

Comic styles, HEXACO, and PhoPhiKat: A Typological approach

[Stili comici, HEXACO e PhoPhiKat: un approccio tipologico]

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ABSTRACT

IT Gli stili comici sono l'approccio più attuale per classificare le caratteristiche di personalità legate all'umorismo; possono essere più leggeri (divertimento, arguzia, umorismo benevolo, nonsense) o più cupi (ironia, sarcasmo, satira, cinismo). È stata eseguita un'analisi dei cluster dei partecipanti (599 volontari adulti slovacchi) in base agli stili comici. I risultati hanno rivelato quattro cluster: (1) sostenitori di stili comici in genere (superiori alla media su tutti gli stili); (2) negatori di stili comici (inferiori alla media su tutti gli stili); (3) sostenitori degli stili comici più leggeri (superiori alla media su stili più leggeri, medi sul nonsense e sull'ironia, e inferiori alla media su stili più cupi); e (4) sostenitori degli stili comici più cupi (superiori alla media sugli stili più cupi, medi su nonsense e ironia e inferiori alla media su stili più leggeri). I risultati mostrano diverse associazioni tra stili comici, dimensioni della personalità e disposizione al ridicolo. Il risultato più interessante è che i sostenitori degli stili più cupi sono più inclini alla gelotofobia rispetto a chi nega gli stili comici.

Parole chiave: tipi di stili comici, analisi dei cluster, disposizione al ridicolo e a essere derisi

EN Comic styles are the most current approach to classify humor-related personality characteristics, they could be lighter (fun, wit, benevolent humor, nonsense), and darker (irony, sarcasm, satire, cynicism). A cluster analysis of participants (599 Slovak adult volunteers) was performed based on comic styles. The results revealed four clusters: (1) General comic styles endorsers (above average on all of the styles); (2) Comic styles deniers (below average on all of the styles); (3) Lighter comic styles endorsers (above average on lighter styles, average on nonsense and irony, and below average on darker styles); and (4) Darker comic styles endorsers (above average on darker styles, average on nonsense and irony, and below average on lighter styles). The findings show different associations of comic styles with personality dimensions and dispositions towards ridicule. The most interesting result is that the darker styles endorsers are more prone to gelotophobia than comic styles deniers.

Keywords: comic styles, cluster analysis, dispositions towards ridicule and being laughed at

1. Introduction

In the previous two decades, there were couple of attempts to classify humor-related personality characteristics into meaningful systems. Two of the most utilized classifications are Humor styles (Martin et al., 2003) and PhoPhiKat (Ruch & Proyer, 2009). There are four humor styles, two aimed at others (affiliative humor and aggressive humor), and two aimed at self (self-enhancing humor and self-defeating humor). Two humor styles (affiliative, and self-enhancing) are beneficial to health while the others (aggressive, and self-defeating) are assumed to be detrimental to health (Martin et al., 2003). The PhoPhiKat is the abbreviation for three personality characteristics towards ridicule and being laughed at, namely gelotophobia (= the fear of being laughed at), gelotophilia (= the joy of being laughed at) and katagelasticism (= the joy of laughing at others) (Ruch & Proyer, 2009a, 2009b). Comic styles represent the most recent approach to classify humor-related styles. Ruch, Heintz, Platt, Wagner, & Proyer (2018a), based on the work of Schmidt-Hidding (1963), postulated eight comic styles, namely fun, humor, nonsense, wit, irony, satire, sarcasm, and cynicism.

The aim of this study is to utilize a typological approach in investigating comic styles in relation to six personality dimensions (HEXACO), and to three dispositions towards ridicule and being laughed at (PhoPhiKat). As far as we know, this is the first study which utilizes cluster analysis on the eight comic styles and the first which compares comic styles clusters in personality dimensions and dispositions towards ridicule.

1.1. Comic styles

According to Ruch et al. (2018a), there are eight comic styles, four of them are lighter (i.e., fun, humor, nonsense, and wit), and four of them are darker (i.e., irony, satire, sarcasm, and cynicism). The goal of “fun” is to spread good mood while “wit” connects disconnected ideas, and thus creates a comical effect. “Humor (also called benevolent humor)” realistically observes human weaknesses and benevolently accepts them. “Nonsense” is an intellectual and playful entertainment. The goal of “irony” is to say the opposite as meant assuming that smart people will understand it. “Sarcasm” mercilessly points out to a corrupt world and aims at hurting others. “Satire” (also called corrective humor) is moral-based mockery with good intentions which requires courage. “Cynicism” disdains common norms and moral concepts and finds them ridiculous (Ruch et al., 2018a).

Comic styles were studied in relation to the Big Five personality model (Ruch et al., 2018a; Dionigi, Duradoni, & Vagnoli, 2022a), to the PEN model of personality (Ruch, Wagner, & Heintz, 2018b), with the character strengths and virtues (Ruch et al., 2018a), with intelligence (Ruch et al., 2018a) and with well-being (Ruch et al., 2018b). Other studies showed the connection of comic styles with anxiety (Dionigi, Duradoni, & Vagnoli, 2021), with the Dark triad (Dionigi, Duradoni, & Vagnoli, 2022b) and with the Dark tetrad (Torres-Marín, Navarro-Carrillo, & Carretero-Dios, 2022). Comic

styles were studied also in relation with basic and broad concepts of humor (Heintz, 2019) and with other humor-related characteristics (sense of humor, humor appreciation, humorous self-image, and happiness) (Mendiburo-Sequel & Heintz, 2020). This study adds further variables to this list, namely the dimensions of HEXACO personality model and the three dispositions towards ridicule and being laughed at.

1.2. Comic styles clusters

As mentioned above, this is the first attempt to perform the cluster analysis on the comic styles. People usually do not use a single comic style but show more comic styles depending on a situation. Simple correlations cannot provide an accurate indication about the individual differences in style profiles – that is, the style characteristics of distinct group of people. Specification of such differences can enhance understanding of comic styles (Galloway, 2010). The goal of the cluster analysis is to find a structure in a data set. Objects within a cluster should be similar to one another and be different from the objects of other clusters (Zakharov, 2016). The typological approach was already applied on humor styles with the following results:

Galloway (2010) identified four clusters based on humor styles scores: 1) Above average on all of the styles; 2) Below average on all of the styles; 3) Above average on positive styles (affiliative and self-enhancing), and below average on negative styles (aggressive and self-defeating); and finally, 4) Above average on negative styles, and below average on positive styles. These clusters (general humor endorsers, humor deniers, positive humor endorsers, and negative humor endorsers) were replicated in two studies (Chang, Chen, Hsu, Chan, & Chang, 2015; Wu, Yen, & Chen, 2021).

On the other hand, there are also studies which identified different clusters. Leist & Müller (2013) proved three clusters: humor endorsers, humor deniers, and self-enhancers. Sirigatti et al. (2016) also identified three clusters: 1) average score on self-defeating humor and below average on other humor styles; 2) above average on beneficial styles and below average on detrimental styles; and 3) above average scores on each of the humor styles. However, Fox, Hunter and Jones (2015) identified four clusters: 1) Interpersonal humourists (high on aggressive and affiliative humor, low on self-enhancing and self-defeating humor); 2) Self-defeaters (high on self-defeating humor, low on the other three); 3) Humor endorsers (high on all four humor styles); and 4) Adaptive humourists (high on self-enhancing and affiliative humor, but low on aggressive and self-defeating humor).

The abovementioned studies utilized K-means cluster analysis to classify respondents due to their scores on each humor style. We've also decided to conduct the K-means cluster analysis with the aim to test three-, four-, and five cluster solution. The number and the composition of comic styles types were tested in an exploratory fashion.

1.3. Comic styles and personality models

Comic styles were studied in relation with the Eysenck's PEN model (Ruch et al., 2018b) and the Big Five model of personality (Dionigi et al., 2022a; Ruch et al., 2018a). This study compares the comic styles clusters in the six dimensions of the HEXACO personality model. Ruch et al. (2018a) utilized "The Inventory of Minimal Redundant scales (MRS-25)" for measuring the dimensions of the Big Five (extraversion, agreeableness, conscientiousness, emotional stability (it is equivalent to neuroticism), and culture (it is equivalent to openness to experience)). The lighter comic styles (fun, humor, nonsense, and wit) positively correlated with extraversion, emotional stability, and culture, and negatively with conscientiousness. Moreover, there was also a positive correlation between humor and agreeableness. The darker comic styles (irony, satire, sarcasm, and cynicism) negatively correlated with agreeableness, and conscientiousness (with the exception of irony). Irony and satire positively correlated with extraversion and culture. Moreover, satire positively related also to emotional stability, cynicism negatively to extraversion and sarcasm negatively to emotional stability.

Ruch et al. (2018b) used the "Eysenck Personality Questionnaire-Revised (EPQ-RS) for the assessment of psychoticism, extraversion, and neuroticism. The lighter comic styles positively correlated with extraversion and psychoticism and negatively with neuroticism (except for fun and nonsense). The darker comic styles positively correlated with psychoticism (except for irony) and neuroticism (irony and satire).

Dionigi et al. (2022a) utilized "The Big Five Inventory" to assess dimensions of the Big Five (extraversion, agreeableness, conscientiousness, neuroticism, and openness). The lighter comic styles positively correlated to openness and extraversion (except for nonsense). Moreover, conscientiousness was negatively related to nonsense and fun, and neuroticism negatively to humour and wit. The darker comic styles positively correlated with openness, and negatively with agreeableness. Moreover, extraversion was positively related to irony and satire, neuroticism positively to sarcasm and cynicism, and finally conscientiousness negatively with irony and cynicism.

This study utilized the six-dimensional model of personality, named HEXACO. The authors of this model are Michael C. Ashton and Kibeom Lee (e.g. Ashton & Lee, 2009). The six dimensions are the following: honesty-humility (H), emotionality (E), extraversion (E), agreeableness (A), conscientiousness (C), and openness to experience (O). The dimensions of the HEXACO model could be characterized as follows: Persons highly scoring on honesty-humility avoid manipulating others or being false; they are also scrupulously fair and law-abiding; wealth and luxury are not so important for them; similarly, they do not consider themselves superior. Those scoring high on emotionality are fearful of physical harm; worry about minor matters; like to share concerns with others; and feel empathic concerns towards others. High scores on extraversion see positive qualities in self; they are confident leading and speaking in groups; they enjoy social interactions and experience positive feelings

of enthusiasm and energy. Persons high on agreeableness do not hold grudges; are not resentful; they are lenient in judging others; flexible, patient and even-tempered. High scorers on conscientiousness are orderly with things and time; they work hard to achieve goals; pursue accuracy and perfection; they are prudent and careful in making decisions. Finally, persons who score high on openness to experience appreciate beauty in art and nature; are intellectually curious; use imagination in everyday life; and like to hear unusual opinions (Lee & Ashton, 2012).

Honesty-humility is a dimension that is new to the HEXACO model and is not part of the Big Five model of personality. The other two HEXACO factors (emotionality and agreeableness) are only partially equivalent to neuroticism and agreeableness within the Big Five. Emotionality is also characterized by sentimentality and sensitivity, which typically defines Big Five agreeableness. Agreeableness in HEXACO includes content related to even-temper versus anger, which defines neuroticism in Big Five. Three HEXACO dimensions (extraversion, conscientiousness, and openness to experience) correspond in content with their counterparts in the Big Five (Lee & Ashton, 2006).

The relations of the comic styles clusters to the dimensions of the HEXACO personality model were tested in an exploratory fashion.

1.4. Comic styles and dispositions towards ridicule

The comic styles were studied in relation with the basic and broad concepts of humor (Heintz, 2019) and with other humor-related characteristics (Mendiburo-Sequel & Heintz, 2020), however they were not studied with the three dispositions towards ridicule and being laughed at, namely gelotophobia (the fear of being laughed at), gelotophilia (the joy of being laughed at), and katagelasticism (the joy of laughing at others).

Gelotophobia was first described by Michael Titze as a pathological fear of appearing to social partners as a ridiculous object (Titze, 1996). The primary characteristic of the gelotophobes is their enhanced fear of being laughed at. Gelotophobes do not appreciate laughter and smiling as something positive (Ruch & Proyer, 2009a, 2009b). Gelotophiles enjoy being laughed at and make others voluntarily laugh at them. They do not feel ashamed when sharing embarrassing mishaps (Ruch & Proyer, 2009a). Katagelasticians enjoy laughing at others. They seek and establish situations in which they can laugh at others. Katagelasticians do not feel there is anything wrong in laughing at others (Ruch & Proyer, 2009a). The relations of comic styles clusters to dispositions towards ridicule were tested in an exploratory fashion.

2. Method

2.1. Participants

Persons from the database of participants from our previous research who agreed to be contacted for further research were sent an email with the proposal of participating in the present study. Altogether 2000 adults received an email with the link to the questionnaires and 678 adults filled them out (33.9%). Preceding the data analysis, responses with severe incompleteness (more than 10% of missing data or too short time to fill out the questionnaires) were excluded (79 responders, 11.65%). Therefore, the final sample consisted of 599 Slovak adult volunteers, 156 males (26%), and 443 females (74%). Their mean age was 26.24 (SD = 8.08; 18-50). More than a half (56.9%) of the participants were students from various fields of study (341 participants), others 43.1% (258 participants) were adult workers from various fields of work. The mean age of students was 21.40 (SD = 3.12; 18-38) while the mean age of workers was 32.64 (SD = 8.18; 19-50). The respondents were not paid for their participation in the research.

2.2. Instruments

The CSM (Ruch et al., 2018) is a 48-item questionnaire for the assessment of eight comic styles, namely fun (“I like to tease my friends in a funny way.”), irony (“My irony unveils who is smart enough and understands something and who does not.”), wit (“I have a sharp wit and intellect and can tell stories with many punch lines.”), sarcasm (“I occasionally exhibit bitter scorn.”), humor (“Humor is suitable for arousing understanding and sympathy for imperfections and the human condition.”), satire (“I caricature my fellow human’s wrongdoings in a funny way to gently urge them to change.”), nonsense (“I like humor when it aimlessly plays with sense and nonsense.”), and cynicism (“I tend not to trust in the sincerity of some intentions and values and often unmask them by cynical remarks.”).

Each scale comprises 6 items, which are answered on a seven-point scale (1=strongly disagree to 7 strongly agree). The Slovak version of the scale was utilized following the traditional translation and the back-translation procedure. The English version of the scale was translated into the Slovak language according to the standard procedures. Two independent persons translated the scale from English to Slovak. Then, an independent person did a back translation and deviations from the original were discussed with the authors of the scale. Cronbach’s alphas for the present study were .83 for fun, .79 for irony, .86 for wit, .72 for sarcasm, .76 for humor, .80 for satire, .86 for nonsense, and .82 for cynicism.

The HEXACO-60 (Ashton & Lee, 2009, Slovak version from the website hexaco.org) is a 60-item scale for measuring honesty-humility (“I would never accept a bribe, even if it was very huge.”), emotionality (“I sometimes can’t help worrying about little things.”), extraversion (“On most days I feel

cheerful and optimistic.”), agreeableness (“I tend to be lenient in judging other people.”), conscientiousness (“I plan ahead and organize things to avoid scrambling at the last minute.”), openness to experience (“I would enjoy creating the work of art such as a novel, a song, or a painting.”). Each scale consists of 10 items. The participants respond on five-point Likert scale (1=strongly disagree to 5 strongly agree). Cronbach’s alphas for the present study were .76 for honesty-humility, .78 for emotionality, .81 for extraversion, .70 for agreeableness, .77 for conscientiousness, and .67 for openness to experience.

The PhoPhiKat-45 (Ruch & Proyer, 2009; Slovak version by Ďurka & Ruch, 2015) is a 45-item questionnaire for the assessment of gelotophobia (“When they laugh at my presence I get suspicious.”), gelotophilia (“When I am with other people I enjoy making jokes at my own expense to make others laugh.”), and katagelasticism (“I enjoy exposing others and I am happy when they get laughed at.”). Each scale comprises 15 positively keyed items. It utilizes a four-point answer format (1= strongly disagree to 4=strongly agree). Cronbach’s alphas for the present study were .87 for gelotophobia, .87 for gelotophilia, and .85 for katagelasticism.

2.3. Analyses

All analyses were conducted using SPSS version 26. The final number of 599 participants filled out all questionnaires and the data from all participants were used in every statistical analysis in this study. First, descriptive statistics (min, max, mean, SD) were computed for all scales. Cronbach’s alphas (internal consistency) were utilized to check the reliability of each scale (for results see Instruments section). Pearson correlations were used to test the relations between each scale and socio-demographic variables (age, gender). Then, K-means cluster analysis (three-, four-, and five cluster solution) was conducted to classify respondents due to their scores on each comic style. Finally, one-way Anova was used for comparisons of comic styles cluster in personality dimensions of HEXACO model and in three dispositions towards ridicule and being laughed at. Due to an unequal number of participants in each comic styles cluster Scheffe’s test was utilized as post-hoc test.

3. Results

3.1. Descriptive statistics and Pearson correlations

The descriptive statistics (min, max, mean, and SD) were computed for the eight comic styles, six dimensions of the HEXACO personality model, and the three dispositions towards ridicule and being laughed (see Table 1 for more details).

Table 1. Descriptive statistics for each scale (Comic styles, HEXACO, PhoPhiKat) and their Pearson correlations with age and gender

| | Min | Max | Mean | SD | Age | Gender |
|-----------------|-----|-----|-------|------|--------|--------|
| Fun | 6 | 42 | 25.59 | 7.33 | -.07 | -.12** |
| Wit | 6 | 42 | 27.10 | 6.96 | .06 | -.20** |
| Humor | 6 | 42 | 29.35 | 5.99 | .04 | -.10* |
| Nonsense | 6 | 42 | 25.05 | 8.36 | -.17** | -.11** |
| Irony | 6 | 42 | 26.83 | 7.16 | -.21** | -.06 |
| Sarcasm | 6 | 42 | 20.26 | 6.75 | -.16** | -.16** |
| Satire | 6 | 42 | 22.81 | 7.38 | .01 | -.27** |
| Cynicism | 6 | 42 | 19.58 | 7.38 | -.12** | -.23** |
| H | 12 | 50 | 37.78 | 6.45 | .18** | .11** |
| E | 13 | 49 | 33.34 | 6.55 | -.17** | .42** |
| X | 12 | 50 | 32.02 | 7.14 | .20** | -.01 |
| A | 12 | 47 | 31.89 | 5.74 | .08 | -.07 |
| C | 14 | 50 | 35.95 | 6.01 | .09* | .07 |
| O | 19 | 50 | 35.57 | 5.80 | .08* | -.01 |
| Pho | 15 | 59 | 32.57 | 8.34 | -.16** | .09* |
| Phi | 15 | 59 | 36.33 | 8.07 | -.03 | -.17** |
| Kat | 16 | 58 | 30.57 | 7.77 | -.12** | -.25** |

Notes. N = 599, SD = Standard Deviation, H = honesty-humility, E = emotionality, X = extraversion, A = agreeableness, C = conscientiousness, O = openness to experience, Pho = gelotophobia, Phi = gelotophilia, Kat = katagelasticism. Gender coding: 1 – male, 2 – female. ** $p \leq .01$ * $p \leq .05$

Pearson correlations were computed for all scales with age and gender. Comic styles (with the exception of irony) were male characteristics while nonsense, irony, sarcasm, and cynicism are more common in younger participants. Honesty-humility and emotionality were female characteristics while older participants were more honest, extraverted, conscientious, open, and less emotional than younger participants. Gelotophilia and katagelasticism were more common in males while gelotophobia in females. Gelotophobia and katagelasticism were higher in younger participants.

3.2. Comic styles clusters and their description

Several K-means cluster analyses were performed. The three-cluster solution resulted in cluster 1 with all scores above average, cluster 2 with all scores below average and cluster 3 with all scores close to average. The five-cluster solution resulted in cluster 1 with all scores above average, cluster 2 with all scores mildly below average, cluster 3 with all scores extremely below average, cluster 4 lighter styles

and irony above average and other styles close to average, and cluster 5 lighter styles (with the exception of nonsense) above average, darker styles below average and nonsense close to average.

The four-cluster solution was considered to be the most parsimonious and most in line with the results of previous studies on humor styles clusters (Galloway, 2010; Chang et al., 2015; Wu et al., 2021). Cluster 1 (General comic styles endorsers) was composed of respondents who reached higher scores than average (z scores higher than .11 were considered to be higher than average) on all of the 8 comic styles. Cluster 2 (Comic styles deniers) comprised those participants who scored below average (z scores below -.11 were considered to be below average) on all comic styles. Cluster 3 (Lighter comic styles endorsers) consisted of those respondents who reached higher than average scores on fun, wit, and humor, average scores on nonsense and irony (z scores between -.10 and .10 were considered to be average scores), and below average scores on sarcasm, satire, and cynicism. Cluster 4 (Darker comic styles endorsers) was characterized by those participants who scored higher than average on sarcasm, satire, and cynicism, average scores on nonsense and irony and below average scores on fun, wit, and humor. See Table 1 for mean z scores on each comic style for each cluster and Figure 1 for the graphical presentation of the results.

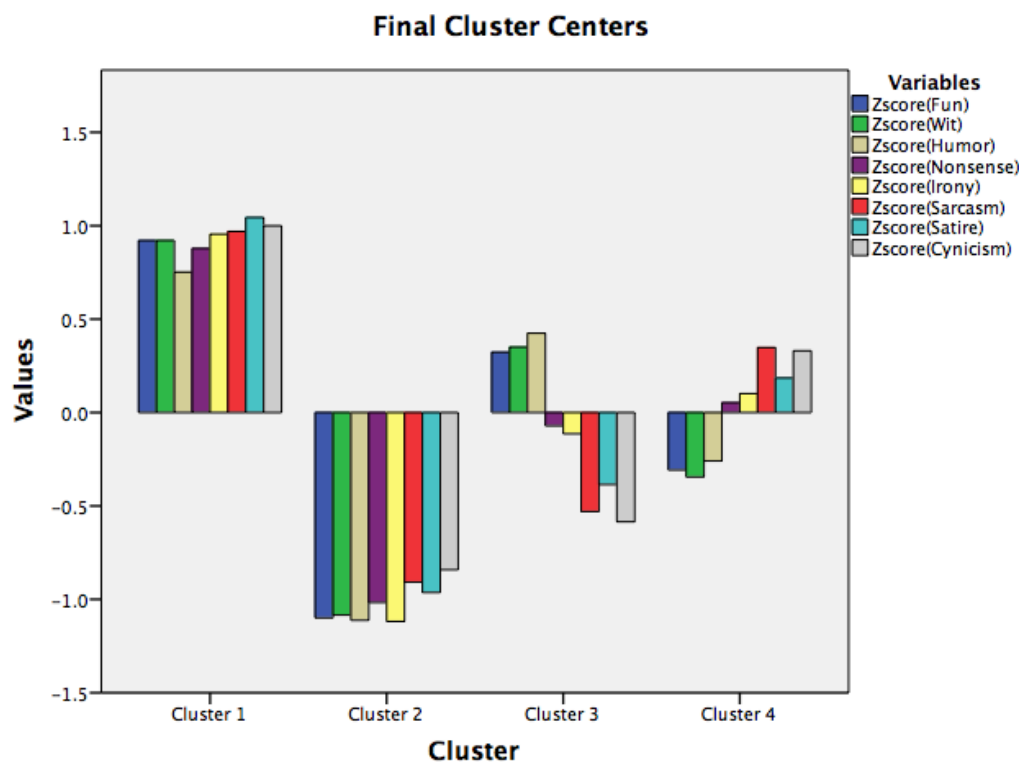
Table 2.

Mean z scores on each comic style for each cluster and percentage of participants in each cluster

| | Clusters | | | |
|---------------------|-----------------|-------|-------|-------|
| | 1 | 2 | 3 | 4 |
| N | 141 | 119 | 167 | 172 |
| % | 23.54 | 19.87 | 27.88 | 28.71 |
| Comic styles | | | | |
| Fun | .92 | -1.10 | .32 | -.31 |
| Wit | .92 | -1.08 | .35 | -.34 |
| Humor | .75 | -1.11 | .42 | -.26 |
| Nonsense | .88 | -1.02 | -.07 | .05 |
| Irony | .95 | -1.12 | -.10 | .10 |
| Sarcasm | .97 | -.91 | -.52 | .35 |
| Satire | 1.04 | -.96 | -.39 | .18 |
| Cynicism | 1.00 | -.84 | -.58 | .33 |

Notes. Cluster 1 = General comic styles endorsers, Cluster 2 = Comic styles deniers, Cluster 3 = Lighter comic styles endorsers, Cluster 4 = Darker comic styles endorsers.

Figure 1. Values of each comic style in the four comic styles clusters



Note. Cluster 1 = General comic styles endorsers, Cluster 2 = Comic styles deniers, Cluster 3 = Lighter comic styles endorsers, Cluster 4 = Darker comic styles endorsers.

General comic styles endorsers were above average on openness to experience, extraversion, katagelasticism, gelotophilia, below average on honesty-humility, emotionality, agreeableness but were close to mean on conscientiousness, and gelotophobia. Comic styles deniers were above average on emotionality, honesty-humility, and conscientiousness, below average on extraversion, openness to experience, gelotophilia and katagelasticism but were close to average on agreeableness, and gelotophobia. Lighter comic styles endorsers were above average on honesty-humility, agreeableness, extraversion, openness to experience, and gelotophilia, below average on gelotophobia, and katagelasticism but were close to mean on emotionality, and conscientiousness. Darker comic styles endorsers were above average on gelotophobia, and katagelasticism, below average on extraversion, openness to experience, honesty-humility, agreeableness, conscientiousness and gelotophilia but were close to average on emotionality.

3.3. Comic styles clusters comparisons

According to the results, there were significant differences between the four comic styles clusters in personality dimensions of the HEXACO model, and in three dispositions towards ridicule and being laughed at. See table 2 for more details.

Table 3. Mean z scores on each HEXACO dimension and Pho, Phi, Kat for each comic styles cluster and one-way Anova comparisons of clusters with post-hoc tests

| | Cluster 1 | | Cluster 2 | | Cluster 3 | | Cluster 4 | | F (3,595) | Scheffe`s test |
|------------|-----------|------|-----------|------|-----------|------|-----------|------|-----------|--------------------------|
| | M | SD | M | SD | M | SD | M | SD | | |
| H | -.36 | 1.14 | .18 | .98 | .41 | .84 | -.23 | .86 | 21.79** | (3,2) > (4,1) |
| E | -.34 | 1.01 | .28 | .91 | .07 | .98 | .01 | 1.00 | 9.31** | (2,3,4) > 1 |
| X | .20 | 1.01 | -.17 | .97 | .34 | .94 | -.38 | .91 | 19.24** | (3,1) > (2,4) |
| A | -.18 | 1.10 | -.04 | .96 | .40 | .92 | -.22 | .90 | 14.23** | 3 > (2,1,4) |
| C | -.10 | 1.07 | .15 | .89 | .10 | .99 | -.12 | 1.01 | 2.80* | 2,3,1,4 |
| O | .25 | 1.06 | -.14 | .95 | .13 | 1.00 | -.24 | .92 | 8.35** | (1,3) > (3,2) > (2,4) |
| Pho | -.07 | .95 | .01 | 1.04 | -.39 | .95 | .42 | .91 | 20.53** | 4 > (2,1) > 3 |
| Phi | .73 | .80 | -.85 | .94 | .25 | .81 | -.25 | .82 | 86.29** | 1 > 3 > 4 > 2 |
| Kat | .78 | .95 | -.70 | .80 | -.42 | .73 | .25 | .85 | 88.34** | 1 > 4 > 3 > 2 |

Note. N₁ = 141 (Cluster 1 = General comic styles endorsers), N₂ = 119 (Cluster 2 = Comic styles deniers), N₃ = 167 (Cluster 3 = Lighter comic styles endorsers), N₄ = 172 (Cluster 4 = Darker comic styles endorsers), M = Mean, SD = Standard Deviation, H = honesty-humility, E = emotionality, X = extraversion, A = agreeableness, C = conscientiousness, O = openness to experience, Pho = gelotophobia, Phi = gelotophilia, Kat = katagelasticism.

** p ≤ .01 * p ≤ .05

General comic styles endorsers scored significantly higher than the other three clusters on gelotophilia, and katagelasticism. They also obtained the highest score on openness to experience, however, there was no significant difference between them and the lighter comic styles endorsers. General comic styles endorsers also scored significantly lower than the other clusters on emotionality, and honesty-humility. However, in honesty-humility there was no significant difference between them and the darker comic styles endorsers.

Comic styles deniers obtained the highest scores on emotionality and conscientiousness, however, they didn't differ significantly from other clusters. They also scored significantly lower than other clusters on gelotophilia and katagelasticism.

Lighter comic styles endorsers scored significantly higher than other clusters on agreeableness, and significantly lower on gelotophobia. They also obtained the highest score on honesty-humility (however, they didn't differ from comic style deniers) and extraversion (however, they didn't differ from general comic styles endorsers).

Darker comic styles endorsers scored significantly higher than other clusters on gelotophobia. They also obtained the lowest scores on extraversion (no difference from comic styles deniers), agreeableness (no difference from general comic styles endorsers, and comic style deniers), and openness to experience (no difference from comic styles deniers).

4. Discussion

This is the first study, at least to our knowledge, which used cluster analysis on the eight comic styles. It also aimed to compare comic styles cluster in the dimensions of the HEXACO personality model and in the three dispositions towards ridicule. In our study we identified four comic styles clusters: 1) General comic styles endorsers – above average on all comic styles; 2) Comic styles deniers – below average on all comic styles; 3) Lighter comic styles endorsers - above average on fun, wit, and humor, average on nonsense and irony, and below average on sarcasm, satire, and cynicism; and finally 4) Darker comic styles endorsers - above average on sarcasm, satire, and cynicism, average on nonsense and irony, and below average on fun, wit, and humor.

Lighter comic styles endorsers (Cluster 3) utilized less nonsense in comparison with other three lighter styles and also used more irony than other three darker styles. On the other hand, darker comic styles endorsers used irony less in comparison with other three darker styles and also used nonsense more than other three lighter styles. Utilizing average levels of irony (mostly in the form of self-irony) in combination with above average usage of lighter comic styles (as in the cluster of Lighter comic styles endorsers) seems to do no harm, however, further research is needed to test this assumption.

General comic styles endorsers were open to experiences, emotionally stable but low on honesty-humility. This is in line with the results of the previous research (Dionigi et al., 2022a; Ruch et al., 2018a) which showed the positive relation of openness to experience (or culture) to all eight comic styles. The relationship between emotional stability and comic styles in the previous research was different in comparison to the current study. Ruch et al. (2018a) showed positive relationship of emotional stability with positive comic styles and satire, however, not with irony, sarcasm, and cynicism. Dionigi et al. (2022a) proved the connection of low neuroticism (e.g., emotional stability) with two comic styles (humor and wit). Moreover, there was a positive correlation of neuroticism with sarcasm and cynicism while other comic styles were not related to neuroticism. The new knowledge shows that general comic endorsers were low on honesty-humility. According to Lee & Ashton (2012) those low on this scale flatter others to get what they want. In this case, they want to laugh, and they don't matter the costs of this laughter.

It is not surprising that general comic styles endorsers scored high on gelotophilia and katagelasticism as they utilized all eight comic styles above average. Moreover, they did it without taking into consideration whether those comic styles were lighter or darker or whether they were doing good or bad. They were simply enjoying humor regardless the target of the joke: it could be they (gelotophilia) or others (katagelasticism).

Comic styles deniers were conscientious, which is in line with previous research. Ruch et al. (2018a) showed negative correlation of conscientiousness with comic styles (with the exception of irony). The results of Dionigi et al. (2022a) were similar with the exception of humor, wit, satire, and sarcasm. The members of this cluster were the opposite of the members of the previous cluster (general comic styles endorsers), they are emotionally unstable, they also didn't enjoy laughing at themselves (gelotophilia) and laughing at others (katagelasticism).

Lighter comic styles endorsers were extraverted, which is in line with the previous research (Dionigi et al., 2022a; Ruch et al., 2018a, 2018b) that had shown the positive correlation between extraversion and lighter comic styles. Members of this cluster were also agreeable, which is not in line with results of previous studies. Studies had shown a single positive correlation between agreeableness and lighter comic styles, in case of Ruch et al. (2018a) it was humor and in case of Dionigi et al. (2022a) it was fun. The addition of this study was that lighter comic styles endorsers are honest and humble. They utilize humor when they are sure it will not be harmful to others. In other words, they will rather not use humor to prevent hurting others. Lighter comic styles endorsers were also not afraid of being laughed at (gelotophobia).

Darker comic styles endorsers were not agreeable, which is in line with the previous studies. Both studies (Dionigi et al., 2022a; Ruch et al., 2018a) showed the negative correlation between agreeableness and darker humor styles. The members of this cluster were also introverted, which is not in line with RISU 6(2) (2023), pp. 76-91

the previous research which showed the positive correlation of extraversion with irony and satire. (darker comic styles) (Dionigi et al., 2022a; Ruch et al., 2018a). They were also afraid of being laughed at (gelotophobia). This is the most interesting result of this study since it does not correspond with our assumptions. We expected that the comic styles deniers would be more prone to gelotophobia than other clusters. However, according to our results, darker comic styles endorsers are those who are more prone to gelotophobia than other clusters. It seems that engaging in darker comic styles (satire, sarcasm, cynicism) is more linked to gelotophobia (the fear of being laughed at) than not using comic styles at all. Titze (2007) recommends the use of humor in the psychotherapy of gelotophobia in the form of humordrama. We suggest that only positive humor styles and lighter comic styles should be utilized as the effect of darker comic style could be the opposite of what is expected from psychotherapy and it could be detrimental to gelotophobia.

The current study has several limitations. The results are based on the self-rating questionnaires. Also, there were almost three times more women than men in the sample. We recommend utilizing peer-rating questionnaires for further research. We also recommend replicating the findings of this study in countries with different cultural background than Slovakia. Furthermore, to add new knowledge we suggest other personality measures should be utilized: e.g. broad personality approaches (e.g., HEXACO facets or lower-level Big Five) and other traits (e.g., creativity, resilience, mindfulness).

To conclude, this is the first study which utilized typological approach on comic styles in relation to personality dimensions and dimensions towards ridicule and being laughed at. There were four comic styles types: general comic styles endorsers, comic styles deniers, lighter comic styles endorsers, and darker comic styles endorsers. Each comic styles cluster showed different patterns based on six dimensions of the HEXACO personality model and three dispositions towards ridicule and being laughed at. Further research is warranted.

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Compliance with Ethical Standards

All participants of this study signed the informed consent. All procedures realized in this study were in accordance with the ethical standards of the institutional and national research committee and also with the 1964 Helsinki declaration and its later amendments.

Declaration of competing interest

None.

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Bionote

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