Self-disparaging humour). Participants were asked to categorise the jokes according to provided definitions of the humour styles. These were as follows:

Affiliative Humour: Benign, non-hostile, and tolerant humour used to facilitate interpersonal relationships. For example, making funny remarks and joke telling to minimize tension.

Aggressive Humour: using humour to disparage, manipulate, threatment or express contempt for others. It tends to “put down” an individual or group, which may be through the use of, for example, sexism, racism, sarcasm or ridicule.

Self-Enhancing Humour: A tendency to have a humorous outlook on life, be amused by various things in one’s life and to maintain a humourous outlook when faced with stressful situations.

Self-Defeating Humour (Takes it to heart): Making fun of oneself in a potentially disparaging way to amuse and gain approval from others. For example, being the “butt” of jokes and laughing along with others when made fun of. The individual believes what they are saying. This type of humour is damaging to one’s wellbeing.

Self-Deprecating Humour: Humour aimed towards oneself, which involves making light of one’s mistakes and faults in a self-accepting manner. This type of humour does not compromise wellbeing (the individual doesn’t take it to heart) and is used to

facilitate social interaction. This humour often highlights – in a socially pre-emptive way – perceived deficits in one’s general intelligence, personality traits, moral virtues, mental health or physical attractiveness.

5.2.3. Procedure

This project was granted ethics approval by the Swinburne University Ethics Committee, and participants were notified of their right to withdraw at any stage of the study. Participants provided informed consent at the start of the online survey, and then provided information about their demographics. Following this they were presented 150 jokes along with the humour styles definitions and were asked to select which definition best represented the joke.

5.3. Results and Discussion

The data collected for the current study was analysed using frequencies and the results are shown (under the heading “Most Prominent Humour Style Current Study”) in Table 6 below. Frequencies of the categorisations from the third study, which utilized 32 jokes from the current study that varied in participant agreement, are also included in the table to show if the stimuli was reliably categorised across samples. It is important to note that participants had five categories representing each humour style to select from, whereas the third study only used two (self-defeating and self-deprecating). As such, the percentages differ significantly between the two studies. Nevertheless, the most prominent humour style that was selected to represent each humour style is presented in Table 6 below.

As can be seen in table 6, of the 51 jokes that were categorised as either self-defeating or self-deprecating, 86% of the jokes were categorised as being self-deprecating. The jokes that were categorised as self-deprecating contained themes

were self-denigrating, although were less unkind to the target using them than the self-defeating jokes. For example, the jokes that were categorized as self-defeating contained terms (e.g., ugly or hate) that could be considered quite harsh.

The results of the third study revealed that 89% of the jokes were categorised as being the same humour style as they were in the current study. This indicates that the use of these self-disparaging humour stimuli can be used in future studies to examine the perception of their respective humour style. Two of the self-deprecating jokes were perceived as being self-defeating in the third study whilst one of the jokes was categorised as self-deprecating, indicating that these three jokes might not be reliable indicators of either self-defeating or self-deprecating humour, and might not be used in future research to represent either category.

Table 6
Frequencies of Humour Styles Selected for Written Jokes

Self-Directed Joke	Humour Style by Theoretical Definition	Most Frequent Categorisation (%) (Current Study)	Most Frequent Categorisation (%) (Third Study)
1. It was my new year's resolution to lose 20 pounds this year. We've only got 2 months left, and I've only got 30 pounds to go.	Self-Directed	Self-Deprecating (34%)	Self-Deprecating (58%)
2. I remember taking Spanish tests when I was in school, I would just take all the English words and add "o" to the end of them. I got an Fo.	Self-Directed	Self-Deprecating (68%)	Self-Deprecating (86%)
3. I try to be sexy with my girlfriend, but I can't pull it off, it's just not my character. I tried to tell my girlfriend to 'back it up' it up the other day. I'm like, "I've heard that in rap videos, I can do this," right? I was like, "Girl, back it up," and then she copied an archive to my computer data.	Self-Directed	Self-Deprecating (49%)	
4. Do you ever walk up to a group at a party and instantly find out they're talking about something that's way over your head? I never know what to do in that situation. I wish I knew how to say, "I don't know what you're talking about, may I still stand here?"	Self-Directed	Self-Deprecating (42%)	
5. I'm so ugly... I worked in a pet store and people kept asking how big I'd get	Self-Directed	Self-Defeating (70%)	Self-Defeating (67%)
6. Yeah, I'd get plastic surgery. I think I'd get my eyes removed. Then none of it's my problem anymore.	Self-Directed	Self-Defeating (36%)	Self-Defeating (54%)
7. Only your doctor has carte blanche on insults. He just insults you for a while and you pay him for the insults on the way out. "You should lose some weight, and those moles are looking pretty weird." All right, how much for that, doc? When can we get together again? Big fat mole man walking out of your office.	Self-Directed	Self-Deprecating (28%)	
8. I was a re-gifted child.	Self-Directed	Self-Deprecating (48%)	Self-Deprecating (58%)
9. I ate KFC last night. Is one of the 11 secret herbs and spices self-hate?	Self-Directed	Self-Defeating (51%)	Self-Defeating (59%)
10. If you are what you eat, I'm a bit of a dick.	Self-Directed	Self-Deprecating (42%)	

Table 6 cont.

11. I'm so fat that I have my own gravitational pull	Self-Directed	Self-Defeating (61%)	Self-Defeating (61%)
12. I'm not going to Sexpo. I'd hate to find out I've been doing it all wrong.	Self-Directed	Self-Deprecating (58%)	
13. The cute fellow down at the theater always gives me discounted movie tickets. Senior discount.	Self-Directed	Self-Deprecating (54%)	Self-Deprecating (73%)
14. Someone asked if I knew a good plastic surgeon. Would I look like this if I did?	Self-Directed	Self-Deprecating (53%)	Self-Defeating (51%)
15. I don't shave the backs of my legs, not so much because I'm a feminist, I just think, "Fuck it, I can't see it."	Self-Directed	Self-Deprecating (46%)	
16. I'm 34, I'm getting old. You know, everything's starting to drop now that I'm 34. My cheeks are starting to drop, my chin is starting to drop, my boobs are starting to drop, and my standards are starting to drop.	Self-Directed	Self-Deprecating (61%)	Self-Deprecating (55%)
17. I could tell that my parents hated me. My bath toys were a toaster and radio.	Self-Directed	Self-Defeating (35%)	Self-Deprecating (60.4%)
18. I'm at that age where nobody is interested in my story anymore. Like, the only thing anyone wants to hear coming out of the mouth of a 34 year old woman is, "I'm engaged!" Or, "I'm pregnant!" No one wants to hear, "My mental health's in a really good place right now!"	Self-Directed	Self-Deprecating (44%)	
19. Outside a café I had a cupcake that was so good, so delicious, and they had a sign there that said, "We bake our cupcakes just like our mum used to." I realised that's why they were so moist, just from the tears of knowing you're in a loveless marriage.	Self-Directed	Self-Defeating (40%)	
20. There's no feeling like hitting the snooze alarm. There's probably also no feeling like owning your own home, but only one of these things I can immediately accomplish.	Self-Directed	Self-Deprecating (37%)	

Table 6 cont.

21. Having a babysitting job is better than interviewing for the job. That forced me to evaluate myself in a new way; what are the objective details of my life? 30 years old, I'm a homosexual, I'm living in a basement, and I want to work with kids. That's creepy.	Self-Directed	Self-Deprecating (39%)	Self-Defeating (57%)
22. My hearing aids aren't waterproof, so I have to take them out when I'm taking a shower or go swimming. Pool parties are a nightmare; I'm not very good at the game Marco Polo.	Self-Directed	Self-Deprecating (59%)	Self-Deprecating (77%)
23. Some people have told me that I'm grumpy.; it's not that I'm aware of, It's not like I walk around poking children in the eye...not very small ones anyway	Self-Directed	Self-Deprecating (48%)	
24. Every Halloween I like to buy my yearly supply of bunion pads and pregnancy tests so it looks like I'm just putting together a weird costume.	Self-Directed	Self-Deprecating (43%)	Self-Deprecating (73%)
25. Sometimes I tell a joke so lame, I can't help but wonder if I've got a few children running around out there.	Self-Directed	Self-Deprecating (58%)	Self-Deprecating (77%)
26. EVERY time I say I'm cutting carbs I end up passing a hotdog eating competition, the crowd sees my potential, cheers my name and it's OVER.	Self-Directed	Self-Deprecating (53%)	Self-Deprecating (64%)
27. I gotta write these jokes, so I sit at the hotel at night and I think of something that's funny, then I go get a pen and I write it down. Or, if the pen's too far away, I have to convince myself that what I've thought of ain't funny.	Self-Directed	Self-Deprecating (35%)	
28. Visited dad at his office and I didn't remember what floor he's on so I looked at the directory under "D" for dad #girlwithgreatdadproblems	Self-Directed	Self-Deprecating (43%)	
29. Just got shamed for dining alone. "We'll sit you here where it's discrete." Not cool. But now I get to weep and eat with my hands.	Self-Directed	Self-Deprecating (43%)	
30. In my sexual career, all of my attempts at talking dirty have ended in an apology.	Self-Directed	Self-Deprecating (62%)	Self-Deprecating (65%)
31. One time I asked a girl to send me a sexy pic. She wrote back 'you first'. I've been trying to learn Photoshop ever since.	Self-Directed	Self-Deprecating (62%)	Self-Deprecating (71%)

Table 6 cont.

32. There were a lot of signs that it was time to stop drinking. Most of them were street signs that I stole while drinking.	Self-Directed	Self-Deprecating (51%)	Self-Deprecating (80%)
33. The only goals I've had in my life are to get laid and not die. I had to start drinking to accomplish the first and quit to accomplish the second.	Self-Directed	Self-Deprecating (44%)	Self-Deprecating (60%)
34. I'm stable, but only in the sense that I smell like horses.	Self-Directed	Self-Deprecating (53%)	Self-Deprecating (76%)
35. I look like a sex pest, that's fine, it's the look I'm going for. I can blend in near a hedge near a kindergarten.	Self-Directed	Self-Deprecating (33%)	
36. I love sleeping in; I have t-shirt sheets on my bed. The sheets feel like a t-shirt. The only way t-shirt sheets could be more comforting is if they whispered, "You're making the right choices in life." It feels like they do when I'm hitting that snooze button for the third time.	Self-Enhancing	Self-Deprecating (35%)	
37. Up until quite recently I had a wicked moustache. I had to get rid of it because I wasn't getting laid; girls don't like that very much Guys say they like it, or they give you respect, but I think they're just excited because they know it takes me out of the running.	Self-Directed	Self-Deprecating (41%)	
38. I'm never gonna have a kid. Only because I don't feel like I'm qualified to give a proper sex talk.	Self-Directed	Self-Deprecating (55%)	Self-Deprecating (80%)
39. So tired of Joel Madden not returning my calls. I'm not a weirdo stalker, I just want to sit at his feet and stare at him for a couple of weeks.	Self-Directed	Self-Deprecating (44%)	
40. Saw this book: Building Chicken Coops for Dummies. Is this to show ME how to build a chicken coop? Or how to build a chicken coop for ME?	Self-Enhancing	Self-Deprecating (50%)	
41. Doc Martens and undercuts are back. If only the 16 year old me were her now...mum probably still wouldn't allow me to have either	Self-Enhancing	Self-Deprecating (34%)	
42. My photographs don't do me any justice - They just look like me.	Self-Directed	Self-Deprecating (61%)	Self-Deprecating (50%)

Table 6 cont.

43. Most of my diet is raw...cookie dough.	Self-Directed	Self-Deprecating (48%)	Self-Deprecating (73%)
44. Legally I am not required to change out of my pyjamas to go to the supermarket. *whimpers* If only I were brave.	Self-Directed	Self-Deprecating (51%)	
45. Our vet told us that because of my cooking, our cat only has two lives left.	Self-Directed	Self-Deprecating (50%)	Self-Deprecating (86%)
46. I cook dinner for myself like I would an elderly person I really hated.	Self-Directed	Self-Defeating (31%)	Self-Defeating (62%)
47. First I thought I was joking when I said I wasn't coping with the donut shop being closed, but now I think I'm actually not coping. Despair.	Self-Directed	Self-Deprecating (37%)	
48. I'm on that new "seafood" diet. I see food, I eat it	Self-Directed	Self-Deprecating (46%)	Self-Deprecating (82%)
49. I was at a party and I walked up to these people, and they were talking about art, and I don't know anything about art. Of course I said, "oh, I love art". "Well what museums have you been to?" "I have to go home now".	Self-Directed	Self-Deprecating (49%)	
50. First I thought I was joking when I said I wasn't coping with the donut shop being closed but now I think I'm actually not coping. Despair.	Self-Directed	Self-Deprecating (28%)	
51. I was at a party and I walked up to these people, and they were talking about art, and I don't know anything about art. Of course I said, "oh, I love art". "Well what museums have you been to?" "I have to go home now".	Self-Directed	Self-Deprecating (30%)	Self-Deprecating (70%)

$N = 166$

Whilst the current study's findings present a promising attempt to validate written stimuli reflecting Martin et al's (2003) self-defeating humour and Rawlings and Findlay's (2013) self-deprecating humour, they should be viewed in light of the methodological limitations. The study produced 25 stimuli that accurately represent self-defeating and self-deprecating humour, however, it is important to note that there were significantly more stimuli that reflect self-deprecating humour than self-defeating humour. Future studies might want to generate stimuli that reflect this level self-denigration and validate these so as to increase the pool of self-defeating jokes available to researchers in examining the perception of these self-disparaging humour styles.

Another avenue for future research might take into account the additional platforms for communication (e.g., social media; Baruah, 2012). For example, the use of internet memes which are essentially ideas that are spread across the internet in the form of an image, video, or text (Merriam-Webster Dictionary, 2018), have become a popular way for those online to express their self-disparaging humour, with the aim of relating to others (Ask & Abidin, 2018). Future research might validate memes that are reflective of these self-disparaging themes to explore humour in a different mode (apart from jokes and cartoons). In conclusion, this study generated a pool of self-disparaging humour that can be used to examine differences in perceptions of self-defeating and self-deprecating humour and variables that may related to those perceptions. For example, the second and third study of the thesis examine whether the funniness of the joke or the observer's personality might have played a role in how humour styles were categorised. To maintain the relevance humour research, it is encouraged that future researchers explore other modes of humour perception.

Chapter 6: Study 2

6.0 Chapter Overview

This chapter contains a manuscript submitted to the *European Journal of Humour Research*, which examined the perception of self-defeating and self-deprecating humour styles using written vignettes. The authors decided to use of written vignettes to control a few of the confounding variables contained in the first paper that might have influenced perception. This chapter addresses all three research questions by examining whether observers could tell the difference between self-deprecating and self-defeating humour (RQ1), and whether this was based on ratings of target self-esteem and funniness (RQ2). This study also addressed the role of mood by including a measure for observer mood following the presentation of each vignette. Finally, observer variables were examined in relation to the perception of humour (RQ3), in line with Social Projection Theory.

6.1. Manuscript Preamble

The first study of this thesis revealed that the self-deprecating and self-defeating humour styles are perceived as independent humour styles. As expected, the targets categorised as using self-deprecating humour were rated as having a higher self-esteem than the targets categorise d as using self-defeating humour. A limitation of this paper was the use of video clips of popular comedians. It is likely that this would have affected the perception of humour as observers might have had preconceived ideas about the comedian and would have rated their humour and self-esteem in accordance with this. This study also controlled for variables considered to be related to self-esteem, and thus the categorization of self-directed humour, such as; physical appearance, delivery (e.g., confident) and sex. The results and conclusions are outlined in the paper below.

This manuscript contains quantitative data. See Appendix A for the questionnaires.

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I know you (they) don't really mean it: Perceptions of self-disparaging humour using written vignettes

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6.2. Introduction

Humour permeates virtually all social relationships (Gruner, 1997) and may operate as an interpersonal signal (Cann, Zapata & Davis, 2009; Zeigler-Hill, Besser, & Jett, 2013a) communicating information about one's personality and wellbeing, such as level of self-esteem (Zeigler-Hill, Besser, & Jett, 2013, Zeigler-Hill, Besser, Myers et al., 2013). Researchers have conceptualised the use of humour as consisting of styles which serve a variety of interpersonal and intrapersonal functions (Martin, Puhlik-Doris, Larsen, Gray & Weir, 2003). Research has confirmed the intrapersonal functions of these styles (Martin et al., 2003; Greven et al., 2008) but there only a few studies that have examined how these styles are perceived by observers (Cann & Matson, 2014; Kuiper & Leite, 2010; Zeigler-Hill, Besser & Jett, 2013)

Martin et al., (2003) outlined four humour styles that were either self-or-other directed. The two other-directed humour styles include affiliative humour and aggressive humour. As their labels suggest, affiliative humour is aimed at promoting connections with others while aggressive humour is often used to criticise, tease, or put others down and as such may be damaging to personal relationships (Martin et al., 2003). Self-enhancing humour, a self-directed form of humour, is effectively a positive outlook on life and can be used as an internal coping mechanism (Martin et al., 2003). On the contrary, self-defeating humour involves using excessively demeaning comments about oneself in an attempt to gain others' approval. Whilst individuals who use this style of humour are seen as amusing, there is an underlying sense of low self-esteem (Martin et al., 2003). These four humour styles are considered to encapsulate most of the functions of humour.

Whilst Martin et al (2003) postulated that humour using the self as the target is damaging to the individual using it, there is a body of research showing self-directed humour can serve a number of important social functions such as humanising potentially intimidating individuals (Greengross & Miller, 2008) and having an equaling effect on leader-follower

relationships, which might in turn improve those relationships (Hopton, Barling & Turner, 2013; Martin et al., 2003). When humour is used for these purposes, it is often referred to as *self-deprecation* and is considered to be a form of affiliative humour (Martin et al., 2003). This form of humour is different to Martin et al's (2003) self-defeating humour, in that it involves joking about one's shortcomings in an attempt to demonstrate that one is not taking oneself too seriously (Martin et al., 2003). Rawlings and Findlay (2013) developed a scale to measure self-deprecating humour so that they could investigate the similarities and differences between Martin et al's (2003) self-defeating and self-deprecating humour. It was revealed that self-deprecating humour was associated with higher psychological wellbeing, self-esteem, extraversion, agreeableness and lower neuroticism. Therefore, self-deprecating humour contrasts with self-defeating humour, which is associated with lower levels of self-esteem, positive affect, and emotional stability (Rawlings & Findlay, 2013; Martin et al., 2003). This confirmed the notion that two self-directed humour styles exist and are distinct from each other conceptually. These two styles present in a similar way (i.e. as a target using humour about themselves) and as such the authors of this paper questioned how these humour styles would be perceived and what these perceptions might be based on (i.e. target or observer variables). This research adds to the body of research examining the signaling property of humour styles (Zeigler-Hill, Besser & Jett, 2013), with a specific focus on self-disparaging humour.

6.2.1. The Perception of Humour

Cann and Calhoun (2001) examined the associations between sense of humour and perceived personality traits. Observers were presented with targets telling jokes and were asked to rate whether they considered the target to have a high sense of humour and to also rate the target's personality traits. They revealed that those targets rated as having a good sense of humour were likely to be perceived as having positive qualities (e.g., friendliness).

In examining the perception of Martin et al's (2003) humour styles, Cann and Matson (2014) revealed that targets using the adaptive humour styles were perceived as having a good sense of humour and their humour was considered to be more socially desirable than the targets using maladaptive humour. In examining how individual humour styles were perceived, Zeigler-Hill et al., (2013) revealed that the adaptive humour styles were perceived more positively (e.g., targets were rated as having a higher perceived self-esteem, extraversion, and openness) than the injurious humour styles (e.g., positive associations with aggression and neuroticism). Therefore, these studies confirmed the notion that humour styles can signal information about one's personality and wellbeing.

As previously noted, examining the perception of self-defeating and self-deprecating humour is not clear-cut because they present similar content (i.e., jokes directed at the person telling the joke i.e., the target). Brown, Findlay and Brinker (in press) explored whether observers could differentiate between these two humour styles. They presented participants video clips of popular comedians using themselves as the target of their jokes and asked participants to categorise the video clips according to definitions provided. The researchers anticipated that the self-directed content, often aimed at the target's shortcomings, would signal information about the target's self-esteem and therefore indicate which of the two humour styles the target would be considered to be using. Based on this assumption, the participants were also asked to rate each target's self-esteem. Results revealed that participants were able to categorise the humour styles with an adequate level of agreement and that the targets categorised as using *self-deprecating* humour were rated as having higher self-esteem than those using *self-defeating* humour (Brown, Findlay & Brinker, in press). These findings provided evidence that targets using self-deprecating humour are perceived as being different from targets using self-defeating humour.

6.2.2. Self-Esteem as an Interpersonal Signal

Zeigler-Hill, Besser, Myers, et al. (2013) proposed the *status-signaling* model of self-esteem which postulates that an individual's level of self-esteem may influence how that individual presents themselves to others and, consequently, how that individual is perceived by their social environment. Using video-clips of unknown targets, Zeigler-Hill, Besser, Myers et al. (2013) asked participants to rate the targets' self-esteem. They revealed that participants were able to perceive the self-esteem levels of targets, despite not knowing the targets personally. Zeigler-Hill, Besser and Jett (2013) expanded on this to explore self-esteem ratings within the context of humour. They asked targets to rate their own self-esteem and perceivers who knew the target personally were also asked to rate the targets' self-esteem. Zeigler-Hill, Besser, Myers et al. (2013) found high self-other agreement of self-esteem, indicating that observers are able to accurately rate others' self-esteem. It was also revealed that the target using self-defeating humour was perceived as having a low self-esteem. This provided evidence that observers are able to rate others' self-esteem and are also able to make judgments about a target's self-esteem based on the type of humour they engage in.

Brown et al. (in press) also found that self-defeating targets were rated as having a low self-esteem, and these ratings were significantly lower than their self-deprecating counterparts. However, the authors noted that a limitation of the study might be the use of video clips, which presents possible confounding variables such as the delivery of the jokes and observable target characteristics (e.g., physical attractiveness) that may have influenced the categorisation of humour or the perception of self-esteem. Taking these limitations into account, the current study used written vignettes to confirm the findings contained in Brown et al. (in press). The use of written vignettes will allow for researchers to control for different target characteristics to assess their potential influence on whether individuals perceive a joke as self-deprecating or self-defeating. For example, an attractive target might be seen to have a

higher self-esteem and thus perceived as using self-deprecating instead of self-defeating humour. The authors considered target sex, physical appearance and confidence to be important variables in the perception of self-esteem.

6.2.2.1. Self-Esteem and Physical Appearance

Social evaluations are often based on perceived physical attractiveness (Willis & Todorov, 2006). Because physical appearance is observable, predictions about an individual (e.g., their personality) are often based on their appearance (Dion, Berscheid, & Walster, 1972). Research shows that attractive individuals are assumed to have more desirable personality traits (e.g., extraversion) and generally have improved prospects (Dion, Berscheid & Walster 1972), greater social competence (Eagly, Ashmore, Makhijani & Longom, 1991), are popular (Feingold, 1992) and possess high self-esteem (Cialdini, 1993). The assumption that attractive individuals are likely to possess a higher self-esteem than their unattractive counterparts presents a convincing argument that physical appearance is likely to influence how observers perceive self-esteem. Brown et al. (in press) revealed that perceived target self-esteem demarcates the self-directed styles, with targets using self-deprecating humour being perceived as having a higher self-esteem than their self-defeating counterparts (Brown et al., in press). As such, targets varying in attractiveness provide observers with a gauge for self-esteem, which might play a significant role in determining which self-directed humour style that target is using.

The attractiveness of the target may also influence the perception of the joke in a second way. The believability of a joke, that is, whether it is likely that the target means what they are saying about themselves, might influence the categorisation of self-defeating or self-deprecating. An attractive target seen as having higher self-esteem poking fun at their incompetence may be judged to be using self-deprecating humour because the observer does

not believe the attractive target is incompetent and does not really mean what they are joking about.

Target gender can be an observable characteristic, and research has revealed consistent sex differences in self-esteem, with males reporting higher self-esteem than females (Bleidorn et al., 2016). As such, it is likely that target gender would also impact on the perception of self-directed humour. Moreover, it is widely documented that males are more likely to engage in all four of the humour styles, particularly aggressive and self-defeating humour, than females and this was found cross-culturally, in Lebanon (Kazarian & Martin, 2006), Belgium (Sarglou & Scariot, 2003) and North America (Martin et al., 2003). However, when examining gender differences in the United States of America, men were only more likely to use aggressive humour than females and females were more likely to engage in self-defeating humour than males (Hampes, 2006). Given these gender differences in the use of humour and self-esteem, it would be interesting to examine whether these sex differences translate in the perception of humour. In other words, examining whether male targets are perceived to engage in the adaptive humour style (self-deprecating humour) and females are perceived as more being likely to engage in the maladaptive humour style (self-defeating humour style). Including gender as a target variable could provide interesting insight into how males' and females' humour are perceived as there is limited research examining this outside of romantic attraction (e.g. Bressler & Balshine, 2006; Bressler, Martin & Balshine, 2006).

6.2.2.2. Self-Esteem and Self-Confidence

Self-confidence is defined as one's level of trust in oneself to engage successfully with the world, and individuals higher on self-confidence tend to have a high self-esteem (Judge & Bono, 2001). In addition, there is evidence to suggest that those high in self-confidence may be more likely to engage in a variety of social behaviours and are therefore

considered to be more extraverted (Robins, Tracy, Trzesniewski, Potter & Gosling, 2001) and happy as a result (Costa & McCrae, 1980; Diener, Sandvik, Pavot, & Fujita, 1992; Gutiérrez et al., 2005; Hayes & Joseph, 2003). Consequently, they are more likely to habitually employ positive forms of humour and avoid engaging in negative uses of humour (Ford, Lappi, & Holden, 2016). Self-deprecating humour is considered to be a positive form of humour (Rawlings & Findlay, 2013) and self-defeating humour is considered negative (Martin et al., 2003), and as such it is likely that observers presented with vignettes of targets differing in confidence are likely to perceive the self-directed jokes differently.

6.2.3. Intrapersonal Variables as Predictors of Perception

Brown, Findlay, and Brinker (in press) anticipated that observers might rely on their own internal characteristics to guide their perceptions of humour in a process of social projection called assumed similarity (Bazinger & Kuhmer, 2012; Cronbach, 1995). Researchers have found that observers rely on their internal characteristics to make judgments about others' personality traits (Ready, Clark, Watson, & Westerhouse, 2000; Watson, Hubbard, & Wiese, 2000). When examining the intrapersonal variables that predict the categorisation of self-deprecating humour rather than self-defeating humour, Brown et al. (in press) revealed that observer self-reported affiliative humour use and agreeableness emerged as predictors. Those individuals who themselves engaged in affiliative humour were likely to perceive a self-directed joke as being self-deprecating rather than self-defeating. Self-deprecating humour is considered to be a component of affiliative humour (Martin et al., 2003) and therefore in line with social projection theory (Critcher & Dunning, 2009; Dunning & Hayes, 1996) individuals who use affiliative humour are likely to interpret self-directed content as self-deprecating over self-defeating given their use of adaptive humour.

It was further revealed in Brown, Findlay, and Brinker (in press) that increased observer positive affect predicted higher perceived self-esteem for those using self-

deprecating humour and increased observer self-esteem predicted higher ratings of self-esteem of those using self-defeating humour. This confirmed that, in line with social projection theory (Critcher & Dunning, 2009; Dunning & Hayes, 1996), observers with high positive affect and self-esteem were more likely to rate others as having high self-esteem and behaving in ways consistent with their positive affect. These findings lend support to the idea that observers can rely on their internal characteristics to guide their perceptions of others (Critcher & Dunning, 2009; Dunning & Hayes, 1996)

6.2.3.1. Funniness as an Indicator of Humour Style

Researchers have examined the way in which humour operates interpersonally within the context of romantic attraction (Ziegler-Hill, Besser, & Jett, 2013; Greengross & Miller, 2012), however research examining how humour styles are perceived by observers who are not romantically involved with the target is scanty. Over and above humour categorisation and self-esteem ratings, Brown, Findlay and Brinker (in press) asked participants to rate the funniness of targets utilizing self-directed humour. They found that self-defeating humour was rated as slightly, albeit significantly, funnier than self-deprecating humour. Greater observer extraversion predicted increased funniness ratings of both the self-deprecating and self-defeating targets, which was unsurprising given the positive association between extraversion and humour appreciation (Moran, Rain, Page-Gould, & Mar, 2014). Higher observer negative affect also significantly predicted higher funniness ratings for both humour styles, and it is likely that when individuals who are experiencing negative affect (i.e. negative emotions) are exposed to humorous stimuli, they are relieved from their low emotional state thus exacerbating their emotional response to the humour.

6.2.4. The Role of Observer Mood in Humour Perception

In essence, these results confirmed the unsurprising notion that humour is subjective and one's appreciation of humour is likely to be explained by the perceiver's internal

characteristics. One characteristic that predicted self-esteem and funniness ratings was that of mood. Mood refers to the one's propensity to experience and express emotions (Watson, Clarke & Tellegen, 1988) and is conceptualised as consisting of two states, namely positive mood and negative mood. Positive mood reflects high energy and enthusiasm, whilst negative mood is comprised of aversive mood states such as anger and contempt (Watson, Clarke & Tellegen, 1988). There is limited research examining the way in which mood affects the perception of humour, although researchers suggest that it does impact on the way in which individuals interpret others and their behaviours (Forgas, Bower & Krantz, 1984) and as such it is likely to play a role in the perception of humour. The authors of the current study examined this by measuring participant mood following the presentation of each humour stimulus.

6.2.5. Study Aims, Research Questions and Hypotheses

The first aim was to expand on Brown, Findlay and Brinker's (in press) study with the use of written vignettes of targets differing in sex, physical appearance and confidence that exhibit self-directed humour. The purpose of using vignettes was to examine whether these variables play a role in whether humour is perceived as either self-defeating or self-deprecating humour. The authors examined whether participant self-esteem, humour use, affect and personality play a role in humour perception similar to Brown et al. (in press) to confirm the findings contained in their study. Observers' ratings of their own mood in addition to their ratings of target self-esteem and funniness were included as other potential predictors in this perception of humour. The research questions and related hypotheses of the current study are listed below.

Research Question 1: Is humour categorisation based on Target Variables?

H1a: It was predicted that the man target, and the attractive and confident targets (irrespective of gender), would be perceived as using self-deprecating humour whilst the

woman target and the physically unattractive and self-conscious targets, will be perceived as using self-defeating humour.

H1b: In line with Brown, Findlay and Brinker (in press) it was predicted that observer self-reported affiliative humour and observer agreeableness would predict the selection of self-deprecating humour over self-defeating humour.

Research Question 2: Will targets categorised as using self-deprecating humour be perceived as being different to those using self-defeating humour?

H2a: In line with Brown, Findlay and Brinker (in press), it was hypothesised that the targets rated as using self-deprecating humour would be perceived as having a higher self-esteem than the self-defeating targets, and the target categorised as using self-defeating humour would be rated as being funnier than the self-deprecating target. It was also hypothesized that these ratings would predict the categorisation of humour, with higher target self-esteem and funniness ratings positively predicting the categorisation of self-deprecating humour.

H2b: Observer ratings of mood following the presentation of each target will be higher for the targets using self-deprecating humour than those using self-defeating humour.

H2c: It was anticipated that observer mood following the presentation of each target will predict the categorisation of humour, with those in a positive mood categorising a target as using self-deprecating humour and those in a negative mood categorising a target as using self-defeating humour.

Research Question 3: What are the predictors of Self-Esteem and Funniness?

H3: It was hypothesised that mood as measuring using the Positive and Negative Affect Scale (Watson, Clarke & Tellegen, 1988) would predict scores of funniness and self-esteem, with positive affect positively predicting self-esteem ratings for self-deprecating targets and negative affect predicting higher funniness ratings of the self-defeating targets. It

was hypothesised that extraversion would positively predict ratings of funniness of humour styles.

Research Question 4: How are attractive and confident targets perceived irrespective of humour style?

H4: It was predicted that the physically attractive targets and confident targets will be perceived as having a higher self-esteem and to be funnier than the self-conscious targets.

6.3. Method

6.3.1 Participants

There were 295 participants recruited, of whom over 95% were Australian citizens. There were 243 women (M age = 31 years, SD = 11.16 years) and 52 men (M age = 32 years, SD = 9.89 years). For 55% of the participants, their highest level of education was a partially completed university undergraduate degree, 11% of the participants had completed an undergraduate degree and three percent of participants had a postgraduate degree, indicating that nearly 70% of the sample was university educated.

6.3.2. Measures

A vignette methodology was utilised for the study. First, demographic information (age, sex, highest level of education and country of birth) was collected, followed by questionnaires measuring self-esteem, affect, humour styles, and personality. Finally participants were presented with a series of vignettes and corresponding questions. The questionnaires are detailed below.

Self Esteem. The Rosenberg Self Esteem scale (Rosenberg, 1965) consists of 10 items measuring self-worth. Participants are asked to rate their agreement with the items on a four-point scale with responses ranging from 1 (*Strongly Disagree*) to 4 (*Strongly Agree*). An example of an item is “I feel that I have a number of good qualities”. Four items representing

low self-esteem were reverse scored. Scores range from 10 – 40 with higher scores representing greater self-esteem. The scale has been shown to have excellent internal consistency (Cronbach's $\alpha = .77$; Rosenberg, 1965)

Personality. The International Personality Item Pool (IPIP-5-50; Goldberg, 1992) was used to measure the participants' personality traits and consists of 50 statements, which fall into five sub-scales of 10 items per scale. These are Extraversion (e.g., "Am the life of the party"), Emotional Stability (e.g., "Am relaxed most of the time"), Openness (e.g., "Have a vivid imagination"), Agreeableness (e.g., "Sympathize with others' feelings") and Conscientiousness (e.g., "Pay attention to details"). Participants are asked to indicate the degree to which each statement accurately describes them on a five-point Likert scale with anchors 0 (*This statement definitely does not describe you*) and 4 (*This statement describes you very well*). The average rating across items on each factor was calculated for the current study. All scales have been shown to have satisfactory internal consistency (Extraversion $\alpha = .88$, Agreeableness $\alpha = .79$, Conscientiousness $\alpha = .81$, Emotional Stability $\alpha = .82$, and Openness $\alpha = .82$; Donnellan, Oswald, Baird & Lucas, 2006)

Affect. The Positive Affect and Negative Affect Scale (PANAS; Watson, et al. 1988) consists of 60 terms that describe feelings and emotions aimed at measuring participant affect. It is comprised of two factors namely; Positive Affect (e.g., "attentive") and Negative Affect (e.g., "irritable"). Participants are asked to indicate the degree to which each word accurately described their experience over the past day using a five-point Likert scale with anchors 0 (Very Slightly or Not at All) and 4 (Extremely). Both scales have been shown to have very good internal consistency (Positive Affect $\alpha = .90$ and Negative Affect $\alpha = .87$; Watson, Clark & Tellegen, 1988).

Humour Styles. The Humour Style Questionnaire (Martin et al., 2003) is a 32-item scale used to measure the way in which participants express humour (Martin et al., 2003)

across four dimensions items per dimension. The dimensions are Affiliative (“I laugh and joke a lot with my closest friends”), Self-Enhancing (e.g., “Even when I’m by myself, I’m often amused by the absurdities of life”), Self-Defeating (e.g., “I often go overboard in putting myself down when I am making jokes or trying to be funny”), and Aggressive (e.g., “If I don’t like someone, I often use humour or teasing to put them down”) humour.

Participant responses are on a 7-point Likert scale, with 1 (*Totally Disagree*) and 7 (*Totally Agree*). The subscale scores are computed by summing the relevant items producing possible scores from eight to 40, with higher scores indicating higher levels of that humour style. Each sub-scale has been shown to be reliable (Affiliative $\alpha = .80$, Self-Enhancing $\alpha = .81$, Aggressive $\alpha = .77$, and Self-Defeating $\alpha = .80$; Martin et al., 2003).

Self-Deprecating Humour. The self-deprecating humour scale (Rawlings & Findlay, 2013) consists of 13 items measuring participants’ use of self-deprecating humour across two sub-factors. These are Social Self-Deprecating Humour (“I make jokes about my being inept”) and Personal Self-Deprecating Humour (“I make fun about my mistakes because I am comfortable with them”). Participants record their responses on a 5-point Likert scale, with 1 (*Strongly Disagree*) and 5 (*Strongly Agree*). The scale has been shown to have good internal reliability (Personal $\alpha = .87$ and Social $\alpha = .85$; Brown & Findlay, 2013).

6.3.3. Materials

6.3.3.1. Vignettes

We constructed ten vignettes to describe hypothetical scenarios with a target using humour.

The three jokes were selected from a validated pool of humour stimuli that reflect self-deprecating and self-defeating themes (Brown, 2018). The vignettes were divided into three groups based on the characteristic in which the target differed. These characteristics are (a) sex (man/woman); (b) physical attractiveness (attractive/unattractive); and (c) confidence (confident/self-conscious). Each participant was randomly presented with one of the vignettes for each group.

Gender Vignette 1

Jennifer (John) is sitting with her (his) group of friends and makes the following joke: ***“I’m so ugly that when I worked in a pet store people kept asking how big I’d get”***

Physical Attractiveness Vignette 1

Amanda (Jack) is a 22-year-old studying Marketing. She (he) does promotional modeling in her (his) spare time and hopes to run her (his) own modeling agency once she (he) has finished her course. She (he) is sitting with her (his) group of friends and makes the following joke: ***“I remember taking Spanish tests when I was in school, I would just take all the English words and add “o” to the end of them. I got an Fo”***

Physical Attractiveness Vignette 2

Amanda (Jack) is a 22-year-old studying Marketing. She (he) is a part-time retail assistant at Target and is often described as “nerdy and mousy.” She (he) is sitting with her (his) group of friends and makes the following joke: ***“I remember taking Spanish tests when I was in school, I would just take all the English words and add “o” to the end of them. I got an Fo”***

Confidence Vignette 1

Tilly (Ben) is often described as confident and self-assured. She (he) is sitting in a café with a group of friends and makes the following joke: ***“Do you ever walk up to a group at a party and instantly find out they’re talking about something that’s way over your head? I never know what to do in that situation. I wish I knew how to say, “I don’t know what you’re talking about, may I still stand here?”***

Confidence Vignette 2

Tilly (Ben) is often described as self-conscious and tends to perceive herself (himself) negatively. She (he) is sitting in a café with a group of friends and makes the following joke:

“Do you ever walk up to a group at a party and instantly find out they’re talking about something that’s way over your head? I never know what to do in that situation. I wish I knew how to say, “I don’t know what you’re talking about, may I still stand here?”

6.3.3.2. Post-Vignette Questions

Following each vignette, participants were asked to rate their own mood on a Visual Analog scale (VAS) from 1 (“Very negative”) to 10 (“Very positive”), how funny they found the joke on a VAS from 1 (“Not funny at all”) to 10 (“Very funny”), their perception of the target’s self-esteem on a VAS from 1 (“Very low”) to 10 (“Very high”) and to categorise the joke as either self-defeating or self-deprecating (where the definitions of these were provided).

6.3.4. Procedure

Participants were recruited using the Research Experience Program at Swinburne University of Technology. They were provided with a link to the anonymous online survey. The first screen of the survey provided participants with information about the study and their rights as participants. Completion of the survey was taken as consent to participate. The questions began with requests for demographic information followed by the questionnaires. Each participant was presented with one vignette per group (three overall) and the corresponding questions.

6.3.5. Statistical Analyses

6.3.5.1. Data Screening

The data were screened for out of range values, missing values and univariate outliers. There were no out of range values present in the dataset, however, there were a few missing values for individual questionnaire items. There was no pattern of missing values, with no missing values across cases on the same item. Prior to computing scores for each scale, all of

the missing values were replaced with the mean of the remaining items in the scale for that case. The few univariate outliers for each of the variables were replaced with a value three standard deviations from the mean thus reducing these scores to normal (Tabachnik & Fidell, 2001).

6.3.5.2. Analyses Conducted to Test the Hypotheses

To test the first set of hypotheses predicting humour categorisation differences across target variables, crosstabulation analyses and binary logistic regressions were conducted. Hierarchical regressions and Independent Samples t-tests were conducted to test the second and third set of hypotheses, and a combination of Independent Samples t-tests and Analysis of Variance Analyses (ANOVAs) were conducted to test the fourth hypothesis.

6.4 Results

The Descriptive Statistics and reliability statistics are displayed in Table 7 below.

Table 7
Means, Standard Deviations and Cronbach's Alphas for all variables contained in the current study

Variables	Mean	SD	Cronbach's α
Affiliative Humour	43.38	7.31	0.88
Self-Enhancing Humour	36.02	5.96	0.82
Aggressive Humour	27.66	6.65	0.72
Self-Defeating Humour	29.77	7.83	0.81
Social Self-Deprecating Humour	25.77	3.76	0.90
Personal Self-Deprecating Humour	18.07	5.03	0.85
Self-Esteem	29.65	4.64	0.89
Positive Affect	32.8	8.46	0.91
Negative Affect	19.88	7.32	0.90
Extraversion	32.43	7.81	0.88
Emotional Stability	28.71	7.28	0.85
Agreeableness	41.21	5.14	0.80
Conscientiousness	34.96	6.62	0.82
Openness to experience	34.76	5.11	0.79

$N = 297$

The participants' average use of the humour styles was similar to that of Martin et al's (2003) who also recruited a sample of undergraduate students. The average ratings of affiliative humour use were slightly lower in the current study than in Martin et al (2003) and the average ratings of self-defeating humour were slightly higher in the current study. Participant average positive affect was similar to the average in Watson et al. (1988) although participant negative mood scores were slightly higher than Watson et al. (1988; $M = 17.4$, $SD = 6.2$). The average personality scores were similar to that of Jones (2014), who aimed to provide norms for the IPIP-50. Participants were slightly lower on average openness to experience in the current study compared to the average in Jones (2014; $M = 38.38$, $SD = 5.69$). A bivariate correlations analysis revealed, consistent with Rawlings and Findlay (2013), that self-deprecating humour shared a moderate positive relationship ($r = .30$) with self-esteem ($p < .001$), whilst self-defeating humour shared a small, negative ($r = -.17$) relationship with self-esteem ($p < .001$). Self-deprecating humour shared a moderate, positive ($r = .38$) relationship with each other ($p < .001$).

6.4.1. Sex Differences in Humour Style Use

An independent samples t-test was conducted to examine whether sex differences exist in the use of Martin et al's four humour styles and self-deprecating humour. No significant sex differences were found across humour styles. Whilst McCosker and Moran (2012) revealed that Australian males engage in aggressive humour more than their female counterparts, it is likely that the males and females did not differ on this humour style in the current study based on the significantly larger proportion of females than males (65% more females) compared with 45% (McCosker and Moran, 2012).

6.4.2. Humour Style Categorisation

Participants were asked to categorise the humour styles of targets differing in sex, physical attractiveness, and confidence. To test the first set of hypotheses predicting humour

categorisation differences across target variables, crosstabulation analyses and binary logistic regressions were conducted.

6.4.2.1 Humour Style Associations

Three crosstabs were produced to examine whether the vignettes were categorised as either self-deprecating or self-defeating as a function of sex, physical attractiveness and confidence. The results are displayed in Table 8 below.

Table 8
Crosstabulations for Humour Style Categorisation across Target Sex, Physical Attractiveness and Confidence
N = 295

Vignette Group	Targets	Humour Style		<i>n</i>
		Self-Defeating	Self-Deprecating	
Group 1	Woman	81 (58.7%)	57 (41.3%)	138
	Man	85 (53.5%)	74 (46.5%)	159
Group 2	Attractive Woman	13 (17.3%) _a	62 (82.7%) _a	75
	Unattractive Woman	15 (17.4%) _a	71 (82.6%) _a	86
	Attractive Man	7 (11.5%) _a	54 (88.5%) _a	61
	Unattractive Man	16 (21.3%) _a	59 (78.7%) _a	75
Group 3	Confident Woman	31 (40.8%) _a	45 (59.2%) _b	76
	Self-Conscious Woman	44 (65.7%) _a	23 (34.3%) _b	67
	Confident Man	37 (41.9%) _a	52 (59.1%) _b	89
	Self-Conscious Man	39 (60.9%) _a	25 (39.1%) _a	65

For vignette group 1, the results revealed no significant association between gender and humour style perception ($\chi^2(1, 294) = 9.39, p = .33$).

For vignette group 2, the results revealed no significant association between physical attractiveness and self-disparaging humour perception ($\chi^2(3, 297) = 2.31, p = .51$).

For vignette group 3, both confident man and woman targets were associated with self-deprecating humour and these associations were statistically significant ($\chi^2(3, 294) =$

14.56, $p = .002$). Both the self-conscious man and woman targets were associated with self-defeating humour, but this association was only significant for the self-conscious woman target.

6.4.2.2. Predictors of Humour Style Categorisation

Three binary logistic regression analyses were conducted to test whether the participants' individual characteristics (i.e., personality, mood, humour styles) predicted the selection of self-deprecating humour or self-defeating humour.

For each of the vignette groups, a binary logistics regression was conducted. Demographic information was entered at stage 1, observer mood and ratings of target self-esteem and funniness were entered at stage 2, the vignette grouping variable was entered at stage 3, personality at stage 4, wellbeing variables (affect and self-esteem) at stage 5 and finally, the humour styles at stage 6. Results of the Binary Logistic Regression are presented in Table 9 below.

For the first vignette group, the overall model was not significant ($\chi^2(6, 22) = 5.97, p = .43$), however, the Hosmer-Lemeshow revealed that the model was a good fit ($\chi^2 = 4.14, p = 0.84$). For the vignette group 2, the overall model was not significant ($\chi^2(6, 22) = 8.27, p = .22$), yet the Hosmer-Lemeshow revealed that it was a good fit ($\chi^2 = 13.24, p = 0.10$). The model was also not significant for the final vignette group ($\chi^2(6, 22) = 5.03, p = 0.54$), however, the Hosmer-Lemeshow again revealed that the model was a good fit ($\chi^2(8) = 3.43, p = .91$). Therefore the results from all three binary logistic regressions could be interpreted.

Table 9
Binary Logistic Regression for Predictors of Self-Directed Humour

Vignette Group	Predictors	B	SE	Wald	Exp(B)	CI (95%)
Group 1 (Sex)				21.26		
	Self-Esteem Ratings	0.37	0.08	***	1.45	1.24-1.70
Group 2 (Physical Attractiveness)	Negative Affect	-0.05	0.02	4.54**	0.95	0.91-0.99
	Self-Esteem Ratings	0.53	0.13	15.47***	1.69	1.30-2.19
	Negative Affect	-0.10	0.04	7.36*	0.91	0.84-0.97
	Positive Affect	-0.13	0.04	10.93**	0.88	0.82-0.95
Group 3 (Confidence)	Self-Esteem Ratings	0.45	0.08	35.33***	1.57	1.35-1.81
	Funniness Ratings	0.16	0.07	5.50*	1.17	1.03-1.34

$N = 294$, *** $p < .001$, ** $p < .01$, * $p < .05$, B = Regression Coefficient, SE = Standard Error, Exp(B) = Exponential Beta, CI = Confidence Interval

Overall, when controlling for all other predictors, observer ratings of target self-esteem predicted the selection of self-deprecating humour over self-defeating humour for all three vignette groups. Self-esteem ratings positively predicted the selection of self-deprecating humour rather than self-defeating humour. Negative affect negatively predicted the categorisation of self-deprecating humour over self-defeating for both vignette group 1 and 2, and positive affect negatively predicted the categorisation of self-deprecating humour over self-defeating for group 2, when all other predictors were controlled. Finally, funniness ratings positively predicted the selection of self-deprecating humour over self-defeating humour for group 3, when all other predictors were controlled. This supported the hypothesis that target self-esteem and funniness ratings would positively predict the categorisation of self-deprecating humour rather than self-defeating humour.

6.4.2.3. *The Role of Observer Mood in Humour Categorisation*

Three Independent Samples t-tests examining participant mood revealed that participants who rated the vignette as self-deprecating reported positive mood ($M_1 = 4.95$, $SD = 2.69$; $M_2 = 6.02$, $SD = 2.09$; $M_3 = 5.90$, $SD = 2.00$) than those who categorised the vignette

as self-defeating humour ($M_1 = 3.78, SD = 2.61; M_2 = 4.98, SD = 2.83; M_3 = 4.66, SD = 2.26$) and this difference was significant ($t_1(291) = -3.77, p < .001; t_2(58.91) = -2.43, p = .02; t_3(292) = -4.97, p < .001$). These results supported the hypothesis that individuals in a positive mood following the presentation of target would categorise self-disparaging humour as self-deprecating.

6.4.3. Self-Esteem Perception

To address the second set of hypotheses, three Independent Samples t-tests were conducted.

These assessed whether there was a significant difference between (levels of) perceived self-esteem of the self-deprecating and self-defeating humour targets differing in sex, physical attractiveness and confidence. The results revealed that across all three vignette groups, the targets categorised as using self-deprecating humour ($M_1 = 3.05, SD = 2.47; M_2 = 6.34, SD = 1.90; M_3 = 5.79, SD = 2.31$) were consistently rated as having a greater self-esteem than those who were categorized as using self-defeating humour ($M_1 = 1.27, SD = 1.63; M_2 = 4.31, SD = 2.18; M_3 = 2.83, SD = 2.31$) and this was significant ($t_1(211.36) = -7.05, p < .001; t_2(61.71) = -5.99, p < .001; t_3(292) = -11.00, p < .001$). These results supported the hypothesis that the targets categorized as using self-deprecating humour would be perceived as having a higher self-esteem than the self-defeating targets.

6.4.3.1. Predictors of Self-Esteem Perception

To examine which variables predicted the ratings of target self-esteem, the data file was split by humour style selection to produce separate results for self-defeating humour and self-deprecating humour. Following this, three hierarchical regressions were conducted to analyze the predictors of self-esteem perception for each of the three vignette groups. The regression model statistics and significant predictors for self-esteem perception are revealed in Table 4.

For Vignette Group 1 (sex), both observer mood in relation to the target and target funniness ratings positively predicted the perception of self-esteem of those targets rated as

using self-defeating and self-deprecating humour. Negative affect positively predicted the self-esteem ratings of the target categorised as using self-defeating humour.

For Vignette Group 2 (physical attractiveness), funniness ratings positively predicted the perception of self-esteem of both targets rated as using self-deprecating and self-defeating humour. In addition, observer mood in relation to the target and positive affect positively predicted the self-esteem ratings of the targets categorised as using self-deprecating humour,

For Vignette Group 3 (confidence) illustrating targets that differed in confidence, observer mood and funniness ratings positively predicted the perception of self-esteem for both targets using self-defeating and self-deprecating humour, Observer self-enhancing humour positively predicted self-esteem ratings of the target rated as using self-defeating humour and self-reported affiliative humour positively predicted self-esteem ratings for the target categorised as using self-deprecating humour. The statistics are presented in Table 10 below.

Table 10
Predictors of Self-Esteem Perception of the Targets Rated as Using Self-Defeating and Self-Deprecating Humour across Three Vignette Groups

Vignette Groups	Humour Style	Model Stats	Predictors	Beta	T-test
Group 1	Self-Defeating	$F(16, 160) = 3.55^{**}$	Observer Mood	0.21	2.63*
			Funniness Ratings	0.27	3.46**
			Negative Affect	0.24	2.51*
	Self-Deprecating	$F(16, 238) = 3.18^{**}$	Observer Mood	0.24	2.52*
			Funniness Ratings	0.22	2.31*
Group 2	Self-Defeating	$F(16, 47) = 3.41^*$	Funniness Ratings	0.68	4.71**
	Self-Deprecating	$F(16, 243) = 6.46^{**}$	Observer Mood	0.27	3.74**
			Funniness Ratings	0.32	4.83**
			Positive Affect	0.23	-3.23**
Group 3	Self-Defeating	$F(16,148) = 5.06^{**}$	Observer Mood	0.19	2.25*
			Funniness Ratings	0.48	6.26**
			Self-Enhancing Humour	0.23	2.25*
	Self-Deprecating	$F(16,144) = 3.22^{**}$	Observer Mood	0.33	3.80**
			Funniness Ratings	0.21	2.64*
			Affiliative Humour	0.21	2.03*

$N = 294$, *** $p < .001$, ** $p < .01$, * $p < .05$

6.4.4 Funniness Ratings

To test the second set of hypotheses regarding differences in funniness ratings between self-defeating and self-deprecating humour (across the three vignette groups), three Independent Samples t-tests were conducted. The results revealed that across all three vignette groups, the targets categorised as using self-deprecating humour ($M_1 = 2.72$, $SD = 2.64$; $M_2 = 4.20$, $SD = 2.74$; $M_3 = 3.88$, $SD = 2.66$) were consistently rated as being funnier than those who were categorized as using self-defeating humour ($M_1 = 1.41$, $SD = 1.89$; $M_2 = 3.22$, $SD = 2.73$; $M_3 =$

1.88, $SD = 2.11$) and this was significant ($t_1(223.92) = -4.75, p < .001$; $t_2(292) = -2.28, p = 0.02$; $t_3(274.73) = -7.13, p < .001$). These results do not support the hypothesis that the targets categorised as using self-defeating humour would be perceived as being funnier than the self-deprecating targets as per Brown et al. (in press).

6.4.4.1. Predictors of Funniness Ratings

To examine the predictors of funniness ratings, the data file was split to compare the humour style selection for each vignette category (self-deprecating versus self-defeating). Following this, three hierarchical regressions were conducted to analyze the predictors of funniness ratings for each of the three vignette groups. The regression model statistics and significant predictors for self-esteem perception are revealed in Table 11 below

Table 11
Predictors of Funniness Ratings of Targets Categorised as Using Self-Defeating and Self-Deprecating Humour across Three Vignette Groups

Vignette Groups	Humour Style Selected	Model Stats	Predictors	Beta	t-test
Group 1	Self-Defeating	$F(16, 160) = 4.58^{**}$	Observer Mood	0.27	3.31 ^{**}
			Self-Esteem Ratings	0.29	3.46 ^{**}
	Self-Deprecating	$F(16, 128) = 3.70^{**}$	Observer Mood	0.30	3.4 ^{**}
			Self-Esteem Ratings	0.21	2.31 [*]
Group 2	Self-Defeating	$F(16,47) = 4.06^{**}$	Self-Esteem Ratings	0.61	4.71 ^{**}
			Affiliative Humour	0.48	2.55 ^{**}
	Self-Deprecating	$F(16,243) = 8.28^{**}$	Observer Mood	0.39	5.93 ^{**}
			Self-Esteem Ratings	0.29	4.83 ^{**}
Group 3	Self-Defeating	$F(16,148) = 5.16^{**}$	Self-Esteem Ratings	0.47	6.26 ^{**}
			Negative Affect	0.19	1.98 [*]
	Self-Deprecating	$F(16,144) = 1.98^{*}$	Self-Esteem Ratings	0.24	2.64 [*]

$N = 294$, *** $p < .001$, ** $p < .01$, * $p < .05$

For all three vignette groups, self-esteem ratings positively predicted the funniness of targets using both self-defeating and self-deprecating humour. For Vignette group 1, observer mood positively predicted the perceived funniness of targets categorised as using self-defeating and self-deprecating humour. For Vignette Group 2, self-report affiliative humour positively predicted the perception of funniness for the target categorised as using

self-defeating humour. For Vignette Group 3, negative affect positively predicted higher ratings of funniness of the target rated as using self-defeating humour.

6.4.5. Target Variables

To assess the fourth hypothesis regarding target self-esteem and funniness differences across sex, physical attractiveness and confidence, a number of Independent Samples t-tests were conducted.

6.4.5.1. Perceiving Funniness and Self-Esteem Based on Target Sex

An Independent Samples t-test was conducted to assess whether target men and women differed in perceived self-esteem and funniness. The results revealed that the man target was rated funnier ($M = 2.25, SD = 2.32$) than the woman target ($M = 1.69, SD = 1.69$) and this difference was significant ($t(291) = -2.05, p = 0.04$). Whilst the man target was rated as having as higher self-esteem ($M = 2.28, SD = 2.20$) than the woman target ($M = 1.78, SD = 2.23$), however this difference was not significant ($t(291) = -1.91, p = 0.06$).

6.4.5.2. Perceiving Funniness and Self-Esteem Based on Target Physical Attractiveness

A One-Way ANOVA was conducted to examine if there were significant differences in perceived self-esteem and funniness for physically attractive and unattractive targets. The results revealed that both the attractive man ($M = 6.81, SD = 2.12$) and woman ($M = 6.41, SD = 2.02$) targets were perceived as having a higher self-esteem than the physically unattractive man ($M = 5.35, SD = 1.96$) and woman target ($M = 5.58, SD = 1.98$) and this difference was significant ($F(3, 296) = 8.27, p < .001$). Whilst the physically attractive targets ($M_{\text{man}} = 4.11, SD = 2.72; M_{\text{woman}} = 4.51, SD = 2.75$) were rated as funnier than their unattractive counterparts ($M_{\text{man}} = 3.69, SD = 2.78; M_{\text{woman}} = 3.83, SD = 2.76$), the difference was not significant ($F(3, 296) = 1.30, p = 0.27$).

6.4.5.3. Perceiving Funniness and Self-Esteem Based on Target Confidence

A One-Way ANOVA was conducted to examine if there were significant differences in perceived self-esteem and funniness between the confident and self-conscious targets. The

results revealed that the confident man ($M = 5.08$, $SD = 2.79$) and woman ($M = 5.18$, $SD = 2.45$) targets were perceived as having significantly higher self-esteem than the self-conscious man ($M = 3.34$, $SD = 2.67$) and woman targets ($M = 3.11$, $SD = 2.34$; $F(4, 296) = 12.40$, $p < .001$). Whilst the confident man ($M = 3.35$, $SD = 2.77$) and woman targets ($M = 2.91$, $SD = 2.64$) were perceived as being more funny than the self-conscious man and woman targets, this difference ($M_{\text{man}} = 2.52$, $SD = 2.60$; $M_{\text{woman}} = 2.50$, $SD = 2.32$) was not significant ($F(3, 296) = 1.85$, $p = .14$).

6.5. Discussion

The aim of the current study was to expand on research examining the perception of self-disparaging humour styles (Brown, Findlay & Brinker, in press). The results supported the hypothesis that the self-deprecating targets would be rated as having a higher average self-esteem than the self-defeating humour targets was supported across all vignette groups. These findings provide confirmation of Brown, Findlay and Brinker's (in press) conclusion that individuals using self-deprecating humour are perceived as psychologically healthier than self-defeating targets.

The self-deprecating targets were rated as funnier on average than the self-defeating targets. This does not support the finding that self-defeating targets are funnier than self-deprecating targets (Brown et al., in press). Self-deprecating targets are considered psychologically healthy (Rawlings & Findlay, 2013) and as such, laughing at these individuals might feel less uncomfortable than laughing at self-defeating targets. Finally, as predicted, observers in a positive mood following the presentation of the vignette were more likely to categorise a target as using self-deprecating humour than those in a negative mood, who were more likely to categorise a joke as self-defeating. This indicates that observer mood was more positive following the presentation of a target using self-deprecating over self-defeating humour.

A second aim of the current study was to examine humour perception with the use of written vignettes. These written vignettes contained targets differing in sex, physical attractiveness and confidence as we aimed to examine whether humour perception differed based on these target variables. Whilst the man target was categorized as using self-deprecating humour and the woman target was categorized as using self-defeating humour, this association was not significant. Additionally, physical attractiveness did not play a role in humour perception and whilst the confident targets were perceived as using self-deprecating humour, this was only significant for the confident woman target. Explanations for these unexpected results are offered below.

6.5.1. Target Differences in Self-Esteem and Funniness Ratings

The current studies revealed that the man target was not perceived to have a higher self-esteem than the woman target, but as expected the physically attractive and confident targets were rated as having a higher self-esteem than their physically unattractive and self-conscious counterparts. These findings lend partial support the hypothesis and confirmed past research that physically attractive and confident individuals are considered to be more psychologically healthy (Costa & McCrae, 1980; Diener, Sandvik, Pavot, & Fujita, 1992; Dion, Berscheid & Walster 1972; Gutiérrez et al., 2005; Hayes & Joseph, 2003).

With regards to the funniness ratings, the man target was rated as being funnier than the woman target, indicating that the appreciation of self-disparaging humour might not hinge on the gender of the target. The current study differed from previous research examining the appreciation of humour in written form as these relied on pictures (e.g., Samson & Gross, 2012), cartoon captions (e.g., Redlich, Levine & Sohler, 1951) or jokes that involved incongruous, nonsense and sexual humour (Ruch, 1992). Instead the current study made use of written vignettes with targets differing in gender, but told the same joke that reflected a humour style (self-disparaging in nature). Results revealed that males using self-disparaging

humour are considered to be funnier than females, supporting the hypothesis. One explanation for this might be that males are often rated as funnier in general than females by both sexes because men are particularly responsive to other men's humour and women often attribute funny things to men (Mickes, Walker, Parris, Mankoff, & Christenfeld, 2011). Within the context of the study, it also might be based on the joke content, which made fun of the target's physical attractiveness. Females have been shown to be more perturbed by beauty standards than males (Jackson, 1992) and as such observers might have experienced discomfort in laughing at a female calling themselves 'ugly'.

Neither physical attractiveness nor confidence played a role in how funny the targets were perceived to be. Much of the focus on physical attractiveness and humour has been on its ability increase or decrease romantic attraction between partners (Bressler, Martin, & Balshine, 2006; Bressler & Balshine, 2006; Greengross & Miller, 2011) and as such, a plausible explanation might be that observers were rating the funniness of targets whom they might not have been romantically interested in (e.g., heterosexual male rating the male vignette) and hence physical attractiveness might have been superfluous. A plausible reason for the non-significant difference in funniness ratings across the confident targets might be based on the joke content, which emphasized social awkwardness. It is likely that this joke, when told by a confident target, might have been perceived as 'fishing for compliments' and as such, may have not been rated as funny.

6.5.2. Target Characteristics in Humour Categorisation

As previously noted, the results of the current study revealed that male target was not significantly associated with perceived self-deprecating humour use. This indicated that the selection of which humour style a target is using might not be dependent on their gender. Whilst the results revealed that the male target and the self-deprecating were perceived as being funnier, whether the targets were rated as using self-deprecating or self-defeating

humour within this context might have been based on self-esteem, which the man and woman target did not significantly differ on.

As expected, the physically attractive targets were associated with self-deprecating humour use, however unexpectedly the unattractive targets were also rated as using self-deprecating humour. Whilst it is tempting to suggest that the vignettes might not have adequately presented sufficient information about the target's physical attractiveness and simply provided implied attractiveness, the attractive targets *were* rated as having a higher self-esteem than the physically unattractive targets. This suggests that there was sufficient content to represent attractiveness. As such, other explanations might offer more insight. Firstly, the joke poked fun at the inability to learn Spanish, which indicated that irrespective of one's physical appearance, poking fun at one's abilities might be considered self-deprecating. The authors avoided the use of a joke aimed at the target's physical attractiveness as it was anticipated that this would be obvious and that the participants would respond in accordance with what was expected of them (i.e. the physically unattractive target joking about their looks might have been perceived as self-defeating). Nevertheless, it might be interesting to replicate the current study using targets differing on physical attractiveness making use of jokes that poke fun across a variety of domains of the target's life (e.g., their competence, their physical appearance, personality quirks and so forth). Future research might replicate this study with vignettes of same targets with varying jokes to allow for a comprehensive examination of this perception.

The hypothesis that the confident targets would be categorised as using self-deprecating humour rather than self-defeating humour was partially supported and is consistent with the notion that that one's confidence signals self-esteem and the likelihood that one will engage in healthier forms of humour (Ford, Lappi, & Holden, 2016). Whilst both self-conscious targets were mostly categorised as using self-defeating humour over self-

deprecating, this association was only significant for the self-conscious woman lending only partial support to this hypothesis. The joke chosen for this vignette group implied that the target might be socially awkward. Additionally, females have shown to engage in self-defeating humour more than males (Hampes, 2006) and as such it is likely that this combination increased the association of self-defeating humour for the self-conscious woman than for the self-conscious man.

The results revealed that these target characteristics did not play a significant role in the way in which humour styles were perceived. Some plausible explanations for these results were offered in this sub-section; however, a methodological limitation could also explain these findings. The use of only one joke per vignette group might not have been sufficient in examining this perception, and the use of additional jokes might have provided a more enriched analysis. Future research might examine this by similar targets and similar methodology with participants randomly assigned one condition, however, the number of self-disparaging jokes might increase. Nonetheless, the current study revealed that these target characteristics did not play a role in humour perception, but did reveal that observer variables predicted humour perception in line with Brown, Findlay and Brinker (in press).

6.5.2.1. Predictors of Humour Perception

The hypothesis that affiliative humour would predict the selection of self-deprecating humour rather than self-defeating humour was not supported, however, the hypothesis that ratings of self-esteem, funniness and observer mood would predict this categorisation was supported. Higher ratings of target self-esteem and funniness and observer mood positively predicted the selection of self-deprecating rather than self-defeating for all three vignette groups. This confirms the notion that self-deprecating humour is perceived as the more psychologically healthy form of humour than self-defeating humour (Brown et al., in press)

In examining the predictors of self-esteem and funniness ratings the results revealed both expected and unexpected trends. Funniness ratings positively predicted self-esteem of targets displaying both self-directed humour styles across all vignette groups. This indicates that the more an observer appreciates the joke, the more likely they are to positively rate a target's self-esteem. In addition, ratings of target self-esteem consistently positively predicted funniness ratings of targets displaying both self-defeating and self-deprecating humour. This indicates that individuals who perceive the target as having a high self-esteem, are more likely to find this target funny and vice versa. This might be because observers are more comfortable laughing at targets with a high self-esteem. Alternatively, it could indicate that funny targets signal that the target has a high self-esteem. This lends support to the notion that the type of humour an individual engages in can signal information about their wellbeing (Zeigler-Hill, Besser & Jett, 2013).

Other expected trends are consistent with participant use of social projection (Dunning & Hayes, 1996). Observer self-reported affiliative humour positively predicted ratings of self-esteem for the deprecating humour targets. Martin et al. (2003) posited that self-deprecating humour may be a sub-type of affiliative humour and the current finding supports the social projection research (Dunning & Hayes, 1996) which would suggest that those who engage in positive humour styles are likely to project their high self-esteem (Martin et al. 2003) when perceiving others. In addition, extraversion positively predicted the funniness ratings of the targets using self-deprecating funniness, which was consistent with past research that has found extraversion predicts humour appreciation (Brown, Findlay, & Brinker, in press; Moran, Rain, Page-Gould, & Mar, 2014). Individuals higher on extraversion are likely to be more sociable (Costa & McCrae, 1992) and hence might laugh at others jokes so as to improve social connections.

The self-reported use of self-enhancing humour unexpectedly positively predicted ratings of self-esteem of self-defeating targets. This might be explained by the nature of self-enhancing humour, which involves a humorous outlook on life (Martin et al., 2003). As such, and in line with assumed similarity research (Ready, Clark, Watson, and Westerhouse, 2000; Watson, Hubbard, & Wiese, 2000), individuals who engage in self-enhancing humour are rehearsed in using appropriate coping mechanisms such as humour (Martin et al. 2003) and as such might have perceived a self-directed joke as a form of adaptive coping and therefore rated these individuals as having a high self-esteem. In addition, affiliative humour unexpectedly positively predicted high ratings of funniness of targets using self-defeating humour. Affiliative humour is pro-social in nature (Martin et al., 2003) and as such it is likely that individuals who engage in affiliative humour appreciate others' humour irrespective of the humour style as this facilitates the achievement of their prosocial goals, similar to that of extraversion (Moran et al. 2014)

6.5.3. Mood as a Predictor of Person Perception

Participant mood was measured in two ways in the current study – using the PANAS (Watson et al. 1988) over the prior 24 hours (i.e., trait mood) and on a VAS following the presentation of each vignette (i.e. state mood). As noted above, the observers who were in a positive mood following the presentation of each target, were likely to categorise the target's humour as self-deprecating rather than self-defeating humour and consistently rated targets as having a high self-esteem. There is evidence to suggest that mood affects the way individuals interpret others and their behaviors (Forgas & Bower, 1987) and as such this finding indicates that those in a positive mood are likely to interpret self-directed humour as being psychologically healthy (i.e. self-deprecating). This provided confirmation of the notion that mood plays a role in how we perceive social behaviours (Forgas & Bower, 1987) and these results suggest that this can be expanded to included humour perception. The findings

pertaining to mood as measured using the PANAS (Watson et al. 1988) as predictors revealed that negative and positive affect were not consistent in their relationship with humour perception.

Observer self-report negative affect positively predicted the categorisation of targets as using self-deprecating humour, indicating that individuals who are calm and low on anger are likely to perceive humour positively (i.e. as self-deprecating). This lends support to the notion that mood plays a role in how others are perceived (Forgas & Bower, 1987) and in line with social projection research (Dunning & Hayes, 1996) in that observers project their own positive state onto their perception of others. Evidence to the contrary revealed that positive affect negatively predicted the categorisation of self-deprecating humour rather than self-defeating. Negative scores on positive affect reflect low energy and feelings of sadness (Watson et al. Tellegen, 1988). Participants read the jokes prior to rating the target, and as such it is likely that this impacted on the mood of the participant (MacDonald, 2004). Given that the self-deprecating jokes were rated as funnier than the self-defeating jokes, it is plausible that exposure to the self-deprecating joke improved the mood of those low on PA thus increasing the likelihood that they would perceive the target in a positive light (Forgas & Bower, 1987). This explanation might also be offered to explain why positive affect also negatively predicted the self-esteem ratings of the targets using self-deprecating humour.

Similarly, observer negative affect positively predicted the funniness ratings of the self-defeating the targets, which is consistent with Brown, Findlay and Brinker (in press). This confirms the notion that individuals experiencing negative emotions are shown humorous stimuli, they are temporarily relieved from their low emotional state thus exacerbating their response (e.g., mirth) to the humour.

6.5.4. Future Directions and Implications

Observer affect and mood consistently predicted the selection of humour styles and ratings of self-esteem and funniness. There is evidence to suggest that mood affects the way in which individuals view and interpret their environment (Forgas & Bower, 1987) and others' social behaviours. The current study found that positive mood positively predicted the categorisation of self-deprecating humour and as such experimentally manipulating mood might provide further confirmation of the notion that mood influences the way individuals perceive others. In addition, social perception researchers (Winship & Stocks, 2016) have examined the perception of personality by using targets explicitly representing a personality trait (e.g., extraversion) and revealed that targets rely on their own personality to form judgements of others. Future research might expand on these studies to investigate the personality characteristics illustrated through humour. For example, are those who use self-deprecating humour considered extraverted and lower on neuroticism? Including self-deprecating humour as an interpersonal signal would bolster the results found in Zeigler-Hill, Besser & Myers (2013) adding to our understanding of how humour styles might operate within social relationships. To add to this, the current study found that the confident woman target was associated with self-deprecating humour. Research might examine whether a target's use of self-deprecating humour signals confidence. This would add to Bitterly, Brooks and Schweitzer's (2017) suggestion that individuals should optimize the use of appropriate humour to project confidence thereby increasing their status.

In conclusion, the results of the current study lend support to past research (Brown et al., in press) which revealed that self-defeating and self-deprecating humour are perceived as different styles of humour with self-deprecating targets perceived as having a higher self-esteem and being funnier than their self-defeating counterparts. Interestingly only the confident female targets were rated as using self-deprecating humour rather self-defeating humour, and given the close link between self-esteem and confidence, these result provides

further confirmation that self-esteem acts as an interpersonal signal of wellbeing. Mood and affect played a role in humour perception and future research might experimentally explore these effects.

Chapter 7: Study 3

7.0. Chapter Overview

This chapter presents the third and final study of the current thesis. This study eliminated variables related to the target (e.g., physical attractiveness, gender) by presenting jokes (without context) to participants. An additional aim of this study was to examine the effect that mood inductions might have on how observers perceive self-directed humour. This study addresses also three research questions by examining whether self-deprecating and self-defeating humour could be differentiated on an interpersonal level, and whether this difference was based on target variables (self-esteem and funniness) or observer variables (personality, mood, self-esteem, humour styles). The two studies conducted for the current thesis has revealed that affect has consistently played a role in the perception of humour, particularly in humour appreciation.

This manuscript contains quantitative data. See Appendix A for the questionnaires.

Brown, R., Bullock, B., Meyer, D., Findlay, B.M. (2018). *In the mood to laugh: Does the perception of self-directed humour depend on how you are feeling?* Manuscript submitted for publication.

In the mood to laugh: Does the perception of self-disparaging humour depend on how you are feeling?

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Abstract

Differences in the way observers perceive self-deprecating and self-defeating humour are well established. There is limited research, however, examining the way in which mood affects this perception. The current study aimed to further explore this issue. Two hundred and sixteen participants were randomly assigned to either a neutral, negative or positive mood induction procedure, and were asked to rate the self-esteem, funniness and humour styles of 32 fictional individuals (targets) who delivered jokes using self-disparaging humour. The researchers hypothesized that induced positive mood would predict the categorization of jokes as self-deprecating, whilst induced negative mood would predict the categorization of jokes as self-defeating. The hypothesis was not supported. Contrary to expectation, the only significant relationship was the negative mood induction predicting funniness ratings. The results supported past research in showing that targets using self-deprecating humour would be rated as having a higher self-esteem and as being funnier. Future investigations should further examine personality and humour styles by including self-deprecating humour styles whilst also testing the effect of mood on the perception of targets' personality. This study supported the notion that targets using self-deprecating humour are perceived to be more psychologically healthy

7.1. Introduction

Humour plays a role in accurately signalling information about an individual's personality and wellbeing to others. Recent research emphasises the importance of perceiver characteristics in moderating this perception (Winship & Stocks 2016; Zeigler-Hill, Besser &

Jett 2013). Perceiver mood is one personal characteristic to consider, as it operates as a lens shaping one's experience and judgment of oneself and others (Forgas & Bower 1987).

Forgas, Bower, and Krantz (1984) revealed that mood influences the assessment of others' social behaviour, confirming its role in person-perception judgements. Research examining the effect of mood on humour perception is a neglected area.

7.1.1. Humour styles

It is widely established that humour is multifaceted in nature and can be distinguished by the way in which the humour is delivered (Leist & Müller 2013). For example, it can be used to enhance personal relationships or oneself, or be used to devalue oneself or others. The way in which humour is delivered is broadly considered to be a disposition and therefore referred to as a *style* of humour. Taking into account these varying dispositions, Martin et al. (2003) identified four humour styles. These humour styles include two positive forms of humour (affiliative and self-enhancing humour) and two negative forms of humour (aggressive and self-defeating humour). Affiliative humour refers to humour that is used to charm or amuse others (Martin et al. 2003). Research suggests individuals who use affiliative humour tend to have higher levels of extraversion and use their humour to facilitate relationships (Martin et al. 2003). Individuals who use self-enhancing humour tend to use their humour as a way of communicating their positive outlook on life. This is done by frequently amusing others with their life stories and continuously maintaining a humorous perspective, even in times of high stress (Martin et al. 2003). Research suggests that individuals who use positive humour tend to be better at coping with stress, which consequentially results in a reduced likelihood of experiencing negative emotional experiences, such as depression (Frewen et al. 2008). As a result, those who tend to use affiliative and self-enhancing humour tend to have higher levels of cheerfulness, self-esteem and optimism (Martin et al., 2003).

Aggressive humour is the use of humour in the form of sarcasm, ridicule or teasing with the intention to manipulate or harm another person (Dozois, Martin, & Bieling 2009). This form of humour tends to be impulsive, where individuals cannot resist the urge to hurt or alienate others (Martin et al. 2003). Self-defeating humour refers to humour that is aimed at oneself, where one's personal life or downfalls are the "butt" of most jokes (Martin et al. 2003) Research suggests the use of self-defeating humour may be due to defensive denial (Martin et al., 2003), however, other research has suggested it may be due to hiding one's underlying negative feelings or avoiding personal problems (Martin et al. 2003). The use of self-defeating humour has been found to be harmful to one's psychological health (Greven, et al. 2008), with research finding a positive correlation between self-defeating humour and depression (Dozois et al. 2009; Ford, McCreight & Richardson 2014; Frewen et al. 2008; Leist and Muller 2012). Furthermore, self-defeating humour has been associated with low emotional stability, lower self-esteem and insecurities within relationships (Saroglou and Scariot 2002) and more socially undesirable traits compared to the other humour styles (Kuiper & Leite 2010).

Whilst humour aimed at oneself is considered to be a negative trait, not all self-directed humour is necessarily negative. Rawlings and Findlay (2013) investigated self-deprecating humour, which, similar to self-defeating humour, involves poking fun at one's shortcomings. However, a key difference between the two styles is that individuals who use self-deprecating humour tend to take themselves less seriously. To examine differences and similarities between the styles, Rawlings and Findlay developed a scale to measure self-deprecating humour. They found that self-deprecating humour was positively correlated with self-worth, extraversion, and psychological wellbeing, whilst self-defeating humour was negatively correlated with self-esteem, psychological wellbeing and positively with

neuroticism. Taking these associations into account, self-defeating humour was considered to be the less psychologically healthy of the two self-directed styles.

Martin et al. (2003) had earlier suggested that self-defeating and self-deprecating humour styles would be too difficult to disentangle and so did not adequately address their distinctive qualities. Rawlings and Findlay (2013) were able to distinguish between the two styles on a conceptual level, but their perception by others presents a social conundrum. They manifest behaviourally in the same manner (e.g., as a target poking fun at themselves) and as such, researchers have questioned whether these two styles could be distinguished, and what this distinction would be based on.

7.1.2. Can observers tell the difference between self-defeating and self-deprecating humour?

To examine the way in which humour styles are perceived, Zeigler-Hill, Besser and Jett (2013) asked observers to rate targets (personally known to the observers) on their personality and self-esteem. The targets perceived to be using the adaptive humour styles were perceived to have a higher self-esteem, whilst the targets perceived to be using the maladaptive humour styles were perceived to have a lower self-esteem. Brown, Findlay and Brinker (in press) focused on the perception of self-defeating and self-deprecating humour more specifically. In their research using video clips of comedians, they found that the targets using self-deprecating humour were rated as having a significantly higher self-esteem than their counterparts using self-defeating humour. These results were confirmed in a second study, this time using written vignettes (Brown, Buzwell, Findlay & Brinker 2018), with ratings of target self-esteem being the strongest predictor of selecting self-deprecating humour over self-defeating humour. These results add weight to the argument that targets using self-deprecating humour are considered more psychologically healthy than targets using self-defeating humour.

7.1.2.1. Predictors of Humour: Social Projection Theory

Research adopted social projection theory to explain which variables would be involved in the perceiving personality (Winship & Stocks 2016). This theory postulates that observers rating unknown targets project onto others what they know about themselves (Cho, Knowles, & Smith 2013; Critcher & Dunning 2009). Humour is ostensibly the manifestation of personality, and as such researchers expected that observers would also project their own humour styles and personality traits onto their judgments about someone's use of humour (Brown, Findlay et al, in press and Brown, Buzwell et al, 2018). Contrary to expectation, the presence of either self-defeating or self-deprecating humour did not predict the selection of self-directed humour when judging targets (Brown, Findlay et al. in press; Brown, Buzwell et al., 2018). Of the personality variables, only observer self-reported affiliative humour use, predicted the categorization of targets' self-deprecating humour over self-defeating humour. Additionally, Brown, Findlay et al. (in press) asked participants to make other judgements about these targets, including their self-esteem and funniness and found that in line with social projection, observer self-esteem predicted the ratings of target self-esteem.

7.1.2.2. Introducing Mood

Observer mood is thought to play a role in humour perception (Brown, Findlay et al. in press; Brown, Buzwell et al, 2018). Mood has been conceptualised as existing on a continuum between personality and emotion, where moods are considered longer lasting but of weaker intensity than emotions (Deckers 2010; Ekman 1994). Research in this field has adopted a dimensional approach to the description of moods, commonly across two facets, positive and negative (Watson & Tellegen 1985). These dimensions of positive and negative mood are interpreted on the basis of a circumplex model, which classifies mood along two orthogonal dimensions of pleasantness and arousal (Watson, Clark, & Tellegen 1988). Pleasant versus unpleasant feelings (e.g., happiness versus sadness, respectively) interact

with high versus low states of arousal (e.g., active versus passive, respectively) to characterise a person's current mood. High positive mood, for example, is characterised by arousal states of enthusiasm and alertness in combination with pleasant feelings of happiness. Independent of this, high negative mood states are characterised by arousal states of distress and nervousness in combination with unpleasant feelings of sadness (Watson et al. 1988).

Both Brown, Findlay et al. (in press) and Brown, Buzwell et al. (2018) found that mood predicted humour appreciation. The initial study using video clips of comedians showed that the target using self-defeating humour was rated as funnier than the target using self-deprecating humour, whereas in the written vignettes, the target using self-deprecating humour was consistently rated as funnier than the target using self-defeating humour. Both humour perception studies revealed the interesting role that mood played in perception. High observer negative mood consistently predicted higher funniness ratings of the targets who used self-defeating humour (Brown, Findlay et al. in press; Brown, Buzwell et al. 2018). We proposed that individuals experiencing negative emotions are temporarily relieved from their low emotional state when exposed to a humour stimulus (MacDonald 2004), thus increasing their reaction (e.g., amusement) towards the stimulus.

Over and above funniness, observers with lower negative mood were more likely to categorize targets as using self-deprecating humour, indicating lower levels of anger and distress are likely to be linked with perceiving humour more positively (Brown, Findlay et al. in press; Brown, Buzwell et al. 2018). Lower positive mood also predicted the categorization of targets' self-deprecating humour over self-defeating humour. This might be because those lower on positive mood are considered to be lower on energy and are therefore less likely to experience and express positive emotions (Watson & Tellegen 1985). Given that self-deprecating jokes were rated as funnier than the self-defeating jokes in the Brown, Buzwell et al. (2018) study, it is plausible that exposure to the self-deprecating joke improved the mood

of those lower on PA, thus allowing them to view the target in a positive light. This might also explain why those lower in positive mood also more accurately predicted the self-esteem ratings of the targets using self-deprecating humour.

7.1.3. Mood affects humour perception

Research has shown that mood affects a number of areas also thought to be associated with humour, including creativity (Isen 1990), cognitive processing (Isen 1987), social behaviour (Isen 1987) and persuasion (Schwartz et al. 1991), and as such it is thought that an individual's mood can affect the way they use humour (Frewen et al. 2008). For example, individuals exhibiting depressive symptoms are more likely than those in a positive mood to engage in negative humour styles, such as self-defeating humour (Frewen et al. 2008; Martin et al. 2003). Additionally, research has revealed that mood affects attention and perception, and influences the quality of person-perception judgements (Forgas and Bower 1987; Niedenthal and Kitayama 1994). Forgas and Bower (1987) presented written character descriptions communicating either positive or negative information about the target to participants, who were asked to rate each character on various dimensions (e.g., self-confident vs shy). They found that the participants exposed to the positive mood induction were more likely to make favourable than unfavourable judgements of the target. These findings support the notion that humour is a social behaviour and likely to play an essential role in the way in which targets using humour are perceived.

The limited research in this area focuses on how mood impacts humour appreciation. Prerost (1983) experimentally induced participant mood states and revealed that an induced aggressive state predicted appreciation of aggressive humour. Neumann, Seibt, and Strack (2001) induced 49 participants into either a happy or sad mood and asked them to rate the funniness of cartoons. The participants in the happy conditions perceived the cartoons to be funnier compared to those participants in the sad condition. In Brown, Buzwell et al. (2018),

self-rated observer mood following the presentation of humour stimuli predicted the ratings of target funniness, with the observers in a more positive mood rating the targets as being funnier. Observer mood also predicted ratings of other target variables such as self-esteem, and whilst it did not predict humour style selection, observers in a more positive mood were more likely to interpret humour as being self-deprecating than self-defeating (Brown, Buzwell et al., 2018).

7.1.4. The present study

The effect of mood on the interpretation and processing of humour is a neglected area, and research in this area has called for future studies to investigate the experimental induction of mood as a potential causal factor in humour perception (Deckers, 2010; Ruch & Köhler, 2010). Thus, the primary aim of the current study was to examine the effect of a mood manipulation on the perception of humour. Humour appreciation, humour styles and self-esteem were also investigated as predictors of humour perception. Consistent with social projection theory, we hypothesized that negative mood inductions would predict the perception of self-defeating humour in a target, whilst positive mood inductions would predict the perception of self-deprecating humour in a target. We also anticipated that the mood inductions would differentially predict observer ratings of targets' self-esteem and funniness, with the participants in a positive mood rating the targets as having a higher self-worth and to be funnier than the self-defeating targets.

7.2. Method

7.2.1. Participants

The sample consisted of 216 participants, 156 women ($M = 25.31$ years, $SD = 16.50$) and 61 men ($M = 26.31$ years, $SD = 12.50$), recruited from an undergraduate psychology program in Melbourne, Australia. The majority of the sample was Australian (78.3%) and nearly 70% had a partially completed undergraduate degree.

7.2.2. Measures

Demographic information (age, sex, highest level of education and country of birth) was collected alongside the following questionnaires

Self-Esteem. The 10-item Rosenberg Self Esteem scale (Rosenberg, 1965) was used to measure participant self-worth. Participants rate their agreement with the items on a 4-point scale with responses ranging from 1 (*Strongly Disagree*) to 4 (*Strongly Agree*). An example of an item is “I feel that I have a number of good qualities.” Four items representing low self-esteem are reverse scored. Scores range from 10-40 with higher scores representing greater self-esteem. The scale has been shown to have excellent internal consistency (Cronbach's $\alpha = .77$; Rosenberg 1965) and excellent test-rest reliability for the 2-week interval (Silber and Tippett 1965). This scale has shown to be positively correlated with Coopersmith Self-Esteem Inventory, confirming its convergent validity in accurately capturing self-worth (McCurdy and Kelly 1997).

Personality. The International Personality Item Pool (IPIP-5-50; Goldberg, 1992) was used to measure the participants' personality traits and consists of 50 statements. The statements fall into five sub-scales: Extraversion (e.g., “Am the life of the party”), Emotional Stability (e.g., “Am relaxed most of the time”), Openness (e.g., “Have a vivid imagination”), Agreeableness (e.g., “Sympathize with others' feelings”) and Conscientiousness (e.g., “Pay attention to details”). Participants were asked to indicate the degree to which each statement accurately describes them on a 5-point Likert scale with anchors 0 (*This statement definitely does not describe you*) and 4 (*This statement describes you very well*). Items were summed to generate an overall score for each subscale. All subscales have satisfactory internal consistency (Extraversion $\alpha = .88$, Agreeableness $\alpha = .79$, Conscientiousness $\alpha = .81$, Emotional Stability $\alpha = .82$, and Openness $\alpha = .82$; Donnellan, Oswald, Baird and Lucas 2006). Lim and Ployhart (2006) found a good fit for the five-factor model underlying the IPIP scales using confirmatory factor analysis.

Mood. The Positive Affect and Negative Affect Scale (PANAS; Watson, Clark & Tellegen, 1988) consists of 60 terms that describe feelings and emotions aimed at measuring participant mood. The scale is comprised of two factors, namely; Positive Affect (e.g., “attentive”) and Negative Affect (e.g., “irritable”). Participants were asked to indicate the degree to which each word accurately described their experience over the past 24 hours using a 5-point Likert scale with anchors 0 (*Very Slightly or Not at All*) and 4 (*Extremely*). Both scales have been shown to have very good internal consistency (Positive Affect $\alpha = .90$ and Negative Affect $\alpha = .87$; Watson, Clark and Tellegen 1988).

Humour Styles. The Humour Styles Questionnaire (HSQ; Martin et al., 2003) is a 32-item scale used to measure the way in which participants express humour across four dimensions (Martin et al., 2003). The four dimensions Affiliative (“I laugh and joke a lot with my closest friends”), Self-Enhancing (e.g., “Even when I’m by myself, I’m often amused by the absurdities of life”), Self-Defeating (e.g., “I often go overboard in putting myself down when I am making jokes or trying to be funny”), and Aggressive (e.g., “If I don’t like someone, I often use humour or teasing to put them down”) humour. Participant responses are recorded on a 7-point Likert scale, with anchors of 1 (*Totally Disagree*) and 7 (*Totally Agree*). The subscale scores are computed by summing the relevant items, producing possible scores from 8 to 40. Higher scores indicate higher levels of that humour style. Each sub-scale has been shown to be reliable (Affiliative $\alpha = .80$, Self-Enhancing $\alpha = .81$, Aggressive $\alpha = .77$, and Self-Defeating $\alpha = .80$; Martin et al., 2003). These scales showed excellent test-retest reliabilities (Affiliative $\alpha = .85$, Self-Enhancing $\alpha = .81$, Aggressive $\alpha = .80$, and Self-Defeating $\alpha = .82$; Martin et al. 2003).

Self-Deprecating Humour. The Self-Deprecating Humour Scale (Rawlings & Findlay, 2013) is 13-item measure of participants’ use of self-deprecating humour. It contained the two sub-factors are Social Self-Deprecating Humour (“I make jokes about my

being inept”) and Personal Self-Deprecating Humour (“I make fun about my mistakes because I am comfortable with them”). Participants recorded their responses on a 5-point Likert scale, with 1 (Strongly Disagree) and 5 (Strongly Agree). Exploratory factor analysis revealed that the self-deprecating items emerged as a separate scale to that of Martin et al’s., (2013) self-defeating scale (Brown & Findlay, 2013). Using CFA, Rawlings and Findlay (2014) confirmed two self-deprecating scales with excellent reliability (Personal $\alpha = .87$ and Social $\alpha = .85$). They validated these scales against Martin et al’s (2003) HSQ and revealed that social self-deprecating humour correlated highly with self-defeating humour, whilst personal self-deprecating humour correlated highly with affiliative humour. Personality self-deprecating humour also correlated with emotional intelligence ($r = .25, p = .01$), whilst social self-deprecating humour did not correlate with emotional intelligence. Given that personal self-deprecating humour reflects “true” self-deprecating humour, this study only made use of this subscale.

7.2.3. Materials

7.2.3.1. Mood induction procedure

A self-referent plus musical mood induction procedure (MIP) was employed to experimentally induce a mood state in participants. The self-referent MIP was based on the procedure of Velten’s MIP (1968) which requires participants to read 25 self-referent statements that are designed to induce a specific, temporary mood state. Velten’s statements are traditionally presented to participants on A5 white cards. This study was administered online and as such the authors created video clips, each 2.5 minutes in length, presenting the statements one at a time. Participants were randomly assigned to one of three mood conditions and were presented with the video clips that contained the mood-relevant statements; neutral (e.g., “A neuron fires rapidly”), negative (e.g., “I don’t think things are ever going to get better) or positive (e.g., “Most people like me”). They were asked to read the statements, which were presented individually, and to “feel” and “experience” each

statement as it would apply to them personally. The use of video clips also allowed for the use of music as an additional MIP. Whilst reading the statements, subjects listened to a piece of music on headphones that conveyed the tone of the mood trying to be induced. For depressive MIP, participants listened to Prokofiev's 'Russia Under the Mongolian Yoke' recorded at half speed, during the neutral MIP, Chopin's 'Waltz Op. 70. No.2' was played, and during the positive MIP Edvard Grieg's "Morning Mood" was played. All participants were presented with a mood repair task at the end of the survey consisting of a video clip of a stand-up comedy routine.

7.2.3.2. *Joke stimuli*

Thirty-two self-denigrating jokes were selected from a pool of humour stimuli obtained from chapter 5 of an unpublished doctoral thesis (Brown, 2018). These self-directed jokes included material that targeted the individual's physical appearance (e.g., *I'm so ugly... I worked in a pet store and people kept asking how big I'd get*), weight (e.g., *"I'm so fat, I have my own gravitation pull"*), and various abilities – e.g., intelligence (*"I remember taking Spanish tests when I was in school, I would just take all the English words and add "o" to the end of them. I got an Fo"*), sexual prowess (e.g., *I'm not going to Sexpo. I'd hate to find out I've been doing it all wrong*), and cooking (e.g., *"I cook dinner for myself like I would for an elderly person who I really hated"*).

7.2.3.3. *Post-joke questions*

Following each joke, participants were asked to rate on a Visual Analog Scale the self-esteem of the person telling the joke (the "target") from 1 ("Very Low") to 10 ("Very High"), how funny they found the joke from 1 ("Not funny at all") to 10 ("Very funny") and to rate their own mood from 1 ("Very Negative") to 10 ("Very Positive"). They were also provided with definitions of both self-defeating and self-deprecating humour and were asked to select which humour style they thought was best reflected in the joke.

7.2.4 Procedure

The study was completed during a psychology class and took the form of an online survey run through the Qualtrics survey platform (2013 version). Participants completed the self-report measures first and were then randomly presented with 16 of the 32 jokes along with post-humour stimuli questions. Participants were then randomly assigned to either the positive, negative or neutral mood induction, after which they were presented with the remaining 16 humour stimuli. At the end of the survey, participants were presented the humour repair stimulus and debriefing outlining the aims of the study.

7.2.5. Statistical Analyses

The data exhibited a multilevel structure because each observer evaluated several targets, producing a nesting of target evaluations within observers. As multiple observers evaluated each target, this was a one-with-many design (Marcus, Kashy, and Baldwin 2009). Therefore, a series of multilevel models using the program Hierarchical Linear Modelling (HLM; Bryk et al. 1998) were used to analyse the data. This approach is required to account for the violation of the independence assumption that occurs as a result of using multiple targets for each observer. At a conceptual level, these multilevel models involved two steps. In the first step, a regression equation was estimated for each target at Level 1 to yield intercept and slope coefficients that serve as an index of the association between the ratings provided by the observers (e.g., “Are the targets categorized as using self-deprecating humour considered to have a higher self-esteem?”). For the second step, Level 2 analyses examined whether the coefficients obtained from the Level 1 analyses differed between observers, depending on the observers’ self-reported personality and wellbeing (e.g., “Were those observers higher on positive mood more likely to perceive a joke as self-deprecating?”).

Two-level models were used to examine the relationship between responses to the targets at level 1, with the observers' characteristics (e.g., self-reported self-esteem, personality traits, mood and humour styles) at level 2. An example of a Level 1 (among-targets) model is as follows:

$$Y_{ij} = \beta_{0j} + \beta_{1i} (MOOD_{ij}) + \beta_{2i} (FUNNY_{ij}) + \beta_{3i} (TYPE_{ij}) + r_{ij}$$

In this equation Y_{ij} is the perception of the target (j) as rated by observer (i), β_{0i} is a random coefficient representing the intercept for observer i, β_{1i} is a random coefficient for observer i's mood response, β_{2i} is a random coefficient for perceived funniness by the observer (i), β_{3i} is a random coefficient for the humour style (either self-deprecating or self-defeating) was using as perceived by the observer (i), and r_{ij} represents error. For all of the analyses, the observer ratings were group-mean centred, with a group defined as group of target assessments for a single observer (Raudenbush and Bryk, 2002). This technique was used because there was considerable variability in the ratings between observers (e.g., some observers rated the targets as having a higher self-esteem than other observers due to personality or wellness characteristics or other factors). The use of group-mean centering for observer ratings removed the influence of these differences on parameter estimates.

7.3. Results

7.3.1. Descriptive statistics

Means, standard deviations and Cronbach's alpha reliability statistics of the scales used in the study are displayed in Table 12.

Table 12
Means, standard deviations and reliability coefficients

Variables	<i>M</i>	<i>SD</i>	Cronbach's α
Humour Styles			
Affiliative Humour	41.76	4.84	0.86
Self-Enhancing Humour	36.39	7.98	0.84
Aggressive Humour	27.48	6.95	0.71
Self-Defeating Humour	30.39	7.65	0.78
Self-Deprecating Humour	25.03	3.65	0.87
Personality			
Extraversion	32.23	8.23	0.90
Agreeableness	42.02	4.69	0.78
Conscientiousness	35.57	6.19	0.81
Neuroticism	29.23	8.32	0.89
Openness	35.18	4.93	0.80
Wellbeing			
Self-Esteem	29.73	4.48	0.87
Positive Mood	33.44	7.89	0.89
Negative Mood	20.12	7.23	0.88

N = 216

The participants' humour styles reflected similar trends to those reported in Martin et al's (2003) study of undergraduate students. The average ratings of affiliative humour use were slightly lower in the current study than in Martin et al (2003) and the average ratings of self-defeating humour were slightly higher in the current study. Participant positive mood scores were similar to those reported in Watson et al (1988) although participant negative mood scores were slightly higher than Watson et al (1988; $M = 17.4$, $SD = 6.2$). The average personality scores were similar to Jones (2014), a study that aimed to provide norms for the

IPIP-50. Participants were slightly lower on openness to experience in the current study in comparison to Jones (2014; $M = 38.38$, $SD = 5.69$)

On average, men ($M = 30.88$, $SD = 6.53$) were more likely than women ($M = 26.20$, $SD = 6.70$) to engage in aggressive humour ($t(214) = 4.63$, $p < .001$) and self-enhancing humour ($M_{\text{men}} = 38.53$, $SD = 7.75$; $M_{\text{women}} = 36.02$, $SD = 7.05$; $t(214) = 2.82$, $p = .02$). Women were higher than males on mean neuroticism ($M_{\text{women}} = 29.00$, $SD = 6.42$; $M_{\text{men}} = 23.75$, $SD = 6.51$; $t(214) = -5.37$, $p < .001$), negative mood ($M_{\text{women}} = 20.80$, $SD = 7.35$, $M_{\text{men}} = 18.60$, $SD = 7.02$; $t(213) = -2.00$, $p = .05$), and agreeableness ($M_{\text{women}} = 42.62$, $SD = 4.50$; $M_{\text{men}} = 40.28$, $SD = 4.93$; $t(214) = -3.32$, $p = .001$). There were no other significant differences between men and women on any of the remaining variables.

7.3.2. Mood manipulation check

The data file was split by the mood induction group, and a Paired t-test was conducted to analyse whether the mood inductions were successful. The results are shown in Figure 3.

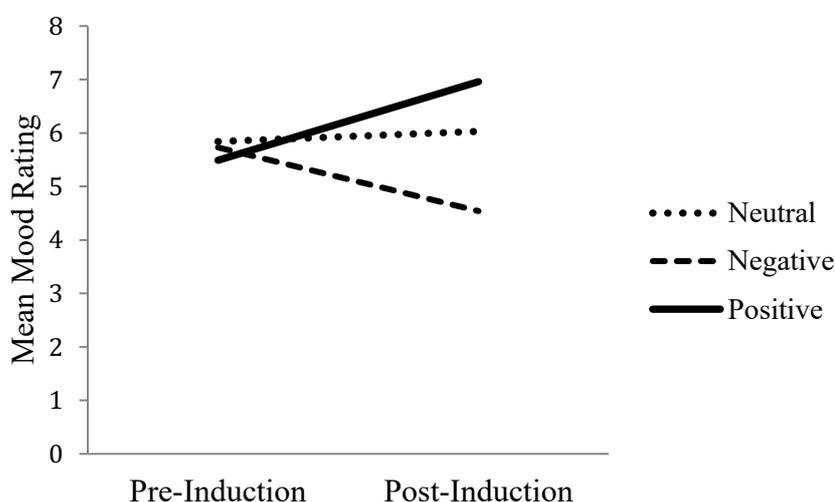


Figure 3. Average mood ratings across three mood inductions

Participant mood ratings significantly decreased after exposure to the negative mood induction procedure ($t(69) = 2.40$, $p = .02$), and significantly increased after exposure to the

positive mood induction ($t(73) = -3.21, p = .002$). The results revealed a non-significant increase in participant mood ratings after exposure to the neutral mood induction, ($t(71) = -.11, p = .91$). A mixed between-within Analysis of Variance with post-hoc comparisons revealed that mood ratings before exposure to the mood inductions did not differ significantly between groups ($F(1, 213) = .53, p = .47$). Following exposure to the mood inductions, mood ratings differed significantly between groups ($F(2, 213) = 8.31, p < .001$). Post-hoc comparisons revealed that participant mood scores were significantly different between neutral and negative mood induction groups ($M = .97, SE = .25, p = .001$), and between positive and negative mood induction groups ($M = -1.29, SE = 2.53, p < .001$). Mood scores between neutral and positive mood induction groups were not significantly different ($M = -.32, SE = 2.51, p = .41$).

7.3.3. Humour categorization

The participants were randomly presented each of the 32 jokes either before or after the mood induction. Table 13 provides a summary of the frequencies of humour categorization (either self-deprecating or self-defeating) for each of the jokes over the pre- and post-mood induction conditions.

The results revealed that most of the jokes (75%) in the pre-mood induction group were rated as being self-deprecating over self-defeating. The results also revealed that all jokes were categorized consistent with their joke category (Brown, 2018), except for jokes 5, 6, 8, 10. The results also revealed that the mood inductions did not affect the categorization of humour. Only Jokes 5 and 10 revealed consistent results in relation to the mood inductions. For example, participants in the negative mood induction categorized jokes 5 and 10 as self-defeating, whilst those in a positive mood induction categorized these jokes as self-deprecating.

Table 13

Humour categorization of jokes pre-and-post mood induction expressed as frequency of responses and percentage

Joke	Joke Category	Pre-Mood Induction				Post-Mood Induction			
		Neutral		Negative		Positive			
		Self-Def	Self-Dep	Self-Def	Self-Dep	Self-Def	Self-Dep	Self-Def	Self-Dep
1	Self-Deprecating	47 (42.3%)	64 (57.7%)	12 (32.4%)	25 (67.6%)	19 (50%)	19 (50%)	14 (46.7%)	16 (53.3%)
2	Self-Deprecating	15 (14%)	92 (86%)	3(9.7%)	28 (90.3%)	4 (11.4%)	31 (88.6%)	10 (26.3%)	28 (73.7%)
3	Self-Defeating	72 (66.7%)	36 (33.3%)	22 (61.1%)	14 (38.9%)	15 (53.6%)	13 (46.4%)	20 (47.6%)	22 (52.4%)
4	Self-Defeating	56 (53.8)	48 (46.2%)	15 (42.9%)	20 (57.1%)	22 (64.7%)	11 (33.3%)	24 (57.1)	18 (42.9%)
5	Self-Defeating	47 (42.3%)	64 (57.7%)	13 (34.2%)	25 (65.8%)	16 (53.3%)	14 (46.7%)	9 (25.7%)	26 (74.3%)
6	Self-Deprecating	64 (59.3%)	44 (40.7%)	19 (50%)	19 (50%)	19 (54.3%)	16 (45.7%)	21 (60%)	14 (40%)
7	Self-Defeating	72 (66.1%)	37 (33.9%)	28 (77.8%)	8 (22.2%)	23 (74.2%)	8 (25.8%)	25 (64.1%)	14 (35.9%)
8	Self-Defeating	27 (23.5%)	88 (76.5%)	7 (20%)	28 (80%)	7 (21.2%)	26 (78.8%)	10 (30.3%)	23 (69.7%)
9	Self-Deprecating	29 (27.1%)	78 (72.9%)	11 (29.7%)	26 (70.3%)	7 (20%)	28 (80%)	8 (21.1%)	30 (78.9%)
10	Self-Deprecating	51 (51%)	49 (49%)	16 (40%)	24 (60%)	14 (34.1%)	26 (63.4%)	14 (38.9%)	22 (61.1%)
11	Self-Deprecating	51 (45.1%)	62 (54.9%)	16 (51.6%)	15 (48.4%)	20 (57.1%)	15 (42.9%)	16 (43.2%)	19 (51.4%)
12	Self-Deprecating	44 (39.6%)	67 (60.4%)	9 (27.3%)	24 (72.7)	14 (45.2%)	17 (54.8%)	11 (28.9%)	27 (71.1%)
13	Self-Defeating	62 (56.9%)	47 (43.1%)	16 (43.2%)	21 (56.8%)	17 (58.6%)	17 (58.6%)	21 (60%)	14 (40%)
14	Self-Deprecating	24 (22.9%)	81 (77.1%)	12 (29.3%)	29 (70.7%)	5 (14.3%)	30 (85.7%)	5 (15.6%)	27 (84.4%)
15	Self-Deprecating	32 (27.8%)	83 (72.7%)	5 (19.2%)	21 (80.8%)	11 (31.4%)	24 (68.6%)	10 (26.3%)	28 (73.7%)
16	Self-Deprecating	24 (23.3%)	79 (76.7%)	2 (14.3%)	12 (85.7%)	1 (12.5%)	7 (87.5%)	2 (33.3%)	4 (66.7%)
17	Self-Deprecating	39 (36.4%)	68 (63.6%)	6 (16.2%)	31 (83.8%)	12 (37.5%)	20 (62.5%)	11 (31.4%)	24 (68.6%)
18	Self-Deprecating	34 (35.4%)	62 (64.6%)	13 (32.5%)	27 (67.5%)	12 (31.6%)	26 (68.4%)	15 (26.6%)	26 (63.4%)
19	Self-Deprecating	31 (29.5%)	74 (70.5%)	12 (30.8%)	27 (69.2%)	11 (30.6%)	25 (69.4%)	11 (31.4%)	24 (68.6%)
20	Self-Deprecating	22 (20%)	88 (80%)	0	34 (100%)	8 (22.9%)	27 (77.1%)	4 (11.4%)	31 (88.6%)
21	Self-Deprecating	45 (40.5%)	66 (59.5%)	11 (28.9%)	26 (68.4%)	8 (26.7%)	22 (73.3%)	9 (25%)	27 (75%)
22	Self-Deprecating	27 (24.1%)	85 (75.9%)	12 (42.9%)	16 (57.1%)	15 (35.7%)	27 (64.3%)	7 (21.2%)	26 (78.8%)
23	Self-Deprecating	23 (20.2%)	91 (79.8%)	7 (20%)	28 (80%)	11 (32.4%)	23 (67.6%)	9 (27.3%)	24 (72.7%)

24	Self-Deprecating	57 (49.6%)	58 (50.4%)	14 (38.9%)	22 (61.1%)	16 (55.2%)	13 (44.8%)	19 (54.3%)	16 (45.7%)
25	Self-Deprecating	27 (26.7%)	74 (73.3%)	7 (18.9%)	30 (81.1%)	2 (5.3%)	36 (94.7%)	2 (5.7%)	33 (94.3%)
26	Self-Deprecating	16 (14.5%)	94 (85.5%)	6 (16.2%)	31 (83.8%)	8 (21.1%)	30 (78.9%)	7 (22.6%)	24 (77.4%)
27	Self-Defeating	52 (61.5%)	49 (48.5%)	26 (65%)	14 (35%)	12 (33.3%)	24 (66.7%)	14 (37.8%)	23 (62.2%)
28	Self-Deprecating	19 (18.3%)	85 (81.7%)	8 (19%)	34 (81%)	8 (26.7%)	22 (73.3%)	5 (12.5%)	35 (87.5%)
29	Self-Deprecating	35 (30.4%)	80 (69.6%)	13 (43.3%)	17 (56.7%)	7 (22.6%)	24 (77.4%)	14 (35%)	26 (65%)
30	Self-Defeating	60 (57.7%)	44 (42.3%)	19 (51.4%)	18 (48.6%)	20 (55.6%)	16 (44.4%)	18 (50%)	18 (50%)
31	Self-Deprecating	47 (42.7%)	63 (57.3%)	11 (34.4%)	21 (65.6%)	12 (34.3%)	23 (65.7%)	17 (47.2%)	19 (52.8%)
32	Self-Deprecating	36 (31.3%)	79 (68.7%)	16 (44.4%)	20 (55.6%)	9 (27.3%)	24 (72.7%)	9 (31%)	20 (69%)

N = 216, SDef; Self-Defeating Humour, SDep; Self-Deprecating Humour

7.3.4. Predictors and moderators of perception

Two level multi-level models were used to model the target perceptions. The percentage of variability that can be attributed to targets and observers is displayed in Table 14 below.

Table 14
Percentage of variability that can be attributed to targets and to observers

Outcome	Variance Attributed to	
	Targets (%)	Observers (%)
TYPE	0.96 (77.8%)	0.28 (22.2%)
MOOD	1.39 (24.9%)	4.2 (75.1%)
FUNNY	4.92 (64%)	2.76 (36%)
SELF ESTEEM	4.1 (76.2%)	1.28 (23.8%)

$N = 216$.

As indicated by Table 14 the percentage of variability that could be attributed to observers was substantial, confirming the need for multi-level modelling.

Unsurprisingly, observer mood in response to the target was particularly influenced by observer characteristics.

7.3.4.1 Humour style selection

A two level binary logistic regression model was used to analyse the predictors of humour style selection. The model included only observer ratings of mood and target self-esteem and funniness as predictors when non-significant level 1 predictors were removed:

Level 1 Model:

$$TYPE = \beta_0 + \beta_1 (SE) + \beta_2 (FUNNY) + \beta_3 (MOOD) + r \quad (1)$$

All observer variables (e.g., age, gender, self-report humour styles, mood inductions personality and self-esteem) were considered for entry at Level 2 but were found to be non-significant. Only the significant predictors are reported in Table 15.

Table 15
Predictors of Humour Style Selection

Level 1 Predictors	Coefficient	Std.Error	t-ratio (df)	OR	CI
INTERCEPT β_0	0.55	0.04	12.32 (214)***	1.74	1.59-1.90
SELF-ESTEEM β_1	0.50	0.02	22.54(214)***	1.70	1.63-1.78
FUNNINESS β_2	0.03	0.01	2.42 (214)***	1.03	1.01-1.06

$N = 216$, OR; Odds Ratio, CI; Confidence Interval

Only ratings of target self-esteem and funniness predicted the categorization of humour. Higher ratings of target self-esteem and funniness predicted the selection of self-deprecating humour. On average, when we control for self-esteem ratings, the odds of categorizing a target as using self-deprecating humour increased by 3.3% for each additional unit of funniness ratings. On average, when we control for funniness ratings, the odds of categorizing a target as using self-deprecating humour increased by 70.3% for each additional unit of self-esteem ratings.

7.3.4.2 Self-esteem ratings of target

Two-level models were used to examine the relationship between target self-esteem rating and the other target response variables (Mood, Funniness and Type of Humour Style) while also allowing for observer characteristics. The Level 1 self-esteem rating model was as follows when non-significant level 1 predictors were removed. Only the significant effects are presented in Table 16 below.

$$SELF - ESTEEM = \beta_0 + \beta_1 (MOOD) + \beta_2 (FUNNY) + \beta_3 (TYPE) + r \quad (2)$$

Table 16
Predictors of Target Self-Esteem Ratings

Level 1 Predictors	Level 2 Predictors	Coefficient	SE	t-ratio	df
INTERCEPT β_{0i}		3.28	0.08	38.96***	213
	GENDER	-0.48	0.17	-2.74**	213
MOOD β_{1i}		0.19	0.03	7.23***	
FUNNY β_{2i}		0.23	0.02	15.34***	212
	AGREEABLENESS	0.01	0.002	2.39*	212
	NEUROTICISM	0.004	0.002	2.71*	212
TYPE β_{3i}		1.74	0.09	19.89***	213
	AGREEABLENESS	0.05	0.02	2.98**	213

$N = 216$. SE = Standard Error.

These results revealed that observer gender, along with Observer Mood in response to the target, and ratings of Funniness and Humour Type, predicted ratings of target self-esteem. Female observers rated the target as having a lower self-esteem and observers experiencing more positive mood in response to a target rated this target as having a higher self-esteem. The targets rated as using self-deprecating humour were also rated as having a higher self-esteem, and this was moderated by observer agreeableness with higher observer agreeableness increasing the effect of humour type on ratings of self-esteem. Higher ratings of target funniness predicted higher ratings of target self-esteem and this effect was increased by higher observer agreeableness and neuroticism.

7.3.4.3. *Funniness ratings of target*

Two-level models were used once again to examine the relationship between perceiver ratings of the targets' funniness and the other target response variables (Mood, Self-Esteem, and Type of Humour Style) whilst also allowing for observer characteristics. Whether the observer rated the joke before or after a mood induction

(PREPOST) was a significant predictor in this model and as such it was included in the model below. The Level 1 (target response variables) model was as follows:

$$FUNNY = \beta_0 + \beta_1 (MOOD) + \beta_2 (SE) + \beta_3 (PREPOST) + \beta_4 (TYPE) + r \quad (3)$$

Only the significant effects are reported in Table 17.

Table 17
Predictors of Target Funniness Ratings

Level 1 Predictors	Level 2 Predictors	Coefficient	SE	t-ratio	df
INTERCEPT β_{0i}		3.24	0.12	27.8***	213
	EXTRAVERSION	0.03	0.01	2.28*	213
MOOD β_{1i}		0.67	0.04	17.87	213
	AGE	-0.01	0.01	-2.06*	213
SELFESTEEM β_{2i}		0.32	0.02	15.34***	212
	AGE	0.01	0.002	4.08***	212
	NA	-0.006	0.002	-2.90**	212
PRE/POST β_{3i}		0.29	0.06	4.56***	213
	NEG IND	0.04	0.13	2.98**	213
TYPE β_{4i}		0.17	0.06	2.76**	214

$N = 216$, SE; Standard Error; NA; Negative Affect; NEGIND; Negative Mood

Induction

Higher observer extraversion as well as positive mood in relation to the target, predicted higher target funniness ratings with observer age moderating the effect of mood on funniness ratings. The mood effect was reduced in the case of older observers. Higher target self-esteem ratings predicted higher target funniness ratings, with observer age and negative affect moderating this effect. The effect of self-esteem was increased in older observers and reduced in the case of people with higher NA. The observers that rated funniness at the post mood induction stage were more likely to rate the jokes as being funnier especially in the case of those in the negative mood induction condition. Finally, the type of humour the target was using predicted the funniness ratings with the self-deprecating targets rated as funnier.

7.3.4.4. Observer mood

Two-level models were used once again to examine the relationship between perceiver ratings of the targets' funniness and observers' self-reported self-esteem, personality traits, mood, and humour styles. The Level 1 (target response variables) model was as follows when non-significant level 1 predictors were removed:

$$MOOD = \beta_0 + \beta_1(FUNNY) + \beta_2(SE) + \beta_3(PREPOST) + r \quad (4)$$

Only the significant predictors are displayed in Table 18 below.

Table 18
Predictors of Observer Mood Ratings

Level 1 Predictors	Level 2 Predictors	Coefficient	SE	t-ratio	df
INTERCEPT β_{0i}		5.77	0.011	50.33***	211
	NEGATIVE AFFECT	-0.07	0.02	-2.23***	211
	POSITIVE AFFECT	0.09	0.01	6.12***	211
	NEUROTICISM	0.04	0.02	2.61*	211
FUNNY β_{1i}		0.19	0.02	12.49***	214
SELF ESTEEM β_{2i}		0.05	0.01	6.24***	214
PRE/POST β_{3i}		-0.14	0.06	-2.29*	212
	NEGIND	-0.62	0.13	-4.76***	212
	POSIND	0.28	0.14	2.70**	212

$N = 216$. SE; Standard Error; NEGIND; Negative Mood Induction; POSIND; Positive Mood Induction

Higher ratings of target self-esteem and target funniness predicted higher observer mood. Lower observer negative affect, and higher observer positive affect and neuroticism predicted higher observer mood ratings in response to the target. The type of mood induction moderated the effect of the mood induction, with the negative mood induction negatively impacting observer mood and the positive mood induction positively impacting observer mood.

7.4. Discussion

The current study adds to the small body of literature on the perception of self-directed humour by examining whether experimentally induced mood states affect the way in which these humour styles are perceived. Overall, the results were mixed.

7.4.1. Predictors and moderators of humour perception

7.4.1.1. Humour and mood

Observer mood was measured in multiple ways in the current study. These included using the PANAS (Watson et al, 1988), a Visual Analog Scale following the presentation of each joke, and the role of the mood inductions was also explored. Experimentally induced mood was not associated with the perception of targets' humour styles, nor their self-esteem, but did predict higher funniness ratings, thus only lending partial support to this hypothesis. The latter finding is consistent with past research demonstrating that mood inductions play a role in rating the funniness of humour (Prerost, 1983). A primary aim of humour use is to incite an emotional response in observers, such as exhilaration (Ruch, 1993), and because mood is considered a weak intensity emotion (Deckers, 2010), it was expected that mood would affect the way in which observers respond to humour. The negative mood induction was unexpectedly associated with higher funniness ratings. This finding is inconsistent with Neumann et al. (2001) who revealed that those exposed to the positive mood induction rated cartoons as funnier than those in the negative mood induction. This unusual result might be explained by the self-directed nature of the jokes used in this study. It is likely that those participants in a negative mood might have identified with the material on a personal basis, and in line with social projection theory, found these jokes funnier. An alternative explanation might be that the jokes alleviated the negative effects of being induced into a low mood, thus exacerbating funniness ratings. On the contrary, lower observer negative mood predicted higher

funniness ratings and this moderated the effect of self-esteem on humour appreciation. This finding is also consistent with the social projection hypothesis; those experiencing lower negative mood are more likely to view targets more positively.

Observer mood following the presentation of each joke did not predict humour style, which is consistent with both Brown, Buzwell et al. (2018) who also revealed that mood ratings did not predict humour style selection. Observer mood did predict the target ratings of self-esteem and funniness, with participants in a more positive mood rating targets as having a higher sense of self-worth and as more funny. These target variables in turn predicted the selection of humour style, with the high self-worth and funny targets perceived as using self-deprecating humour. This finding is consistent with Brown, Buzwell et al. (2018) who also showed that target ratings of self-esteem and funniness significantly predicted humour style categorization. The current study's results lend further support to the notion that individuals perceived as using self-deprecating humour will also be perceived as being more psychologically healthy.

7.4.1.2. Personality

Extraversion was positively associated with humour appreciation, which is consistent with past research that those who are more sociable tend to enjoy humour more (Brown, Buzwell et al., 2018; Brown, Findlay et al. in press; Moran, Rain, Page-Gould, & Mar, 2014). Observer agreeableness moderated the effect of humour type on self-esteem ratings. Those higher on agreeableness were more likely to rate the targets using self-deprecating humour as having higher self-esteem. Observer agreeableness also moderated the effect of self-esteem on funniness ratings. Higher agreeableness was associated with higher ratings of target self-esteem, and this

increased ratings of target funniness. Those higher on agreeableness are considered warm and co-operative, and subsequently have healthy social relationships (Jensen-Campbell et al. 2002; Knack, Jacquot & Jensen-Campbell 2008). It is likely that because those higher on agreeableness are motivated to maintain positive relations with other people, this might increase their positive perceptions of others (Graziano, Jensen-Campbell, & Hair 1996). Observer neuroticism predicted lower positive mood and negatively moderated the effect of target funniness on target self-esteem. Those higher on neuroticism were more likely to be lower on positive mood and this decreased the ratings of target funniness. Individuals higher on neuroticism tend to experience feelings of anxiety and depressed mood (Costa & McCrae 1980) and therefore these individuals are less likely to enjoy humour, rating targets lower on funniness.

7.4.1.3. Age and sex

Participant sex was associated with self-esteem ratings, with female observers perceiving targets as having lower self-esteem. Bleidorn et al. (2016) revealed in their cross-cultural study that females consistently report lower self-esteem than males. This finding in the current study might therefore also support social projection theory, with those higher on self-esteem perceiving others as having a higher self-esteem in the absence of other trait-related information (Cho et al. 2013; Critcher and Dunning, 2009). Age also moderated the positive effect of self-esteem ratings on perceived funniness, with older participants rating the target as having a higher self-esteem. Age also moderated the effect of observer mood on humour appreciation, with younger observers more likely to experience positive mood, and thus exacerbating its effect on targets' funniness ratings.

7.4.2. Limitations, future directions, and implications

This study's methodology used jokes in written form without presenting any other target information to observers. Many of the written jokes were categorized as self-deprecating, and therefore the majority of the jokes contained in the current study reflected mostly self-deprecating content. This was consistent with the original study validating the written jokes, the results of which revealed that many of the self-directed jokes were categorized as being self-deprecating (Brown, 2018). These results confirmed the notion that written humour might not convey the target social awkwardness (e.g., social anxiety features such as shyness) considered to be associated with this humour style (Hampes, 2006).

The results revealed compelling evidence that in the absence of other trait information, one's use of humour can signal information about their self-esteem. A potential limitation of the sole use of jokes is that humour often occurs within a social setting where observers are privy to more information about the target, including their physical appearance and overt personality display. As such, the current results are only applicable to written humour. The use of video clips of targets telling jokes might better reflect the subtle nuances related to humour use, and might better represent humour within a social setting. It is important to note that the use of video clips presents various confounding variables, as outlined by Brown, Findlay et al. (in press) and these have the potential to affect how humour was perceived over and above the joke. As such, future studies might create videos with targets varying in age, gender, physical attractiveness and personality to examine these differences within a scenario that is more reflective of the way in which humour would be perceived.

Humour is considered to be a manifestation of personality, and as such researchers have examined whether observers could perceive personality features of targets engaging in humour. Cann and Calhoun (2001) found that those with a sense of humour that is well above average were associated with higher extraversion and lower neuroticism. Kuiper and Leite (2010) examined how humour styles were perceived, and revealed that targets using affiliative humour were also perceived as being higher in extraversion and lower in neuroticism, and the inverse was found for the targets using self-defeating humour. Zeigler-Hill et al. (2013) expanded on this finding to examine whether humour styles operated as an interpersonal signal of personality and character traits including aggression, self-esteem and grandiosity. They revealed that targets rated as using affiliative humour were associated with higher levels of extraversion, emotional stability and self-esteem, and lower levels of aggression. The targets rated as using self-defeating humour were positively associated with aggression and negatively associated with emotional stability and self-esteem. Future research might expand on this research to include targets using self-deprecating humour to investigate the notion that these targets are considered healthier (i.e., perceived as higher on extraversion) than the self-defeating targets (i.e., perceived as higher on neuroticism). This research might also test whether mood moderates this humour-personality perception.

The results of the current study add weight to the argument that targets using self-deprecating humour are perceived as psychologically healthier than targets using self-defeating humour. Additionally, the negative mood induction predicted humour appreciation, which might indicate that exposure to humour briefly alleviates feelings of negative mood. Future studies might explore whether humour can operate as a mood regulation strategy. Whilst one's sense of humour has been shown to moderate

the effects between stressors and moods, reducing their impact (Martin & Lefcourt, 1983), there is limited research examining whether exposure to humour could operate as a mood enhancer. This research could inform future interventions aimed at managing depression. In addition, the careful use of self-deprecating humour might enhance the therapeutic alliance, as it may serve to humanize potentially intimidating individuals (Greengross & Miller, 2008) and has an equaling effect on leader-follower relationships (Hopton, Barling & Turner, 2013). Examining these effects with a clinical population might provide a clearer understanding of the benefits of humour within a therapeutic setting.

7.4.3 Conclusion

The current study added weight to the argument that self-deprecating humour is perceived as being more psychologically healthy than self-defeating, as targets using this type of humour were rated as having a higher self-esteem. Whilst the mood inductions were successful, only the negative mood induction predicted humour ratings, which was unexpected. This suggests that the interplay between mood and humour might be more complex than anticipated.

Chapter 8: Concluding Chapter

8.0 Chapter Overview

First, this chapter will revisit the main contention of the thesis. Next, a summary of the all three studies are presented, along with how each has addressed the research questions presented in Chapter 5. The limitations contained in this thesis as well potential future directions will be outlined. Finally, the applied, theoretical and clinical implications will be outlined along with a concluding summary.

8.1. Thesis Contention

The use of humour as a form of communication within interpersonal relationships has been firmly established (Lynch, 2002). Humour research has conceptualised humour use as four humour styles communicating intentions that can be adaptive or maladaptive and directed at others or at the self (Martin et al., 2003). The two other-directed humour styles include affiliative humour, which reflects prosocial intentions aimed at fostering relationships, whilst the humour style reflecting aggressive intentions is aptly named aggressive humour (Martin et al., 2003). The way in which they are displayed is apparent, in that affiliative humour is often benign, whilst aggressive humour makes use of sarcasm, teasing and/or mocking of others. As such, it is easy for observers to differentiate between these two styles.

The two self-directed styles either enhance the self, known as self-enhancing humour or denigrate the self, known as self-defeating humour. Self-enhancing humour is related to coping as it allows individuals to be amused by the incongruities of life and to maintain a humorous perspective even in the face of adversity. This form of humour is considered to be intrapsychic rather than interpersonal and as such

is not always as apparent socially (Martin et al., 2003). People who use self-defeating humour, on the other hand, often rely on self-disparaging humour to ingratiate themselves with others and as such it serves a social goal. Whilst this humour style is associated with low self-esteem and wellbeing, the skillful use of self-directed humour might communicate adaptive intentions. Within this context, the self-directed humour might be considered self-deprecating (Rawlings & Findlay, 2013). Both self-defeating and self-deprecating humour present in the same way, by the target using themselves as the ‘butt’ of their joke, and consequently the author of this thesis questioned whether these styles of humour could be teased apart interpersonally. In other words, in social situations are individuals able to distinguish whether someone is using self-defeating or self-deprecating humour?

Thus, an examination of whether self-defeating and self-deprecating humour were perceived as individual styles lay at the heart of this thesis. In addition to this, I was interested in how the targets using self-disparaging humour were perceived by others, and whether observer characteristics played a role in this perception, in line with social projection theory (Dunning & Hayes, 1996). The findings of the current thesis in relation to the research questions are presented below.

8.2. Summary of findings in relation to the Research Questions

8.2.1. The distinction between self-defeating and self-deprecating humour on an interpersonal level

RQ1: Are observers able to differentiate between self-deprecating and self-defeating humour?

Three studies examining the perception of self-directed humour were conducted to explore the first research question. The researchers provided participants with definitions of both self-defeating and self-deprecating humour and asked them to

categorise the humour stimuli accordingly in all three studies. The results of the three studies revealed consistent results that observers were able to differentiate between the two styles with some agreement. In other words, a higher proportion of participants classified a humorous stimulus as one rather than the other. The results also revealed that the majority of the written jokes were categorised as self-deprecating. Of the few jokes that were categorised as self-defeating, they contained terms that were considered hurtful to the target. For example, the word 'hate' was commonly found in the self-defeating jokes (e.g., "I ate KFC last night. Is one of the 11 secret herbs and spices self-hate?"). Thus these studies indicate that people can differentiate between humour styles, with targets using light-hearted self-disparaging humour (e.g., "Someone asked if I knew a good plastic surgeon. Would I look like this if I did?") perceived as self-deprecating whilst those targets using self-disparaging humour with harsher tones (e.g., "Yeah, I'd get plastic surgery. I think I'd get my eyes removed. Then none of it's my problem anymore") considered to be self-defeating. Whilst the primary aim of this was to examine whether these jokes were differentially classed, a secondary aim focused how the targets using these humour styles were perceived.

8.2.2. The Role of Target Self-esteem and Funniness in Humour Perception

RQ2: Are self-deprecating and self-defeating targets perceived as differing in self-esteem and funniness?

Rawlings and Findlay (2013) established that a key difference between the use of self-defeating and self-deprecating humour was the target's self-esteem. The use of self-deprecating humour was positively correlated with self-esteem, whilst the use of self-defeating humour is negatively correlated with self-esteem (Rawlings &

Findlay, 2013). Taking this into account, the researchers anticipated that individuals using self-disparaging humour would be communicating information about their self-esteem, and as such asked participants to rate the self-esteem of each of the unknown targets they were presented. Ratings were completed on a Visual Analog Scale and the results revealed that the self-esteem ratings were significantly different with the targets using self-deprecating humour rated as having a higher self-esteem than the self-defeating targets. This finding confirmed the notion that self-deprecating humour is considered a psychologically healthier style compared with self-defeating humour on intra-and-interpersonal level. This also indicates that humour can signal wellbeing information about the target, consistent with Zeigler-Hill et al., (2013).

Participants were also asked to rate the funniness of each target using a similar method to that of eliciting self-esteem ratings. The second and third study findings revealed that the self-deprecating targets were rated as significantly funnier than their self-defeating counterparts. Target funniness positively predicted observer categorisation of self-deprecating rather than self-defeating humour. In other words, individuals who use self-disparaging humour are considered to be using self-deprecating humour when their humour is appreciated by others, and as self-defeating when their humour is considered not to be funny. Taken together, these results indicate that self-deprecating targets more interpersonally desirable than self-defeating targets given that they are perceived as funnier (Wanzer, M. Booth-Butterfield & S. Booth-Buterfield).

In addition to this, target funniness ratings also positively predicted high self-esteem of targets displaying both self-directed humour styles across all vignette groups. This indicates that the more one appreciates the joke, the higher they are likely to perceive a target's self-esteem. In addition, ratings of self-esteem

consistently predicted higher funniness ratings of targets displaying both self-defeating and self-deprecating humour. This suggests that individuals who perceive the target as having a higher self-esteem are more likely to find their humour funnier and individuals who are considered funnier are also likely to be perceived as having a higher self-esteem. This might be because observers find it more comfortable to laugh at those with a higher self-esteem or alternatively, appreciating one's humour might indicate that the target has a higher self-esteem. These findings lend support to the idea that humour styles can reflect information about a target (e.g., their wellbeing; Zeigler-Hill, Besser & Jett, 2013).

8.2.3. The Role of Observer Intrapersonal Variables

RQ3: Will observer intrapersonal variables (e.g., personality, wellbeing, and humour styles) predict this perception?

It was anticipated in line with social projection theory (Dunning & Hayes, 1996) that participants would project their own characteristics onto a target during the perception of their humour, particularly in the absence of trait-relevant information (Ready, Clark, Watson, and Westerhouse, 2000; Watson, Hubbard, & Wiese, 2000). The results of all three studies revealed that there was no consistency in observer variables related to how participants perceived humour, however some interesting trends did appear.

8.2.3.1. Predictors of Humour Style Selection

In each study, participants were asked to categorise humour stimuli as either self-defeating or self-deprecating humour based on provided definitions. All three studies revealed that observers were able to do this with some level of agreement. Figure 4 below presents the significant predictors of humour categorization across all three studies contained within this thesis.

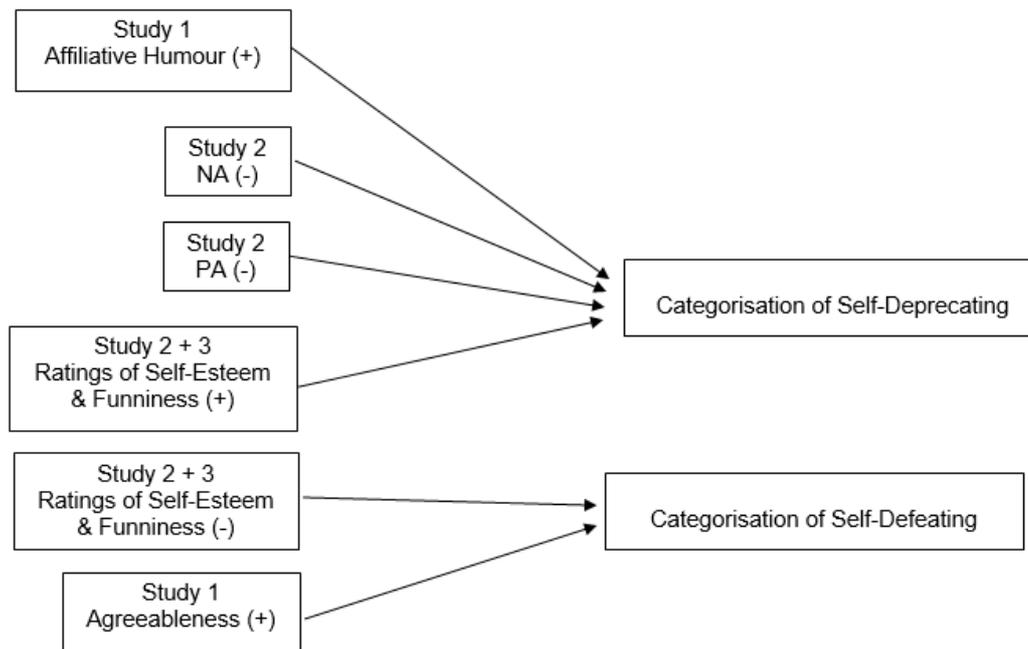


Figure 4. The predictors of humour categorisation

As per Figure 4, the first study revealed that self-report agreeableness positively predicted the selection of self-defeating humour rather than self-deprecating humour. Those higher on agreeableness tend to be warm and co-operative and subsequently have healthy interpersonal relationships (Jensen-Campbell, Adams, et al., 2002). It is likely that those higher on agreeableness are motivated to maintain positive relations with other people and this may increase the likelihood that agreeable people have positive perceptions of others (Graziano, Jensen-Campbell, & Hair, 1996). The first study also revealed that observer use of affiliative humour positively predicted the selection of self-deprecating rather than self-defeating humour. Martin et al. (2003) postulated that self-deprecating humour may be a subtype of affiliative humour, and as such this finding supports social projection theory (Cho et al., 2013; Critcher & Dunning, 2009; Dunning & Hayes, 1996) which would

suggest that those who engage in positive humour styles are more likely to consider that others also engage in positive humour, particularly in the absence of any other information (Cho et al., 2013; Critcher & Dunning, 2009; Dunning & Hayes, 1996). Agreeableness and affiliative humour did not predict the categorisation of humour for the remaining two studies, but they did play a role in target self-esteem and funniness ratings, which will be discussed in their relevant sub-sections.

In examining which observer variables predicted humour categorisation, the second study revealed that negative affect negatively predicted the selection of self-deprecating humour rather than self-defeating humour. Those experiencing lower negative affect tend to be calm and are less likely to experience negative emotions (Watson et al., 1988) and as such are more likely to make positive perceptions in line with their mood (Forgas, Bower & Krantz, 1984; Forgas & Bower, 1987). Contrary to expectation, positive affect negatively predicted the categorisation of self-deprecating humour rather than self-defeating. Those lower on PA tend to have low energy and are less likely to experience and express positive emotions (Watson et al. 1988). A plausible explanation for this finding might be that the self-deprecating jokes were rated as funnier than the self-defeating jokes, and thus perhaps the exposure to the self-deprecating joke improved the mood of those lower on PA. This increase in mood would increase the individuals' propensity to experience positive emotions (Watson et al. 1988) and because mood can frame the way in which we view others (Forgas, Bower & Krantz, 1984; Forgas & Bower, 1987) this allowed participants to view the target in a positive light (e.g., as using self-deprecating humour).

The second study also revealed that ratings of target self-esteem and funniness positively predicted the categorisation of humour with targets rated as having high

target self-esteem and to be funny considered to be using self-deprecating rather than self-defeating humour. These findings were echoed in the third study with only target ratings of self-esteem and funniness positively predicting humour categorisation. This provided evidence that information about the target would inform the observer about the type of humour the target is engaging, beyond the content of the joke. Whilst the aim of this thesis was to examine the perception of humour styles, examining which observer variables predicted the perception of self-esteem and funniness also revealed interesting results, which are outlined below.

Overall, the findings in relation to the categorisation of humour were not consistent, although there was convincing evidence that the way in which observers perceive the target plays a role in this perception. This was as the observers within each study were only presented targets telling jokes with limited information about the target. These results indicate that humour can act as a signal of target self-esteem in line with Zeigler-Hill et al. (2013) and funniness, which in turn can assist in the categorisation of humour.

8.2.3.2. Target Funniness Ratings

Whilst the aim of the current thesis was to examine how the self-directed humour styles are perceived, the researchers also measured humour appreciation in the form of joke funniness ratings following the presentation of humorous stimulus. The significant predictors of funniness ratings across the three studies of this thesis are

displayed in Figure 5a below.

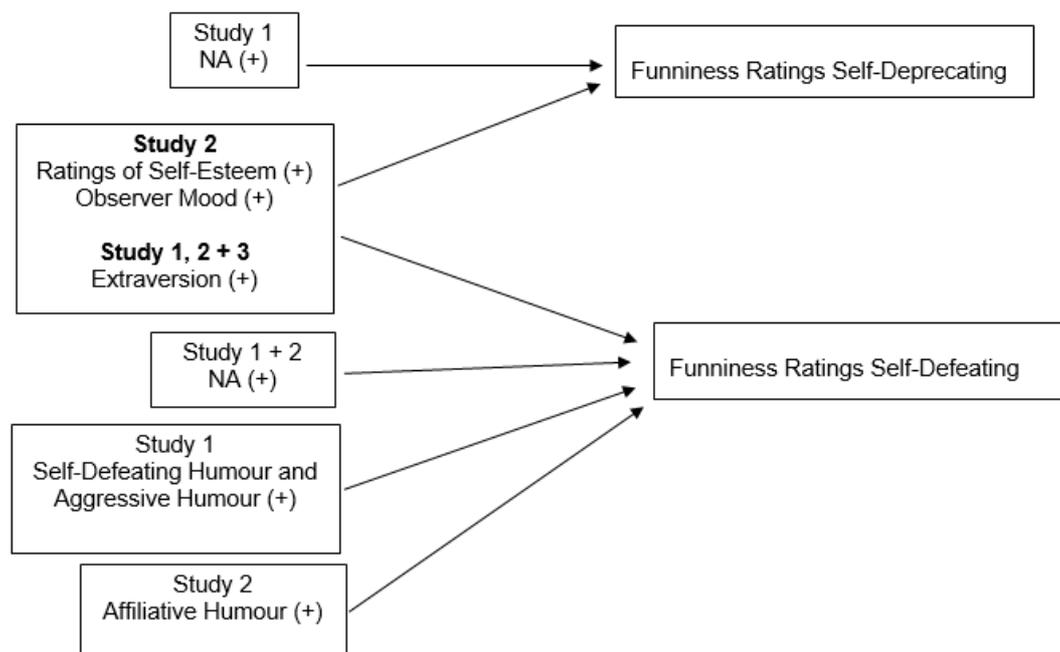


Figure 5a. The predictors of funniness ratings for both targets using self-deprecating and self-defeating humour

As can be seen in Figure 5a, self-reported observer extraversion consistently positively predicted funniness ratings for both humour styles. This supports Moran, Rain, Page-Gould and Mar (2014) who examined the relationship between humour production and humour appreciation, along with personality factors that underlie each of these. They found that whilst extraversion was negatively associated with humour production, greater extraversion predicted greater humour appreciation, in line with the findings contained within this thesis. This might be explained by the sociable nature of those higher on extraversion (Costa & McCrae, 1980) who might appreciate humour (e.g., laughing) as a means to foster social relationships.

The first study revealed that observer use of aggressive and self-defeating humour predicted the funniness ratings of self-defeating humour. This was somewhat

expected as the humour one engages in might affect the humour the person appreciates. Given that self-defeating humour also reflects aggressive tones towards oneself (e.g., mocking oneself; Martin et al., 2003) those who use aggressive humour might appreciate self-defeating humour as it is reflective of their own humour use—therefore finding this form of humour funny. These findings provided evidence that the humour style an individual engages in is likely to play a role in the type of humour they find funny. This confirms similar findings in Gignac, Karatamoglou, Wee and Palacios (2014) who found that participants, who engage in aggressive humour, also tend to appreciate this form of humour (as measured on the appreciation for aggressive humour). Interestingly, however, the second study revealed that observer affiliative humour positively predicted funniness ratings of the self-defeating target. Affiliative humour is inherently pro-social in nature (Martin et al., 2003) and as such those individuals who employ this humour style are likely to appreciate all humour more than those who engage in other humour styles, similar to those higher in extraversion. These results reveal that the humour styles individuals engage in can play a role in how others' humour styles are perceived, lending additional support to the notion of social projection (Cho et al., 2013; Critcher & Dunning, 2009; Dunning & Hayes, 1996).

Both the first study revealed that negative affect positively predicted funniness ratings of the self-defeating target, and the second study also revealed that negative affect positively predicted funniness ratings of both self-defeating and self-deprecating humour. This might be explained by the mood enhancing nature of humour (MacDonald, 2014). Researchers (Bower, 1983; Clark & Isen, 1981; Isen & Means, 1983) have shown that mood influences a range of social processes and as such those in a positive mood might interpret others' social behaviours (such as

humour use) positively (as funnier). This would also explain the finding that positive observer mood (rated following the presentation of each target) also positively predicted funniness ratings.

The third study revealed additional moderators of the perception of funniness, which are displayed in Figure 5b below.

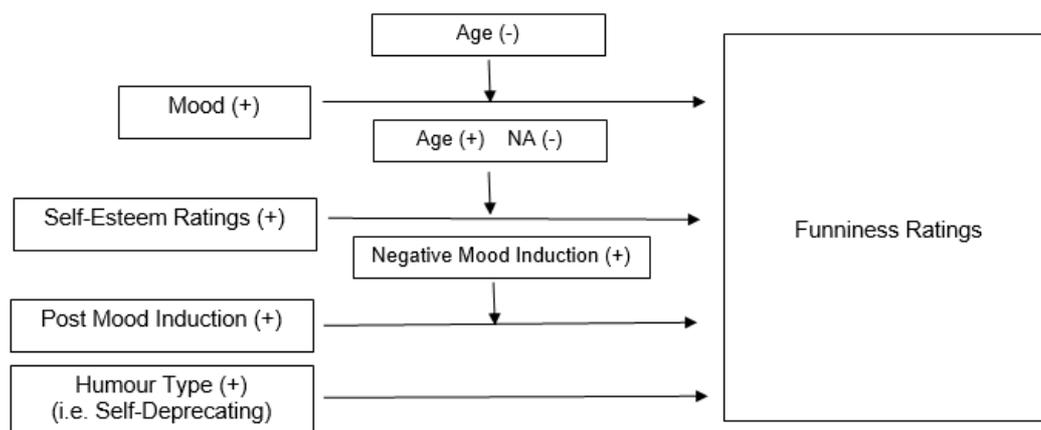


Figure 5b. The predictors and moderators of funniness ratings for both self-defeating and self-deprecating targets in Study 3

As previously noted (in section 8.2.2), self-deprecating targets were rated as significantly funnier than self-defeating targets, and this can be seen in Figure 6 above. The third study (Brown, Bullock et al. 2018), similar to the second study (Brown, Buzwell et al. 2018) revealed that target self-esteem ratings and observer mood positively predicted target funniness ratings. The effect of mood on funniness ratings decreased with age, whilst the effect of self-esteem ratings was increased with age. Orth and Robins (2014) revealed that self-esteem increases with age, and as such, the older participants are more likely to have a higher self-esteem, and to also perceive targets as having a higher self-esteem in line with social projection research (Cho, et al., 2013; Critcher & Dunning, 2009; Dunning & Hayes, 1996).

Negative affect negatively moderated the effect of self-esteem ratings on funniness ratings, indicating that those higher on anger and negative emotions (Watson et al. 1988) are likely to rate others as having low self-esteem. This might be explained as a form of social projection whereby individuals in a negative frame of mind project their negative state onto others (i.e. lower ratings of self-esteem). Observers in the negative mood induction were also likely to positively rate a target's funniness. Participants were presented with the jokes prior to rating their own mood, and because humour can operate as a mood enhancer (MacDonald, 2004), it is possible that these individuals' mood improved based on the joke thus rating the joke as being funny.

8.2.3.3. Target Self-Esteem Ratings

Whilst this thesis focused on humour perception, the findings within this thesis revealed that the way in which target self-esteem was perceived played role in this perception. Self-esteem is ostensibly the evaluations one makes about oneself and therefore self-disparaging humour is likely to reflect this evaluation (Martin et al., 2003). Therefore, understanding the role of observer variables related to this perception is integral in better understanding the perception of self-directed humour. The significant predictors of self-esteem perception are displayed in Figure 6a below.

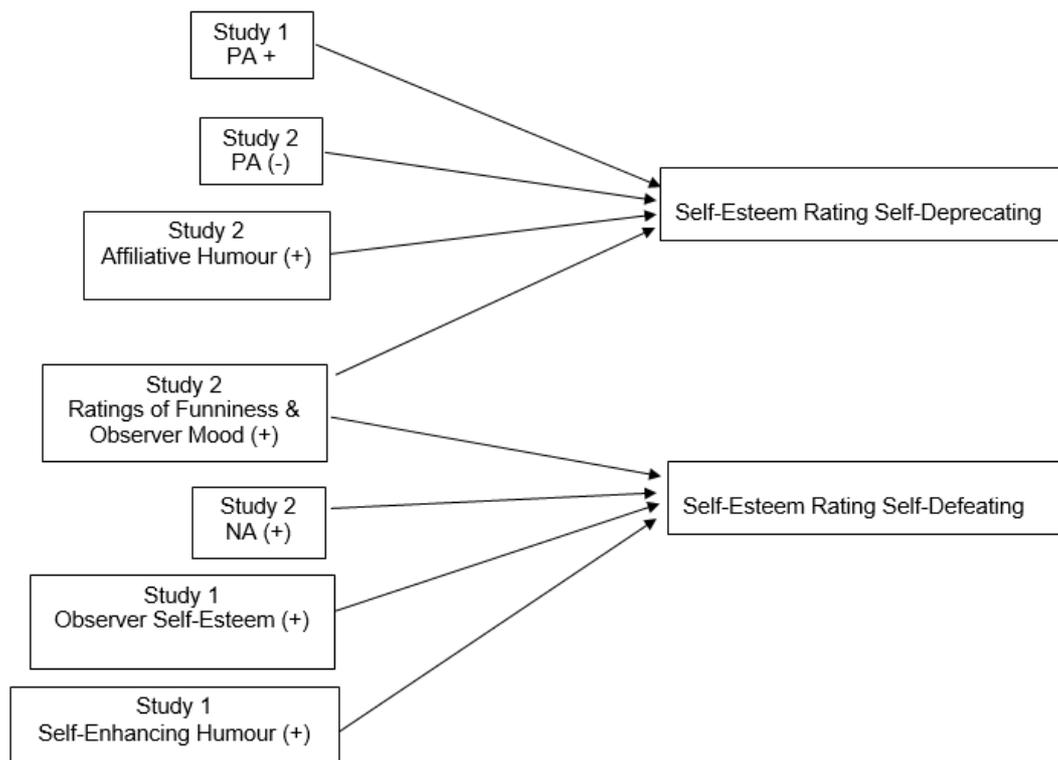


Figure 6a. The predictors of self-esteem ratings for the targets using self-deprecating and self-defeating humour

As can be seen in Figure 6a above, the findings of the first study revealed that observer self-esteem positively predicted target ratings of self-esteem for the targets using self-defeating humour. It is unclear why observer self-esteem did not predict the self-esteem ratings for the self-deprecating target; however, it is plausible that those who are high on self-esteem are likely to project this onto a target and therefore perceive the target as also having a high self-esteem. This lends some support to the notion that observers rely on their personal characteristics to guide their perceptions of unknown targets (Dunning & Hayes, 1996). Positive affect, as measured using the PANAS (Watson et al., 1988), predicted high ratings of target self-esteem. This reveals that, in line with social projection research (Cho et al., 2013; Critcher & Dunning, 2009; Dunning & Hayes, 1996), observers with high positive affect were

more likely to rate others as having high self-esteem and behaving in ways consistent with positive affect.

The findings of the second study also suggest that positive affect predicted ratings of target self-esteem, although this was in the opposite direction to the first study. Higher observer positive affect predicted lower self-esteem ratings of the self-deprecating targets. Those lower on PA are considered to be lower on energy and are less likely to experience and express positive emotions (Watson et al. 1988). However, the self-deprecating jokes were rated as funnier than the self-defeating jokes, which might have improved observer mood (MacDonald, 2004) which might have allowed the observer to view the target in a positive light (i.e. high self-esteem rating) in line with their improved mood (Forgas, Bower & Krantz, 1984; Forgas & Bower, 1987). This explanation might also apply to the finding that negative affect positively predicted the ratings of self-esteem of the self-defeating target. When individuals who are experiencing negative emotions are exposed to humorous stimuli, they are relieved from their low emotional state thus exacerbating their positive response (e.g., mirth) to the humour.

Observer self-enhancing humour positively predicted self-esteem ratings of targets using self-defeating humour, whilst observer affiliative humour positively predicted self-esteem ratings of the self-deprecating targets. This might be explained by the nature of self-enhancing humour, which involves a humorous outlook on life (Martin et al., 2003) as a means to cope with stress. As such individuals who engage in self-enhancing humour might perceive self-directed jokes a form of coping humour. This might illustrate that these individuals have a higher self-esteem as they engage in adaptive means to cope, similar to their own use of humour. As previously noted, self-deprecating humour was posited to be a sub-type of affiliative humour,

and as such, those using affiliative humour are likely to also engage in self-deprecating humour and as such perceive these targets as having a high self-esteem, similar to their own (Dunning & Hayes, 1996; Martin et al, 2003).

Both the second and third study revealed that target funniness and observer mood positively predicted the ratings of self-esteem, with observers in a positive mood perceiving targets to be funny as also having a high self-esteem. The third study revealed additional moderators of the perception of self-esteem, and these are displayed in Figure 6b below.

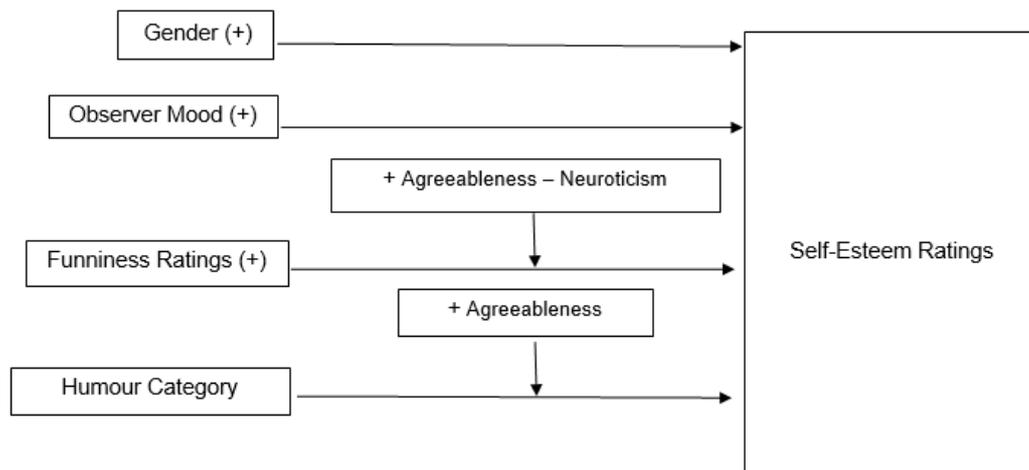


Figure 6b. The predictors and moderators of overall target self-esteem ratings in study 3

As previously outlined in section 8.2.2, the targets categorised as using self-deprecating humour were also rated as having a higher self-esteem than their self-defeating counterparts. In the third study, the effect of humour category on self-esteem ratings was positively moderated by observer agreeableness. Similar to findings contained in the first study, agreeableness positively predicted the categorisation of humour as being self-deprecating rather than self-defeating, and in

the third study this moderated the effect of humour categorisation on self-esteem ratings. In addition, agreeableness also positively predicted the effect of funniness ratings on target self-esteem ratings in the third study. Agreeable people tend to be warm and co-operative, and subsequently have healthy interpersonal relationships (Jensen-Campbell, Adams, et al., 2002). As such, it is likely that those high on agreeableness are motivated to maintain positive relations with other people, and this may increase the likelihood that agreeable people have positive perceptions of others (Graziano, Jensen-Campbell, & Hair, 1996). Observer neuroticism negatively moderated the effect of target funniness ratings on target self-esteem ratings. Individuals who are higher on neuroticism tend to experience feelings of anxiety and depressed mood (Costa and McCrae 1980) and therefore these individuals are less likely to enjoy humour, rating targets lower on funniness.

Finally, observer sex was associated with self-esteem ratings, with female observers perceiving targets as having low self-esteem. Bleidorn et al. (2016) revealed in their cross-cultural study that females consistently report lower self-esteem than males and as such, females may have projected their low self-esteem onto the target in line with social projection theory (Dunning & Hayes, 1996). It is also plausible because the third study included self-disparaging jokes without any context (e.g., sex of target), that females experienced heightened empathy towards the target (Mestre, Samper, Frias & Tur, 2009) thus rating the target as having a low self-esteem.

In sum, the findings from the three studies confirmed that self-deprecating and self-defeating humour operate in a different ways interpersonally. For example, targets who use self-deprecating humour are perceived as having a higher self-esteem and as being funnier than their self-defeating counterparts. The current research added to the argument that humour styles operate as an interpersonal signal (Zeigler, Besser

& Jett, 2013) communicating information about an individual's wellbeing (e.g., self-esteem). These studies also confirmed that humour perception might be dependent on observer characteristics, in line with social projection (Dunning & Hayes, 1996). Despite these interesting results, it is important to the results within the context of their methodological limitations.

8.3. Limitations, Implications, and Future Directions

The first study made use of pre-existing online videos as humour stimuli and as such the authors did not know whether the comedian's humour truly reflected the humour style the authors perceived them to be using. In other words, the researchers were reliant on Martin et al's (2003) definitions of the humour styles to select videos to reflect each humour style without the comedian available to provide self-other agreement ratings.

In addition, the videos also present numerous confounding variables (e.g., in the delivery of humour), which might provide information about the target's humour style over and above the content of the joke. For example, audience laughter might signal that the joke was successful and could play a role in whether perceivers view the joke as self-deprecating or self-defeating. Based on the provided definitions of self-deprecating humour (gently poking fun at oneself, target does not believe what they are saying about themselves) and self-defeating humour (self-disparaging humour to ingratiate oneself where target believes what they are saying about themselves) might have meant that participants categorised a target's humour as self-deprecating if audience laughter was present which meant that these extraneous variables may have affected humour categorisation.

Finally, the participants might also have preconceived ideas about the comedian, given that the comedians are popular and potentially well-known, and this may have impacted on participants' ratings of the comedian's self-esteem and their humour styles outside of the video content. For example, if a comedian has received publicity regarding their mental health and/or living circumstances (e.g., recently separated from spouse), this might play a role in how they are perceived (e.g. low self-esteem) and therefore perceive their self-disparaging humour as self-defeating.

The second and third studies addressed the aforementioned limitations with the use of written humour stimuli. The second study made use of written vignettes to control three confounding target variables including; sex, physical attractiveness, and confidence. Whilst the second study provided a platform to examine the way in which humour is perceived, the use of written vignettes does not take into account the nuances present in social situations (e.g., the delivery of the joke). In addition, this study revealed that many of the written jokes were perceived as self-deprecating which might indicate that written jokes might not encapsulate the potential shyness and social awkwardness present in self-defeating humour (Hampes, 2006). As such, future research might create a pool of validated videos of targets differing in features (e.g., physical appearance) making use of a variety of self-disparaging jokes. This would allow for a comprehensive examination of humour perception that takes into account the limitations present in both the use of existing videos and in written humour. These validated videos might also allow for a clearer account of the underlying mechanisms involved in interpersonal perception.

Another way humour perception can be examined might be in the use of Internet memes. As humour forms part of how people communicate with others (Lynch, 2002), it is important to take into account the evolving landscape of

communication, particularly within the context of social media (Baruah, 2012). For example, Internet memes, which take the form of either an image, video, or text, are essentially ideas that are spread across the Internet (Merriam-Webster Dictionary 2018). Memes are typically humorous and as such might offer interesting insight into the perception of self-disparaging humour. For example, Ask and Abidin (2018) examined memes related to student life and revealed that one prominent meme subgenre is dedicated to laughing at one's misfortune (i.e. self-deprecating humour). Ask and Abidin (2018) focused specifically on student life, however memes can reflect self-deprecating content outside of the student context. Examples are shown below.



Figure 7. Meme about failure



Figure 8. Meme about appearance.

Self-deprecating memes have gained popularity due to their effect of increasing connection (Ask & Abidin, 2018) between individuals based on shared experiences (e.g., the salon example in Figure 8). Further examination of memes might provide additional opportunities to examine self-disparaging humour in a different mode, and this examination might be on an intra-and-interpersonal level. Many of the existing

self-disparaging memes revolve around themes such as death (or wanting to die) and poor mental health. Examples of these are below:

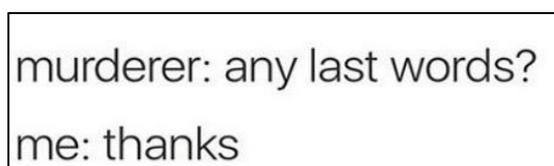


Figure 9. Meme about wanting to die

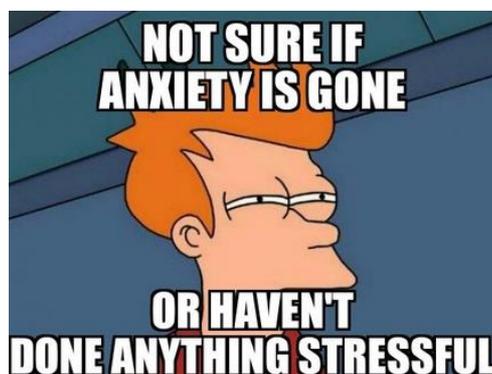


Figure 10. Meme about mental health

Therefore, this presents an important avenue for humour and wellbeing research in that the extended production or exposure to these memes may impact on an individual's wellbeing.

8.3.1. Theoretical Implications and Future Directions

The findings from the three studies in this thesis confirm the notion that a healthy form of self-disparaging humour exists and that this is apparent to observers. This indicates that whilst the HSQ (Martin et al. 2003) captures some forms of humour, it might not encapsulate all nuanced uses of humour. This calls into question the potential for other forms of humour to exist beyond the HSQ. For example, whilst the focus of this thesis was on self-directed humour, future research might examine the notion of other-deprecating humour styles. Individuals who use other-deprecating humour might engage in what is conventionally considered to be aggressive humour (e.g., teasing) but might have the intention of fostering relationships similar to that of affiliative humour. For example, comedians are often able to engage in humour that

pokes fun at others and they are not considered hostile, which was shown in the first study of this thesis examining the perception of all four of Martin et al's (2003) humour styles along with Rawling and Findlay's (2013) self-deprecating humour. This study revealed that some of the videos included to reflect aggressive intentions were perceived as affiliative or self-deprecating. Therefore, future research might explore the concept of an other-deprecating humour scale, either as part of the Martin et al's (2003) affiliative humour scale or as an independent scale, to take into account the subtle distinctions of humour use.

8.3.2. Applied Implications and Future Directions

Humour serves a wide range of functions at work (Holmes, 2006). The use of self-deprecating humour might indicate humility (Greengross & Miller, 2008), and researchers have found that it might have equalizing effect of leader-follower relationships (Hopton et al. 2013) and also increase trust and effectiveness ratings of leaders (Gkorezis & Bellou, 2016). Whilst the current researcher did not examine the role of self-deprecating humour within the context of leader-follower relationships, the results revealed that self-deprecating targets were considered by observers to have a higher self-esteem and to be funnier than the self-defeating targets. Therefore, the strategic use of self-disparaging humour might be a useful technique within the workplace as status distinctions are reduced when leaders can laugh at themselves. Future research might adopt a longitudinal design (Gkorezis & Bellou, 2016) to examine the role of self-deprecating humour in leadership across a variety of domains.

8.3.3. Clinical Implications and Future Directions

Ellis and Dryden (1997) advocated for the use of humour as a therapeutic technique, particularly in Rational Emotive Therapy (RET), as they postulated that

emotional disturbance might stem from clients taking themselves, their problems, other people, and the world, too seriously. As such, RET therapists may carefully use humour with their clients by poking fun at the clients themselves but rather their self-defeating thoughts, feelings and actions. The purpose of humour in this context is to “strive to model for their clients the therapeutic advantages of taking a serious but humourously ironic attitude to life” (Ellis & Dryden, 1997, p. 28). Future research might explore the efficacy of this approach in therapy; as there are currently no studies that examine this. The use of humour as a means to challenge thoughts has the potential to inform treatment interventions, such as Cognitive Behavioural Therapy (Beck, 1995), which is aimed at restructuring and challenging clients’ unhelpful thoughts and to offer clients a different, potentially humorous, perspective on their cognitions. For instance, clients who engage in catastrophising, a cognitive distortion that magnifies the importance of an event, might be able to recognise and laugh at their distortions. For example, a client who catastrophises the effect of failing an exam to lead to failing the course and then not able to attain employment leading them homeless, might adopt a humorous perspective on their unhelpful thought as a means to neutralize it. . Rather than getting caught up in the thought, they are able to laugh at it due how far-fetched it might be.

In addition, the ability to laugh at yourself is considered to be one of the six humour skills (McGhee, 2010) and as such improving this skill in therapy is likely to be beneficial to the individual. The use of self-deprecating humour as a means to reframe negative self-talk could be a component of the online humour-based positive psychology intervention (PPI) developed by Wellenhozen, Proyer and Ruch (2016). These researchers adapted existing PPIs by including humorous aspects and revealed that clients engaging in these interventions reported greater happiness ratings. An

example of one intervention is the adapted strengths intervention (Seligman et al., 2005) where participants are asked to focus on humour in their life and to use it in new ways. Thus, providing clients with a humorous perspective to view their negative thoughts, either within therapy or as part of this online intervention, might be a useful strategy to increase client happiness (Wellenhozen et al. 2016). Mood was measured in a variety of ways in the current program of research using the PANAS (Watson et al. 1988) and a Visual Analog Scale (VAS) following the presentation of each humorous target.

Whilst observer mood on the VAS did not predict the categorisation of humour, it did play a role in the perception of target self-esteem and funniness, with those in a more positive mood more likely to rate targets as having a high self-esteem and to be funnier. Observer negative affect also positively predicted the categorisation of humour, along with funniness and self-esteem ratings, and the third study revealed that the negative mood induction also played a role in target funniness, indicating a complex relationship between mood and humour. As an explanation for these findings, the authors postulated that the presentation of humorous stimuli might have improved the mood of participants in a negative mood, which might explain the positive perceptions of targets by these individuals. Further examination of the effectiveness of presenting humour stimuli (particularly those reflecting self-deprecating themes) to participants, might be a useful inclusion in existing humour based PPI interventions (e.g., Wellenhozen et al. 2016) in further improving participant happiness ratings.

In a similar vein, the use of self-disparaging humour, particularly self-defeating humour, could inform the clinician of a client's poor mental health. For example, the results contained in the thesis confirmed the notion that humour use can

signal information about one's self-esteem, similar to that Zeigler-Hill, Besser and Jett (2013). Therefore, the type of humour one engages in during therapy might provide information about the client that may be useful (e.g., the use of self-defeating humour signals low self-esteem) and might inform treatment to manage this. Future research might examine the role of client humour as a signal of mental health, within the context of therapy.

8.4. Concluding Comments

Humour forms part of the social tapestry that makes up life and the series of studies contained within this thesis added a small thread of understanding to how self-disparaging humour operates within this. The current thesis confirmed that self-defeating and self-deprecating humour are perceived by observers to be distinct humour styles that not only differ conceptually, but also interpersonally. The results also reveal that individuals who use self-deprecating humour are perceived as having a higher self-esteem and as funnier than individuals who use self-defeating humour - confirming the notion that the use of humour can signal information about an individual's wellbeing. This thesis revealed broader theoretical implications, which call for additional humour style measurements to provide for a comprehensive account of humour use. Finally, with the growing popularity of Positive Psychology Interventions aimed at promoting client wellbeing and future research might examine how therapists nurture a sense of self-deprecating in their clients.

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Appendix A: Survey Measures

Study 1, 2 and 3 used the following measures:

A) Demographics

Please Select:

1. Sex: Female Male

2. Age: _____

3. What is your highest level of education?

- Year 12 or less
- Trade certificate or equivalent,
- Partially completed degree,
- Degree
- Postgraduate degree

4. Nationality _____

B.) Measures

i.) Personality (Goldberg, 1999)

Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age. So that you can describe yourself in an honest manner, your responses will be kept in absolute confidence. Indicate for each statement whether it is 1. Very Inaccurate, 2. Moderately Inaccurate, 3. Neither Accurate Nor Inaccurate, 4. Moderately Accurate, or 5. Very Accurate as a description of you.

- | | |
|---|--|
| 1. Am the life of the party. | 28. Often forget to put things back in their proper place. |
| 2. Feel little concern for others. | 29. Get upset easily. |
| 3. Am always prepared. | 30. Do not have a good imagination. |
| 4. Get stressed out easily. | |
| 5. Have a rich vocabulary. | |
| 6. Don't talk a lot. | 31. Talk to a lot of different people at parties. |
| 7. Am interested in people. | 32. Am not really interested in others. |
| 8. Leave my belongings around. | 33. Like order. |
| 9. Am relaxed most of the time. | 34. Change my mood a lot. |
| 10. Have difficulty understanding abstract ideas. | 35. Am quick to understand things. |
| | 36. Don't like to draw attention to myself. |
| 11. Feel comfortable around people. | 37. Take time out for others. |
| 12. Insult people. | 38. Shirk my duties. |
| 13. Pay attention to details. | 39. Have frequent mood swings. |
| 14. Worry about things. | 40. Use difficult words. |
| 15. Have a vivid imagination. | |
| 16. Keep in the background. | 41. Don't mind being the center of attention. |
| 17. Sympathize with others' feelings. | 42. Feel others' emotions. |
| 18. Make a mess of things. | 43. Follow a schedule. |
| 19. Seldom feel blue. | 44. Get irritated easily. |
| 20. Am not interested in abstract ideas. | 45. Spend time reflecting on things. |
| | 46. Am quiet around strangers. |
| 21. Start conversations. | 47. Make people feel at ease. |
| 22. Am not interested in other people's problems. | 48. Am exacting in my work. |
| 23. Get chores done right away. | 49. Often feel blue. |
| 24. Am easily disturbed. | 50. Am full of ideas. |
| 25. Have excellent ideas. | |
| 26. Have little to say. | |
| 27. Have a soft heart. | |

ii.) Self-Esteem Scale (Rosenberg, 1965)

Below is a list of statements. Please look at each in turn, and indicate how much you agree or disagree with each statement, using the following scale (**1. Strong Agree, 2. Agree, 3. Disagree, 4. Strongly Disagree**).

1. ___ On the whole, I am satisfied with myself.
2. ___ At times, I think I am no good at all.
3. ___ I feel that I have a number of good qualities.
4. ___ I am able to do things as well as most other people.
5. ___ I feel I do not have much to be proud of.
6. ___ I certainly feel useless at times.
7. ___ I feel that I'm a person of worth, at least on an equal plane with others.
8. ___ I wish I could have more respect for myself.
9. ___ All in all, I am inclined to feel that I am a failure.
10. ___ I take a positive attitude toward myself.

iii.) Humour Styles Questionnaire (Martin, Puhlik-Doris, Laresen, Gray & Weir, 2003)

Below is a list of statements. Please look at each in turn, and indicate how much you agree or disagree with each statement, using the following scale: (**1. Totally Disagree, 2. Moderately Disagree, 3. Slightly Disagree, 4. Neither Agree nor Disagree, 5. Slightly Agree, 6. Moderately Agree, 7. Totally Agree**).

1. ___ I usually don't laugh or joke around much with other people.
2. ___ I don't have to work very hard at making other people laugh—I seem to be a naturally humorous person.
3. ___ I rarely make other people laugh by telling funny stories about myself.
4. ___ I laugh and joke a lot with my closest friends.
5. ___ I usually don't like to tell jokes or amuse people.
6. ___ I enjoy making people laugh
7. ___ I don't often joke around with my friends.
8. ___ I usually can't think of witty things to say when I'm with other people.
9. ___ If I am feeling depressed, I can usually cheer myself up with humor.
10. ___ Even when I'm by myself, I'm often amused by the absurdities of life.
11. ___ If I am feeling upset or unhappy I usually try to think of something funny about the situation to make myself feel better.
12. ___ My humorous outlook on life keeps me from getting overly upset or depressed about things.
13. ___ If I'm by myself and I'm feeling unhappy, I make an effort to think of something funny to cheer myself up.
14. ___ If I am feeling sad or upset, I usually lose my sense of humor.
15. ___ It is my experience that thinking about some amusing aspect of a situation is often a very effective way of coping with problems.
16. ___ 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.
17. ___ If someone makes a mistake, I will often tease them about it.

18. ___ People aren't ever offended or hurt by my sense of humor.
19. ___ When telling jokes or saying funny things, I am usually not very concerned about how other people are taking it.
20. ___ I do not like it when people use humor as a way of criticizing or putting someone down.
21. ___ 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.
22. ___ I never participate in laughing at others even if all my friends are doing it.
23. ___ If I don't like someone, I often use humor or teasing to put them down.
24. ___ Even if something is really funny to me, I will not laugh or joke about it if someone will be offended.
25. ___ I often try to make people like or accept me more by saying something funny about my own weaknesses, blunders, or faults.
26. ___ I don't often say funny things to put myself down.
27. I often go overboard in putting myself down when I am making jokes or trying to be funny.
28. ___ When I am with friends or family, I often seem to be the one that other people make fun of or joke about.
29. ___ I let people laugh at me or make fun at my expense more than I should.
30. ___ I will often get carried away in putting myself down if it makes my family or friends laugh.
31. ___ 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.
32. ___ Letting others laugh at me is my way of keeping my friends and family in good spirits.

iii.) Self-Deprecating Humour Scale, (Rawlings & Findlay, 2013).

Below is a list of statements. Please look at each in turn, and indicate how much you agree or disagree with each statement, using the following scale (**1 = Strongly disagree, 2 = Disagree, 3= Neither agree nor disagree, 4 = Agree, 5 = Strongly agree**)

1. Laughing at myself helps me not to take myself too seriously.
2. When I am with others and I make a mistake, I make a joke about it and everyone relaxes.
3. I feel comfortable when I make jokes about my imperfections
4. When I make fun of myself, I know it's a joke and everyone else knows it's a joke.
5. When I joke about my faults I feel more comfortable about them.
6. I make fun about my mistakes because I am comfortable with them
7. I feel comfortable making jokes about myself.
8. I exaggerate my bad points to make people laugh.
9. People like me when I tell humorous stories about myself.
10. I make fun of myself before others do it.
11. I make up jokes or humorous stories about my troubles.

12. I make jokes about my being inept.
13. I use humour to exaggerate my woes to others.

iv) Brief measures of Positive and Negative Affect: The PANAS Scale (Watson, Clark & Tellegen, 1988).

This scale consists of a number of words and phrases that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you have felt this way in the last day or so. Use the following scale to record your answers:

1 very slightly or not at all	2 a little	3 moderately	4 quite a bit	5 extremely
<input type="checkbox"/> cheerful	<input type="checkbox"/> sad	<input type="checkbox"/> active	<input type="checkbox"/> angry at self	
<input type="checkbox"/> disgusted	<input type="checkbox"/> calm	<input type="checkbox"/> guilty	<input type="checkbox"/> enthusiastic	
<input type="checkbox"/> attentive	<input type="checkbox"/> afraid	<input type="checkbox"/> joyful	<input type="checkbox"/> downhearted	
<input type="checkbox"/> bashful	<input type="checkbox"/> tired	<input type="checkbox"/> nervous	<input type="checkbox"/> sheepish	
<input type="checkbox"/> sluggish	<input type="checkbox"/> amazed	<input type="checkbox"/> lonely	<input type="checkbox"/> distressed	
<input type="checkbox"/> daring	<input type="checkbox"/> shaky	<input type="checkbox"/> sleepy	<input type="checkbox"/> blameworthy	
<input type="checkbox"/> surprised	<input type="checkbox"/> happy	<input type="checkbox"/> excited	<input type="checkbox"/> determined	
<input type="checkbox"/> strong	<input type="checkbox"/> timid	<input type="checkbox"/> hostile	<input type="checkbox"/> frightened	
<input type="checkbox"/> scornful	<input type="checkbox"/> alone	<input type="checkbox"/> proud	<input type="checkbox"/> astonished	
<input type="checkbox"/> relaxed	<input type="checkbox"/> alert	<input type="checkbox"/> jittery	<input type="checkbox"/> interested	
<input type="checkbox"/> irritable	<input type="checkbox"/> upset	<input type="checkbox"/> lively	<input type="checkbox"/> loathing	
<input type="checkbox"/> delighted	<input type="checkbox"/> angry	<input type="checkbox"/> ashamed	<input type="checkbox"/> confident	
<input type="checkbox"/> inspired	<input type="checkbox"/> bold	<input type="checkbox"/> at ease	<input type="checkbox"/> energetic	
<input type="checkbox"/> fearless	<input type="checkbox"/> blue	<input type="checkbox"/> scared	<input type="checkbox"/> concentrating	
<input type="checkbox"/> disgusted with self	<input type="checkbox"/> shy	<input type="checkbox"/> drowsy	<input type="checkbox"/> dissatisfied with self	

The Social Desirability Scale (Crowne & Marlowe, 1960)

Below is a list of statements. Please look at each in turn, and indicate how true the statement is of you. (1 = Not true of me and 5 = Very true of me).

1. It is sometimes hard for me to go on with my work if I am not encouraged.
2. I sometimes feel resentful when I don't get my way.
3. On a few occasions, I have given up doing something because I thought too little of my ability.
4. There have been times when I felt like rebelling against people in authority even though I knew they were right.
5. No matter who I'm talking to, I'm always a good listener.
6. There have been occasions when I took advantages of someone.
7. I'm always willing to admit it when I make a mistake.
8. I sometimes try to get even rather than forgive and forget.
9. I am always courteous, even to people who are disagreeable.
10. I have never been irked when people expressed ideas very different from my own.
11. There have been times when I was quite jealous of the good fortune of others.
12. I am some times irritated by people who ask favours of me.
13. I have never deliberately said something that hurt someone's feelings.

C. Humour Stimuli

The first study utilised video clips (for more information about these contact the author). The vignettes used for Study 2 are contained in chapter 8 (under Materials) and the jokes used for the third study are contained in Table 6 in the results section of Chapter 7.

D. Post Humour Stimuli Questions

See Chapter 2, Chapter 6, 8, 9 for post humour stimuli questions.

Appendix B: Ethics Approval

Study 1 (Individual differences in the perception of Humour)

SUHREC 2014/022 Ethics clearance



Ann Gaeth

Mon 3/3/2014, 12:45 PM

Jay Brinker; Robyn Brown; RES Ethics ✉

👁️ 📧 🔄 Rep

Dear Jay and Robyn,

SUHREC 2014/022 The perception of self-depreciating humour: Study 1

Dr J Brinker, Ms R Brown

Approved duration from 01-03-2014 To 30-09-2014 [Adjusted]

I refer to the ethical review of the above project protocol undertaken on behalf of Swinburne's Human Research Ethics Committee (SUHREC) by SUHREC Subcommittee (SHESC3) at a meeting held on 14 February 2014. Your responses as e-mailed on 26 February 2014 were reviewed.

I am pleased to advise that, as submitted to date, the project may proceed in line with standard on-going ethics clearance conditions here outlined.

- All human research activity undertaken under Swinburne auspices must conform to Swinburne and external regulatory standards, including the current *National Statement on Ethical Conduct in Human Research* and with respect to secure data use, retention and disposal.

- The named Swinburne Chief Investigator/Supervisor remains responsible for any personnel appointed to or associated with the project being made aware of ethical conditions, including research and consent procedures or instruments approved. Any change in chief investigator/supervisor requires timely notification and SUHREC endorsement.

- The above project has been approved as submitted for ethical review by or on behalf of SUHREC. Amendments to approved procedures or instruments ordinarily require prior ethical appraisal/ clearance. SUHREC must be notified immediately or as soon as possible thereafter of (a) any serious or unexpected adverse effects on participants; (b) any redress measures; (c) proposed changes in protocols; and (d) unforeseen events which might affect continued ethical acceptability of the project.

- At a minimum, an annual report on the progress of the project is required as well as at the conclusion (or abandonment) of the project.

- A duly authorised external or internal audit of the project may be undertaken at any time.

Please contact the Research Ethics Office if you have any queries about on-going ethics clearance. The SUHREC project number should be quoted in communication. Investigators/Supervisors and Student Researchers should retain a copy of this email as part of project record-keeping.

Best wishes for project.

Yours sincerely,

Ann

Dr Ann Gaeth
Executive Officer (Research)
Swinburne Research (H68)
Swinburne University of Technology
P O Box 218
HAWTHORN VIC 3122
Ph +61 3 9214 8356

Study 2 (The Perception of Humour Using Written Vignettes)

From: Astrid Nordmann
Sent: Thursday, 30 April 2015 8:39 AM
To: Jay Brinker
Cc: RES Ethics; Robyn Brown
Subject: SHR Project 2015/081 - Ethics clearance

TO: Dr Jay Brinker, FHAD

Dear Jay,

SHR Project 2015/081 – The Perception of Humour Styles: Manipulating Target Variables
 Dr Jay Brinker, Ms Robyn Brown (Student) - FHAD
 Approved duration: 01-05-2015 to 28-02-2016 [adjusted]

I refer to the ethical review of the above project protocol by a Subcommittee (SHESC1) of Swinburne's Human Research Ethics Committee (SUHREC). Your responses to the review, as per the emails sent on 29 April 2015, were put to the Subcommittee delegate for consideration.

I am pleased to advise that, as submitted to date, the project may proceed in line with standard on-going ethics clearance conditions here outlined.

- All human research activity undertaken under Swinburne auspices must conform to Swinburne and external regulatory standards, including the current *National Statement on Ethical Conduct in Human Research* and with respect to secure data use, retention and disposal.
- The named Swinburne Chief Investigator/Supervisor remains responsible for any personnel appointed to or associated with the project being made aware of ethics clearance conditions, including research and consent procedures or instruments approved. Any change in chief investigator/supervisor requires timely notification and SUHREC endorsement.
- The above project has been approved as submitted for ethical review by or on behalf of SUHREC. Amendments to approved procedures or instruments ordinarily require prior ethical appraisal/clearance. SUHREC must be notified immediately or as soon as possible thereafter of (a) any serious or unexpected adverse effects on participants any redress measures; (b) proposed changes in protocols; and (c) unforeseen events which might affect continued ethical acceptability of the project.
- At a minimum, an annual report on the progress of the project is required as well as at the conclusion (or abandonment) of the project. Information on project monitoring, self-audits and progress reports can be found at: <http://www.research.swinburne.edu.au/ethics/human/monitoringReportingChanges/>
- A duly authorised external or internal audit of the project may be undertaken at any time.

Please contact the Research Ethics Office if you have any queries about on-going ethics clearance. The SHR project number should be quoted in communication. Researchers should retain a copy of this email as part of project recordkeeping.

Best wishes for the project.

Yours sincerely,
 Astrid Nordmann
 SHESC1 Secretary

 Dr Astrid Nordmann
Research Ethics Officer
 Swinburne Research (H68)
 Swinburne University of Technology
 PO Box 218, Hawthorn, VIC 3122
 Tel: +613 9214 3845
 Fax: +613 9214 5267
 Email: anordmann@swin.edu.au

Study 3 (The effect of mood on humour)



Sally Fried on behalf of RES Ethics

Wed 3/30/2016, 3:01 PM

Jay Brinker; Robyn Brown; RES Ethics

Reply all |

To: Dr Jay Brinker, FHAD

Dear Jay,

SHR Project 2016/036 – Personality, mood and humour ratings

Dr Jay Brinker, Ms Robyn Brown (student) - FHAD

Approved duration: 30-03-2016 to 30-12-2016 [Adjusted]

I refer to the ethical review of the above project by a Subcommittee (SHESC1) of Swinburne's Human Research Ethics Committee (SUHREC). Your responses to the review as e-mailed on 21 and 29 March 2016 were put to the Subcommittee delegates for consideration.

I am pleased to advise that, as submitted to date, ethics clearance has been given for the above project to proceed in line with standard on-going ethics clearance conditions outlined below.

- All human research activity undertaken under Swinburne auspices must conform to Swinburne and external regulatory standards, including the *National Statement on Ethical Conduct in Human Research* and with respect to secure data use, retention and disposal.
- The named Swinburne Chief Investigator/Supervisor remains responsible for any personnel appointed to or associated with the project being made aware of ethics clearance conditions, including research and consent procedures or instruments approved. Any change in chief investigator/supervisor requires timely notification and SUHREC endorsement.
- The above project has been approved as submitted for ethical review by or on behalf of SUHREC. Amendments to approved procedures or instruments ordinarily require prior ethical appraisal/clearance. SUHREC must be notified immediately or as soon as possible thereafter of (a) any serious or unexpected adverse effects on participants and any redress measures; (b) proposed changes in protocols; and (c) unforeseen events which might affect continued ethical acceptability of the project.
- At a minimum, an annual report on the progress of the project is required as well as at the conclusion (or abandonment) of the project. [Information](#) on project monitoring and variations/additions, self-audits and progress reports can be found on the Research Intranet pages.
- A duly authorised external or internal audit of the project may be undertaken at any time.

Please contact the Research Ethics Office if you have any queries about on-going ethics clearance, citing the Swinburne project number. A copy of this email should be retained as part of project record-keeping.

Best wishes for the project.

Yours sincerely,

Sally Fried

Secretary, SHESC1

Appendix C: Authorship Forms



Swinburne Research

Authorship Indication Form

For PhD by Publication candidates

NOTE

This Authorship Indication form is a statement detailing the percentage of the contribution of each author in each published 'paper'. This form must be signed by each co-author and the Principal Coordinating Supervisor. This form must be added to the publication of your final thesis as an appendix. Please fill out a separate form for each published paper to be included in your thesis.

DECLARATION

We hereby declare our contribution to the publication of the 'paper' entitled:

Individual differences in the way observers perceive humour styles

First Author

Name: Robyn Brown

Signature: 

Percentage of contribution: 90 %

Date: 17/10/2018

Brief description of contribution to the 'paper' and your central responsibilities/role on project:

Second Author

Name: Bruce Findlay

Signature: 

Percentage of contribution: 5 %

Date: 17/10/2018

Brief description of your contribution to the 'paper':

Third Author

Name: Jay Brinker

Signature: 

Percentage of contribution: 5 %

Date: 18/10/2018

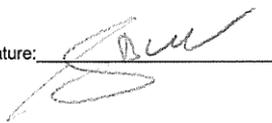
Brief description of your contribution to the 'paper':

Fourth Author

Name: _____ Signature: 

Percentage of contribution: ____% Date: __/__/____

Brief description of your contribution to the 'paper':

Principal Coordinating Supervisor: Name: Simone Buzwell Signature:  Date: 13/12/2019
--

In the case of more than four authors please attach another sheet with the names, signatures and contribution of the authors.



Swinburne Research

Authorship Indication Form

For PhD by Publication candidates

NOTE

This Authorship Indication form is a statement detailing the percentage of the contribution of each author in each published 'paper'. This form must be signed by each co-author and the Principal Coordinating Supervisor. This form must be added to the publication of your final thesis as an appendix. Please fill out a separate form for each published paper to be included in your thesis.

DECLARATION

We hereby declare our contribution to the publication of the 'paper' entitled:

I know you (they) don't really mean it: Perceptions of self-disparaging humour using written vignettes

First Author

Name: Robyn Brown Signature: 

Percentage of contribution: 85 % Date: 17/10/2018

Brief description of contribution to the 'paper' and your central responsibilities/role on project:

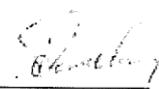
Second Author

Name: Simone Buzwell Signature: 

Percentage of contribution: 5 % Date: 19/10/2019

Brief description of your contribution to the 'paper':

Third Author

Name: Bruce Findlay Signature: 

Percentage of contribution: 5 % Date: 17/10/2018

Brief description of your contribution to the 'paper':

Fourth Author

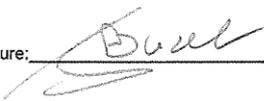
Name: Jay Brinker

Signature: 

Percentage of contribution: 5 %

Date: 18 10 2018

Brief description of your contribution to the 'paper':

Principal Coordinating Supervisor:	
Name: <u>Simone Buwell</u>	Signature: 
Date: <u>13 10 2019</u>	

In the case of more than four authors please attach another sheet with the names, signatures and contribution of the authors.



Swinburne Research

Authorship Indication Form

For PhD by Publication candidates

NOTE

This Authorship Indication form is a statement detailing the percentage of the contribution of each author in each published 'paper'. This form must be signed by each co-author and the Principal Coordinating Supervisor. This form must be added to the publication of your final thesis as an appendix. Please fill out a separate form for each published paper to be included in your thesis.

DECLARATION

We hereby declare our contribution to the publication of the 'paper' entitled:

In the mood to laugh: Does the perception of self-directed humour depend on how you are feeling?

First Author

Name Robyn Brown

Signature: 

Percentage of contribution: 85 %

Date: 17/10/2018

Brief description of contribution to the 'paper' and your central responsibilities/role on project:

Second Author

Name: Ben Bullock

Signature: 

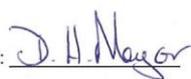
Percentage of contribution: 5 %

Date: 19/10/2018

Brief description of your contribution to the 'paper':

Third Author

Name: Denny Meyer

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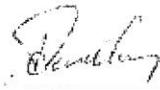
Percentage of contribution: 5 %

Date: 19/10/2018

Brief description of your contribution to the 'paper':

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Name: Bruce Findlay

Signature: Percentage of contribution: 5 %Date: 19/10/2018

Brief description of your contribution to the 'paper':

Principal Coordinating Supervisor:

Name: Simone Buzwell

Signature: Date: 19/10/2018

In the case of more than four authors please attach another sheet with the names, signatures and contribution of the authors.