

Original Papers

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The assessment of the fear of being laughed at in Poland: Translation and first evaluation of the Polish GELOPH<15>

The main aim of the paper was to translate and, for the first time, evaluate the Polish GELOPH<15>. This is a 15-item questionnaire for the subjective assessment of gelotophobia, the fear of being laughed at. Gelotophobia is seen as an individual differences phenomenon at a sub-clinical level. The psychometric properties of the Polish version were tested in two independently collected samples with a total N of 506 participants. The Polish GELOPH<15> yielded good psychometric properties in terms of high reliability in both samples. The fear of being laughed at existed widely independently from the participants' age, sex, or marital status (being married or living with a partner vs. being single or not living with a partner). The Polish GELOPH<15> can be seen as a reliable instrument for the subjective assessment of gelotophobia for research and practical applications.

Keywords: *fear of being laughed at, test adaptation, gelotophobia, laughter, humor*

Introduction

Though studying humor is not in the mainstream of research in psychology, a noticeable interest in the field can be observed since the seventies (see Chapman & Foot, 1977; Goldstein & McGhee, 1972; Martin, 2007; McGhee, & Goldstein, 1983; Ruch, 2004a; Ruch, 2008). However, most of the research in humor focuses on its positive aspects. Comparatively few efforts have been made in examining the dark side of humor or its negative aspects. Most people experience humor and laughter as positive cues—as an expression of positive emotions. Typically, laughter elicits positive responses in others and they enjoy sharing common laughter. In recent time, much effort has been spent on the effect that being laughed at has on people (for an overview see Proyer & Ruch, 2010; Ruch, 2009). Laughing at and not with someone can be quite harmful. Studies also suggest that laughing at someone has an impact on other persons (bystanders) and not only on the person that has been laughed at or has been ridiculed (Janes

& Olson, 2000). Ruch and Proyer (2008a, 2008b) were the first to study gelotophobia (the fear of being laughed at) empirically as an individual differences variable that characterizes the degree to which people fear being laughed at by others.

First observations on gelotophobia stem from clinical practice (see Titze (2009) for an overview). The German therapist Michael Titze observed among his patients a subgroup that seemed to be particularly concerned with being laughed at. Despite the fact they had different diagnoses they expressed the conviction of being ridiculous and therefore being laughed at for a good reason. They described an almost paranoid sensitivity towards the laughter by others and tended to direct this laughter at themselves. He coined the term *gelotophobia* from the Greek term “*gelos*” for laughter and “*phobia*” for fear for describing these persons. Thus, gelotophobia is defined as the fear of being laughed at.

Gelotophobes are characterized by negative reactions towards laughter. Typically, they experience laughter

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and smiling from their interaction partners as something negative and as a means to put them down. They were also found to be observant in presence of other people and get easily suspicious while hearing laughter from others. They misattribute the laughter from others regarding themselves without having an objective reason for doing so (e.g., when being in a restaurant and hearing someone laughing at a different table; or when passing by strangers that incidentally laugh; see also Ruch, Altfreder, & Proyer, 2009). Titze argues that gelotophobes cannot experience laughter as relaxing or positive.

Empirical research on gelotophobia started in 2008 and has gained steady interest ever since. Today, more than forty studies have been published that examine the fear of being laughed at empirically and from a theoretical point of view. However, the first empirical study on the fear of being laughed at (Ruch & Proyer, 2008a) was based in a clinical realm. There, a group of clinically diagnosed gelotophobes were separated by means of a self-report measure from groups of shame-based and non-shame based neurotics (see Nathanson, 1992) and normal controls. The clinical diagnosis of gelotophobia "was based on the fact that (a) the respective shame experiences were not restricted to objective causes in circumscribed areas of life; (b) the shame experiences were connected with a (poor) self-evaluation which, regularly, could be reinforced by those social encounters where laughing or smiling is included; (c) that the respective patient showed a restrained (stiff) posture, combined with awkward movements, gaze aversion and other forms of inappropriate behavior" (p. 55; Ruch & Proyer, 2008a). However, as the clinical diagnosis is not economical in many cases, the interest soon shifted to a questionnaire-based assessment. This study used a longer pre-form of the GELOPH<15>, which is nowadays the standard instrument for the subjective assessment of gelotophobia (Ruch & Proyer, 2008b). It was shown that the items which yielded the highest discriminant validity focused on the core symptoms of gelotophobia, for example, getting suspicious when hearing others laughing, relating the laughter by others to oneself, or feeling unease when hearing others laughing that might impair body control (Ruch & Proyer, 2008a). This led to the initial idea of gelotophobia as a clinical phenomenon with a pathological component.

Based on these results, Ruch and Proyer (2008b) developed an economical 15-item questionnaire for the assessment of gelotophobia (the GELOPH<15>) that contains the core items of the concept only. Ruch and Proyer derived cut-off points that indicate different expressions of the fear of being laughed at. Based on the mean scores in the GELOPH<15>, it is possible to distinguish between no gelotophobia (mean scores < 2.50), slight expressions (≥ 2.50), pronounced expressions (≥ 3.00), and extreme expressions (≥ 3.50). Ruch (2009) later argued that for

some analyses the usage of a borderline category with mean scores between 2.00 and < 2.50 is fruitful as well (see also Ruch et al., 2009). The rationale behind the cut-off scores was threefold. The criteria used were: (1) the answer format of the questionnaire (the scale mid point is 2.50 and a person with this score has agreed to at least half of the items); (2) a score of two standard deviations above the mean in the group of normal controls (Ruch & Proyer (2008b) worked with a group of normal controls and clinically diagnosed gelotophobes and two other groups); and (3) the score at which the distribution curves of normal controls and diagnosed gelotophobes intersected. These three criteria converged very well and therefore the cut-off of 2.50 was applied.

The application of these cut-off scores showed that persons from non-clinical groups exceeded them as well. Thus, Ruch and Proyer concluded that gelotophobia is of relevance in non-clinical populations as well and suggested that the fear of being laughed at should be interpreted as an individual differences phenomenon at a sub-clinical level that ranges on a continuum from low to high (extreme) fear. Only extreme expressions might be associated with pathology while lower expressions are defined in the range of normality. Most of the research ever since has been conducted in non-clinical settings (see Ruch (2009) and Proyer & Ruch (2010) for an overview). Nevertheless, a few studies been conducted in a clinical realm (Forabosco, Ruch, & Nucera, 2009; Samson, Huber, & Ruch (in press)).

There is a broad range of evidence for the validity of gelotophobia. For example, there is experimental evidence (e.g., Ruch et al., 2009; Samson & Meyer, 2010), or there are studies using alternative measures such as scenario-tests (Platt, 2008; Platt & Ruch, 2009), or semi-projective tests (Ruch et al., 2009). Gelotophobia can be located well in current models of personality (Hrebícková, Ficková, Klementová, Ruch, & Proyer, 2009; Proyer & Ruch, 2010; Rawlings, Tham, & Milner Davis, 2010; Ruch & Proyer, 2009a; Ruch, Proyer, & Popa, 2008), has been studied in relation to emotional responses to incidents of being laughed at (Papousek et al., 2009; Platt, 2008; Platt & Ruch, 2009; Proyer, Platt, & Ruch, 2010), in relation to self-presentation styles (Radomska & Tomczak, 2010; Renner & Heydasch, 2010), in relation to positive psychological functioning (Proyer & Ruch, 2009; Proyer, Ruch, & Chen, in press; Samson, Proyer, Ceschi, Pedrini, & Ruch, in press), or from a life-span developmental perspective (Platt & Ruch, 2010; Platt, Ruch, & Proyer, 2010).

Gelotophobia shares similarities with social phobia. However, it is argued that it still is a non-overlapping trait. When correlating measures of social phobia and gelotophobia, typically a strong relation is found (see Carretero-Dios, Ruch, Agudelo, Platt, & Proyer, 2010; Edwards, Martin, & Dozois, 2010) while gelotophobia

Causes

Infancy: development of primary shame failure to develop an interpersonal bridge (i.e., failing infant-caretaker interactions)

childhood & youth: repeated traumatic experience of not being taken seriously (being laughed at/ridiculed) (e.g., bullying)

adulthood: intense traumatic experience of being laughed at or ridiculed (e.g., mobbing)

Consequences

social withdrawal to avoid being laughed at / ridiculed

appear "cold as ice" / humorless

low self-esteem, low social competences

Psychosomatic disturbances
blushing, tension headache, trembling, dizziness, sleep disturbances

"Pinocchio-Syndrome": congeal, clumsy, "agelotic" face, "wooden puppet"

lack of liveliness, spontaneity, joy

Humor/laughter are not relaxing & joyful social experiences

Figure 1. A model of the putative causes and consequences of Gelotophobia as proposed by Titze (Ruch 2004b).

does not seem to be related to specific fears (relating to death/illness/injury, animals, or situations; see Edwards et al., 2010). Summarizing these results, one might say that gelotophobia relates robustly to social phobia but has distinct characteristics. In a psychometric study, Carretero-Dios, Ruch et al. (2010) conducted a joint exploratory factor analysis and an confirmatory factor analysis for the items of the *GELOPH<15>* (Ruch & Proyer, 2008b) and Watson and Friend's (1969) *Fear of Negative Evaluation and Social Anxiety and Distress Scale*. They found three distinct factors that could clearly be labeled as gelotophobia, fear of negative evaluation and social anxiety and distress. Thus, despite high direct correlations the fear of being laughed at cannot be fully explained by measures of social phobia.

The origins of gelotophobia are somewhat unclear at the moment. In his theoretical papers, Titze traced it back to repeated and intense experiences of having been laughed at in the past (see Titze, 2009 for an overview). Based on Titze's case reports, Ruch (2004b) described the following model of causes and consequences of gelotophobia (see Figure 1).

Figure 1 shows that Titze argues that in infancy, the infant-caretaker(s) relationship is impaired. He traces gelotophobia back to intense, repeated, and traumatic experiences of being laughed at or being ridiculed. Potential consequences of the fear of being laughed at are quite diverse. They might range from low self-esteem and low social competences, social withdrawal, to lack of liveliness, psychosomatic disturbances, or the inability to appreciate laughter and smiling as joyful social experiences. It has to be highlighted that Titze's ideas are based on case-observations from clinical practice. Thus, they are theoretical and have

not yet been fully tested empirically. There has not yet been a complete test of the model. However, the results of initial studies are mixed, and partially there is empirical evidence that even contradicts some of the assumptions. For example, clinically diagnosed gelotophobes did not remember more incidents of having been laughed at in childhood and youth than normal controls (Ruch, Proyer, & Ventis, 2010). However, a recent study showed that gelotophobes recollect incidents of having been laughed at with a high intensity of feelings (Proyer, Hempelmann, & Ruch, 2009; see also Edwards et al., 2010).

An important application of research on the fear of being laughed at lies in studies on bullying and how people deal with incidents of having been laughed at. Platt, Proyer, and Ruch (2009) demonstrated that the expression of gelotophobia was a very potent predictor of remembered incidents of having been bullied. There, gelotophobes were shown to misattribute non-hostile jokes, comments, or playful teasing among colleagues as offensive because of their extreme fear of being laughed at. Führ (2010) provided data on bullying and gelotophobia in Danish children and adolescents. His results converge very well with those of adults.

Gelotophobia in Poland

Although Poland is an individualist culture, whose members are characterized by an independent-self, there are premises which entitle one to suppose that the expression of gelotophobia will be considerable. According to Davies (2009), the fear of being laughed at is evoked by the hierarchical social structure, in which individuals situated at lower rungs experience gelotophobia. In the

conception of Hofstede (2001, 2005), *Power Distance Index (PDI)* is the dimension of culture which reflects the extent to which its members tend to maintain differences in status and privileges. The influence of *PDI*, which potentially differentiates the expression of fear of being laughed at, was suggested by Führ, Proyer & Ruch (2009). Meanwhile, Hofstede's research (2001, 2005) has shown a relatively high *PDI* for Poland (68; ranking 27/29 out of 74 countries). Its markers include the honorific terms of address in Polish, such as "Panie Dyrektorze" (Mr Director) or "Pani Kwestor" (Mrs Bursar), which display hierarchy in communication (Boski, 2009).

As Davies (2009) and Ruch and Proyer (2008b) claim, the degree of social control is also of high significance for gelotophobia. According to Hofstede (2001, 2005), its level is higher in English e.g. in countries with a higher *Uncertainty Avoidance Index (UAI)*. Social control is a form of defense against the sense of threat induced by new, unknown situations, which implies intolerance of rule violations, norms breaking, and living "beyond" the binding regulations. Each behavior which departs from generally accepted standards is penalized. Hofstede's research (2001, 2005) indicates that Poland ranks high (9/10 out of 74 countries included in the ranking) on the *UAI* scale, obtaining the index of 93. Uncertainty avoidance markers include religious commitment of the Poles—Guiso, Sapienza & Zingales (2003) concluded that Poland ranked second after Ireland in Sunday mass attendance (the average among the investigated countries being 25%). In the opinion of Hofstede (2001, 2005; cf. also Boski, 2009), Catholicism "imposes" dogmas and authority, forces unquestionable respect for the doctrine, and does not leave any room for hesitations and doubts.

Previous research has shown that gelotophobia is accompanied by introversion and neuroticism (Hrebícková et al., 2009; Rawlings et al., 2010; Ruch and Proyer, 2009a; Ruch et al., 2008). That is why, according to Führ and colleagues (2009), the nationally diversified expression of those features may be of significance for the degree of "prevalence" of the fear of being laughed at. Meanwhile the research into "personality profiles of cultures" (McCrae et al., 2005; cf. also Boski, 2009) has shown that Poles tend to be characterized by introversion and high neuroticism. Their profile seems to predispose Poles to react to criticism with fear and decrease in self-esteem.

Finally, according to Davies (2009; cf. also Ruch, 2009), the high level of gelotophobia is accompanied by preferences for values typical of collectivist cultures, such as conformity, obedience and interpersonal harmony. Although, as mentioned above, Poland is an individualist country, but in the research on values as attributes of particular nations (Schwartz, 2004) it obtained the results higher than the world average in the dimensions of embeddedness (conformity, social order, respect for tradition), harmony

and hierarchy (power). Thus gelotophobia in Poland can be expected to be prevalent relative to the extent the above values are appreciated.

The first studies on gelotophobia were conducted in the German language area. Meanwhile the psychometric properties of the GELOPH<15> were published in several translations and adaptations; i.e., *Arabic* (Kazarian, Ruch, & Proyer, 2009), *Chinese* (Chen, Chan, Ruch, & Proyer, in press), *Czech* (Hrebícková et al., 2009), *Danish* (Führ et al., 2009), *English* (Platt et al., 2009), *French* (Samson, Thibault, Proyer, & Ruch, in press), *Hebrew* (Sarid, Ruch & Proyer, in press), *Italian* (Forabosco, Dore, Ruch, & Proyer, 2009), *Romanian* (Ruch et al., 2008), *Slovakian* (Hrebícková et al., 2009), and *Spanish* (Carretero-Dios, Proyer, Ruch, & Rubio, 2010).

Aims of the present study

The aim of the present study was threefold. Firstly, the psychometric properties of the gelotophobia scale in the Polish translation were examined by means of reliability analyses and factor analyses. All results were compared with the original German form (Ruch & Proyer, 2008b). Furthermore, each item and the total score were correlated with age, sex, and the marital status (being in a relationship vs. not being in relationship) for testing the influence of demographics. In Ruch and Proyer (2008b) gelotophobia existed widely independently from demographics. Overall, the Polish version can be recommended for the use in research and practice if the psychometric properties are comparable to those of the original version. Secondly, data was collected independently from two different regions within Poland. The two samples are used separately (one for the replication of the findings) but also as a total score. If the stability of the findings across the two samples is provided, the Polish version can be recommended for the use for research purposes. Thirdly, the relevance of single items in terms of low vs. high agreements in each sample was evaluated. This allows a more qualitative description of important contents for the respective samples. Thus, it provides information on what items get endorsed exceedingly in the Polish samples. Finally, the cut-off scores by Ruch and Proyer (2008b) will be applied for testing how many people exceed the threshold for at least a slight expression of gelotophobia in Poland.

Method

Sample

Sample 1. A sample of $N = 244$ adults completed the GELOPH<15>. Their mean age was 26.58 years ($SD = 10.25$) with an age span of 18 to 69 years. 112 were males and 131 were females (one did not indicate his/her gender). 192 were not married (single) and 52 were either married

or living together with their partner.

Sample 2. The sample consisted of $N = 262$ participants. 103 were males and 157 were females (two did not specify their gender). The mean of the age was 22.40 ($SD = 2.24$) and ranged from 19 to 39 years. 235 were not married (single) and the others ($n = 22$) were either married or living together with their partner (five did not specify their marital status).

Instrument

The GELOPH<15> (Ruch & Proyer, 2008b) is a 15-item questionnaire for the subjective assessment of gelotophobia. A sample item is "When others laugh in my presence I get suspicious". All items are positively keyed and the 4-point answer format ranges from 1 = "strongly disagree" to 4 = "strongly agree". The GELOPH<15> is the standard instrument for the subjective assessment of gelotophobia and is widely used in research (see Proyer & Ruch, 2010; Ruch, 2009). It allows computing cut-off scores for no gelotophobia (means ≤ 2.50), slight (2.50 to 2.99), marked (3.00 to 3.49), and extreme expressions (≥ 3.50). The Polish version can be found in Appendix I.

Procedure

In sample 1 the questionnaires were administered in May 2007 in four academic centers and five universities or colleges in southern Poland: Wrocław University, Opole University, Jagiellonian University in Kraków, AGH University of Science and Technology in Kraków, and Krosno State College. More specifically, the questionnaires were distributed to full-time students of Department of English at Wrocław University, Jagiellonian University and Krosno State College, students of Department of Polish of Opole University, students of Faculty of Pharmacy of the Jagiellonian University Medical College, and students of language classes from various departments of AGH University of Science and Technology. Thus the respondents were of different disciplinary backgrounds and of different origins across southern Poland. They filled in the questionnaires prior to their class in the presence of the administering person, typically although not always their course instructor, and returned them immediately afterwards. None of the respondents received any reimbursement. They were not given any feedback on how to calculate and interpret the scores.

In sample 2, questionnaires were administered in April 2007 to full-time and evening students of year 1, 2 and 3 of the Faculty of Psychology of Warsaw University after their course lecture was completed. Students filled in the questionnaires in the presence of the administering person and returned them immediately afterwards. None of the respondents received any reimbursement. However, all interested persons received feedback

information on their score together with its interpretation (by referring the result to the group average and cut-off scores proposed by Ruch and Proyer (2008b)).

Results

The reliability analysis indicated that the Polish version of the GELOPH<15> yielded a high internal consistency in both samples and in the total sample ($\alpha = .87$ for each of the samples). Mean scores and standard deviations for each item separately and a total score were computed. The items and the mean score in gelotophobia were correlated with age, sex, and marital status (being in a relationship vs. not being in a relationship) of the participants. All analyses were performed for the two samples separately and for the total sample (see Table 1).

Table 1 shows that the corrected item-total correlations ranged between .30 and .66 in both samples (*median* = .53 and .54, respectively) and was between .37 and .62 in the total sample (*median* = .55). The correlational analysis revealed that gelotophobia existed independently from demographic variables. With the exception of single items, neither age, sex, nor the marital status were related to the fear of being laughed at.

For the examination of the factorial structure (dimensionality) of the scale a principal components analysis for the 15 items was computed for the two samples separately and the total sample. In each case, the analysis revealed one strong first factor.

In sample 1, the eigenvalues were 5.54, 1.24, .98, and .94, respectively. The first factor explained 36.92% of the variance. The loadings of the items on the first factor ranged between .35 (item 14) and .74 (item 5). The median of the loading on the first factor was .62. Results for sample 2 were highly similar. Here, the eigenvalues were 5.52, .98, and .87, respectively. The first factor explained 36.94% of the variance. The loadings of the items on the first factor ranged between .44 (item 7) and .70 (item 5). The median of the loading on the first factor was .61. Finally, the analysis was repeated with the total sample. In this case, the eigenvalues were 5.52, 1.15, .98, and .87, respectively. The first factor explained 36.81% of the variance. The loadings of the items on the first factor ranged between .44 (item 7) and .70 (item 5). The median of the loading on the first factor was .63. Thus, a one-dimensional factor solution described the data best and this replicated findings for the original form.

The answer categories of the questionnaire provide a possibility of estimating the relative importance of single items (symptoms). The two answer categories indicating agreement to an item (i.e., "agree" and "strongly agree") were taken together and the frequency of the endorsement to each item was computed as an indicator for the endorsement

Table 1
Descriptive Statistics, Corrected Item Total Correlations, and Correlations with Age, Gender, and Marital Status for the Polish form of the 15-item GELOPH.

	Sample 1										Sample 2										Total Sample									
	M	SD	CITC	Age	Sex	Ms	M	SD	CITC	Age	Sex	Ms	M	SD	CITC	Age	Sex	Ms	M	SD	CITC	Age	Sex	Ms						
Item 1	1.68	0.76	.54	.00	.08	.04	1.73	0.76	.46	.14*	-.03	-.02	1.71	0.76	.50	.01	.03	.01												
Item 2	1.82	0.83	.58	.00	.13*	.03	2.00	0.91	.52	-.01	.02	-.11	1.91	0.88	.55	-.03	.08	-.05												
Item 3	1.75	0.74	.60	-.12	.04	-.08	1.77	0.76	.56	.00	.09	-.02	1.76	0.75	.58	-.08	.06	-.06												
Item 4	1.41	0.64	.47	-.09	-.03	-.04	1.52	0.70	.50	-.09	-.13*	-.03	1.47	0.68	.49	-.09*	-.08	-.05												
Item 5	1.76	0.80	.66	-.16*	.08	-.06	1.79	0.77	.58	.12	10**	.03	1.78	0.78	.62	-.09*	1.22**	-.03												
Item 6	1.65	0.72	.50	-.01	.07	.02	1.66	0.83	.62	.06	.07	-.02	1.65	0.77	.56	.00	.07	.00												
Item 7	1.61	0.78	.36	-.20**	-.02	-.22**	1.75	0.83	.37	.03	-.01	.08	1.68	0.81	.37	-.15**	-.01	-.10*												
Item 8	1.31	0.62	.61	-.13*	.02	-.10	1.49	0.78	.58	.05	-.08	-.05	1.40	0.71	.60	-.10*	-.03	-.09*												
Item 9	1.86	0.86	.56	-.05	.14*	.04	2.06	0.88	.53	.03	.12	-.00	1.96	0.87	.54	-.06	1.33**	-.00												
Item 10	2.00	0.97	.59	-.16*	.32**	-.13*	2.32	0.99	.56	.02	.13*	-.10	2.17	0.99	.58	-.14**	2.22**	-.14***												
Item 11	1.77	0.79	.49	.01	.23**	.12	1.84	0.85	.40	.06	.04	.03	1.81	0.82	.44	.00	1.33**	.08												
Item 12	1.77	0.84	.60	-.14	.18**	-.03	1.71	0.80	.59	.13*	.23**	.06	1.74	0.82	.58	-.06	.20**	.01												
Item 13	1.58	0.79	.49	-.07	-.17**	-.05	1.69	0.96	.48	.01	-.12	-.05	1.64	0.88	.49	-.06	-.13**	-.06												
Item 14	1.34	0.59	.30	.03	-.13*	-.03	1.41	0.74	.49	.05	-.06	.12	1.37	0.67	.41	.01	-.09	.03												
Item 15	1.65	0.79	.53	-.06	.22**	-.07	1.69	0.77	.65	.03	.05	.07	1.67	0.78	.59	-.04	1.14**	-.02												
Total	1.66	0.47	--	-.07	.08	-.04	1.76	0.50	--	.03	.04	-.02	1.72	0.48	--	-.06	.07.	-.03												

Note. N(Sample 1) = 243-244, N(Sample 2) = 253-262, N(Total sample) = 498-506. M = mean, SD = standard deviation; CITC = corrected item-total correlation; Sex = correlation with sex (1 = males, 2 = females), Ms = correlation with marital status (1 = single; 2 = married or cohabiting with partner).

* $p < .05$, ** $p < .01$.

of specific contents in the samples. In sample 1, the average item endorsement was 14.34% and the range was between 4.51% (item 14) and 32.38% (item 10). Sample 2 yielded an average item-endorsement of 18.13% (from 9.16% for item 4 to 43.00%, item 10). Finally, in the total sample, the average item endorsement was 16.24% and the range was between 6.91% (item 14) and 37.69% (item 10).

Finally, we investigated how many gelotophobes were in the sample for a first evaluation of the prevalence of gelotophobia in Poland. Ruch and Proyer (2008b) suggested differentiating between slight, pronounced, and extreme expressions of gelotophobia. In the total sample, 7.30% of the participants exceeded the score indicating that gelotophobic symptoms apply (i.e., a mean score ≥ 2.50). 5.72% were characterized with slight and 1.38% with pronounced expressions of the fear of being laughed at. 0.20% of the participants exceeded the last cut-off score (i.e., extreme gelotophobia).

Discussion

The study reports first data on the Polish version of the GELOPH<15> from two independently collected samples. Overall, the results provide support for the reliability of the scale and its properties were highly similar to the one of the German form. Therefore, the use of the GELOPH<15> can be recommended for research and practical purposes in case empirical information on the fear of being laughed at is needed. Areas of use are not limited to research on humor(lessness) but can also extend to more applied fields, for example, to research on bullying. Platt and colleagues (2009) showed that people who claim that they have been bullied also score higher in the fear of being laughed at. This raises the questions whether some of these cause false alarms in relation to bullying incidents—for example, by misinterpreting harmless jokes or comments by colleagues or co-workers. This, however, needs to be addressed more deeply in future studies.

The study demonstrated clearly that the Polish version yielded good psychometric properties in terms of high reliability (internal consistency; $\alpha = .87$). In the total sample, slightly more than 7% exceeded the cut-off for at least a slight expression of gelotophobia. This is lower than for a German-speaking sample (11.65%, Ruch & Proyer, 2008b), a sample from Spain (11.63%, Carretero-Dios, Proyer et al., 2010) and a sample from the United Kingdom (13%, Platt et al., 2009), but comparable to an Israeli sample (6%; Sarid et al., in press), samples from the Czech Republic (6.29%) and Slovakia (6.14%; Hrebícková et al., 2009) and a Spanish speaking sample from Columbia (8.53%, Carretero-Dios, Proyer et al., 2010), and higher than in Denmark (1.61%, Führ et al., 2009). Thus, gelotophobia seems to be of relevance in Poland. It should be highlighted

again that gelotophobia is understood as an individual differences phenomenon at a sub-clinical level. Thus, it can and should be studied in non-clinical populations (as was done here). As a restriction to the comparison of the prevalence rates in different countries, it should be noted that the cut-off scores were validated in German-speaking countries and that they do not necessarily need to be applicable to other countries—though one of the criteria (i.e., 2.50 is the midpoint of the scale) seems to be universally applicable. Overall, it is assumed that they provide a good approximation of differences between countries.

As in other studies and in the original German version of the scale, a one-dimensional factor solution describes the data best. Therefore it can be concluded that, in terms of reliability and construct validity, the Polish GELOPH<15> seems to be a useful instrument for the assessment of the fear of being laughed at. As in earlier studies, gelotophobia existed independently from demographic variables. Neither age, nor sex or marital status (being in a relationship vs. not being in a relationship) were found to be related to the fear of being laughed at.

As the scientific study on gelotophobia has only started recently, many open questions are still to be addressed. For example, except for Führ (2010) not much research has been conducted on children and adolescents. It seems evident that adolescents in a time of transition between childhood and adulthood are especially prone to evaluations of the peer group and, therefore, might be especially worried about being laughed at. Furthermore, Ruch and Proyer (2009b) suggested an extension of gelotophobia by introducing gelotophilia (the joy of being laughed at) and katagelasticism (the joy of laughing at others). These dispositions towards ridicule and being laughed at allow describing different roles that people may assume in daily life. Again, bullying research might be of special interest here—for example, one might assume that katagelastacists may also be bullies while gelotophobes are expected to be the victims of bullying. Anyway, the Polish GELOPH<15> provides for the Polish speaking research community a useful and reliable instrument for research in this area.

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Appendix 1

GELOPH<15>

Kod: _____ Wiek: |_|_| Płeć: O mężczyzna O kobieta
 Stan cywilny: O jestem kawalerem/panną O jestem żonaty/zamężna O żyję w konkubinacie O żyję w separacji O jestem wdowcem/wdową

Instrukcja:

Następujące stwierdzenia odnoszą się do Twoich uczuć, działań i sposobu postrzegania rzeczywistości w sposób ogólny. Spróbuj określić swoje zwykłe zachowanie i postawę zaznaczając znakiem X jedną z czterech możliwości. Proszę skorzystaj z następującej skali:

- (1) zdecydowanie się nie zgadzam
- (2) raczej się nie zgadzam
- (3) raczej się zgadzam
- (4) zdecydowanie się zgadzam

Na przykład:

Jestem osobą wesołą.....(1) (2) (3) (4)

Jeśli zdecydowanie zgadzasz się z tym stwierdzeniem, tzn. jeśli **generalnie** jesteś osobą wesołą, zaznacz znakiem X cyfrę (4). Jeśli zdecydowanie się nie zgadzasz, tzn. jeśli **zwykle** nie jesteś w **ogóle** osobą wesołą, zaznacz znakiem X cyfrę (1). Jeśli masz trudność z odpowiedzią, wybierz odpowiedź, która **najtrafniej** cię określa.

Odpowiedz na wszystkie pytania, nie omijaj żadnego.

1.	Kiedy ludzie się śmieją w mojej obecności, staję się podejrzliwy.	(1) (2) (3) (4)
2.	Staram się unikać zwracania na siebie uwagi w miejscach publicznych, ponieważ obawiam się, że ludzie mogą zauważyc moją niepewność i żartować sobie ze mnie.	(1) (2) (3) (4)
3.	Kiedy obcy śmieją się w mojej obecności, często odnoszę ich zachowanie do siebie.	(1) (2) (3) (4)
4.	Trudno mi utrzymać kontakt wzrokowy, ponieważ obawiam się, że będę oceniany w sposób lekceważący.	(1) (2) (3) (4)
5.	Kiedy inni żartują sobie ze mnie, czuję wewnętrzny paraliż.	(1) (2) (3) (4)
6.	Mocno się kontroluję, aby nie przyciągać krytycznych uwag innych i nie rozśmieszać ich swoją osobą.	(1) (2) (3) (4)
7.	Uważam, że niechętny wywołuję u innych wrażenie śmieszności.	(1) (2) (3) (4)
8.	Chociaż często czuję się samotny, raczej nie chcę udzielać się towarzysko, aby ochronić się przed kpinami.	(1) (2) (3) (4)
9.	Kiedy raz wywołam gdzieś żenujące wrażenie, potem już unikam tego miejsca.	(1) (2) (3) (4)
10.	Gdybym nie bał się, że się wygłupię, wypowiadałbym się publicznie o wiele więcej.	(1) (2) (3) (4)
11.	Jeśli ktoś mi w przeszłości dokuczył, nie mogę już nigdy się z nim swobodnie kontaktować.	(1) (2) (3) (4)
12.	Bardzo długo mi zajmuje, żeby dojść do siebie, jeśli się ktoś ze mnie śmieje.	(1) (2) (3) (4)
13.	Kiedy tańczę, czuję się skrępowany, ponieważ jestem przekonany, że ci, którzy mnie obserwują uznają mnie za kogoś żałosnego.	(1) (2) (3) (4)
14.	Rzyko, że przyciągnę krytyczne uwagi innych i wydam im się dziwaczny, pojawia się zwłaszcza wtedy, kiedy się specjalnie nie przejmuję.	(1) (2) (3) (4)
15.	Kiedy się wygłupię przed innymi, całkowicie sztywnieję i tracę zdolność do stosownego zachowania.	(1) (2) (3) (4)

Sprawdź, czy odpowidałeś na **wszystkie** pytania