

Cartoon Humor: Do Demographic Variables and Political Correctness Influence Perceived Funniness?

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The supposed health benefit of humor has a long history, but there are those who question the validity of such claims. With Superiority Theory and Disposition Theories in mind, this study investigated age, gender and region-of-origin differences in the appreciation of cartoon humor embracing specific categories. Funniness ratings of 36 cartoons were made by 366 university students, along with a self-assessment of mood. Results showed a small increase in scores with age for work-related cartoons, and also higher scores by males for the same items, but no age or gender differences for total scores, other cartoon categories (including anti-male and anti-female examples) or region of origin. There was a significant correlation between total scores and mood rating. Previous research on gender differences had yielded mixed findings. The present results appear to be largely uninfluenced by factors other than how inherently amusing the items were deemed to be, and with scant regard for political correctness.

Key Words: Humor, cartoons, funniness, age, gender, demographics, political correctness.

The supposed beneficial effects of humor on health has been cited throughout recorded history. King Solomon wrote, circa 950 B. C. "A cheerful heart is good medicine but a crushed spirit dries up the bones" (*Proverbs*, 17:22. New International Version). Hippocrates (384 – 322 B. C.) described the four essential fluids or "humors" of life and their association with mood or disposition: black bile (sadness), yellow bile (anger), phlegm (lassitude), and blood (optimism). The physician treated the patient in order to bring the humors back into balance: this resulting (hopefully) in good humor or wellbeing. Somewhat more recently, Freud (1928/1952) espoused the therapeutic value of humor with obvious enthusiasm, commenting that "... it takes its place in the great series of

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methods devised by man [sic] for evading the compulsion to suffer ... ” (p. 217).

Most theories of humor can be classified under one of three categories, namely social, psychoanalytic, or cognitive-perceptual (Lewis and Nieuwoudt, 1993). With regard to the social, there are many avenues where humor and laughter serve as acts of communication, ranging from an infant's smile of recognition (Greig, 1923) through to communal laughter that lets others know that we have got the point of the joke (Francis, 1988). In addition, humor can aid social facilitation, and individuals are encouraged to join in social laughter to show that they are one of the “in-group” (Neuendorf and Fennell, 1988). However, a corollary of this is that, whilst the unity of the in-group may be reinforced through humor, unkind jokes about others are likely to ostracise the outsiders and reinforce the social distance between them and the insiders (La Fave, Haddad, and Maesen, 1976).

Relevant to this is Disparagement Theory, which Giora (1991) stated is based on the premise that what we laugh at is never our own, but another's weakness. In similar vein is Disposition Theory, where it is held that mirthful behaviour in response to a humorous presentation is influenced by one's affective disposition toward the agent or entity being disparaged (Gutman and Priest, 1969; Zillerman and Cantor, 1976). Moore, Griffiths, and Payne (1987) argued that, according to this proposition, women would enjoy male-disparaging humor more than female disparaging examples because the former victims are not members of the respondent's reference group. Presumably a reciprocal situation would exist with male recipients.

Freud's (1905/1976) views on the psychoanalytic theory were that humor arises from an attitude within a person regarding his or her situation. He said that it is a mechanism for deriving pleasure from intellectual activity through the saving of affect, and specifically from the saving of feeling, as contrasted with wit where the saving is of inhibition, and the comic where the saving is of thought. In addition to harmless and innocent jokes, Freud stated that there is the tendentious variety, comprising the obscene, aggressive, cynical, and what he refers to as “sceptical”. Although some of the pleasure in tendentious joking derives from the economy of technique, its main source

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is held to lie in the gratification of aggressive or sexual wishes in an indirect and socially acceptable way.

Although the notion of cognitive involvement in humor is relatively recent in comparison with some other theories, comments that hint at the mental processes involved do nevertheless date back at least 300 years (Greig, 1923). Suls (1972) stated that humor results from the perception of an initial incongruity, which is then made congruous in an unexpected way. If there is no resolution or no surprise, or if the initial puzzle is resolved perfectly logically, then there is no humor. Martin (2001) stated that humor is a concept involving cognitive, emotional, behavioural, psychophysiological and social aspects.

Drawing on such diversity of views, as well as their own research, Lewis and Nieuwoudt (1993) attempted a unified definition of the humor phenomenon. They noted that, although some of today's humor may be only a little removed from its postulated aggressive origins in primitive times, for example the amusement gained from witnessing the misfortune of others, humor in civilised human beings usually involves higher and more complex mental processes than mere raw emotion. As Freud (1905/1976) stated, humor rises from an attitude within an individual regarding his or her situation. It follows that a scenario will be seen as amusing if it parodies in a somewhat exaggerated (but not excessively) form, something to which the beholder can relate.

A number of methodologies are available to researchers who wish to assess aspects of sense of humor in their participants. These include observation of mirth responses following the presentation of humorous material (e. g. Chapman and Chapman, 1974), observations of interactions and relationships in naturalistic settings (e. g. Flaherty, 1990), self-reports on "what makes you laugh?" (e. g. Heckel and Kvetensky, 1972), or keeping "humor diaries" to record amusing incidences over a period of time (e. g. Mannell and McMahon, 1982). Humor questionnaires, mostly of the joke-rating kind, date back to the 1940s (Lefcourt and Martin, 1986), but credit for pioneering work on such scales is due to Svebak (1974) and his Sense of Humor Questionnaire.

The rating of stimulus material for funniness seems to date from work in the early 1940s when Eysenck used magazine

cartoons (Wilson, 1979), and Redlich, Levine, and Sohler (1951) with their Mirth Response Test comprising 20 cartoons representing a variety of themes. Redlich and colleagues cited the dual nature of cartoon humor: the pictorial representation ("iconic character") and the symbolic nature, both of which need to be understood in order to "get" the joke.

Standardised sets of cartoons or similar stimulus material are rarely available in the public domain, and it is usually necessary for researchers to compile their own. However, this does at least direct the researcher into selecting items and tailoring the methodology according to the requirements of the particular study, for example the characteristics of the participants, the pertaining socio-political climate, and the humor themes required by the research hypothesis. Lewis and Nieuwoudt (1995) made use of newspaper and magazine cartoons in order to investigate the relationship between humor and a number of life measures, including aspects of subjective wellbeing. Their Humor Response Scale (HRS) comprised 36 newspaper cartoons containing examples of six themes: male dominance (i. e. anti-women), female dominance (i. e. anti-men), sex, the workplace, misfortune, and simple nonsense. A small panel of social scientists validated the categories. Items are rated for funniness on a six-point scale (6 = not funny at all, through 6 = very funny). After administration to 129 participants aged 18 to 75 years, the K-R 20 reliability was found to be .96.

Factor analysis of the scores, using the principle components method and a minimum eigen value of 1. 0, yielded seven factors but interestingly, with the possible exception of items with a sexual content, no obvious relationships were found between the factors and the cartoon themes. By far the dominant factor indicated that funniness ratings were linked to cartoons involving two or more people, with an adult male either being derided or about to meet with misfortune. Family relationships were involved, and the cartoons may have represented exaggerations of negative aspects of home life or reflections of anti-social domestic thoughts or sarcasm. Some verbal cognitive skills were usually required for the interpretation of these items. Whilst no gender differences were revealed, there was a significant increase in scores with age, which lends support to the relevance of life experience in the appreciation of humor based on typical everyday situations.

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Interestingly, and perhaps surprisingly, there were no significant correlations between HRS scores and those from other humor measures, suggesting that assessing appreciation for cartoon humor cannot stand alone to verify sense of humor *per se*.

The present study, conducted with participants in the United Kingdom (UK), was designed firstly to seek confirmation of the gender and age findings from the original study conducted nearly a decade earlier in South Africa (Lowis and Nieuwoudt, 1995). In particular, it was wished to see if the current climate of sensitivity to “political correctness” in humor would influence the ratings of cartoons based on obvious gender stereotypes. Secondly it aimed to investigate any relationship between mood and cartoon ratings among each of the three undergraduate years. Ruch, Kohler, and van Thriel (1997) postulated that a cheerful affect would increase the inclination to laugh at a given stimulus, compared with a serious state of mind or a bad mood.

Finally, it aimed to explore possible differences in humor appreciation between students from different regions within the British Isles, and from overseas. Historically, Britain has been perceived as culturally divided between north and south, with Southerners (including the London area) being viewed as sophisticates often engaged in “clean” occupations such as finance, the civil service, or business administration. Northerners, by contrast, have come to be seen as being more working class, employed in industries related to mining, heavy engineering, and manufacturing. Although such rivalry still exists in the sporting arena, increases in population movement, and the advent of mass communication including national radio and television over the last 50 years, may now have considerably diluted any such regional differences in humor preferences and other cultural or social aspects, assuming such differences existed in the first place.

Method

Participants

Three hundred and sixty-six psychology students from a University College in the English Midlands took part, comprising 223 from first year (“freshers”), 66 from second year, and 77 from third year. In total there were 312 women and 54 men, aged from 18 to 63 years (median = 19.0, *SD* = 5.5,

excluding 4 where age was not stated). As might be expected from a university student population, 85.5% of the participants were aged 18 to 22 years. Those originating from the southern regions of England were 138 (37.7%), the Midlands 142 (38.8%), the North 25 (6.8%), with the remainder (except for 7 with unstated origins) being from Scotland, Wales, Ireland, or overseas (the latter included those whose parents were born overseas, even if the participant themselves was born in the UK, to exclude the possibility of cultural influences on humor appreciation, for example in attitudes toward the opposite sex). Participants remained anonymous.

Materials

The main dependent variable measure was the HRS described earlier, comprising 36 cartoons embracing six themes, rated for funniness on a scale of one to six, as used in a previous study (Lewis and Nieuwoudt, 1995). Although reliability had previously been found to be high, a Cronbach alpha performed on the scores from the present administration yielded a statistic of .93 for the complete scale (individual items .33 to .63); the high reliability of the scale was thus confirmed.

As a simple self-assessment measure of current mood, participants were also asked to circle a number from one to seven on a scale where one was described as negative/anxious/depressed, and seven indicated positive/self-confident/cheerful.

For demographic purposes, participants were asked to record their gender, date of birth, and region (or country, if not the UK) of origin, but not their names.

Procedure

Participants completed the exercise whilst they were assembled in a lecture theatre in cohort groups for induction sessions at the start of an academic year. It was explained that the study comprised ratings of cartoon humor for funniness, that participation was voluntary, and that anonymity was assured. A small number of students left the assemblies and did not participate. Pre-printed blanks were distributed. Participants firstly completed the demographic details, followed by the simple mood rating. The cartoons were then individually projected onto a large screen, and about 15 seconds were allowed for each rating. The need to disregard any overt

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reactions from others present was emphasised, but obviously this could not be guaranteed. It proved necessary to read aloud some captions because students at the back of the theatre could not see them. This and other potential confounding variables (including inevitable differences in style between the cartoon examples) were not thought to influence the results, as comparisons between individuals were being sought rather than absolute measures *per se*. When all items had been rated, the participants were thanked and the completed forms were collected for analysis with the aid of the computer programme Statistical Package for the Social Sciences (SPSS ver. 9.0).

Results

Lowis (2002) previously published a brief in-progress report on some preliminary results, and these are included here where applicable. Occasionally one or two cartoons were not scored by a participant. In these cases the mean scores for the remaining items in the particular category were computed, and these used to fill in the blanks. This procedure ensured consistency in the totals used for subsequent computations.

The mean funniness rating for the total HRS was 105.86, $SD = 24.32$, range = 42-170 (possible 36-216). The mean for women was 105.33 and for men 108.93. A *t*-test confirmed that the gender difference was not significant. The mean scores for each cohort were: first year = 107.81, second year = 107.52, third year = 98.51. This is illustrated in Figure 1.

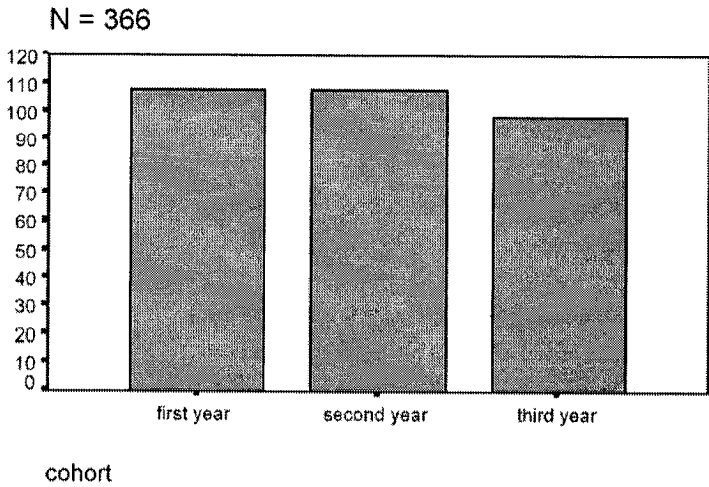
A one-way analysis of variance, with Tukey's *post hoc* significance test, showed that the third year scores were significantly lower than those for either the first or second years [$F(2) = 4.56$, $p = .01$]. There were no significant effects for region of origin, either for total HRS scores or for those from any of the individual themes.

Of the six cartoon themes, only the work-related items yielded a difference between genders, in favour of men [mean for men = 18.43 (6 items), women = 15.81, $t(364) = 3.41$; $p = .001$ (2-tail)].

The Pearson product moment correlation between total funniness scores and age was non-significant, but were no doubt influenced by the relatively narrow age range of the present participants. However, when each of the six cartoon themes were examined separately, the work-related items yielded a small

Figure 1

Mean funniness ratings and cohort



but significant one-tailed correlation with age ($r = .09$, $p = .04$). There were no significant correlations between age and the other five cartoon themes.

The mean score for mood was 4.47, $SD = 1.15$, range = 1-7 (i. e. the maximum possible). There were no significant gender, age or region of origin differences. The mean scores for each cohort were: first year = 4.35, second year = 5.05, third year = 4.33. This is illustrated in Figure 2.

A one-way analysis of variance with Tukey's *post hoc* showed that the second year scores were significantly higher than those from either the first or third years [$F(2) = 10.49$, $p = <.001$]. There was a small but significant and positive correlation between total HRS scores and mood scores [$r = .10$, $p = .05$ (2-tail)].

The cartoons rated most highly for funniness, scores from all participants combined, were as follows:

Item 17 (sexual theme), mean = 4.76 (out of possible 6).

Overweight, middle-aged woman wearing a miniscule bikini appears at the bedside of her clearly shocked husband. She says, "That wasn't your reaction when I wore it on our honeymoon".

Item 23 (male dominance theme), mean = 4.35.

Man, lounging in a chair says to his rather unlovely wife who has just arrived, "Your new hairstyle suits you dear – it's horrible".

Item 10 (simple nonsense theme), mean = 4.19.

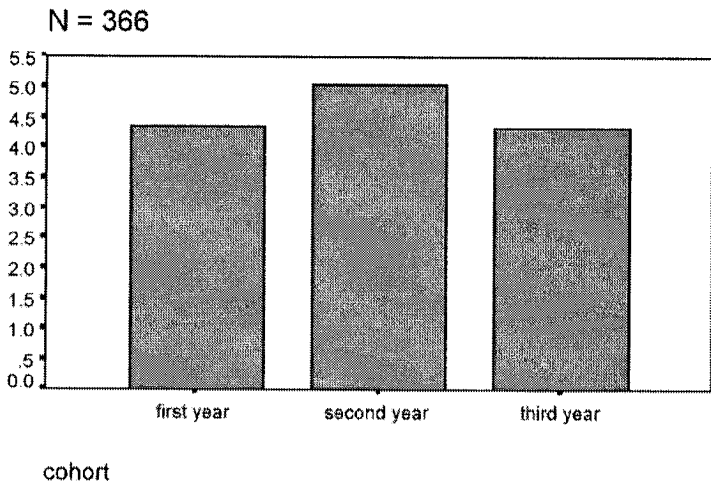
Fortuneteller gazes into a crystal ball and says to a uniformed sailor, "You are going on a long sea voyage".

The highest rated example of a female dominance theme was placed 10th.

Discussion

The very fact that few significant results were obtained in this study is in itself informative. There were no regional differences in humor appreciation, no gender difference in total HRS scores and only one such difference for a cartoon theme (work related) – but specifically **not** for the themes of "gender bashing" in either direction, and little differences along

Figure 2
Mean mood ratings and cohort



the limited participant age range (again the work theme yielding the only significant finding). HRS scores were lowest for third year students. There was a significant and positive correlation between HRS and self-rated mood scores, but no gender, age or region of origin mood effects. The mood scores were highest for second year students.

With regard to the use of such a cartoon rating scale as a measure of humor (or sense of humor), cognisance needs to be taken of the comments by Overholser (1992) that humor is a multi-dimensional construct, and in particular that humor creation and appreciation are separate dimensions. This notion is supported by the failure of Lewis and Nieuwoudt (1995) to obtain significant correlations between scores on the HRS and those obtained from a range of other humor questionnaires. Thus any conclusions drawn from the present findings may be restricted to humor appreciation, and perhaps even only to the specific medium of cartoon humor.

The lack of significant differences in scores between participants from different regions of the UK, or from overseas, supports the notion that *inter alia* increases in population mobility and the advent of mass media such as national radio and television could have eroded any regional differences in humor appreciation that may have existed in the past. However, only the UK Midlands, and Southern regions were particularly strongly represented among the present participants. The significantly lower HRS and mood scores for third-year students may have been due to a blunted sense of humor brought on by the realisation that they had now embarked on their important and perhaps onerous third and final university year. Conversely, the fact that mood scores were significantly the highest for second years might be because this middle year is regarded positively, as one is now an "old hand" at university without yet having to face the hurdle of the final year. It was not, however, feasible to explore these possible explanations at the time, largely because of the anonymity of the participants.

The significant and positive correlation between mood and humor scores across all participants is in keeping with Ruch et al. 's (1997) notion that a cheerful state is likely to facilitate overt mirth reactions to humor stimuli, and it does not initially suggest that the students were using humor as a defence mechanism to overcome negative affect (e. g. Freud, 1905/1976;

Vaillant et al, 1986). The mood ratings (albeit only a simple self-estimate) were carried out before the cartoons were shown, and thus there is no suggestion that mood was raised by exposure to the humorous stimuli. Whether or not the same participants would rate such cartoons any differently on another occasion when their mood scores might have changed, can only be confirmed by further experiment.

Humor appreciation is influenced by real life experiences, and exaggeration of these in cartoons is believed to generate vicarious enjoyment in the viewer (Lewis and Nieuwoudt, 1995). Although the 1995 study yielded a significant and positive correlation between total HRS scores and age, the present exercise only obtained such a result with the work-related theme. However, the previous participants were drawn from across a broader adult age range, whereas a large proportion of the current ones were under 23 years of age. The older a person is, the more life experiences they will have had, and the more likely they are to be amused by parodies of a wide range of events. Many of the earlier participants were married, had children, and will no doubt have had their fair share of illness and misfortune. The present students were unlikely to have shared such experiences to the same extent, although the necessity of having to work at least part-time to help fund their education no doubt exposed them to some situations that can be parodied in cartoons. As an explanation of why the only thematic gender difference was also with the appreciation of work-related humor, the male students may have had more pertinent work experience than had the females, and so found cartoons mimicking their experiences particularly amusing.

The fact that neither the earlier study nor the present one yielded any differences between genders in the mean funniness ratings of cartoons depicting either male or female dominance figures, is of particular interest. The notion that we laugh when we feel superior, at the disparagement of those we hold as inferior, thus bolstering our self-confidence, has a very long history – see for example Thomas Hobbes (1651/1969) writing in *Leviathan*, and the related ideas of La Fave et al. (1976) and Giora (1991). The current climate of “political correctness”, including for example sensitivity to the changing roles of women, would suggest that it is not appropriate to make jokes at the expense of stereotypical gender figures or traits. However,

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this consideration did not appear to influence the funniness scores reported here. Likewise Disposition Theory (Gutman & Priest, 1969; Zillerman & Cantor, 1976) does not readily account for the results, as they do not suggest that the humor responses were significantly influenced by a negative disposition of either gender toward the other, with the accompanying delight of seeing the opposite sex disparaged to make oneself feel superior. In future studies, disposition toward the opposite sex could be assessed to confirm this.

It is perhaps more likely that Cognitive-Perceptual Theory (see for example Suls, 1972 and his two-stage model of humor appreciation) is the simple explanation for the present findings. The cartoon examples seem to have been accepted at face value by both male and female participants, regardless of specific theme, and the funniness ratings awarded solely on the basis of how clever and witty (ludicrous, incongruous) they were perceived to be. The fact that some items were based on "politically incorrect" gender stereotypes does not appear to have inhibited the enjoyment of them.

Previous research on gender differences in humor appreciation has yielded mixed results. Groch (1974) administered cartoons of four themes: aggression, sex, absurdity, and displacement to 60 college students. They obtained significantly higher funniness ratings by men for the aggression and sexual items, and by women for the absurdity category (no difference for displacement examples). Herzog (1999) found that males and females equally liked sexual humor when the victim was male, but females disliked both sexual and hostile humor when the victims were female. The author speculated that the rise of the women's movement had influenced these results; the present findings, however, do not support this view.

Intermediate findings released by Wiseman (2001) on his very large, international humor study, included a note that the top rated jokes for males involved aggression, putting women down, and sexual innuendo. Female respondents, however, preferred word play. Whilst noting that previous research on gender differences on the use and effects of humor sometimes yielded contradictory findings, Lefcourt (2001) concluded that humor production in males is characteristically directed at others, whereas in females it is more often focused on the self.

By contrast, there are studies that are in keeping with the present findings. Moore et al. (1987) administered anti-female and non-sexist cartoons to college students of both genders. Although funniness ratings of the sexist humor were moderated by disposition, assessed by an Attitude Towards Women Scale, there were no significant differences between scores from male and female participants. Martin and Gray (1996) asked men and women to rate comedy tapes for funniness and enjoyability, but found no significant gender differences. Finally, Nevo, Nevo, and Yin (2001) asked undergraduate students to complete a number of humor measures, and to also supply their favourite joke. The authors reported that, contrary to expectations, very few gender differences were found.

Obviously differences in methodology and interpretation will account for the range of research findings. With regard to the present study, it is concluded that humor is appreciated if it is a parody of real-life experiences to which we can relate. It follows that the more such experiences we have had, then the more likely we are to find the type of cartoons used in this study amusing, as they may generate vicarious enjoyment in the viewer (Lewis and Nieuwoudt, 1995). Being able to laugh at not only one's own situation (the ridiculous in ourselves), but also *with* others at theirs, is surely the mature defence mechanism that Freud (1905/1976) and Vaillant et al. (1986) envisaged. Politically incorrect humor thus appears to be alive and well.

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