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The interpersonal meaning of humor styles



Abstract: In order to investigate the interpersonal meaning of humor, the relations between humor styles and the Interpersonal Circumplex (IPC) were examined. One-hundred and twenty-seven participants reported their humor styles using the Humor Styles Questionnaire (HSQ). These participants' interpersonal styles were also assessed using the eight octants of the IPC. By employing the structural summary method, results indicated that all humor styles produced high levels of interpersonal content, but slightly different interpersonal profiles. Affiliative and self-enhancing humor styles, which are often viewed as adaptive humor styles, were strongly associated with the gregarious-extraverted octant of the IPC, whereas aggressive and self-defeating humor styles, which are often viewed as maladaptive humor styles, were most highly associated with the assured-dominant and arrogant-calculating octants of the IPC.

Keywords: humor styles, interpersonal, circumplex, structural summary

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1 Introduction

It is clear that different people possess different amounts and styles of humor. Some individuals are able to easily use humor as a social lubricant in order to facilitate interpersonal interactions, while others seem to lack any discernible sense of humor. Although previous research suggests that various demographic characteristics, including gender and age, might account for some of this variability (Martin & Kuiper 1999; Hay 2000), other factors warrant empirical examination as well. Given that humor is usually an interpersonal behavior, it is likely that one's interpersonal style might be related to humor usage. For example, a person who is interpersonally warm may tell a funny story in order to create a positive social environment, easing interpersonal interactions. However, a person who is interpersonally cold might tell an unkind joke at the expense of another person in order to make him or herself feel more superior to others. The

present study examines the interpersonal meaning of humor by using the Interpersonal Circumplex (IPC) to predict various humor styles.

Examining humor usage is interesting because, as an interpersonal behavior, humor is a complex behavior that often has different meanings for different people. Some might use humor as a means of enhancing an interpersonal relationship, others might use it as a tool to belittle others, and some might simply use humor in order to be accepted by others. Additionally, humor impacts many different areas of our lives. Humor can help promote health, such as by reducing pain or by working as a stress coping strategy (Christie and Moore 2005; Kuiper et al. 1993). At a clinical level, the integration of humor into the treatment of various illnesses, such as cancer and antisocial personality disorder, has been suggested by researchers (Christie and Moore 2005; Martens, 2004). Within interpersonal relationships, humor facilitates social interactions with others by helping form bonds and resolving interpersonal conflicts (Keltner et al. 1998; Norrick and Spitz 2008; Butzer and Kuiper 2008).

Arguably, one of the more popular models of humor styles was proposed by Martin and colleagues (2003) who suggested that humor styles could be defined using two primary dimensions. The first dimension in this model involves deciding whether humor is used to enhance the self or to enhance one’s relationships with others. The second dimension in this model determines whether or not humor is relatively benign and benevolent (i.e. tolerant and accepting of both self and others) or potentially detrimental or injurious, either to the self or to one’s relationships with others. As seen in Figure 1, different combinations of these two dimensions create the four humor styles (affiliative, self-enhancing, aggressive, and self-defeating) that can be assessed using the Martin et al. (2003) Humor Styles Questionnaire (HSQ). An affiliative humor style can be used to enhance one’s relationship with others in a fairly benign manner (e.g., “I enjoy making people laugh”), whereas a self-enhancing humor style enhances the self in a benign manner (e.g., “If I’m feeling depressed, I can usually cheer myself up with humor”). In contrast to these benign humor styles, aggressive and self-defeating humor styles are often considered maladaptive (Martin et al. 2003). An aggressive

humor style attempts to enhance the self at the expense of others (e.g., “If someone makes a mistake I will often tease them about it”), and a self-defeating humor style is often used to enhance the relationship with others by being detrimental to the self (e.g., “I let people laugh at me or make fun at my expense more than I should”).

Past research has found that the HSQ is a reliable assessment of these four humor styles and predicts various outcomes ranging from general physical health to family adjustment (Cann et al. 2011; Erickson and Feldstein, 2007; Greven et al. 2008; Kazarian and Martin 2006; Stieger et al. 2011). One of the most heavily investigated areas within humor styles is their link to individual differences. For example, past studies have found that an affiliative humor style tends to be displayed by individuals with high levels of communion whereas aggressive and self-defeating styles are displayed by individuals with low levels of communion (Martin et al. 2003). Research by Vernon and colleagues (2008) suggests that individuals with high levels of emotional intelligence (i.e., individual who possess empathy, emotional control, social awareness, and self-esteem) tend to employ affiliative and self-enhancing humor, whereas individuals who lack emotional intelligence tend to utilize aggressive and self-defeating humor. In a similar manner, past studies linking the HSQ and the Five Factor Model personality traits (Greengross and Miller 2009, Martin et al. 2003; Vernon et al. 2008) have found that the adaptive humor styles (affiliative and self-enhancing) tend to be positively related to extraversion and openness to experience. In contrast, the maladaptive styles of aggressive and self-defeating humor tend to be related to low levels of agreeableness and high levels of neuroticism.

Although such noteworthy research helps to identify the types of individuals who use different humor styles and lends some insight into the interpersonal nature of humor, no studies to date have linked humor styles to what is arguably the most popular model of interpersonal behavior (Hofstess and Tracey 2005): the Interpersonal Circumplex (IPC). The IPC was originally created by researchers at the Kaiser Foundation (Freedman et al. 1951; LaForge and Suczek 1955; Leary 1957) in an attempt to examine how interpersonal qualities are related to each other. The circumplex structure of the IPC implies that variables that measure interpersonal qualities are arranged on the circumference of a circle orientated by the primary dimensions of dominant-submissive (i.e., dominance) and hostile-friendly (i.e., warmth). The exact number of interpersonal variables and their ordering have gone through a number of revisions by various researchers (e.g., Kiesler 1983; Strong et al. 1988; Wiggins, 1982). Figure 2 displays the circular ordering of the eight octant labels presented by Wiggins (1995). The octants around the circumplex are given alphabetic names in a counterclockwise direction (e.g., PA, BC, DE, etc.) and can be defined by their angular location ranging from 0° to 360°. In this ordering, octants that fall close together are expected to be

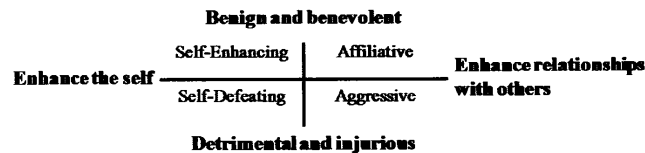


Fig. 1: The two-dimensional model of humor styles assessed by the Humor Styles Questionnaire (HSQ)

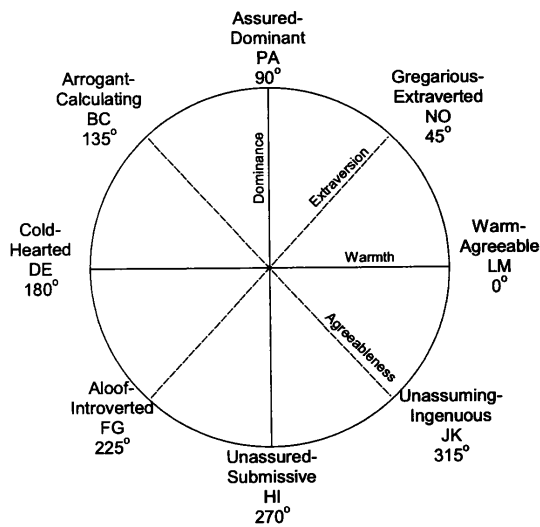


Fig. 2: Wiggins (1995) interpersonal circumplex

more positively related than octants that fall further apart, octants at right angles are unrelated, and octants at the opposite pole of a diameter are negatively related.

The structure of the IPC suggests that the eight interpersonal styles arranged around the circle can be conceptualized as different “blends” of dimensions of dominance and warmth. For example, agreeableness is a blend of submission and warmth, whereas extraversion is a blend of dominance and warmth. In fact, past research suggests that the IPC dimensions of warmth and dominance represent approximate 45° rotations of the Five-Factor Model dimensions of extraversion and agreeableness (see Figure 2; Markey and Markey 2006; McCrae and Costa 1989). The two-dimensional structure provided by the IPC has been shown to be a valid predictor of numerous interpersonal constructs including interpersonal problems, behaviors, eating disorders, personality disorders, and relationship quality (Horowitz 1996; Madison 1997; Markey et al. 2003; Markey and Kurtz 2006; Markey et al. 2003; Markey and Markey 2007; Pincus and Wilson 2001; Sadler and Woody 2003; Tracey 2004; Trobst et al. 2004). In a similar manner, the current

study will help further establish the construct validity of the HSQ humor styles by examining the links between the humor styles and all eight octants of the IPC.

In setting forth the notion of construct validation, Cronbach and Meehl (1955) noted the importance of examining constructs within a “nomological network” of lawful relations with other constructs. Although this key idea has often been ignored, Gurtman (1992) argued that, with respect to interpersonal constructs, the IPC provides an ideal nomological network. Following this suggestion, numerous researchers have linked a variety of interpersonal constructs to the IPC (Gallo et al. 2003; Hennig and Walker 2008; Hopwood et al. 2009; Markey and Markey 2007; Zeigler-Hill 2010). By using the IPC as a common standard to examine the construct validity of numerous interpersonal constructs, a more comprehensive and integrated understanding of these constructs has been achieved.

In a similar manner, the current study will examine the interpersonal meaning of various humor styles by using a methodology called “behavior mapping” (Gifford 1991, 1994; Gifford and O’Connor 1987). The basic concept of behavior mapping is that interpersonal constructs relevant to the IPC should show a clear and predictable pattern of correlations around the octants of the IPC. Specifically, a construct with interpersonal content, like humor style, should show a positive maximum correlation with one of the eight octants of the IPC with steadily declining correlations in both directions around the circumplex away from this octant. By using this approach, it is possible to calculate the angular location of a humor style in the two-dimensional space created by the dominance and warmth dimensions of the IPC. It is expected that such information will provide insight into the construct validity of the four humor styles by using the IPC as a nomological net.

1.1 Hypotheses

Past findings linking emotional intelligence (Vernon et al. 2008, the trait of communion (Martin et al. 2003), and the Five-Factor Model traits of extraversion and agreeableness to the IPC (Markey and Markey 2006; McCrae and Costa 1989) and to humor styles (Greengross and Miller 2009; Martin et al. 2003; Vernon et al. 2008) helped provide suggestions as to the interpersonal meaning of humor styles. For example, because extraversion is often conceptualized as an equal blending of warmth and dominance (i.e., the NO octant of the IPC; Markey and Markey 2006; McCrae and Costa 1989), past research linking extraversion to emotional intelligence (Vernon et al. 2009) and the adaptive humor styles (Greengross and Miller 2009; Martin et al. 2003; Vernon et al. 2008) suggests that affiliative (Hypothesis 1) and self-enhancing (Hypothesis 2) humor styles will be located in the NO octant. In a similar manner, research linking low agreeableness to

interpersonal coldness and dominance (i.e., the BC octant of the IPC: Markey and Markey 2006; McCrae and Costa 1989) combined with research linking low agreeableness and low emotional intelligence to maladaptive humor styles (Green-gross and Miller 2009; Martin et al. 2003; Vernon et al. 2008) suggest that aggressive (Hypothesis 3) and self-defeating (Hypothesis 4) humor styles will be located in the BC octant.

2 Method

2.1 Participants

Participants were 127 undergraduates (65 Males, average age 19.07; $SD = 1.22$) taking an introductory psychology course. Each participant received course credit for participation in the study.

2.2 Measures

2.2.1 Interpersonal Circumplex

Participants rated their interpersonal styles using the International Personality Item Pool – Interpersonal Circumplex (IPIP-IPC; Markey and Markey 2009). The IPIP-IPC consists of 32 items assigned to one of eight scales. Possible responses ranged from 1 (extremely inaccurate) to 5 (extremely accurate). Each scale measures an octant of the IPC (see Figure 2), and they are alphabetically labeled in a counterclockwise direction: assured-dominant (PA), arrogant-calculating (BC), cold-hearted (DE), aloof-introverted (FG), unassured-submissive (HI), unassuming-ingenuous (JK), warm-agreeable (LM), and gregarious-extraverted (NO).

The participants' scores on a given IPIP-IPC octant were computed by averaging together the four items for a given octant (PA $M = 2.64$, $SD = .80$; BC $M = 2.16$, $SD = .71$; DE $M = 2.50$, $SD = .69$; FG $M = 2.66$, $SD = .80$; HI $M = 3.10$, $SD = .61$; JK $M = 3.64$, $SD = .52$; LM $M = 4.30$, $SD = .42$; NO $M = 3.67$, $SD = .77$). Because four items were used to assess each octant, it was expected that the reliability of any single octant would be modest. As anticipated, and consistent with previous research (Markey and Markey 2009), the average 4-item composite reliability of the eight octant scales was .62. However, because the IPC suggests that these octant scales are ordered in a circular manner, these scales can be used in concert with each other to compute dimensional scores for warmth and dominance (see Nunally and Berstein 1994, Equations 7-17; Markey and Markey 2006, 2009). In the

current sample, the reliability of these dimensional scores was .83 for dominance and .84 for warmth.

2.2.2 Humor Styles

The Humor Styles Questionnaire (HSQ; Martin et al. 2003) is a measurement of individual differences in humor use. The HSQ contains 32 items designed to measure four styles of humor (affiliative, self-enhancing, aggressive, and self-defeating). For each item, participants rated the extent to which they agreed with different statements about their humor use on a 5-point scale. Results indicated adequate internal reliability for affiliative ($\alpha = .71$), self-enhancing ($\alpha = .82$), aggressive ($\alpha = .70$), and self-defeating ($\alpha = .77$) humor scales. In the current study, the mean humor scores for men and women were significantly different for aggressive ($M = 3.08$ and 2.75 , respectively; $t[125] = 2.67$, $p < .05$), but were not significantly different for affiliative ($M = 4.35$ and 4.27 , respectively; $t[125] = 1.10$, $p = .31$), self-enhancing ($M = 3.48$ and 3.43 , respectively; $t[125] = .48$, $p = .65$), or self-defeating ($M = 2.72$ and 2.60 , respectively; $t[125] = 1.04$, $p = .30$).

2.3 Procedure

Following informed consent, participants completed the above questionnaires along with several filler questionnaires to help disguise the purpose of the study. Participants were assured of total confidentiality with regard to their ratings. After completion of the questionnaires, participants were given a written debriefing statement and compensated with course credit.

3 Results

3.1 Circular structure of the IPIP-IPC octant scales

Before the IPIP-IPC octant scales were related to humor styles, it was important to confirm that the octant scales occurred in the circular manner predicted by the IPC. In order to visually examine the circular nature of the IPIP-IPC octant scales, Figure 3 displays the loadings of the eight octant scales on the first two orthogonal components of a principle components analysis when these scales are rotated for maximum convergence with their theoretical locations on the IPC. Taken

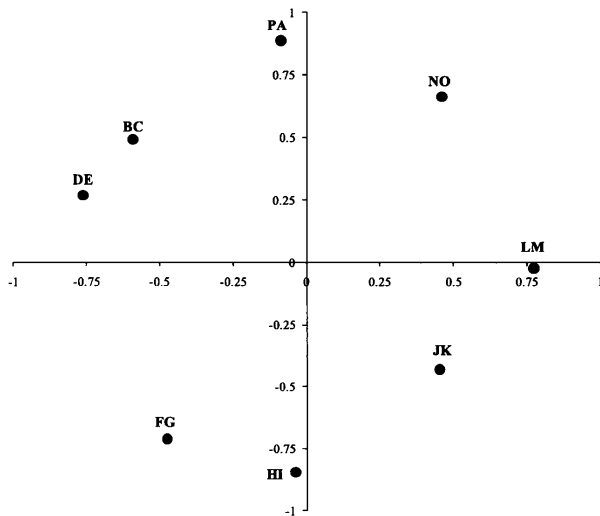


Fig. 3: Circular structure of the IPIP-IPC octant scales

together, these two components accounted for 64% of the total variance among IPIP-IPC octant scales (37% and 27%, respectively). A more formal test of this circular structure is given by the computation of a Correspondence Index (CI; Hubert and Arabie 1987; Rounds et al. 1992). A CI is a fit index indicating how well the circular structure of octants implied in Figure 2 fits the obtained correlations among the IPIP-IPC octants. The CI can be interpreted in a manner similar to a Somers' d statistic (Somers 1962), with a value of 1.00 indicating perfect fit. Randomization tests can also be computed to test the significance of the fit (Tracey 1997). Results indicated that a circular structure strongly fit the correlations among the IPIP-IPC octant scales ($CI = .89, p < .001$).

3.2 Relating the IPC to humor styles

In order to relate humor styles to the IPC and test each of the four research hypotheses, each humor style was related to the eight octants of the IPIP-IPC. Due to

the mean differences in men and women's HSQ scores, especially for the Aggression subscale, all of the analyses controlled for gender. Figures 4 and 5 display the obtained partial correlations between each of the IPIP-IPC octants and each humor style. To better define the correlation patterns presented in this figure, data were next analyzed using the structural summary method (Gurtman 1992; Gurtman and Balakrishnan, 1998; Gurtman and Pincus, 2000; Wright et al. 2009). This methodology recognizes that, given the circumplex structure of the IPIP-IPC, the pattern of correlations presented in Figure 4 for a given humor style should exhibit a sinusoidal pattern. The pattern of a sinusoidal curve can be summarized using the formula (Gurtman 1992):

$$pr_i = e + a \times \cos(\theta_i - \delta) + d$$

where pr_i is the expected partial correlation for octant i , e is the elevation of the curve, a is the amplitude, θ_i is the angular location of octant i , δ is the angular displacement of the curve, and d is a deviation component.

The elevation of the curve represents a given humor style's average partial correlation with the octant scores. Because the IPIP-IPC has no general factor, this value should be close to zero. As shown in Table 1, the elevations for each humor style were all near zero. The amplitude of the curve represents the highest positive partial correlation of a given humor style with the eight-octant scores minus the elevation of the curve. In the current data set, all of the elevations were .20 or greater. The angular displacement of the curve is the point at which a given humor style has its highest estimated association with the IPC and represents the angular location of a humor style on the circumplex. Consistent with Hypotheses 1 and 2, affiliation and self-enhancement humor styles had an angular locations of 39° and 25° which correspond to the NO octant. As expected with Hypotheses 4, the self-defeating humor style had an angular location of 158°, which is located within the BC octant. Contrary to Hypothesis 3, the aggressiveness humor style had an angular location of 112°, locating this style in the PA octant.

A goodness of fit statistic, R^2 , can be computed to determine how well the four humor style profiles presented in Figures 4 and 5 fit the predicted sinusoidal pattern (Gurtman and Balakrishnan 1998). A high R^2 value (i.e., greater than .75; Wright et al. 2009) indicates the angular displacement of a given humor style as interpretable, whereas a low value indicates that the observed behavioral pattern of a humor style cannot be adequately summarized by a single angular displacement value. In the current analysis all of the humor styles obtained high R^2 values ($M R^2 = .85$) indicating that these humor styles all contain strong interpersonal content and the IPC angular locations computed above can be used to better understand the interpersonal nature of these humor styles.

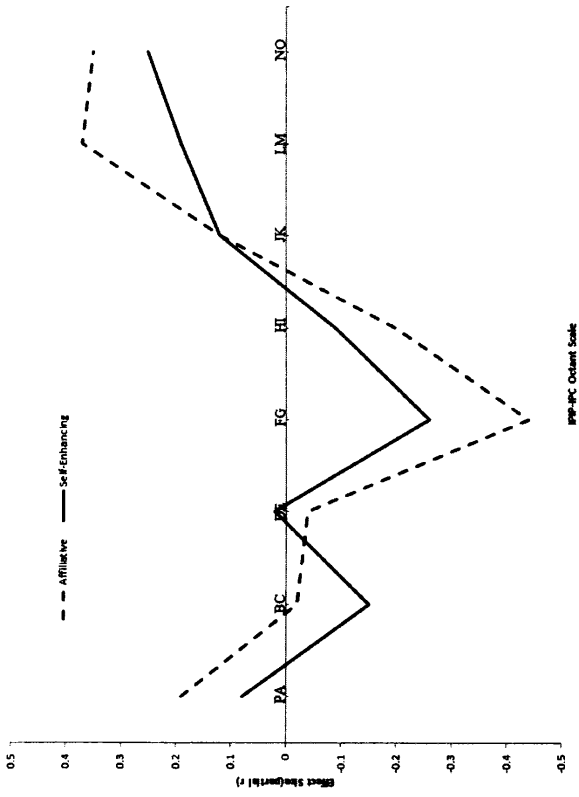


Fig. 4: Partial correlations between affiliative and self-enhancing humor styles and the eight octants of the IPIP-IPC

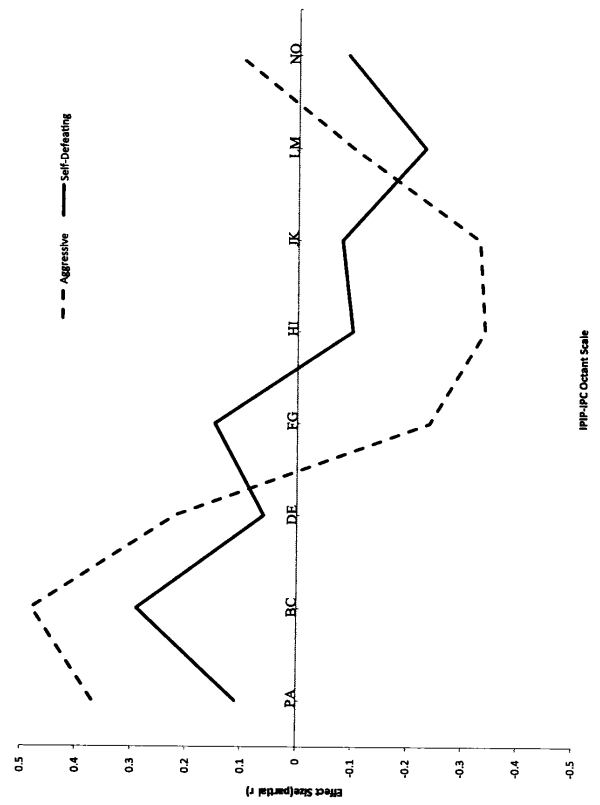


Fig. 5: Partial correlations between aggressive and self-defeating humor styles and the eight octants of the IPIP-IPC

4 Discussion

By using the IPC, the current research examined the interpersonal meanings of the four humor styles measured by the HSQ. Results indicated that all four humor styles possessed high levels of interpersonal content (see R^2 values in Table 1), but produced slightly different types of interpersonal profiles. As expected, affiliative and self-enhancing humor styles, which are often viewed as adaptive (Martin et al. 2003), were strongly associated with the gregarious-extraverted (NO) octant of the IPC. Such results suggest that these two humor styles are similar to each other in terms of their interpersonal content and have similar interpersonal meanings (Gurtman 1992; Markey and Markey 2007). However, the two maladaptive humor styles, aggressive and self-defeating, tended to be most highly associated with the assured-dominant (PA) and arrogant-calculating (BC) octants of the IPC. Although the aggressive humor style was more strongly related to dominance than expected (see Hypothesis 3), taken together these results indicate that all of the humor styles assessed by the HSQ are strongly related to interpersonal dominance but tend to possess different levels of interpersonal warmth.

Table 1: Structural summary of humor styles

Humor Style	Elevation	Amplitude	R^2	Angular Location
Affiliative	.04	.34	.89	39°
Self-Enhancing	.02	.20	.75	25°
Aggressive	.02	.42	.97	112°
Self-Defeating	.01	.21	.77	158°

In an attempt to further understand the construct validity of these four types of humor, it is informative to consider the results of the current study in the context of the two-dimensional model used to create these four styles (see Figure 1). Although it might have seemed likely that the horizontal dimension in Figure 1 (i.e., enhance self versus enhance relationships with others), might be most related to the warmth dimension of the IPC, results indicated this was not the case. Instead, it appears that the vertical dimension in Figure 1, which defines whether or not humor is relatively benign and benevolent or potentially detrimental either to the self or to one's relationships with others, was most closely related to interpersonal warmth. In other words, it appears that individuals who are interper-

sonally warm (i.e., friendly, warm, sociable, etc.) are more likely to use humor in a fairly benign manner, whereas individuals who are interpersonally cold (i.e., hostile, cold, detached, etc.) are more likely to utilize humor in a more detrimental manner regardless whether the target of such injurious humor are other people or the self. These results suggests one explanation for why affiliative and self-enhancing humor styles are often considered more adaptive than aggressive and self-defeating humor styles: it is because the former tends to possess higher levels interpersonal warmth than the latter.

In addition to the current analysis providing a better understanding of the interpersonal meaning of these humor styles, it also suggests some potential humor styles that are missing from the HSQ. Specifically, all of the humor styles examined in the current study were located on the top half of the IPC (i.e., high dominance). This indicates that the humor styles assessed by the HSQ tend to be performed by individuals who have fairly high levels of interpersonal dominance. Such a finding is probable if there is some minimum level of dominance or sense of self-assuredness, which is required for a person to tell a joke or express his or her specific style of humor. Of course, this explanation would also suggest that individuals who are submissive lack any styles of humor. Although submissive individuals might not possess humor styles (e.g., such individuals might be too shy to use humor), it seems more probable that the HSQ is missing information about humor styles employed by submissive individuals. According to Interpersonal Theory, individuals often display submissive behaviors because they want other people to make decisions for them or exercise some control over their lives (Horowitz et al. 2006; Markey et al. 2003). It is therefore possible that submissive individuals might employ a humor style which encourages this behavior. For example, a submissive individual might accomplish this goal by displaying a humor style which enhances the positive emotions and status of his or her interaction partner (i.e., an other-enhancing humor style). It is hoped that future researchers will consider this possibility in order to expand the HSQ to include humor styles used by submissive individuals.

Although the present study contributes to our understanding of the interpersonal meanings of humor, there are some limitations that warrant mention. First, the present study exclusively employed self-report data. It will be interesting to examine whether or not the results found in the current study generalize to observations of humor use and interpersonal behavior during interpersonal interactions. Second, the current research successfully linked the four humor styles assessed by HSQ to the IPC, but it would be interesting to expand this investigation to include types of humor styles not assessed by the HSQ in order to better understand the interpersonal meaning of a greater variety of ways individuals express humor. Finally, the present study is also limited in its use of a somewhat

homogenous sample in terms of age and background. Future research should examine whether the findings presented in the current study generalize to a larger and more diverse sample of individuals.

Understanding interpersonal predictors of humor styles has implications for our understanding of individuals' humor use and the potential effects of these humor styles on interpersonal outcomes. Although humor is often conceptualized as a positive quality which has the potential to enrich interpersonal relationships (Bressler and Balshine 2006; Cann et al. 2011), the current study suggests that humor is not always aimed at promoting warm or harmonious relationships. Further, given the enormous amount of research which has employed the IPC to examine interpersonal complementarity (the notion that we are attracted to others who are similar to ourselves in terms of warmth, but opposite in terms of dominance: Locke and Sadler 2007; Markey et al. 2003; Sadler and Woody 2003; Sadler et al. 2009; Markey et al. 2010; Markey and Kurtz, 2006; Ansell et al. 2008), results from the current study make it possible to predict the exact "type" of person who would find a certain humor style as most attractive. For example, future research could examine whether or not individuals who are aloof-introverted (i.e., cold and submissive) find the humor style self-defeating (likely to be performed by someone who is cold and dominant) as desirable. Finally, it is hoped that the findings from the current study will help encourage others to expand the humor styles assessed by the HSQ by investigating which types of humor styles submissive individuals tend to employ.

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