Were they really laughed at? That much? Gelotophobes and their history of perceived derisibility

RENÉ T. PROYER[1], CHRISTIAN F. HEMPELMANN[2], and
WILLIBALD RUCH[1]

Abstract

The List of Derisible Situations (LDS; Proyer et al. 2008) consists of 102 different occasions for being laughed at. They were retrieved in a corpus study and compiled into the LDS. Based on this list, information on the frequency and the intensity with which people recall being laughed at during a given time-span (12 months in this study) can be collected. An empirical study (N = 114) examined the relations between the LDS and the fear of being laughed at (gelotophobia), the joy of being laughed at (gelotophilia), and the joy of laughing at others (katagelasticism; Ruch and Proyer this issue). More than 92% of the participants recalled having been laughed at at least once over the past 12 months. Highest scores were found for experiencing an embarrassing situation, chauvinism of others or being laughed at for doing something awkward or clumsy. Gelotophobia, gelotophilia, and katagelasticism were related about equally to the recalled frequency of events of being laughed at (with the lowest relation to katagelasticism). Gelotophobia, gelotophilia, and katagelasticism yielded a distinct and plausible pattern of correlations to the frequency of events of being laughed at. Gelotophobes recalled the situations of being laughed at with a higher intensity than others. Thus, the fear of being laughed at exists to a large degree independently from actual experiences of being laughed at, but is related to a higher intensity with which these events are experienced.

Keywords: Corpus study; gelotophilia; gelotophobia; humor; katagelasticism; laughing at.

1. Introduction

In a variety of disciplines (e.g., philosophy, psychology, anthropology, ethology), theoretical accounts emphasize the *laughing at* aspect of humor. Relevant terms (e.g., to deride, mock, ridicule) are available to describe these phenomena with different degrees of overtness in aggression (e.g., satire, irony, sarcasm, mockery) and have been introduced as objects of study by humor scholars. Theoretical accounts known as superiority theory, disparagement theory, etc. (Zillmann 1983; see Martin 2007) describe why and how people enjoy laughing at the infirmities or inferiorities of others. However, incongruity theory would also predict that actions, physical appearance, attitudes etc. of humans deviating from expectations might induce laughter in others, just by the sheer fact that they are unexpected or not fitting. Also, when unexpected things happen to a person, these mishaps and blunders might be funny to the bystanders. In such cases the laughing person might report to consciously enjoy the mishap or shortcoming (and say, for example, that the objects of their ridicule "deserve" it), or enjoy the humor of the event and still sympathize with the person who happened to be the object of laughter. Interestingly, the study by Janes and Olsen (2000) suggested that witnessing other persons being mocked led to consequences in the observer too (e.g., behavior inhibition, enhanced conformity and reduced creativity).

It has been claimed that repeated experiences of being laughed at were involved in the initialization of gelotophobia. Early single-case studies (Titze this issue) suggested that these early and repeated experiences lead to permanent consequences in terms of developing gelotophobic symptoms. This assumption was only partially supported in a first empirical study (Ruch et al. 2008) and will be investigated further. Independent of that, there is the question of what role having been laughed at plays for gelotophobes in their current life. Of course, having been laughed at in childhood and youth does not necessarily imply that people get laughed at (frequently, repeatedly, intensively, and so forth) as *adults* as well. However, gelotophobes might observe others getting ridiculed. Or, social withdrawal as a consequence of gelotophobia might prevent them from getting ridiculed. However, one might also assume that prevailing events of being laughed at are involved in the perpetuation of gelotophobia.

Several hypotheses can set up that examine why gelotophobes are laughed at. First, there is the assumption that repeated traumatic events of being laughed at in childhood and youth (e.g., bullying by classmates

or ridicule by parents and/or teachers) form the origin of this fear. Ruch and Proyer (2008a) suggested that there might be two distinct groups of gelotophobes. One group, coined ''realistic gelotophobes,'' are people who experience a high incidence of being laughed at in their everyday life. Thus, they fear the very mockery that they indeed had to endure on a regular basis. It might well be that these individuals still get laughed at more frequently, either for the same, enduring, reasons, or new ones, for example, due to some obvious deviation from presumed norms and being perceived to be different (e.g., in terms of physical appearance or behavior) because of the thoughtlessness or maliciousness on the part of the laugher (the *katagelasticist*; see Ruch and Proyer this issue) they might actually get laughed at more frequently still today.

Second, Titze's theorizing allows for a further hypothesis valid for all gelotophobes (and not only the subgroup of ''realistic gelotophobes''). Titze describes that as adults, gelotophobes try to act inconspicuously in social situations and thereby involuntarily give the impression of being funny or peculiar. In particular, they try to control their movements, which in turn leads to peculiar behavior that is perceived as strange or funny by others. This behavior can become a continuous elicitor of derision. In fact, being convinced of making an involuntarily funny impression on others was one of the criteria Titze used for diagnosing gelotophobia in patients (see Ruch and Proyer 2008a). Thus, gelotophobes might report being laughed at more frequently due to their general appearance, behavior, and movements. On the other hand, they might actually not know the reason at all, a point to which we will return below.

The various consequences of gelotophobia might also form a third basis for being laughed at. Gelotophobes are said to have lower self-esteem, low social competence, as well as lack of liveliness, spontaneity, or joy compared to those with no fear of being laughed at. There is empirical evidence that these consequences do actually occur among gelotophobes; e.g., they underestimate their humorous creativity and their intellectual abilities (Ruch et al. this issue; Proyer and Ruch this issue) or they report lower life satisfaction, and lower hedonistic or flow-related activities than non-gelotophobes (Proyer et al. forthcoming). Some of these symptoms might be causes for derision.

The fourth type of prediction assumes the existence of ''pure gelotophobes.'' Ruch and Proyer (2008a) suggested that some gelotophobes actually might experience a low frequency of ridicule but are nevertheless afraid of appearing ridiculous and getting laughed at. Thus, they fear

something that does not actually currently happen to them or only happens on rare occasions and they are irrational since their fear of being laughed at does not have a real cause. Platt (2008) recently showed that gelotophobes did not discriminate well between ridicule and playful teasing. For them all kinds of laughter are aggressive laughter. Thus, pure gelotophobes might be prone to misinterpretations of harmless situations. For example, one might think of harmless jokes or pranks by colleagues in the workplace, which gelotophobes wrongly interpret as mean-spirited. Thus, it might well be that gelotophobes report being laughed at while actually no derision or ridicule was intended at all.

A fifth hypothesis could be that gelotophobes are very observant of what happens in their environment and that these close observations of everyday situations and events might lead to a higher detection of actual events of being laughed at. Those without a fear of being laughed at might screen their interaction partners less often for signs of ridiculing them and hence not catch such events. Or, they would perceive an instance of laughter but not laughter directed at them. Likewise, they might forget about such events more quickly than gelotophobes and thus report having experienced fewer such events.

Finally, it might well be that gelotophobes do not really provide more reasons to be laughed at but they experience each of the occurring events as more painful. In this case, the crucial point would be the intensity with which gelotophobes experience the occurrences of being laughed at. So far little is known about how frequently and intensively gelotophobes actually experience being laughed at. It might be possible that gelotophobes do not experience a lot of situations in which they get laughed at, but they fear fantasies or the anticipation of such situations.

Ruch and Proyer (this issue) introduced two complementary concepts of gelotophobia: *gelotophilia* (the joy of being laughed at) and the joy of laughing at others (*katagelasticism*; based on the Greek verb for 'laughing at' = *katagelao*). There is no empirical data on their relations to the frequency and intensity of events of being laughed at yet. However, based on theoretical considerations it is expected that gelotophilia will be related to frequent experiences of being laughed at as gelotophiles should voluntarily seek situations in which they can make others laugh at them in their daily life.

Little can be said about the katagelasticists. On the one hand, one might argue that they do not get laughed at often because others fear their reaction (i.e., making them the butt of jokes). On the other hand,

one might argue that they are people who like to make others laugh at themselves but also like making fun of others. The most likely expectation, however, would be that they enjoy dishing it out but also have to deal with the reactions to that. It remains speculative whether gelotophobes, gelotophiles, and katagelasticists get laughed at for *different* reasons. For example, it does not seem to be reasonable that all gelotophobes show specific bodily features (e.g., obesity, microsomia, macrosomia, etc.) and get specifically laughed at for these instances. Hence it will also be necessary to consider categories.

1.1. *Frequency and intensity of people get laughed at*

While there are theoretical accounts of ridicule and laughing at someone, little effort has been made to actually collect and classify what leads to someone getting laughed at. What are the most common features that are the cause for people to get laughed at? What makes one the object of ridicule most often? At first glance it appears that such an undertaking is futile as there are innumerable ways in which we might deviate from expectations, or social and statistical norms. There are innumerable ways in which we can make fools of ourselves and many ways in which to get affected by accidents, get involved in mishaps, blunders and slips of the tongue. Nevertheless, at a more global level the occasions for being laughed at seem to recur and are not endlessly varied. What is needed then is a representative list of real life events that can be classified on a rational and reliable basis. Once a comprehensive list is compiled, one can study which of those events of being laughed at actually happened to gelotophobes.

Several approaches to obtaining such a list of occasions for getting laughed at offer themselves. One method would be to derive theoretically-relevant categories (personal infirmity, mishaps etc.) and to then generate prototypical situations. Another one would be to survey a larger group of individuals and ask them to recall the reasons for which they were laughed at recently or in the distant past. A more elegant way might be to consult written corpora and screen them for keywords referring to "laughing at." This is a more economical way by consulting written records of what actually happened to people when they got laughed at and might help to get a more representative set of reasons why people got laughed at. These records seemed to be best suited for the clarification of

the present research questions as they are taken from the experiential world of people. Thus, it is a reasonable hypothesis that information on the frequency with which gelotophobes, gelotophiles, and katagelasticists get laughed at can be best retrieved by studying exactly these documented real-life events. If none of these occasions apply and gelotophobes do not recall having been laughed at frequently and intensively it might be that their prime concern is being laughed at for different reasons than the ones that are real-life events. In this case, misperceived and imagined events might be more important for the development and/or maintenance of gelotophobia.

A linguistic method taking language from actual contexts in order to identify word senses that are semantically related to specific other word senses in those contexts — rather than just collecting lexical items from dictionaries — is the corpus study. Different corpora (such as one of the Institute of German Language "Institut für deutsche Sprache," in Mannheim, Germany) for many languages have been compiled from large sources of written records (e.g., newspaper reports), but also transcribed spoken text. Based on these sources it is possible to identify occasions for being laughed at that actually occur in the everyday life of people (real-life events).

The aim of this approach is to derive a comprehensive list of the most relevant instances for being laughed at in everyday life (a "List of Derisible Situations," LDS). People may get laughed at for those instances at different *frequencies* and (perceived) *intensities*, hence those two criteria need to be considered in this context. The *intensity* might relate to the objective intensity of the mockery but also to the perceived intensity. The *frequency* with which people experience an event type might also contribute to the fear of being laughed at. For instance, the more and the more diverse people engage in the mockery the more likely it is that the target indeed will take over the perspective of the katagelasticist and believe that those are right. Likewise, if the mockery is only imagined (because gelotophobes are convinced they are ridiculous), then they will see that event happening more frequently as well.

1.2. *Aims of the present study*

The present study has three objectives. First, we conducted a survey of the frequency with which people recall having been laughed at (for

single occurrences and broader categories). Second, we examined whether gelotophobia, gelotophilia, and katagelasticism were related to a broad variety of instances for being laughed at or limited to a few specific instances only. In this context, we examined whether there were similarities among the three concepts for certain groups of events in the LDS. Third, gelotophobia, gelotophilia, and katagelasticism were correlated to the frequency and intensity of the recalled events of being laughed at.

2. Method

2.1. *Research participants*

The sample consisted of $N = 114$ participants (21 males and 93 females). The age of the participants ranged from 18 to 80 with a mean age of $M = 32.71$ years ($SD = 14.13$). More than two thirds were single (68.42%) and one quarter was married (24.56%).

2.2. *Instruments*

The *PhoPhiKat-45* (Ruch and Proyer this issue) is a 45-item questionnaire for the *subjective assessment of gelotophobia, gelotophilia, and katagelasticism*. All 45 statements are positively keyed and they utilize a four-point answer scale (1 = strongly disagree; 2 = moderately disagree; 3 = moderately agree; 4 = strongly agree). The statements were preceded by an instruction. Sample items would be "When they laugh in my presence I get suspicious" (gelotophobia), "When I am with other people I enjoy making jokes at my own expense to make others laugh at me" (gelotophilia), and "Laughing at others is part of everyday life. If you don't like it, then get back at them" (katagelasticism). The scale yielded a high reliability in terms of internal consistency in the present sample ($\alpha = .85$, $\alpha = .88$, and $\alpha = .82$ for gelotophobia, gelotophilia, and katagelasticism, respectively).

The *List of Derisible Situations* (LDS; Proyer et al. 2008) was developed in a corpus study using the search and text analysis tool COSMAS II (Corpus Search, Management and Analysis System, version 3.6.1), of the *Institut für deutsche Sprache* (IDS; http://www.ids-mannheim.de/cosmas2/; see Al-Wadi [1994] and Storjohann [2003] for an overview). It

contains approximately 2.2 billion lexical terms and is comprised of complete issues of newspapers, magazines, and releases from press agencies, literary works, historic writings, speeches by politicians, and other written sources. It can be used to retrieve concordance information on specific words and we used it to find text surrounding the keyword "*auslachen*" ('laugh at') in all its morphological variants. It is important to underline that in German the word *auslachen* ('laugh at, ridicule, deride') is always negatively connoted (*auslachen* cannot be good-natured). Therefore, the German word reflects the meaning of "laugh at" in contrast to "laugh with" and might better be represented by the English word "deride." Thus, the corpus (based on *auslachen*) entails only instances that are related to *negative* aspects and forms of laughter which are also only related to events in which people were laughed at in the narrow sense of the word.

The settings we used for the COSMAS II-corpus analysis were: archive: *W–Archiv der geschriebenen Sprache* (archive of written language); corpus: *öffentlich–alle öffentlichen Korpora geschriebener Sprache* (all public corpora in written language). The search terms were the most common inflectional forms "*auslachen*," "*ausgelacht*," and "*auslachte*," which produced 919 hits. We then went through these instances of "*auslachen*," most of them from newspaper sources, and identified event types that were the cause for the "*auslachen*". The resulting list had 102 entries. For example, being laughed at for doing something embarrassing, because of one's age, because of one's hair (e.g., being bald or having grey hair), because of a physical handicap, because of new or unconventional ideas, for low self-esteem or lack of experience (e.g., in the workplace), for being unfaithful to one's partner or experiencing unfaithfulness, for having bad teeth and so forth.

The entries differ with respect to several criteria. For example, they differ in the likelihood with which they might occur (there is a greater chance of doing something embarrassing than making a fool of oneself in a job interview). The instances also differ in their degree of generalization vs. specificity. A slip of the tongue or registering a complaint at an office are specific situations, while being laughed at because of one's age is a general condition and the age of a person is unalterable. Nevertheless, it is interesting to know whether getting laughed at for these instances truly occurs in real life or whether some of the entries should be considered anecdotal. Furthermore, not all of the entries are exclusive. For example, a slip of the tongue is embarrassing, but not everyone experiencing a slip of the tongue might get laughed at for it and not everyone might

feel that the slip was something embarrassing. However, we decided to keep all the entries from the corpus study as they were for a first examination of the actual frequencies with which these situations happen — and for finding out whether these situations are actually relevant from a psychological point of view. While the single entries were used for an examination of why people get laughed at, the relations to gelotophobia, gelotophilia, and katagelasticism were not explored by means of these single events but by relying on broader categories that were grouped based on the content of the events.

In the final form of the LDS each instance is listed under a generic term and explained with a few examples in more detail afterwards. An example would be "ethnicity" as a generic term and "being mocked because of one's ethnicity or hearing others using a slur related to one's ethnicity" as further explanation. Participants indicated whether they were laughed at for specific instances over the past twelve months and if so with what intensity. For each of the 102 instances, participants rated with what intensity they recall being laughed at on a five-point scale. The ratings indicated 1 = "no, not at all," 2 = "yes, but hardly intensely," 3 = "yes, somewhat intensely," 4 = "yes, intensely," and 5 = "yes, very intensely".

For the following analyses the complete list was grouped into 21 categories based on the content of the items. In cases in which a statement could not be grouped with other entries it was used as a single-item measure. For example, a single item covered making others *voluntarily* laugh at one-self. Furthermore, a total score was derived to represent the total number of recalled events of being laughed at.

Thus, based on the content analysis the items were grouped according to similar content. For example, there is a group of situations that is related to work situations. It consists of instances for being laughed at like being a beginner in a new job or being laughed at by colleagues or because of one's choice of vocation or vocational training or being laughed at while applying for a job. All three are work-related but one cannot assume or demand that the same instances necessarily have to apply to the same persons. Therefore, it did not seem necessary or reasonable to examine their *empirical* homogeneity (e.g., by means of Cronbach alpha). The final content categories are age (4 items), body (10), comparison with others (single item measure), embarrassing behavior (6), low experience (4), marriage/partnership (3), making others voluntarily laugh at oneself (single item measure), money (4), unalterable features (4), unknown reasons (3), (expression of one's own) opinions (13), performance

(9), psychological distress (4), public appearance (7), self-esteem (4), mocking by potential (sexual) partners (6), social behavior (3), teasing by friends/coworkers (work-related, for example teasing among mechanics; 4 items), teasing by strangers (e.g., children, passers-by; 3 items), technology (3), and work (4).

2.3.   *Procedure*

The participants completed the PhoPhiKat-45, the LDS and a set of socio-demographic questions in an online study. The study was hosted on the website of the University of Zurich. Participants were recruited via flyers, email-lists, and the study was advertised on the website of the Division for Personality and Assessment. There is empirical evidence that the results from Internet studies are comparable regarding their reliability and validity to results collected via paper-pencil forms (Gosling et al. 2004). All questionnaires had to be filled in electronically in a single session and were completed by the participants using their private computers (at home or at work). All participants received standardized feedback (group-specific and on their individual results compared to the other participants) via email a few weeks after their participation.

3.   **Results**

3.1.   *Why are people laughed at? Analyses based on single statements from the LDS*

For a first overview on the results, the answer categories of the LDS were divided into two groups ("not having been laughed at for this instance" = 0 vs. "having been laughed at for that instance" = 1). The analysis of the total score revealed that only 7.89% of the participants stated that they did not recall having been laughed at for *any* of the instances out of the LDS. This means that the vast majority of the participants (more than 92%) recalled situations of being laughed at by others over the past twelve months.

The frequency distribution (i.e., how many participants could recall having been laughed at for that particular instance over the past twelve months) across the whole list showed that six instances were recalled by

Table 1.   *The ten most and least frequent instances s of being laughed at over the past 12 months*

%	Highest	%	Lowest
39.47	anxiety (e.g., specific phobias or something similar)	7.14	in a situation in which one had registered a complain at an office
39.64	malevolence of others	7.08	being laughed at in a job-interview situation
41.96	being unable to control bodily functions	7.08	for one's choice of vocation or education (e.g., a male choosing a vocation that is typically associated with females)
47.71	making others voluntarily laugh at oneself	6.36	being wealthy
51.79	(unconventional) opinions	5.36	(too high or too low) donation
56.25	(new or unconventional) ideas	5.36	(physical) handicap
57.66	slips of the tongue	2.70	not having an email-address
60.36	being laughed at for awkwardness or clumsiness	2.70	not having access to the internet at home
67.27	experiencing chauvinism from the opposite sex	2.68	having an unfaithful partner
68.75	embarrassing oneself in front of friends or other people	0.89	being unfaithful to one's partner

% = Percentage of participants who recalled being laughed at for that instance

more than 50% of the participants. The ten instances for being laughed at with the highest and the ten with the lowest frequencies are given in Table 1.

Table 1 shows that the instances that were recalled most often had prevalence-rates between 39.47% and 68.75%. The instances with highest frequencies were related to embarrassing situations and for experiencing chauvinism (i.e., for stereotypes such as the assumptions that women are unable to parallel park their cars or that men are unable to listen attentively to their partners). Interestingly, men and women reported being laughed at for these instances with the same frequency; there were no mean differences in the frequencies, $t(108) = -1.34$, $p = .18$. Also, the expression of unconventional opinions and ideas yielded high frequencies. Making others voluntarily laugh at oneself was also frequently recalled. Finally, losing control of bodily functions (e.g., burping or passing gas), malevolence of others (e.g., being the target of jokes in a group of people), and anxiety (e.g., specific phobias or more general anxiety-related behavior) were frequent occasions for being laughed at.

The lowest prevalence rates were found for experiencing unfaithfulness in relationships (either being unfaithful oneself or having an unfaithful partner) and Internet-related instances (e.g., for not having Internet access at home or not having an email address). Money- and work-related instances also yielded comparatively low scores. Approximately 5% recalled being laughed at because of a physical handicap (e.g., paralysis or deafness). Furthermore, registering complaints at an office was reported with comparatively low frequencies. In total, 17 from the 102 instances were experienced by 10.00% of the participants or fewer.

3.2.   *How frequently do people recall having been laughed at? Analyses based on broader categories of the LDS*

The single instances can be used for an examination of differences in the frequencies why people get laughed at but further analyses need to be based on the content groups out of the LDS. This should overcome problems such as different likelihoods with which the events occur but also different levels of generalization. However, the first analysis was also based on differences in the frequencies with which people recall having been laughed at. Most frequently the participants recalled having been teased by others, having experienced an embarrassing situation, situations related to physical appearance, (expression of one's own) opinions, or performance-related situations (all > 70%). The lowest frequencies were found for the comparison of oneself to others and money- or technology-related occasions (all < 30%).

3.3.   *Correlations between the fear of being laughed at, they joy of being laughed at, and the joy of laughing at others and the content groups of the LDS*

The overall prevalence of gelotophobic symptoms was 7.90% in the current sample. 4.39% of the participants exceeded the first and 3.51% exceeded the second cut-off point indicating slight and pronounced expressions of the fear of being laughed at (see Ruch and Proyer 2008b). For an analysis on how the three scales of the PhoPhiKat-45 were related to the frequency of recalled events of being laughed at for the 21 content groups of the LDS the scores were correlated. The results are given in Table 2.

Table 2. *Correlations among gelotophobia, gelotophilia, katagelasticism, and the frequency of recalled events of being laughed at over the past 12 months*

LDS-categories	Gelotophobia	Gelotophilia	Katagelasticism
age	.05	.23*	.17
body	.16	.23*	.19*
comparison with others	.09	.18	.04
embarrassing behavior	.12	.14	.16
low experience	.26**	.03	.19*
marriage/partnership	.28**	.01	.10
making others laugh at oneself	−.04	.30**	.08
money	−.04	.00	−.08
unalterably features	.10	.14	.12
not knowing why	.16	.12	.12
(expression of own) opinions	.12	.14	.13
performance	.08	.18	.18
psychological distress	.15	.04	.03
public appearance	.19*	.03	.05
(low) self-esteem	.27**	.08	.08
potential (sexual) partner	.10	.13	.15
social behavior	.14	.08	.02
teasing by others (professionals)	.07	.25**	.37**
teasing by strangers	.23**	.07	.24*
technology	.17	−.12	−.03
work	.17	.15	.12

$N = 110$–114. LDS = List of Derisible Situations
*$p < .05$; **$p < .01$

Table 2 shows that there were (groups of) recalled instances for being laughed at (e.g., comparison of oneself with others, embarrassing behavior, money, unchangeable features, work, or having no clue why) that happened independent of the participants' location on the three scales. For the other content groups of the LDS low to moderate positive relations to one of the three scales of the PhoPhiKat-45 were found. Gelotophobia was positively correlated with low experience, marriage/partnership-related instances, public appearances, low self-esteem, and experiencing teasing by strangers (e.g., passers-by in the street). Gelotophilia correlated with age (e.g., behavior that is interpreted as improper for one's age by others) and situations related to physical appearance, and for having been teased in official contexts (i.e. interaction with professionals like mechanics or officials), and making others voluntarily laugh at oneself.

Teasing by persons from specific professions (e.g., mechanics) was related to both, gelotophilia and katagelasticism. In addition, katagelasticism

correlated with the recollection of having been laughed at in situations in which one has experienced teasing by others (e.g., passers-by, children in the street; this relation is shared with the gelotophobes) but also having been laughed at for one's physical appearance and lack of experience (again shared with gelotophobes). Overall, all three scales were about equally related to the content groups from the LDS (the median of the 21 correlation coefficients was $Md = .14$, $Md = .13$, and $Md = .12$ for gelotophobia, gelotophilia, and katagelasticism, respectively).

3.4.   *Gelotophobes, gelotophiles, katagelasticists and the frequency and intensity with which they recall being laughed at over the past twelve months*

In order to disentangle the frequency and the intensity components of the ratings we computed a separate frequency score (*total frequency*; all LDS items were recoded into 0 = the answer was "no, not at all" and 1 = any other answer; i.e. the participants have experienced this instance for being laughed at) and four different intensity scores. The use of different intensity scores was aimed at examining the intensity dimension from different angles. First, a global intensity score was needed to see whether intensity is relevant at all (*total intensity*; a score excluding the "no, not at all" answers). Next, it was interesting to examine the relation of gelotophobia, gelotophilia, and katagelasticism to the averaged intensity ratings (*mean intensity*). A further idea was that low intensity ratings should not be considered, as they did not contribute information to the correlations to highly intense situations (*high intensity*; i.e., a total score of all intensity ratings excluding the two lowest ratings in the PhoPhiKat-45 for the identification of the high-intensity rating). Finally, a score was used providing information on the number of events that were experienced with high intensity (*intensity count*; i.e., the total score of the high-intensity ratings). These five scores were correlated with the gelotophobia, gelotophilia, and katagelasticism scores of the PhoPhiKat-45 (see Table 3).

Table 3 shows that there was a positive but low relation between gelotophobia and gelotophilia and the frequency with which events of being laughed at were recalled (while only the correlation coefficient for gelotophobia was statistically significant). Among the three concepts, the lowest relation to this frequency was found for the katagelasticists.

Table 3. *Correlations between gelotophobia, gelotophilia, and katagelasticism and the frequency and the intensity of recalled events of being laughed at over the past 12 months*

LDS	Gelotophobia	Gelotophilia	Katagelasticism
frequency	.22*	.18	.15
intensity			
total	.20*	.11	.10
mean	.16	.00	−.05
high	.34**	.09	.11
count (high)	.27**	.16	.09

$N = 105$ to 114; LDS = List of Derisible Situations; frequency = number of 102 events recoded by 0 = "no, not at all" and 1 = an answer was given in any of the other answer categories; intensity total = sum of all ratings excluding the "no, not at all"-category; intensity mean = mean score of the intensity ratings; high = sum of the intensity excluding the "no, not at all" and the "yes, but hardly intensely"-ratings; count (high) = number of high ratings.
*$p < .05$; **$p < .01$

The picture was different for the total and high-intensity ratings. Here, only for the gelotophobes a positive statistically significant correlation coefficient was found. The coefficient was higher in the high-intensity score and statistically significant for the number of high-intensity ratings given by the participants (frequency count) as well. Thus, the higher the expression of the fear of being laughed at, the higher was the perceived intensity of being laughed at with which participants recalled events of being laughed at over the past twelve months.

4. Discussion

Being laughed at seems to be a frequent phenomenon among adults. More than 92% of the participants in the present study recalled at least one event in which they were laughed at in the past twelve months. However, contrary to what was expected, gelotophobia is not too strongly (though statistically significantly) related to a stronger recollection of events in which persons were laughed at over the past twelve months. Therefore, the idea that current repeated experiences of being laughed at form an important maintaining factor for gelotophobia could not be supported empirically in this study. The same holds for the hypothesis that initial traumatic experience of being laughed at might have generalized

to other situations. Of course, the results from the present study do not provide information on the role of repeated, traumatic, and intense experiences of being laughed at during childhood and youth that might have caused gelotophobia in the adults (see Ruch et al. 2008).

The findings also provide support for the concept of "pure gelotophobes" (high fear of being laughed at and low frequency of actually being laughed at). In fact, the low correlation suggests that there might be almost as many realistic gelotophobes as pure gelotophobes. Therefore, future studies should focus on imagined instances of being laughed at. These events and situations were not well-represented in the present study. However, they might be relevant and useful for the further understanding of gelotophobia. Finally, gelotophilia and katagelasticism exist independent from the frequency of recalled events of having been laughed at over the past twelve months.

Another important finding is that gelotophobes experience events of being laughed at with greater intensity than gelotophiles and katagelasticists. These findings are even more pronounced in an analysis in which only the highest intensity ratings were included. As gelotophobes have difficulties in distinguishing events of good-humored teasing and bullying-type ridicule (Platt 2008) one might assume that a strongly perceived intensity of even good-humored teasing leads to emotional disturbances among the gelotophobes. This is in line with one of the assumptions, namely that gelotophobes do not provide more reasons for being laughed at but experience each of the occurrences more painfully, previously formulated on the gelotophobes' experiences with occurrences of having been laughed at.

The idea that the consequences of gelotophobia might provide a basis for being laughed at might also apply. There was a positive relation between gelotophobia and having been laughed at for instances that were related to the (lowered) self-esteem. The same might be true for other consequences of the fear of being laughed at, such as, lower satisfaction with life and well-being (see Proyer et al. forthcoming). The recollection of having been laughed at during public appearances might be related to the gelotophobes' attempt to act inconspicuously in social situations. These attempts might, in turn, result in peculiar behavior that is perceived as strange or funny by others (Titze this issue). Again, this can be related to an assumption formulated in the introductory section. Overall, gelotophobes can be described as having a higher sensitivity towards situations in which they (potentially) could get laughed at. Again, gelotophilia and

katagelasticism are not related to the intensity with which the situations are experienced.

Interestingly, gelotophobes, gelotophiles, and katagelasticists seem to experience about the same degree of *variety* in occasions for being laughed at — yet the occasions themselves are largely different. Gelotophobia seems to be primarily related to occurrences with respect to lack of experience, marriage and partnership, public appearances, low self-esteem, and teasing by strangers. The latter one is of special interest as it relates to one of the assumptions formulated previously: One might interpret the teasing by strangers as a misinterpretation of specific, but harmless situations. This suggests that the misinterpretation might be one key for the interpretation of the laughter-related experiences of gelotophobes. In contrast to this, gelotophiles recall (not surprisingly) making others voluntarily laugh at themselves, as well as having been laughed at for one's age or physical appearance. Here, behavior that is atypical or inappropriate for one's age (e.g., "childish") is addressed. It is obvious that gelotophobes would try to avoid such situations or behavior.

Another example is that katagelasticists are more prone to get laughed at by specialists in a specific area than gelotophiles or katagelasticists. One might speculate that they enjoy ridiculing others with a superficial knowledge in a lot of different areas, which might turn to their own disadvantage when confronted by an expert. Gelotophiles, on the other hand, might even be "grateful" for situations in which they can easily put themselves down with their superficial (or non-existing) knowledge in the respective area.

The List of Derisible Situations (LDS) proved to be a useful research instrument. Nevertheless, there are some problems inherent in the method used. For example, the events compiled in the list occur with different probabilities. In addition, persons might get laughed at for a specific instance under specific circumstances but not for the same instance under different circumstances, and there might be only a few instances that also occur under other circumstances as well.

Furthermore, one has to keep in mind that the instances for which people think they get laughed at are *subjective*. It might be that people understand the occurrences that were collected in the LDS differently. Surely there is an ambiguity if asking the participants to relate the instances of the LDS (with little explanation) to their own experiences. Thus, a study should ideally include asking the other person involved why she/he has laughed at the subject (or whether she/he has laughed at him/her at all,

respectively) as well. This means that the intention of the laugher should also be considered. Thus, a complete coverage of the reasons why people get laughed at should ideally include all perspectives involved.

Similarly, the LDS reflects what actually happened to people as it stems from a corpus of written records. Therefore, the LDS does not distinguish between imagined (fictional) instances for being laughed at and instances for being laughed at that actually might happen to someone. It might be that gelotophobes primarily fear these non-realistic but intensively imagined reasons. Therefore, it would be important to perform a qualitative study on perceived and imagined instances for gelotophobes for feeling laughed at and also to collect descriptions of real events in which they were laughed at. This would shed further light on the usefulness of the LDS and indicate whether the list needs to be supplemented with additional categories. Furthermore, some of the situations listed in the LDS probably do not exist independent of psychiatric conditions (such as anxiety-related disorders).

Finally, it has to be mentioned that we did multiple tests in our present study without adjusting the alpha level for considering the type-I-error. Thus, we cannot rule out that some of the relations among research variables exist due to statistical artifacts. Hence, a replication of the findings and an extension of the study design (e.g., with a larger sample, a paper-pencil study for better coverage of the Internet-related instances for being laughed at) will be needed for further verification of the results.

[1]*University of Zurich*
[2]*hakia Inc., New York*

Note

References

Al-Wadi, Doris
   1994   *COSMAS-Ein Computersystem für den Zugriff auf Textkorpora (Benutzer-handbuch)* [Handbook for COSMAS — A computer system for the access to text corpora]. Mannheim: IDS.

Gosling, Samuel D., Simine Vazire, Sanjay Srivastava, and Oliver P. John
  2004 Should we trust web-based studies? A comparative analysis of six preconceptions about Internet questionnaires. *American Psychologist* 59, 93–104.
Janes, Leslie M., and James M. Olson
  2000 Jeer pressure: The behavioral effects of observing ridicule of others. *Personality and Social Psychology Bulletin* 26, 474–485.
Martin, Rod A.
  2007 *The Psychology of Humor: An Integrative Approach*. New York: Elsevier.
Platt, Tracey
  2008 Emotional responses to ridicule and teasing: Should gelotophobes react differently? *Humor: International Journal of Humor Research* 21 (2), 105–128.
Proyer, René T., Christian F. Hempelmann, and Willibald Ruch
  2008 List of Derisible Situations (LDS). Unpublished questionnaire, University of Zurich, Department of Psychology, Switzerland.
Proyer, René T., Willibald Ruch, and Guo-Hai Chen
  forthc. Positive psychology and the fear of being laughed at: Gelotophobia and its relations to orientations to happiness and life satisfaction in Austria, China, and Switzerland. *Humor: International Journal of Humor Research*.
Ruch, Willibald and René T. Proyer
  2008a The fear of being laughed at: Individual and group differences in gelotophobia. *Humor: International Journal of Humor Research* 21 (1), 47–67.
  2008b Who is gelotophobic? Assessment criteria for the fear of being laughed at. *Swiss Journal of Psychology* 67 (1), 19–27.
Ruch, Willibald, René T. Proyer, and Larry Ventis
  2008 Are repeated intense teasing encounters too much to take? Does teasing in childhood relate to the expression of gelotophobia in adults? Manuscript submitted for publication.
Storjohann, Petra
  2003 Computergestützte Lesartendisambiguierung [Computer-based semantic disambiguation]. *Deutsche Sprache* 31 (1), 3–28.
Zillmann, Dolf
  1983 Disparagement humor. In McGhee, Paul E., and Jeffrey H. Goldstein (eds.), *Handbook of Humor Research*, vol. 1. New York: Springer, 85–107.