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DENMARK

Latterfrygt og humorstøtte

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Publication date:
2013

Document Version
Tidlig version også kaldet pre-print

[Link to publication from Aalborg University](#)

Citation for published version (APA):

Führ, M. (2013). *Latterfrygt og humorstøtte: Undersøgelser af 11-16-åriges tilbøjelighed til at ty til humor i trængte situationer og til at frygte at blive leet ad.*

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Latterfrygt og humorstøtte

**Undersøgelser af 11-16-åriges tilbøjelighed til at ty
til humor i trængte situationer og til at frygte at blive leet ad**

Af Martin Führ

Til mine børn Anna, Niels og Karen

Abstract

Engelsk

The present thesis investigates the importance of humor in early adolescence. Part 1 focuses on the correlation between humor production and humor preference, suggesting that peers tend to use humor when facing actual life tasks during the transition from childhood to adulthood. The assumption is made, that developmental changes in form and function of humour for children aged 12-16 years may be influenced by their actual environmental settings and their actual tasks. Finally, this part of the theis considers the importance of children's sense of humour in problem solving and social interaction during the period 12-16 years. Part 2 introduces the Children Coping Humor Strategy Survey (CCHSS) measuring childrens ability to use humor as a coping tool in various life situations. In opposite to earlier research, the concept of coping humor appears to be multidimensional, as the three factor solution found in this study, reveals evidence for the use of humor when facing stress and uncertainty; sexuality and aggression; and finally to get cheered up. Where the study overall provides evidence for the concept of coping humor in early adolescence, significant gender and age differences were found. Where boys tend to use more aggressive and sexual related strategies in coping humor, girls prefer to get cheered up by humor and this tendency increased with age for girls but not for boys. The use of humor as a coping tool when focusing uncertain and stressful situations shows an overall significant increase at the age of 12 for both genders. Part 3 investigates the applicability of the Danish version of the GELOPH<15> (Führ, Proyer & Ruch, 2009). The instrument used, GELOPH <15> measures the fear of being laughed at in a 15 item self report questionnaire and yielded good psychometric properties in terms of a high internal consistency of the items and the factorial structure (one-dimensional solution) was highly similar to data for the adult version. As in the adults higher bullying experiences were well predicted by the individual expression of the fear of being laughed at. The actual number of absent days from school during the last year, was widely unrelated to gelotophobia. Part 4 investigates the possible correlation between gelotophobia, coping humor and various personality variables, as loneliness, self-esteem, positive future expectation, outward appearance and selfreflexion. The ability to use humor as an attitude towards life turned out not to be a protector against gelotofobia. Where humor turned out to be positively relation to a positive selfconcept, participants with high scores on the Geloph <15> turned out to be more lonely. Overall the thesis underlines the importance of humor when facing developmental tasks and actual life situations. Suggestions for necessary further research are given.

Abstract Dansk

Mens der tidligere har været fremlagt undersøgelser af, hvad børn af forskellig alder morer sig over, undersøger nærværende afhandling for første gang, hvilken betydning og funktion, humor kan have for børn og unge. Dens første del fokuserer på sammenhængen mellem humorproduktion og humorpræference, og resultatet af en undersøgelse tyder på, at mange børn og unge bruger humor ved tackling af de udfordringer, som er aktuelle i overgangen fra barndom til voksenverden. Udviklingsbetingede ændringer i humorens form og funktion hos 12-16-årige børn synes at være influeret af deres omgivelser og af de livsopgaver, som trænger sig på i denne alder. Afsluttende beskæftiger denne del af afhandlingen sig med hvilken betydning de 12-16-årige tillægger sans for humor for at opnå status i klassen og for at fremme den sociale interaktion. I afhandlingens andel del introduceres "Children Coping Humor Strategy Survey" (CCHSS), som mäter tilbøjeligheden til at ty til humor i forskellige livssituationer. I modsætning til tidligere forskning tilbøjelighed til at ty til humor i trængte situationer at have multidimensionel karakter i form af en tre-faktor-løsning. De tre faktorer, som analysen peger på, er (1) brug af humor ved håndtering af stress og usikkerhed, (2) brug af humor til at håndtere seksualitet og aggression, samt (3) brug af humor til opmuntring af sig selv og andre. Hvor undersøgelsen generelt giver evidens for brugen af humor i trængte situationer, viser den tillige signifikante køns- og aldersforskelle. Mens drenge i højere grad er tilbøjelige til at bruge mere aggressive og seksuel relaterede former for humor, lægger piger større vægt på at blive opmuntrer v. hj. a. humor, og denne tendens viste sig at være tiltagende op gennem aldersgrupperne for piger, men ikke for drenge. At ty til humor i trængte og stressfulde situationer bliver signifikant mere hyppigt fra 12 års-alderen og fremad for begge køn. Afhandlingens tredje del undersøger, om den danske version af GELOPH <15> (Führ, Proyer & Ruch, 2009) er anvendelig over for 11-16-årige, samt om der er sammenhæng mellem gelotofobi på den ene side og på den anden side tilbøjelighed til at bruge humor i trængte situationer henholdsvis om de 11-16-årige karakteriserer sig selv som ensomme mv. Spørgeskemaet GELOPH <15> mäter angst at blive leet ad v. hj. a. et selvrapporteringsskema med 15 spørgsmål. Skemaet udviste gode psykometriske egenskaber i form af høj intern konsistens og en (unidimensionel) faktorstruktur, som var næsten identisk med resultatet fra en større undersøgelse med voksne. Som i voksenundersøgelsen var hyppige erfaringer med at være blevet mobbet relateret til oplevelse af angst for at blive leet ad. Det faktiske antal af fraværsdag fra skolen i det foregående skoleår viste ingen sammenhæng med gelotofobi. Afhandlingens fjerde del undersøger, om der er sammenhænge mellem (1) gelotofobi, (2) tilbøjeligheden til at ty til humor i trængte situationer og (3) en række personlighedsvariable som ensomhed, selvsikkerhed,

positiv fremtidsforventning, udseende og selvrefleksion. Det viste sig, at evnen at bruge humor som en måde at begå sig i livet på ikke beskytter en mod gelotofobi. Hvor humor generelt viste sig at gå hånd i hånd med til en positiv selvopfattelse, viste deltagerne med en høj score i GELOPH <15> sig forholdsvis hyppigt at føle sig ensomme. Overordnet understreger denne afhandling betydningen af humor, når udviklingsbetingede opgaver og udfordringer såvel som aktuelle livssituationer skal håndteres.

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1. Del

Projektets teoretiske forankring og udvikling

Nærværende afhandling undersøger spørgsmål vedrørende forståelse af humorens form og funktion i hos store børn og betræder dermed *nyt land* i forhold til den eksisterende humorforskning. Som det vil fremgå af de følgende afsnit har forskningsprojektet, som det har udviklet sig, givet anledning til ny erkendelse og dermed forbunden nytænkning på centrale felter indenfor forståelsen af børns humor. En oversigt over forskningsprojektets enkelte delelementer og deres afrapportering findes i bilag 1. Ved projektstart i 1998 fandtes der kun meget begrænset forskning, der tog højde for humorens betydning i børns udvikling. Væsentlig inspiration kunne dog hentes i Søbstads (1993) og Ma-stens (1986) arbejder, selv om forsøgspersonerne i deres undersøgelser var yngre end dem denne afhandling arbejder med. På daværende tidspunkt fandtes ingen dansk empirisk forskning på området, og internationalt fandtes intet, der havde fokus på aldersgruppen 11-16. Generelt pegede den eksisterende internationale forskning på humor som en vigtig social og kommunikativ kompetence såvel som på, at børn, ligesom voksne, anvender humor i leg og social samspil for at forholde sig til udviklingsbetingede udfordringer og forandringer.

Den første undersøgelse var rettet mod at afdække, hvorvidt disse antagelser kunne genfindes under danske forhold og hos betydelig ældre børn; herudover skulle også undersøges, hvorvidt der fandtes en sammenhæng mellem humorpræference og humorproduktion. I undersøgelsen anvendtes både en kvantitativ (spørgeskema) og en kvalitativ (semistruktureret interview) tilgang. Under gen-nemførelsen af interviewundersøgelsen gav informanterne udtryk for, at de brugte humor i større grad til noget helt andet end det, undersøgelsen var rettet imod. For de sidste 40 interviews blev der derfor tilføjet åbne spørgsmål, hvor respondenterne selv satte ord på, hvad de brugte humor til. Udefra en kategorisering af børnenes besvarelser blev der induktiv afledt en række genstandsfelter, der kunne sammenfatte børnenes besvarelser. Besvarelserne tydede på, at børn brugte humor til at tackle forskellige livssituationer, konflikter, udfordringer og stressfulde situationer, som svarede til hvad humorforskningen havde fundet hos voksne.

I anden del blev dette taget op til nærmere undersøgelse. Martins (1983) Coping Humor Scale, CHS, se bilag 2) beregnet for voksne, pegede på, at evnen til at kunne håndtere usikkerhed og stress har betydning for at føle velvære og livsglæde. Tilsvarende undersøgelser med børn fandtes ikke. I et første skridt blev CHS oversat og tilpasset til dansk, og tillige blev en ny skala, Children

Coping Humor Strategy Survey (Führ, 2002, se bilag 3), udviklet (se her afsnit 2.3) for at afdække, hvorvidt børn i aldersgruppen 11-16 år anvendte humor til de nævnte formål. Samtidig ønskedes det uddybende undersøgt, om humor fremstod som en social og kommunikativ kompetence i denne større stikprøve, og om der kunne findes indikatorer for, at børn med en veludviklet sans for humor trives psykisk og fysisk bedre end andre. Igen er der tale om kombination af flere metoder (spørge-skema, oplysningskema, fremmedvurdering via forældre og interviewundersøgelse). Som Søbstad i sin tidlige forskning (1993) påpegede, viste det sig her (Führ 2002), at der var en signifikant sammenhæng mellem manglende sans for humor og på den anden side ensomhedsfølelse og ringe selv-opfattelse og selvtildfredshed.

På denne baggrund var det nu nærliggende at implementere den gryende forskning om *gelotofobi* (angsten at blive leet ad) i forskningsprojektets tredje undersøgelse, idet det syntes meningsfuldt at undersøge, hvilken rolle gelotofobi havde for 11-16-årige børn og unges trivsel. Da spørge-skemaet GELOPH <15> (se afsnit...) viste gode psykometriske egenskaber (Führ, Proyer, Ruch 2009) blev den tilpassede danske version inddraget i det nye forskningsprojekt. Da der ikke fandtes tidligere undersøgelser om gelotofobi blandt børn og unge, er resultaterne (Führ, 2010) vanskelige at fortolke; dog gav hovedresultatet, at 14,67 % syntes at lide af gelotofobi i svær eller lettere grad, anledning til – i projektets fjerde del (Führ, 2013) – yderligere at undersøge, om evnen til at ty til humor i trængte situationer kunne beskytte for angst at blive leet ad, og hvilken betydning denne angst har for børn og unges psykiske og fysiske trivsel.

For denne sammenfattende afhandling kan derfor opstilles følgende overordnede forsknings-spørgsmål:

- Hvilken form og funktion har humor for børn og unge i aldersgruppen 11-16 år?
- Anvender børn og unge humor som en måde at tackle udviklingsbetingede udfordringer på, og hvilken betydning har denne evne for positiv psykisk trivsel?
- Hvilken betydning har angst for at blive leet ad (*gelotofobi*) i denne aldersgruppe, og findes der en sammenhæng mellem geletofobi og fravær i skolen?
- Hvilken betydning har gelotofobi for positiv psykisk trivsel, og beskytter evnen at ty til humor mod angst om at være genstand for andres latter?

Efterfølgende omtale af teorigrundlaget viser forskningsprojektets kompleksitet og de hermed forbundne metateoretiske og metodologiske udfordringer

Arbejdet med humor som fænomen i tilværelsen indebærer først den udfordring, at en lang række discipliner har beskæftiget dig med det, herunder som filosofi, psykologi, medicin, sociologi, lingvistik og, pædagogik blot for at nævne de mest centrale. Den næste udfordring ligger i, at stort set samtlige videnskabsteoretiske tilgange er repræsenteret i humorforskningen med hver deres særegne menneskesyn, metode og epistemologi. Det kan derfor ikke undre, at der hidtil end ikke er opnået konsensus om en definition af "humoristisk sans". Et af de seneste forsøg på en definition/ klassificering af *sans for humor* findes i Ruchs (2004, i Peterson og Seligman). Her forslår W. Ruch 6 kriterier for at fastslå om et menneske er i besiddelse af *humoristisk sans*, nemlig at man erklærer sig enig i følgende udsagn:

- Når mine venner er triste, prøver jeg at opmuntre dem
 - Jeg værdsætter muligheden for at gøre en andens dag bedre med latter
 - De fleste mennesker vil sige, at jeg er sjov at være sammen med
 - Jeg prøver at inddrage humor i alt, hvad jeg laver
 - Ingen trist situation få lov til at ødelægge min sans for humor
 - Selv i spændte situationer kan jeg i reglen finde noget at grine ad eller lave vitser om
- (oversat efter W.Ruch, i: Peterson og Seligman, 2004, p. 584)

Det kan undre, at der netop her, hvor tilgangen er såkaldt Positiv Psykologi, søges efter klassifikationskriterier der minder om WHO ICD 10. Alligevel tillader denne måde en relativ bred definition af sans for humor. H.H. Knoop (2008) henviser til, at hvor

psykoanalytikeren Freud i sin tid betragtede humor som noget nær den højeste form for mental aktivitet og Freud er siden fulgt folkeligt op af folketingspolitikeren Jakob Haugaard, der i 1994 forslag, at folk uden sans for humor skulle tildeles mellemste invalidepension.....og henviser endvidere på Piet Heins berømte gruk: Den som kun tager spøg for spøg og alvor kun alvorligt, han eller hun har faktisk fattet begge dele dårligt. (p.15-16)

Viften med forslag om, hvad humor egentlig er, spænder i øvrigt fra Aristoteles til moderne fortolkninger og forståelser af humor (se. f.eks. Martin, 2007).

Et andet ubesvaret spørgsmål ligger i forlængelse heraf i, om der *bør* tales om humor som en *karakterstyrke* (Ruch, 2004), som et sindelag som den *store humor* (Höffding 1916), eller som et *personlighedstræk*, hvad Ruch problematiserer i sin state/trait-teori, der ligger tæt op ad Höffdings tanke om stor og lille humor. Hvor den ene forsker begrunder ud fra en eksistensfilosofisk tilgang, er Ruchs overvejelser knyttet til nyere forskningsresultater, der tager afsæt i Eysencks (1953) og Costa og McCraes (1985) resultater om "The Big Five". En tilsvarende problematik dukker op, når der i litteraturen diskuteres begrebet *coping humor*, som på dansk nok bedst kan oversættes med *evnen til at ty til humor i trængte situationer*. Handler det om en *attitude towards life*, d.v.s. en grundlæggende tilbøjelighed og evne til at møde livets udfordringer med åbent sind og positive fremtidsforventninger, eller handler dette mere om *en bevidst valgt strategi*, som gentagne gange har vist sig som et anvendeligt redskab i ens dagligliv. Hvordan *måles* denne evne eller tilbøjelighed, og hvorfor overhovedet måle den? Den i litteraturen hyppigst nævnte skala er R. Martins (1983) Coping Humor Scale (CHS, bilag 1, for uddybende forklaring se afsnit 2.3) som er designet til at måle individets evne til at bruge humor i trængte og stressfulde situationer. Det antages, at mennesker, der er i besiddelse af denne evne, vil klare sig bedre i tilværelsen, være mere modstandsdygtige og i højere grad rustet til modgang i livet, når mindre alvorlige hændelser kan tages med et smil.

Humorens udvikling i barndommen

I "the neurobiology of secure attachment"¹ fremhæver A. Schore (2010) betydningen af *joy and laughter* i samspillet mellem barnet og dets nære omsorgsperson som et første skridt i opbygning af positive relationer til andre. Han taler om *attunement* hvor spædbarnet og omsorgsgiveren gensidig bekräfter hinanden ved smil og latter. Schore betragter dette som vitalt for barnets udvikling af empati, der igen er en nødvendig forudsætning for sociale relationer med andre mennesker. For Koestner (1964) er humor del af den menneskelige kreativitet f.eks. udtrykt i: at man *sidestillede* normalt helt *divergerende rammer eller objekter* og herigenem lærer at skelne mellem realitet og fantasi. Mc Ghee (1971, 1971a) fandt ud, at børn, der både kunne erkende og løse diskrepansen i en vits eller anecdote, udviste større kognitive færdigheder end de børn, der kun var i stand til at se det modsætningsfyldte i vitsen eller anekdoten. Erkendelsen (identifikation) ses her som udtryk for reflekteret viden og løsningen (resolution) som forståelse. Dette skelnen i kognitiv udviklingspsyko-

¹ <http://www.youtube.com/watch?v=MD5MI-EACI0>

logi mellem viden om humor og humorforståelse indikerer de to væsentlige træk ved kognitiv humorteori.

Levine (1977) forestillede sig, at det lille barns smil og latter begynder i situationer, hvor det lærer at mestre og beherske situationer og fornemmer følelsen af kontrol over omgivelserne. Til mestrings - teorien bør medtænkes, at den såkaldte "glade arousal", altså den spænding der opbygges under selve arbejdsprocessen, forløses ved afslutningen og mestringen af opgaven.

Behavioristen Skinner antog, at barnet (ud fra et operant perspektiv) erhverver humoristisk adfærd som latter, vitser og jokes, når det bestyrkes af omgivelserne i denne adfærd. Ud fra en udviklingspsykologisk tankegang argumenterer McGhee (1985) for, at humorudviklingen er bundet til barnets kognitive udvikling, og han følger Piagets stadie teori, i modsætning til psykoanalytikeren Freud (1916) er humorens udvikling i barndommen knyttet til barnets psykoseksuelle udvikling og de hertil relaterede udfordringer.

Som det fremgår af ovenstående, har en bred vifte af videnskabsteoretisk forskellige tilgange bidraget med hver deres forståelse af humorens form og funktion i barndommen. En af de få forskere, som har beskæftiget sig med humor i puberteten, er M. Kauke (1999) som peger på, at humorens funktion skal ses i sammenhæng med de tiltagende *fysiske, sociale og kognitive forandringer* som er forbundet med dette livsafsnit. Humor bruges til at forholde sig til især den biologiske modning og de hertil relaterede fysiske forandringer samt seksualiteten som væsentlig udfordring.

Motivationelle årsager for humor ser (Kauke i):

- a) Trangen til opmuntring, glade og øget livsfølelse
- b) Søgen efter anerkendelse og kontakt
- c) Udlevelse af aggression og stræben efter selvhævdelse, magt og distancering på en socialt acceptabel måde
- d) " Identifikationsmønstring" (Identifikationsmustern)
- M. Kauke observerede, at de ældre børn i form af eksperimenteren via humoristisk interaktion vælger deres "potentielle modeller".

Det, som kendetegner dette livsafsnit yderligere er løsrivelse fra familien, gryende selvstændiggørelse og søgen efter værdier, venskaber og følelsen af at høre til i et socialt fællesskab. Denne periode fremstår i litteraturen som sædeles vanskeligt og sårbar. Führ (2002) pegede på, at evnen til at ty til humor, når stressfulde situationer, aggression og seksualitet skulle tackles, samt humorens funktion med hensyn til at foranledige et positiv humorskifte, viste sig at være relateret til positiv trivsel og selvforståelse. Det kan ikke undre, at angstens for at være genstand for andres latter, måtte

formodes at være til stede i denne aldersgruppe, når nye identiteter og måder at være, ser ud og klæde sig på, blev afprøvet. Inden nærværende undersøgelse fandtes der internationalt ingen empirisk forskning og kun ganske få teoretiske overvejelser (Titze, 1997) om årsager og konsekvenser for gelotofobi i puberteten. Da der heller ikke fandtes instrumenter til at undersøge dette fænomen i denne aldersgruppe, blev GELOPH <15> anvendt i nærværende undersøgelse, velvidende at spørgeskemaet var udviklet til voksne. Nærværende afhandling rapporterer og diskuterer efterfølgende de ovenstående overordnede forskningsspørgsmål for denne afhandling.

2. Supplerende metodeovervejelser og kritik af anvendt metode

Da alle de fire artikler, der udgør kernen af denne afhandling, indeholder et afsnit med redegørelse for den anvendte metode, problematiseres svagheder og styrker ved henholdsvis kvantitativ og kvalitativ tilgang ikke yderligere her. Metodisk kan projektet kategoriseres som et studie, hvor empirien er indhentet gennem et mixed methods design (MM), forstået som en sammenblanding, eller triangulering, af kvalitative og kvantitative undersøgelsesmetoder, der, i bestræbelserne på at afdække et genstandsfelt så nuanceret og fyldestgørende som muligt, enten sekventielt eller konkurrent, komplementerer og integreres i hinanden (Kelle 2006). Dette i erkendelsen af at både den kvalitative og kvantitative tilgang som enkeltnetmøde har mangler (*ibid.*).

Problematikken ved metodetriangulering og nogle refleksioner over bias, der kunne være undgået, samt nogle eksempler på, at det havde været hensigtsmæssigt med indhentning af lidt flere oplysninger på visse punkter, tages op.

Et første eksempel på bias der kunne være undgået er, at oplysningskemaet til bl.a. indsamling af stamdata fra skolernes kontorer med hensyn til antallet fraværsdage for den enkelte deltager ikke indeholdt nogle informationer om, hvad der var *årsagen* til fraværet. Årsager til hyppigt fravær kan være mange forskellige, f.eks. langvarig sygdom, udlandsophold, gentagne ferieuger med forældrene uden for skolernes ferieperioder, skolevægring evt. på grund af grov mobning eller forældrenes manglende evne til at få barnet i skolen. Når oplysning om det mangler, er fortolkningen af et større antal fraværsdages betydning nærmest umuligt. Derimod viste måden at indsamle disse data på ved hjælp af kodede og nummererede skemaer sig at være særdeles anvendelig. Hvor det f.eks. i artikel 3 søgtes at afdække en mulig sammenhæng mellem hyppigt fravær og gelotofobi, kunne det frygtes, at netop denne gruppe var repræsenteret i undersøgelsens frafaldskvotient ved dataindsamlingen. Af de i alt 1520 udsendte spørgeskemaer blev 1326 returneret, men da oplysninger om de ønskede stamdata fandtes for *alle* børn, uanset om de ved gennemførelsen af undersøgel-

sen var fraværende eller ej, viste sig en jævn fordeling af fraværsdag for denne gruppe som stemte overens med resultatet for de aktive deltagere. Dette underbygger resultaterne i artikel 4 yderligere.

Et andet eksempel på, at det havde været fordelagtigt at have indhentet lidt flere oplysninger, viste sig ved spørgsmålet om børnenes foretrukne vitskategorier, som bliver taget op i artikel 1.

Samme spørgsmål blev inddraget i den undersøgelse, som artikel tager afsæt i, men disse resultater er imidlertid publiceret andetsteds (Führ, 2004). Vitskategorien *fremmedvitser* viste sig at være af ringere betydning i begge undersøgelser, idet denne kategori vitser dog var den mest populære i 2 af de 55 deltagende skoleklasser. Via kodningen kunne de pågældende klasselærere kontaktes, og det viste sig, at begge disse klasser for første gang havde fået en elev med anden end dansk etnisk baggrund ind i klassen. Dette fund underbygger den i teoridelen omtalte antagelse om, at vi benytter humor til at forholde os til aktuelle forhold i tilværelsen.

For den problematik, der er behandlet i artikel 3 og 4, er det særdeles uheldigt, at de stamdata vedrørende deltagernes etniske baggrund og evt. deltagelse i specialundervisning (som blev indsamlet i tidligere undersøgelse) ikke blev taget med her. På den ene side havde det været muligt at undersøge, om de af (Ruch, 2010)² nævnte store forskelle mellem mindre end 2% gelotofobikere i Danmark og mere end 30% gelotofobiker i flere asiatiske lande allerede kan påvises i aldersgruppen 11-16 år. På den anden side havde det været muligt evt. at underbygge Franzinis (2002) antagelse om, at *special need children* kan være en særlig utsat gruppe med hensyn til at være genstand for andres latter. Dette kunne tænkes at gælde bl.a. for børn med sprogforstyrrelser, med psykiske eller fysiske handikap eller overvægtige børn.

I forskningsprojektets anden undersøgelse (disse resultater omtales ikke afhandlingens fire artikler) blev der gennemført en supplerende forældreundersøgelse, hvor de 25 børn med den laveste humorscore såvel som de 25 børn med den højeste humorscore samt en kontrolgruppe med 25 børn, hvis score var tæt på undersøgelsens gennemsnitsresultat, blev nærmere undersøgt. Børnenes selvrapporteringer blev valideret yderligere, men mest interessant var, at der viste sig at være sammenfald mellem forældrenes vurdering af deres egne humoristiske evner og barnets vurdering heraf (Führ, 2012). Med andre ord viste det sig, at humorforladte forældre har humorforladte børn, og at forældre med udpræget sans for humor har børn, der ligeledes værdsætter humor som et positiv element i tilværelsen. Dette resultat underbygger antagelsen om, at udviklingen af humor er knyttet til de omgivelser der findes i barnets opvækst.

² Ruch, 2010, paper at European Conference of Positive Psychology

For afhandlingens kvalitative elementer kan det måske undre, at selv om der er indsamlet en betydelig mængde kvalitative data, er analysen af disse data ikke stringent analyseret som f.eks. ved IPA (Langdrigde, 2007). Men da alle data er indhentet og bearbejdet af en enkelt forsker, ville dette arbejde havde været en uoverkommelig opgave. Derfor valgtes en induktiv afledning af resultaterne ved gentagende gennemlytning af mere end 80 timers båndoptagelser. IPA analysen bør imidlertid i fremtiden anvendes ved undersøgelser af mere specifik karakter, hvor mængden af de indsamlede data kan begrænses ved at der er tale om en mindre gruppe deltagere. Et eksempel på et vellykket samspil af elementer af kvalitativ og kvantitativ forskning findes i udviklingsprocessen af CCHSS item 10 (When you are really sad and someone tells something funny to bring you into a better mood, does it feel good?). I Führ (2001) vises børnenes nuancerede og mangfoldige refleksioner på dette spørgsmål, som kunne anvendes ved den endelige udformning af spørgsmålet. I spørgeskemaundersøgelsen i Führ (2002) var netop dette spørgsmål med M: 4.10 blandt de to vigtigste i børnenes øjne. Ud fra gennemsnitsresultatet kan afledes, at opmuntring via humor er særligt vigtigt for børnene, men hvad værdien M: 4.10 *indholdsmæssigt* dækker over, kan tolkes mere præcist via den forståelse, der er opnået i interviewdelen i Führ, (2001).

2.1 Datasæt

Projekt	Metode	Deltagen	Alder	SD
Pilotundersøgelse1	Spørgeskema	N=112	M=13,8	SD=3,2
Pilotundersøgelse1	Interview	N=57		
Pilotundersøgelse2	Spørgeskema	N=45	M=36,7	SD=8,6
Pilotundersøgelse2	Interview	N=45	M=36,7	SD=8,6
Pilotundersøgelse3	Spørgeskema	N=12	M=13,2	SD=1,4
Pilotundersøgelse3	Interview	N=12	M=13,2	SD=1,4
Forskningsprojekt1	Spørgeskema	N=962	M=12,4	SD=1,1
Forskningsprojekt1	Skoleskema	N=962	M=12,4	SD=1,1
Forskningsprojekt1	Interview	N=75		
Forskningsprojekt1	Spørgeskema1	N=150		
Forskningsprojekt1	Spørgeskema2	N=150		
Forskningsprojekt2	Spørgeskema	N=247	M=43,8	SD=10,9
Forskningsprojekt3	Spørgeskema	N=1322	M=13,5	SD=1,4

Skemaet viser forskningsprojektets dataindsamling i kronologisk rækkefølge.

Pilotundersøgelse 1: Undersøgelse af sammenhængen mellem humorpræferencer og humorproduktion, af humorens sociale funktion og af børns egne udtryk for humorens funktion i aldersgruppen 10-16 år.

Pilotundersøgelse 2: Udvikling af CCHSS (afprøvning af 2 divergerende sæt ved 45 voksne).

Pilotundersøgelse 3: Udvikling og afprøvning af CCHSS samt af den danske version af CHS. Resultatet af denne forundersøgelse pegede på, at spørgsmålene var formuleret forstået for målgruppen, samt at spørgsmålenes begrebsindhold blev tolket som forventet.

Forskningsprojekt 1: Som det ses i skemaet omfatter dette projekt fire dele:

a. Spørgeskemaundersøgelse med kodede (anonymiserede) skemaer.

I spørgeskemaet skal de 962 10-16-årige besvare spørgsmål om (1) deres værdsættelse af forskellige typer vitser og om hvad de selv foretrækker at producere af humor, (2) om hvad de mener om humor i forbindelse med venskab, social accept og status og om humor og sociale omgivelser, (3) om deres forældres humoristiske evner, (4) om ”coping humor” (idet CHS- og CCHSS-testen indgår i det samlede spørgeskema) samt (5) om deres opfattelse af eget selvværd og egen personlighed samt deres evt. erfaringer med ensomhed. De to test omtales nærmere i et følgende afsnit.

b. Oplysningskema udfyldt af deres skole.

Ved hjælp af dette kan man danne sig et indtryk af sammenhænge mellem på den ene side sans for humor og på den anden side (1) antallet af fraværsdage i sidste skoleår, (2) forekomst af anorexia nervosa, (3) kontakt til psykolog, (4) deltagelse i special-undervisning samt (5) anden end dansk etnisk baggrund.

c. Forældreundersøgelse.

Her blev nogle af børnenes forældre spurgt om selvvurdering (spørgeskema1) og deres vurdering af barnet (spørgeskema2).

d. Interviewundersøgelse.

Denne undersøgelse tjente til at inddrage visse personlighedsaspekter og til at uddybe forståelsen af CCHSS- og CHS-testene og af udviklingen af evnen til at bruge humor som supplerende coping strategi.

Forskningsprojekt 2: En mindre undersøgelse af voksne med henblik på at afprøve en dansk version af en test vedrørende gelotofobi (angsten at blive leet ad) – <GELOPH 15>

Forskningsprojekt 3: En omfattende undersøgelse af, om GELOPH <15> kan anvendes over for børn, og om sammenhænge mellem på den ene side gelotofobi og på den anden side (1) ”coping humor”, (2) besvarelse af CCHSS-testen, (3) børnenes selvvurdering, (4) deres forældres humor, (5) deres fremtidsforventninger, (6) deres fravær i skolen, (7) mobning, (8) humor som social kompetence og (9) deres selvværd henholdsvis deres erfaringer med at føle ensomhed.

2.2 Anvendte instrumenter/ udvikling af egne instrumenter

I undersøgelsen indgår 3 spørgeskemaer: Coping Humor Scale (Martin, 1983), Children Coping Humor Strategy Survey (Führ, 2002) og GELOPH <15> (Ruch & Proyer, 2008a).

CHS er et selvrapporteringsskema med 7 spørgsmål, hvoraf de to er negativ ladede. Skemaet scores efter Likert-skalaen med firesvarmuligheder (fra "1 = slet ikke" til "4 = helt rigtigt"). I litteraturen (se f.eks. Ruch, 1998) beskrives CHS som et instrument til måling af respondenternes evne til at anvende humor i stressfyldte og spændte situationer. Da der ikke fandtes kvalitative studier, der forholder sig til, *hvad* respondenterne reflekterede over ved besvarelserne af de enkelte items, hverken for voksne eller for børn, gennemførte jeg en mindre studie (Pilotundersøgelse 3 i afsnit 2.2 ovenfor) for at undersøge, om det kunne antages, at børn og unge opfatter de enkelte spørgsmål på samme eller lignende måde som voksne. Adaptationen af den engelske version viste sig ydermere som problematisk, netop fordi sådanne kvalitative data ikke fandtes. Fx lyder spørgsmål 7 i CHS: ”It has been my experience that humor is often a very effective way of coping with problems”. Det fremgår ikke af spørgsmålet, om *experience* skal læses som en *oplevelse* man har gjort sig en enkelt eller enkelte gange, eller om der tales om *erfaring*, dvs. noget man har gjort sig mange gange, og

som man så også vil forvente i fremtiden. Samtidigt kan begrebet *coping* heller ikke direkte oversættes til dansk, da det er uklart om det handler om at *tackle, håndtere, forholde sig til, mestre* eller fx blot en måde at *reagere på*.

CCHSS: *Impulsen* til at udvikle CCHSS, blev givet af børnene selv: Når børnene i interviewdelen af Pilotundersøgelse 1 gav udtryk for, at de kunne bruge humor til at håndtere emotionel smerte, var der grund til at undersøge om andre strategier til tackling af livet ligeledes blev anvendt i denne aldersgruppe.

Min oprindelige hensigt var altså ved hjælp af en række spørgsmål at undersøge, om og hvordan børn bruger humor i denne aldersgruppe. Spørgsmålene blev fundet ved gennemgang af litteraturen og taget fra en lang række skalaer i troen på, at de metodologiske krav hermed var opfyldte. Kriteriet for valg af det første sæt med 10 spørgsmål var simpelthen, at de kunne antages at være egnet til at belyse spørgsmålet, men i diskussioner med forskere fra Tyskland, USA og Norge ved ISHS konferencen i Bergen i 1998 blev jeg opmærksom på, at denne fremgangsmåde var utilstrækkelig. Her pegede bl.a. W. Ruch på betydningen af at stille yderligere krav m.h.t. den psykometriske kvalitet i forbindelse med spørgeskemaundersøgelser og konstruktion af "skalaer" og formulering af de enkelte spørgsmål. Han anså det for væsentligt at give en nøje *karakteristik* af det begreb eller fænomen, der er genstand for undersøgelse. Hertil kommer krav om teoretisk forankring definitionen og en forklaring på *hvordan* og *på hvilken baggrund* skemaets endelige udformning blev valgt. Den allerede planlagte forundersøgelse, hvor spørgsmålene skulle testes, måtte derfor udsættes.

Med afsæt i ovenstående overvejelser blev der så udviklet et nyt sæt med 10 spørgsmål, som stringent fulgte de ovennævnte metodologiske krav. De efterfølgende resultater og analyser af Pilotundersøgelse 2 til udvikling af CCHSS må betragtes med forbehold, da der kun deltog 45 forsøgspersoner i undersøgelsen. Forundersøgelsen blev gennemført i håb om at få et fingerpeg om, hvordan spørgsmålene blev forstået, om de overhovedet havde relevans, og hvilket svarmønster eller variable grupperinger i faktoranalysen der kunne bidrage til en bedre forståelse af det, der efterfølgende skulle undersøges med spørgeskemaet. Første skridt i forundersøgelsens analyse var her reliabilitets testen (Chronbach Alpha) af begge sæt spørgsmål, som viste ((N 45, M 36,71, Std.D. 8,62): For sæt I fandtes Alpha = 0,3697, og for sæt II var resultatet Alpha = 0,6088.

Relialibilitestesten ved bestemmelsen af Chronbach Alpha giver oplysninger om spørgsmålenes indbyrdes konsistens og en alpha-værdi under 0,500 anses for utilstrækkelig (J. Thorson & T. Powell 1991). Sæt I viste kun meget ringe konsistens, blev ikke forstået som indbyrdes sammen-

hængende og kunne altså ikke bruges. Sæt II viste derimod derimod en acceptabel alpha-værdi på 0,6088 og kunne danne udgangspunkt for udformning af den endelige CCHSS-skala. Næste skridt var yderligere at gennemarbejde spørgsmålene fra sæt II ved hjælp af faktorenanalyse af såvel sæt I og sæt II og ved at overveje hvert enkelt spørgsmåls formulering på baggrund af de ovennævnte metodologiske krav. Formålet med faktorenanalyse er at komme på sporet af mulige kausale sammenhænge mellem de forskellige variable; dvs. at faktorenanalyse primært tjener til at finde dimensioner eller faktorer, så et større antal variable kan reduceres til én eller få variable, hvis betydningsindhold kan interpreteres i en meningsfuld sammenhæng, baseret på de fællestræk som de pågældende variable har. Denne statistiske metode har altså to divergerende funktioner, på den ene side en *eksplorativ* og på den anden side en *konfirmativ*, hvilket bl.a. Lewis Beck (1994) fremhæver væsentligt ved anvendelse af faktorenanalyse.

Resultatet af faktorenanalysen for begge sæt gav anledning til grundig eftertanke. Som nævnt tidligere var forundersøgelsen ikke stor nok til at kunne give et klart svar på antagelsen om, hvordan humor bruges som *coping redskab*. Ligeledes var deltagernes aldersfordeling heller ikke egnet til at give et indtryk på, hvordan *målgruppen* vil reagere på spørgsmålene. Efter yderligere litteraturgenomgang blev følgende kriterier for udvikling af endnu et nyt sæt spørgsmål anvendt, idet rækkefølgen er udtryk for den anvendte prioritering:

- Teoretisk og psykometrisk forankring af spørgsmålet
- Egenværdi for de enkelte variable grupperinger i faktorenanalysen
- Forskelle i betydningsindholdet af hovedfaktorerne
- Faktorladninger
- Alpha for det samlede sæt spørgsmål.

Resultatet af denne revisionsproces blev et sæt af de 11 spørgsmål, som udgør CCHSS. Under revisionsprocessen viste sig, at et område, som normalt inddrages under "coping humor", ikke var omfattet af spørgsmålene, nemlig brug af humor til at tackle frygt eller angst. Et yderligere problem var, at Pilotundersøgelse 3's deltagere var voksne, da jeg på dette tidspunkt antog, at *voksnes* brug af de strategier, der blev undersøgt især i sæt II, kunne tjene som indikator for, at der overhovedet var grundlag for at undersøge tilsvarende hos børn. Derfor måtte alle spørgsmål revideres en sidste gang, hvor der specielt blev taget hensyn til målgruppens sproglige forudsætninger. Resultatet af denne arbejdss- og ikke mindst læreproces viste sig, da de foreløbige resultater for 765 deltagere i den indeværende undersøgelse blev bearbejdet. Relialibilitestesten for CCHSS's 11 spørgsmål viste alpha = 0,7695 og tyder på, at selvom spørgsmålenes betydningsindhold varierer fra tackling af

angst/frygt til brugen af sex- relaterede vitser, jf. freudiansk teori, kan de anses for at være indbyrdes sammenhængende. Resultatet for den samlede undersøgelse ses i Führ (2001) og er del af den indleverede afhandling.

Det overordnede resultat af den i afhandlingen beskrevne fremgangsmåde og læreproces er en tre-faktorløsning uden negative ladninger og uden dobbeltladninger. Med hensyn til yderligere at udvikle det kvantitative instrument, giver resultatet anledning til primært to nye overvejelser: 1) Kan spørgsmålene præciseres endnu mere gennem konkretisering og afklaring i undersøgelsens efterfølgende kvalitative interview, og 2) kan det ligeledes nærmere afklares, om evt. vigtige funktioner for brugen af humor er blevet overset?

Afsluttende vedrørende brug af faktoranalysen i kvantitativ forskning tages det problem op, der blev nævnt tidligere i dette afsnit, nemlig at der helst søges at bestemme **få** faktorer, som sammenfatter sammenhænge mellem de implicerede variable. Netop her ligger faren for manipulation af det data-sæt man arbejder med. Ved fx. at udelade spørgsmål 6 eller 10 i CCHSS opnår man i begge tilfælde en to faktorløsning for de resterende 10 spørgsmål i modsætning til den tre-faktorløsning, man har når begge disse spørgsmål medtages. Her må man stringent forholde sig til *formålet* med det, der skal undersøges, og det instrument, der udvikles til dette formål. I ovenstående tilfælde vil konsekvensen af denne manipulation være, at man enten argumenterer for, at brug af humor som en måde at tackle emotionel smerte på (spørgsmål 10) er *lig med* eller *inkluderet* i den mere generelle formulering om humorens funktion ved *skift i humøret* (spørgsmål 6), eller at man argumenterer for, at ét af spørgsmålene er uvæsentlig i forhold til problemstillingen.

Sammenfattende kan om processen med at udvikle CCHSS siges, at udviklingen af et reliabelt instrument i kvantitativ forskning implicerer en bred vifte af nødvendige overvejelser, selvkritik, revision og kontinuerlig nytænkning, idet forskningsfeltet er under konstant udvikling. Så selv om CCHSS viste fortsat gode psykometriske egenskaber i Forskningsprojekt 2 (efter 10 år), er der grund til fornyet revision, ikke mindst fordi Martin (2007) peger på eksistensen af fire *humor styles* hosvoksne. Hvorvidt disse "humor styles" også findes hos børn og unge, hvornår eller hvordan de udvikles, er hidtil ukendt og bør medtænkes i fremtidig forskning om børns brug af humor.

GELOPH <15> (Ruch og Titze 1998; Ruch og Proyer 2008b) er et selvrapporteringsspørgeskema med 15 spørgsmål, som alle er positive ladet. Svarmuligheder går fra 1: "helt uenig" til 4: "helt enig". Herudover rummer skemaet demografiske oplysninger om alder, køn og civilstand. Med henblik på at oversætte og tilpasse spørgeskemaet til andre sprog/kulturer, fulgte der en standardiseringsanvisning med. Den engelske version af GELOPH <15> blev i første omgang oversat til dansk og efterfølgende "tilbageoversat" til engelsk. Ved usikkerhed om meningsindholdet af de enkelte spørgsmål og deres anvendelighed i den respektive kulturel kontekst, kunne forskerteamet ved Universitet Zürich kontaktes med henblik på en afklarende diskussion.

Da skemaet ikke tidligere er blevet benyttet ved undersøgelser af børn og unge, eksisterede der ingen data, som kunne pege på evt. problemer med forståelsen af enkelte items, og der fandtes heller ingen kvalitative data fra voksenstudier. Den adapterede version af GELOPH <15> viste imidlertid gode psykometriske egenskaber i undersøgelsen af danske voksne (Führ, Proyer & Ruch, 2009), hvilket tyder på, at instrumentet vil vise sig at være anvendeligt ved undersøgelser af børn og unge i her i landet og i lignende kultukredse.

3. Korte sammenfatninger

Dette afsnit rummer sammenfatninger af de tre tidligere publicerede artikler, som inddrages, da de danner grundlag for forskningsarbejdet bag *The fear of being laughed at and the ability to use humor as a coping tool*", som udgør afhandlingens sidste empiriske forskningsarbejde (se 5. del).

3.1 Some aspects of form and function of humor in adolescence

Som et første et skridt i min forskning om humor hos børn og unge i 10-16-årsalderen tager dette forskningsprojekt fat på nogle af de mest grundlæggende antagelser i humorforskningen på daværende tidspunkt. Indledningsvis skal fremhæves, at forskningen på dette felt – og ikke mindst vedrørende børn og unge – har været og fortsat er meget begrænset. De mest centrale antagelser er stadig relateret til Freuds (1905) synspunkter om, at børns humor hænger sammen med deres psykoseksuelle stadie og de hermed forbundne udfordringer, som kunne verbaliseres via humor, samt Piaget's (1952) teorier om barnets kognitive udvikling, som anses for at betinge, hvilke former for humor børn er i stand til at forstå og anvende.

I forlængelse heraf udviklede en af den nyere humorforsknings pionerer, P.E. Mc Ghee (1979), en teori om udviklingen af humor i barndommen, som forfølger begge de to aspekter. Mc Ghee bidrager med en ny taksonomi indenfor udvikling af humor i barndommen, som bygger på den ene side på Piagets stadie teori om barnets kognitive udvikling og på den anden side på hyp-pigst anvendte former for humor indenfor de disse udviklingstrin Hvor Freud (1905) og Höffding (1916) var enige i, at humor som livsanskuelse eller "attitude towards life" ikke hørte barndommen til, da børn både manglede de nødvendige kognitive forudsætninger og livserfaringer for kunne benytte sig af humor som et redskab til at mestre livet, manglede der fortsat forskning om dette spørgsmål for aldersgruppen 10-16 år.

De første vigtige, inspirerende forslag om mindre børns brug af humor til at forholde sig til noget, de er optaget af på deres respektive alderstrin, fandtes i Søbstads (1993, 1998) arbejder om børnehævebørns brug af humor, samt i Masten's (1986) studie om humor som kompetence hos skolebørn. På baggrund af dette gennemførte jeg da en undersøgelse af danske skolebørn i alderen 12-16 år (Pilotundersøgelse 1: N=112 i spørgeskema-delen og N=57 i interview-delen). Formålet var at afdække evt. sammenhænge mellem fortrukne vitskategorier, anvendelsen af disse og de udviklingsbetingede udfordringer, som børnene netop i den periode var mest optaget af, samt at undersøge humor som social og kommunikativ kompetence.

Resultatet af spørgeskemaundersøgelsen var, (1) at humor har betydning som et socialt og kommunikativt redskab, og (2) at humor betragtedes som et vigtigt redskab til at opnå status i klassen. 30,6 % af drengene indikerede humor som "bestemt vigtigt" for at opnå status i klassen og 37,1 % angav "det tror jeg". Pigernes resultater viste 14 % for "bestemt" og 34 % for "det tror jeg". Grundlæggende pegede undersøgelsen på, at piger i denne alder i mindre grad end drenge anser humor for at være et vigtigt redskab til at opnå status i klassen.

Resultaterne af spørgeskemaundersøgelsen viste med hensyn til "sex" som udviklingstema signifikant sammenhæng mellem generel præference for sex-vitser og egen brug af humor med sex-relateret indhold. Samtidig peger resultatet på, denne form for humor var af større betydning for de yngre børn. Dette kan formentlig føres tilbage til de med den biologiske modning forbundne synlige forandringer af kroppen for begge køn.

Interviewundersøgelsen var bl.a. rettet mod at bruge humor som en måde at håndtere livet på. Følgende tre spørgsmål var relateret til denne del af det semistrukturerede interview:

1. *"Har du nogensinde prøvet, at når du har været virkelig trist, er kommet til at grine, eller er det sket, at en anden har fået dig til at grine?"*

2. "Hvordan føltes det" og

3. "Syntes du at det hjalp?"

85 % af børnene bekræftede spørgsmål 1 og gav udtryk for, at havde oplevet sådan en livssituation. Disse 40 børn svarede så på de to andre spørgsmål med det resultat, at 32 børn pegede på en positiv oplevelse af hændelsen og 8 på en negativ oplevelse. Blandt de af børnene anvendte udtryk til at beskrive en positiv oplevelse af hændelsen var "det føltes godt, rart og forløsende"; blandt udtrykkene for en negativ oplevelse af hændelsen var "ambivalent, to følelser på samme tid".

Med hensyn til spørgsmål 3, *om det hjælper*, peger besvarelserne på en meget individuel oplevelse af situationen og giver udtryk for, at børn betragter humor som et anvendeligt redskab i mindre alvorlige situationer i deres liv. Derimod giver børnene tydeligt udtryk for, at når der indtræffer alvorlige hændelser i deres liv, kan humor nok bruges til en kortvarig fornemmelse af at blive hjulpet og "forløst", men der søges primært efter trøst, nærhed og omsorg.

Resultatet bekræfter tidligere fund blandt college studerende i USA (Lefcourt og Martin 1986), som betragter humor én mulig måde til at håndtere modgang i livet på, som kombineret med andre kan hjælpe børn og unge gennem de mest sårbarer og vanskelige perioder i deres udvikling (jf. også Erikson 1968 og Fendt 1990).

Undersøgelsens resultater peger i deres helhed på humorens betydning som såvel inter- og intrapersonel kompetence i denne aldersgruppe. Undersøgelsens kvalitative del giver anledning til nærmere at undersøge anvendelse af humor som et redskab til at tackle modgang i livet på allerede i denne alder, idet interviewunderundersøgelsens mere nuancerede svar peger på velreflekterede overvejelser om, hvor humor kan bruges, hvor den kan være et supplement, og hvor der skal mere til, når modgang i livet skal håndteres.

3.2 Coping humor in early adolescence. *Humor: International Journal of Humor Research*, 15, 283-304.

Denne undersøgelse giver som den første belæg for, at humor kan fungere som en måde at håndtere livet på hos børn i 11-14-årsalderen. Tidligere forskning af bl.a. Freud (1905) og Höffding (1916) argumenterer for, at humor ikke kan have denne funktion i barndommen, idet børn mangler de nødvendige kognitive forudsætninger (Freud, 1905) og også mangler den nødvendige livserfaring (Höffding, 1916) for at kunne anvende humor på denne måde. Vejleskov (2001) peger på, at Höffding i netop denne sammenhæng ikke skelner skarpt mellem det, han kalder for "lille humor" (re-

præsenteret via humor som ”enkeltfølelse” – f.eks. i form af vitser, anekdoter m.m.) og ”stor humor” (humor som ”totalfølelse” – et spørgsmål om sindelag eller livsholdning).

En tidligere interviewundersøgelse (Führ 2001) viste imidlertid, at den undersøgte aldersgruppe (11-16 år) gav udtryk for at benytte sig af humor på den af Freud og Höffding beskrevne måde hos voksne. På den baggrund forekom det meningsfuldt, at undersøge dette problemfelt nærmere. Endvidere ønskedes undersøgt, hvorvidt humor kunne betragtes som en bevidst og refleksivt valgt strategi i forskellige livssituationer.

Anvendelsen af humor som en måde at begå sig i livet på eller at ty til humor i trængte situationer, har været genstand for forskning op gennem de sidste årtier, men forskningen har udelukkende fokuseret på voksnes brug af humor. R. A. Martin (1998) peger her på vigtigheden af at skelne mellem brugen af humor som ”coping” redskab i modsætning til at bruge humor som forsvarsmekanisme. Martin fremhæver, at hvor Freud (1905) betragtede humor (til forskel med vitser eller spøg) som den højeste forsvarsmekanisme, mener Mishkinsky (1977, i Martin 1988, s. 44) at humor skulle betragtes som en *courage mechanism*, dvs. en på kognitive processer baseret, bevidst valgt strategi til håndtering af modgang i hverdagen. En anden vigtig forskel som R:A: Martin (1998) peger på er, hvorvidt humor skal betragtes som en form for evne/færdighed eller snarere som en habituel adfærdsmæssig stil eller et træk. Samme problematik blev taget op af Ruch, Köhler og Triers (1997) arbejde i forbindelse med udvikling af spørgeskemaet STCI (State Trait Cheerfullness Inventory), hvor netop spørgsmålet om humor som *enkelt følelse* eller humor som en *tilgang til livet* (som kendt fra Höffding) bliver taget op. I et senere arbejde af Ruch (i Peterson & Seligman 2004) blev humor klassificeret som en af de 24 positive *karakterstyrker*, et menneske kan være i besiddelse af.

Den undersøgelse, som rapporteres her (”Forskningsprojekt 1 i skemaet side xx), er en spørgeskemaundersøgelse af 962 skoleelever i den østlige del af Danmark (Sjælland, Falster og Lolland).

Som første skridt blev skoleforvaltningen i de respektive kommuner orienteret om baggrunden og formålet med undersøgelsen. Herefter blev der indhentet tilladelse fra forældrene til deres børns deltagelse. Skoler, der ønskede at deltage uden forældreaccept, blev ekskluderet. Både informationer fra skolesekretariatet om de enkelte elever og svarene på spørgeskemaet kunne behandles helt anonymt, idet alle skemaer fik kodenumre. Alle deltagende lærere fik instruktioner om gen-

nemførelse af undersøgelsen, og samtlige deltagende elever blev på ny orienteret om, at deltagelsen var frivillig og kunne afbrydes til enhver tid.

Spørgeskemaerne blev sendt ud til 55 5.-8.-klasser på 13 forskellige skoler, og i alt besvarede 488 drenge ($M= 12,4$ år) og 472 piger ($M=12,5$ år) spørgeskemaet, hvilket er en besvarelseskvotient på 90,4 %. De anvendte instrumenter i undersøgelsen var CHS-testen (Martin, 1983) og den på baggrund af interviewundersøgelsen i Führ (2001) udviklede Children Coping Humor Strategy Survey (CCHSS-testen), se afsnit 2.3 ovenfor.

Da der i litteraturen ikke fandtes tidligere resultater om, hvordan børn besvarer CHS, var formålet i første omgang at undersøge, hvordan børnene responderede på udsagnene i CHS. Resultatet viste det samme billede, som er kendt fra et hav af voksen-besvarelser (se omfattende oversigt i Martin, 2007), dvs. samme én-faktor løsning, næsten identiske gennemsnitsværdier, samt en Cronbach Alpha koefficient på 0.60, som ligeledes er blevet målt i tidligere undersøgelser med voksne. Analysen af det andet instrument, CCHSS-testen, førte frem til en tre-faktor løsning, som pegede på, at humor – som et middel til at begå sig i livet – bør betragtes som et multidimensionelt redskab. Faktoranalysens tre faktorer syntes at kunne tolkes sådan:

Faktor 1: Brug af humor i forbindelse med stress og usikkerhed.

Faktor 2: Brug af humor ved håndtering af aggression og seksualitet.

Faktor 3: Brug af humor til et positivt humørskifte – at blive opmuntret.

Samtidigt viste det sig, at de syv items i CHS korrelerede med faktor 1 i CCHSS, hvad der tyder på indholdsmæssig sammenhæng. Resultatet tydede ligeledes på, at der var signifikante alders- og kønsforskelle i denne aldersgruppe: Drenge tenderede til at anvende mere aggressive og seksuelt relaterede strategier i deres brug af humor, mens pigerne i højere grad syntes at bruge humor til at komme i bedre humør. Denne tendens tiltog med alderen for piger, men ikke for drenge.

Med hensyn til at bruge humor som et redskab til at håndtere usikkerhed og stress, fandtes signifikant stigning fra 12 årsalderen og frem for begge køn. Vedrørende spørgsmålet om humor som en refleksivt valgt strategi til at mestre divergerende livssituationer og humør, gør denne undersøgelse det nærliggende at betragte humor – som et middel til at begå sig i livet på - som et multidimensionelt redskab. Desuden synes den at bekræfte antagelsen om, at humor som en måde at håndtere livet på er relateret til udviklingsbetingede og aktuelle udfordringer i livet. Den med alderen tiltagende anvendelse af humor til tackling af vanskelige situationer leder hen til en mulig forbindelse mellem udviklingsbetingede forandringer og tiltagende livserfaring..

3.3 The applicability of the GELOPH <15> in children and adolescents. First evaluation of a large sample of Danish pupils.

Denne undersøgelse drejer sig om eksistensen og omfanget af gelotofobi blandt børn og unge. *Gelos* er det græske ord for latter, og *gelotofobi* defineres som angst for at blive leet ad – angst for at blive til grin – eller angst for at være genstand for latter. Der er mangfoldige grunde til, at mennesker ler ad andre mennesker; fx kan det være den andens udseende, påklædning, sprog, talefejl, dialekt m.m., som virker lattervækende. Ruch & Proyer (2009) beskriver både den harmløse måde at le ad andre på, hvor man fx på spøgefuld måde minder en god ven om nogle uheldige episoder i vedkommendes liv, og den fjendtlige måde at gøre andre til grin på, hvor det handler om at give den anden en følelse af utilstrækkelighed eller en følelse af at være holdt udenfor.

Det, som kendtegner gelotofobe mennesker, er altså, at de er bange for at være genstand for andres latter. Gelotofobe mennesker har svært ved at tyde andres latter rigtigt og er tilbøjelige til generelt at opfatte andres latter som værende rettet mod deres egen person. Samtidig har de heller ingen forståelse for, hvorfor andre mennesker kan nyde morskab og latter og endda søger bevidst at implementere humor i deres sociale samvær.

Den tidlige forskning vedrørende gelotofobi går tilbage til Titze (2009), som mener, at gelotofobi opstår i den tidlige barndom. Mangelfuld udvikling af positiv interaktion mellem barnet og dets nærmeste omsorgsperson ses som en prædiktor for at udvikle geletofobi. Som endnu en væsentlig faktor betragtes intense, gentagne traumatiske oplevelser af være blevet latterliggjort. Forestiller man sig, at et barn ikke får mulighed for fx at udvikle sikker tilknytning, autentisk affektiv afstemning med de primære omsorgspersoner, mulighed for positiv spejling, følelse af at være anerkendt eller grundlæggende tillid til egen kunnen, samt sund oplevelse af egen kunnen og kompetencer, er det nærliggende at antage, at et sådant barn vil miste selvtilliden og dermed blive mere usikker i sin tolkning af andres sociale signaler. Her skal dog bemærkes, at der findes en undersøgelse (Ruch, Proyer, & Ventis, 2010), som peger på det stik modsætte, nemlig at klinisk diagnosticerede gelotofobikere ikke husker flere episoder, hvor de har været udsæt for at blive leet ad i deres barndom, end en kontrolgruppe af ikke-gelotofobikere.

Nærværende undersøgelse anvender som instrument **GELOPH <15>** (Ruch & Proyer, 2008), der er et spørgeskema med 15 spørgsmål til subjektiv vurdering af gelotofobi.. Alle spørgsmål er formuleret sådan, at positive svar tyder på gelotofobi. Spørgeskemaet anvender et svarformat med fire svarmuligheder, der spænder fra 1 = "meget uenig" til 4 = "meget enig". GELOPH <15> anses

nu for at være et standardinstrument til vurdering af frygt for at blive leet ad; det er efterhånden vidt udbredt i forskningen og er indtil videre blevet oversat til mere end 40 forskellige sprog (se bl.a. Papousek, Ruch, Freudenthaler, Kogler , Lang, & Schulter, 2009; Ruch, 2009a; Ruch & Proyer, 2009a).

Undersøgelsen spreder sig geografisk over alle regioner i Danmark og omfatter 1322 børn og unge i alderen 11-16 år. Spørgeskemaet indeholdte udover GELOPH <15> en række spørgsmål om forskellige personlighedstræk, om besvarerens erfaringer med mobning og om hans/hendes fremtidsforventninger, såvel som spørgsmål om vedkommendes opfattelse af humor som social og kommunikativ kompetence. Yderligere har de pågældende skoler bidraget med informationer om antallet af elevernes fraværsdage i løbet af sidste skoleår, idet de giver mulighed for også at undersøge en nærliggende sammenhæng mellem mobning og gelotofobi. Da de uddelte spørgeskemaer var nummererede, kunne variablen "fravær" tilordnes til de enkelte spørgeskemaer uden at ændre ved anonymiteten.

En tidligere publiceret afhandling om gelotofobi blandt danske voksne (Führ, Proyer & Ruch 2009) er den første af sin art herhjemme, og nærværende undersøgelse er den første overhovedet om gelotofobi hos børn og unge. Derfor er fortolkningen af resultaterne vanskelig og må betragtes som tentativ. Danmark fremstår i voksenundersøgelsen som det land i verden (blandt 73 undersøgte lande), der har de færreste gelotofobe voksne (1.67 %, se også Proyer, Ruch, Führ et al 2008). Samtidigt viser den indeværende undersøgelse som et første resultat, at 14.67 % af vores 11-16-årige forsøgspersoner kan klassificeres som gelotofobe i lettere grad! For ingen af de to resultater er der nogen umiddelbar forklaring. GELOPH <15> viste gode psykometriske egenskaber og en høj intern konsistens. Børnene rapporterede ingen forståelsesproblemer med hensyn til de enkelte items (spørgsmålene blev for de elleveårige børns vedkommende læst op og forklaret af læreren). GELOPH <15> viste derudover samme én-dimensionale faktorstruktur, som sås i voksenundersøgelsen (og i tilsvarende voksenundersøgelser fra andre lande).

Grundlæggende kan fremhæves, at resultaterne tyder på, at GELOPH <15> klart er anvendelig ved undersøgelser af børn og unge i aldersgruppen 11-16 år. Yderligere bekræfter undersøgelsen, at der er sammenhæng mellem deltagernes erfaringer med mobning og deres udtryk for gelotofobi, idet deltagere med de hyppigste mobbe-erfaringer, scorede højest på GELOPH <15>. Det fandtes derimod ingen sammenhæng mellem gelotofobi og antallet af fraværsdage; uanset om børnene angav, at de var bange for at være genstand for andres latter, kommer de i skole alligevel. Et andet interessant resultat var, at den gruppe børn, der ofte *tænker på* at pjække fra skolen, men alligevel kun havde ganske få fraværsdage, scorede højest på GELOPH <15>.

3.4 Correlates of gelotophobia

A Study of the Relationship Between Gelotophobia and Coping Humor as well as Self-Ascribed Loneliness and Some Other Person Variables

Nærværende undersøgelse sigtede mod at afdække en mulig sammenhæng gelotofobi (angsten at blive leet ad) og evnen til at bruge humor i trængte situation. Det antoges navnlig, at evnen til at kunne le ad sig selv kunne beskytte en mod frygt for at føle, at man genstand for andres latter. Samtidig ønskedes også undersøgt, om den positive oplevelse af latter og humor er associeret med større livsglade og, i modsætning hertil, om gelotofobi fører til en mindre positiv oplevelse af tilværelsen og til mindre grad af personlig tilfredshed.

Undersøgelsen anvendte som instrument **GELOPH <15>** (Ruch & Proyer, 2008), der er et spørgeskema med 15 spørgsmål til subjektiv vurdering af gelotofobi. (se evt. afsnit 3.3). Alle spørgsmål er formuleret sådan, at positive svar tyder på gelotofobi. Spørgeskemaet anvender et svarformat med fire svarmuligheder, der spænder fra 1 = "meget uenig" til 4 = "meget enig". GELOPH <15> anses nu for at være et standardinstrument til vurdering af frygt for at blive leet ad; det er efterhånden vidt udbredt i forskningen og er indtil videre blevet oversat til mere end 40 forskellige sprog (se bl.a. Papousek, Ruch, Freudenthaler, Kogler , Lang, & Schulter, 2009; Ruch, 2009a; Ruch & Proyer, 2009a).

Det andet i undersøgelsen anvendte instrument er CCHSS (Führ, 2002), som er et spørgeskema med 11 spørgsmål, der er designet til at måle respondenternes brug af humor som en måde at tackle livet på. Spørgeskemaet anvender et svarformat med seks svarmuligheder, der spænder fra 1 = "slet ikke rigtig" til 6 = "i højeste grad rigtig". I Führ (2002) viste CCHSS gode psykometriske egenskaber og analysen og førte frem til en tre-faktor løsning:

Faktor 1: Brug af humor i forbindelse med stress og usikkerhed.

Faktor 2: Brug af humor ved håndtering af aggression og seksualitet.

Faktor 3: Brug af humor til et positivt humørskifte – til at blive opmuntret.

Undersøgelsen spreder sig geografisk over alle regioner i Danmark og omfatter 1322 børn og unge i alderen 11-16 år. Spørgeskemaet indeholdt ud over GELOPH <15> og CCHSS en række spørgsmål om forskellige personlighedsvariable som følelsen af ensomhed, udseende, selvopfattelse og positiv fremtidsforventning.

Undersøgelsens viste, at der ikke findes en klar sammenhæng mellem gelotofobi og evnen til at ty til humor i trængte situationer, så denne evne kan altså ikke hævdes at beskytte de 11-16-årige mod angst for at blive leet ad. Men svarende til resultater i tidligere gennemførte voksenstudier indikerede børn og unge med en høj score på GELOPH<15> i højere grad, at de følte sig ensomme,

og dette viste sig at være tilfældet for såvel drenge som piger. Interessant er ligeledes, at denne gruppe gav udtryk for ikke at være tilfredse med deres udseende. Yderligere viste undersøgelsen, at gelotofobe børn også udviser en ringere grad af selvtildfredshed og selvaccept, og at de har mindre positive fremtidsforventninger end non-gelotofobe børn og unge.

Ved at vende tilbage til den tidligere nævnte sammenhæng mellem gentagne mobbeerfaringer og gelotofobi, peger ovenstående resultater på den pædagogiske udfordring, det er især i skolesammenhæng at lære børn at væbne sig mod gelotofobi og at anvende humor som strategi mod denne frygt for at blive genstand for andres latter, - noget der kunne blive implementeret i programmer, der arbejder med mobning og gelotofobi i skolen mv.

Del 4

Some aspects of form and function of humor in adolescence

MARTIN FÜHR

Abstract

This study investigates the use, form and function of humor for children aged 12–16 years in two different schools including 47 participants through interviews and 112 participants in a questionnaire. The assumption is made, that developmental changes in form and function of humor for children aged 12–13 years may be influenced by their actual environmental settings and their actual tasks. Data from 12–16 year old children from two schools (school 1, in the countryside with grade 1 to 7 and school 2 in an town area with grade 1 to 10) is analyzed to see whether adult humor appears at an earlier stage in school 1. Finally, the study considers the importance of children's sense of humor in problem solving and social interaction during the period 12–16 years.

This pilot study was carried out in two schools north of Copenhagen, one a countryside school with about 200 students in grades 1 to 7, the other an urban school of about 600 students in grades 1 to 10. The purpose was to investigate a possible relation between the children's immediately conceived future and the concrete life tasks they may face as a consequence thereof, and their use of humor. 112 children aged 12–17 answered a questionnaire, and 57 children from the same group answered a semi-structured interview (see Table 1).

Questionnaire-study

Correspondences were sought between category of joke preferred by the children, category of joke most frequently used, and the life tasks

according to their developmental stage, which, according to the children, were of most immediate concern to them. As regards the role of humor in social interaction, the present study is in line with earlier findings. Thus F. Søbstad, in his 1993 study on the social function of humor in a group of pre-school children, concludes that

"we found a negative correlation between humor and loneliness: those who find no one to play with have no humor. No status. ... And this seems to hold throughout life. Humor is very important for social acceptance among other children, for status in a group of peers."

Further M. F. Rikken (1986), in a study of the role of humor in socialization in 5th grade (ages 11 to 12) in an urban school in Sweden, found that a boy dominating the group, having the highest status among both boys and girls, also turned out to be the most frequent user of jokes, jocular phrases, and remarks with implicit sexual reference. Similar findings are described by McGhee (1989) and Wolfenstein (1951). With regard to the age group investigated in the present study (12–17 years), no similar investigations are known to me.

As to the present study, as indicated by Figure 1, children who "always come up with a joke or a funny remark" (indicating extrovert behavior) generally is thought to have a high status in class. However, there

Table 1
a. Questionnaire investigation

Grade	Boys	Girls	All	Average age
6.	26	15	41	12 yrs., 3 m.
7.	20	12	32	13 yrs., 4 m.
9.	11	10	21	15 yrs., 5 m.
10.	5	13	18	16 yrs., 4 m.
All	62	50	112	13 yrs., 8 m.

b. Interview study

Grade	Boys	Girls	All	Average age
6.	10	10	20	12 yrs., 4 m.
7.	10	10	20	13 yrs., 3 m.
9.	5	5	10	15 yrs., 4 m.
10.	3	4	7	16 yrs., 2 m.
All	28	29	57	13 yrs., 7 m.

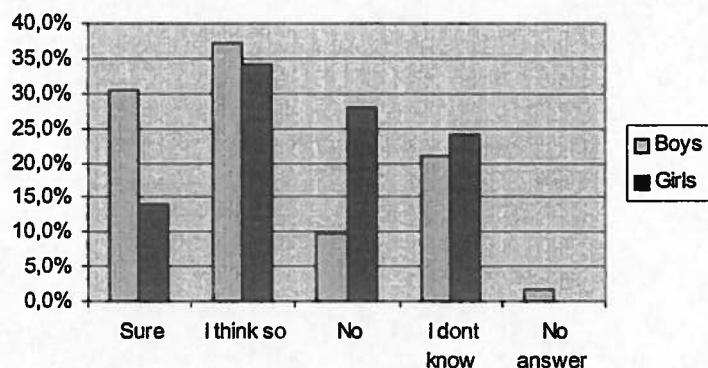


Figure 1. Distribution of boys' and girls' answers to the question: "Does it matter, if someone always come up with a joke or a funny remark, to reach high status in the class?"

is considerable difference in the ratings of boys and girls, (N: 112; chi-square tests: $p < 0.05$).

For boys "sure" is indicated by 30.6 percent and "I think so" by 37.1 percent, and for girls "sure" by 14 percent and "I think so" by 34 percent. However, it is not clear, whether a particular statement of humor as mentioned in the question form would be relevant to status formation in general, or whether it would be of different relevance to groups of boys and girls. Further, within each school class, certain joke types tend to be popular, whereas considerable differences are seen between classes. It is not possible to judge, however, whether this must be ascribed to the dominance of high status members within each group, or whether it is better explained in terms of humor as a social and communicative tool within a specific social group. No significant differences between age groups indicate that humor in terms of "funny remarks in the classroom," is a increasingly significant factor in status formation throughout adolescence.

Using jokes to face actual life tasks

In an analysis of the relationships between immediate life/developmental themes, preferred categories of joke, and those written down or told by the children, correspondence was found only for sex related jokes, and particularly amongst the younger children 12–13 years old.

As shown in Fig. 2, 37.6 percent of 12 years old children indicate sex as the most important theme at the moment, 48.8 percent indicate that they prefer the category of "sex-jokes", and 24.4 percent write at least one sex-related joke when answering the questionnaire. Compared with 13-year-old children, a significant difference is seen as regards sex as a preferred category. In general, the results suggest a link between immediate live/developmental themes, the category of jokes preferred and joke use in performance. Furthermore Fig. 2 indicates a decreasing interest in sex as "theme" with increasing age.

Fig. 3 shows that sex is a theme of interest to the group as a whole, and chi-square testing indicates that humor is used to tackle this theme. Differences between boys and girls appear concerning sex as a dominant theme as well as sex jokes as preferred category. But only with respect to sex as dominant themes the gender difference is statistically significant.

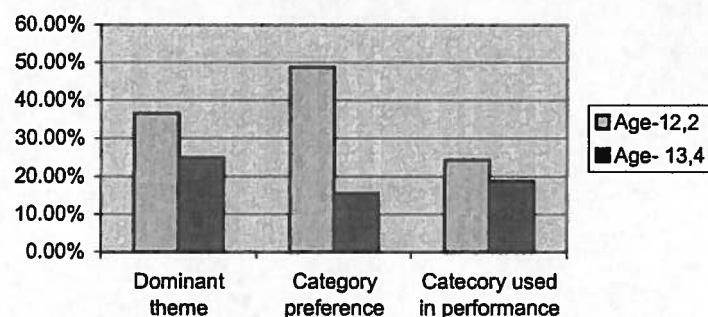


Figure 2. Age differences concerning sex mentioned as dominant theme, sex jokes mentioned as preferred category, and sex as the theme in the child's own joke
N: 73; χ^2 -test: $p < 0.003$ for dominant theme x category preferred

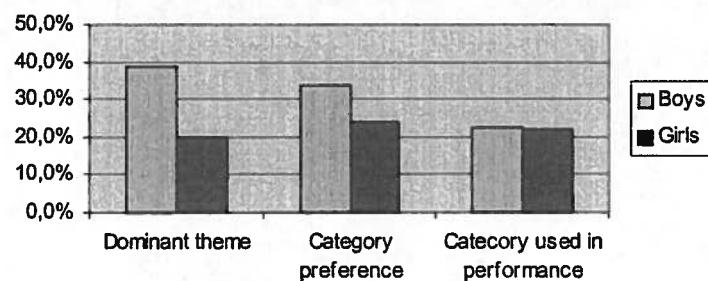


Figure 3. Differences between boys and girls. Cf. Fig. 2
N: 112; χ^2 -test: $p < 0.026$ for dominant theme x category preferred

For both genders, sex is regarded as an important theme, and more important for boys than for girls. Both genders obviously like sex related jokes, but boys prefer them more than girls. And finally sex as a subject in own jokes is preferred by both genders, when contributing their favorite joke to the study.

Joke content and social groups

Another point which may be interesting, although it has no obvious link to development related life-tasks, are differences between groups of identical age as to the actual content of jokes preferred (Fig. 4).

The questionnaire offered five categories of jokes (a-e) and the children were asked to indicate which category they regarded as most funny. The following examples are the children's own jokes from the questionnaire, where they were asked to write down their favorite joke.

a) sex related jokes

Three nuns came to heaven and were told by God:

"If you ever had sexual contact with a man during your life on earth, you have to wash the part of your body involved in this act, in holy water before you may enter heaven".

The first nun answered: "I once touched a man with my hands", and God replied: "Go and wash them in the holy water, then you may enter." The first nun walked on — washed her hands — and entered heaven.

God turned around to ask the second nun, the third one ran with maximum speed to the holy water and washed her face. When God surprised asked her, why she had [been in] such a hurry, the nun answered: " I simply

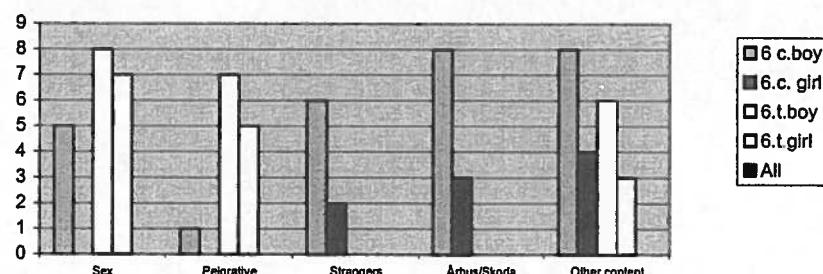


Figure 4. Number of 6 Grade boys and girls from country school (c) and town school (t) who prefer jokes with different themes

wanted to get my mouth washed, before she is washing her ass" (girl, 12 years).

b) *pejorative jokes*

Child: "Mummy, mummy, am I allowed to go out and have a swing with daddy"?

Mum (in reply): "O.k., but you are not allowed to cut him down" (boy, 12 years).

or

Child: "Daddy, daddy how far is it to America"?

Daddy: "Shut up, and keep on swimming" (boy, 14 years).

c) *about strangers*

"Ali and Josef from Turkey had just bought two sheep on the market. So they had to get them into the car for transportation, but then they faced the problem, how to see the difference between them, so that they were not mixed up. So they decided to break the leg of Ali's sheep. A while later they made a stop, checked the sheep and had to realize, that the other sheep also had broken a leg. Now they decided to cut off the horns of Josef's sheep – and they continued their journey. After a while they checked again, and saw that the other sheep had lost its horns too. Finally, after a couple of hours Ali made a statement: "What the hell Josef, I'll keep the white one and you take black one" (boy, 13 years).

d) *Århus/Skoda jokes* (The reader must know, that "Århus" is the second largest town in Denmark, and that "Skoda" is a car (made in Poland) which is considered to be a "low budget car", with the acceleration of a snail when it's best).

Århus joke: "Why are people from Århus always burried with their ass upwards?" — "To be used as bike-holders" (boy, 14 years)

Skoda joke: "How can you get a Skoda accelerate from 0 to 100 mph in 4 seconds?" — "Just throw it into the Grand Canyon" (boy, 12 years).

e) *other types of jokes.*

The children where asked to indicate the preferred joke type by crossing the respective category of preferred joke. In case that category "e" was chosen, the children were asked to write down, what kind of (different) joke type was preferred.

A comparison of 6th grade students from countryside and urban schools respectively shows that jokes about strangers (immigrants) and Århus/Skoda jokes preferred by 6th grade children from the countryside, were of no interest to 6th grade children town. As the number of subjects is limited ($N=41$), only very tentative conclusions can be made. However, at the time of investigation strangers/immigrants was in fact the most intensely discussed theme in 6th grade (country), and it seems possible, therefore, that joke preferences can be related to social environment, or to membership of a certain social group.

On this basis, it is interesting to return to the assumption previously mentioned, that the concrete life situation for 7th grade children at the country school — being the oldest age group in school, and one which must go to new schools after the summer holidays — is linked to the form and function of humor.

Fig. 5 shows the answers of 32 students in 7th grade (country) and 7th grade (town) to a question about current interest (life themes). Notable differences between the two groups are seen concerning "Plans for future" (country 55.6 percent; town 44.4 percent) and "Boy-/girl-friends" (country 11.1 percent; town 88.9 percent) and of "Other" (country 72.2 percent; town 27.8 percent).

A shift in the form and function of humor related to the supposed accelerated development of country students are not confirmed, because by including only 32 participants it is not sufficiently comprehensive to

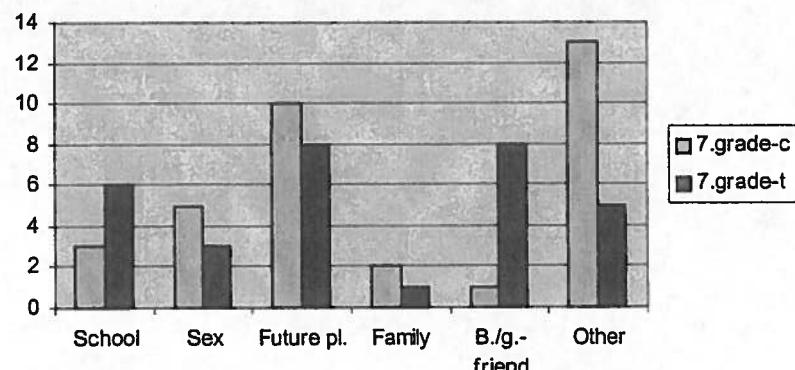


Figure 5. Number of 7 Grade children from country (c) and town school (t) indication various themes as those they currently are thinking most about
(other) N: 32 (Chi-Square Tests) p<0.044. (Boy/girl friend) N: 32 (Chi-Square Tests)
p<0.002

show such differences. Further, the particular life situation of 7th grade (country) was investigated as a dependent variable, the possibility for children at the town school to observe older students dating, may also be relevant. Differences between the mentioned categories of "Boy-/girl-friends" and "Other" are significant, and may turn out to be interesting if further investigated. It should be added that answers within the category of "Other" often refer to spare time activities, in particular sport.

Interview study

The interview section attempts to look at the use of humor as a coping tool by the age group investigated. The following three questions were part of this study

(1) "*Did you ever, once when you were really unhappy, happen to get to laugh, or did it happen that somebody made you laugh?*" (N: 47). 85 percent answered that they had been in a situation like that and, these 40 children were then asked (2) "*How did you feel?*" The answers were then listed according to whether they indicated a positive or a negative emotional reaction.

32 children indicated a positive, and 8 indicated a negative reaction. A definition of the concepts of "positive" and "negative" in this context is given below by lists of attributes referred to in the answers.

Positive: It helps, you get away from it all, relief, good healing process, you feel ok, nice, you feel better, good, you feel relieved, you are happy again, you think of other things and are happy. Attributes most frequently referred to were *good*, *nice*, and *relief/free*.

Negative: feels ambivalent, strange, queer, feels awkward, two feelings at the same time, provoking, stupid, double. Attributes most frequently referred to were ambivalent ("two feelings at the same time", and "double" are here treated as synonymous to "ambivalent.")

Answers for each age group apart show no notable difference as regards either positive or negative reaction in the situation. The same lack of difference applies to boys vs. girls. A further question was (3) "*Does it help?*" The transcripts of all the answers to this question shows that the answers are individual and personal, and that here the children typically

showed emotional reaction in terms of change of voice level, speed, and pauses for reflection recorded on tape.

Boys

"It feels good that someone comes and tries to help you"
"not always"
"that depends what has happened to you"
"it does not always help"
"yes, you forget it a bit and that helps"
"no"
"in some things it does not help"
"in small matters"
"not in serious matters"
"I think it works always, but jokes make no difference"
"not in serious matters"
"does not always help, then you have to talk about it"
"it is no real help, you can repress things for a time"
"always helps, you look at things more objectively"
"helps with moping about"
"no, laughing does not help, the sad things just come back"
"depends on what happens, encouraging someone is good"
"does not always help, not with serious things"

Girls

"helps in small things"
"not always"
"not in serious things"
"does not always help"
"does not help"
"I would rather somebody comforted me"
"not if you are very sad"
"when you have hurt yourself"
"yes, it is good to laugh instead of crying"
"no, it depends how serious it is"
"not when it is serious"

"in small things"
"when you feel sorry for something"
"in small things not so special"
"when it is serious it feels wrong"
"not when you have lost someone"
"some times it is good and really helps"
"when you have hurt yourself, but not when it is serious"
"no, not always"
"most times, but not when it is serious"

The children seem to have experienced that this kind of humor can be helpful in coping with less serious events in their daily life. When it comes to serious problems or events, humor of this kind is found to be of no real effect in coping with the problem. So, this kind of humor may sometimes feel good and be of temporary help, but when the issue is deep-felt sorrow, e.g. in relation to death, it is felt to be out of place, and instead close contact, comfort and care is sought.

Discussion

Concerning this issue, Lefcourt and Martin (1986) state that humor should only be seen as one out of a number of possibilities for tackling the many problems and conflicts children face when growing up. They see humor as only one possibility amongst many in coping with life, and see the most pervasive effect of humor when combined with other means.

The investigations of Lefcourt and Martin show that college students with developed skills in using humor in stressful situations were better at coping with stress. However, the comment of McGhee (1989, p. 260) is also relevant,

"At this point it is not clear whether those with a better developed sense of humor actually experience less stress in their lives, or whether they simply walk through their lives more quickly because of their humor skills."

In connection with the questions (1, 2, 3) raised in the semi-structured interview, further investigation is warranted into developmentally related changes in the age group concerned. Fendt (1994, vol. III p. 199) lists three fundamental processes,

- (1) *Biological changes, processes of reaching maturity*
- (2) *Cognitive development*
- (3) *Changes in social expectancy.*

Fendt denotes adolescence a “*phase of destabilisation*”, and seeks the reasons for this in cognitive and, in particular, in biological processes. The child’s total conditions of life change (parents’ attitudes and expectancies, school change, job situation), and the child does not have the choice of remaining in the known context. According to Fendt (1990, p. 239), the psychological structures defined in childhood are destabilized which brings about a large number of processes of learning and change. Transition from childhood to adolescence is seen as a step towards personal awareness.

Transition from childhood to adolescence implies self-observation and self-reflexivity. The child turns to himself, seeking answers to the questions “who am I” and “which way do I want to go”. “Personal projects” are developed. Kauke (1996), refers to this as “*Lebensentwurf*”, an outline for a wished for self which is seen as an aim for the development of self. According to Fendt (1994, p. 200), W. Stern (1925) emphasized the child’s becoming “*ego-reflexive*” and discovering that its way of thinking has an actual origin. The self becomes a key concept in understanding oneself as an individual.

The discovery of one’s own inner life, and the growing awareness of self happens through central and norm-creating experience during the period of adolescence. In so far as this relates to the concept of “*Lebensentwurf*” seen as a complex endeavor of self in adolescence, the answers given in the interviews of the present study may be considered statements of carefully distinguished reflection on when and how far and where humor can be used as a coping tool. This suggests that the function of humor as it enters into the actual processes of self-definition, may be regarded as an individual reflection/reconsideration on the general function of humor.

Now a further question may be raised, namely to what extent the individual person’s use of humor is redefined during adolescence, as he or she attempting to find himself, reflects, turns to himself, and perceives life in a new, more reflexively chosen perspective. It probably occurs during this period that in asking yourself what life is, you will also ask yourself what humor is.

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Notes

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This paper was read at the 10th International ISHS Humor Conference, Bergen Norway, June 25–27, 1998.

I especially wish to thank: Prof. Hans Vejleskov, Royal Danish School of Educational Studies for guiding me through the whole process; Gunnar Topp, Research Institute of the Royal Danish School of Educational Studies, for help with appropriate treatment of data, Gerd Gabrielsen, Royal Danish School of Educational Studies for translation, Dr. Willibald Ruch, University of Düsseldorf, for inspiration and advice in literature, Dr. Habil Marion Kauke, University of Berlin, for valuable discussion, Prof. D. Bergen, Miami University, for valuable discussion and a draft of her latest work, Uffe Pedersen, B.A., for correction of the Danish version of my article. Issue is deepfelt sorrow, e.g. in relation to death, it is felt to be out of place, and instead close contact, comfort and care is sought.

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Coping humor in early adolescence

MARTIN FÜHR

Abstract

The present study provides evidence for the appearance of humor as a coping tool in early adolescence. 960 participants aged 11–14 years answered a self-report questionnaire including the Coping Humor Scale (CHS) and the Children Coping Humor Strategy Survey (CCHSS), introduced in this article. A three-factor solution was found for the age group investigated, including coping humor with uncertainty and stress, making fun at others and getting cheered up. Where the study overall provides evidence for the concept of coping humor in early adolescence, significant gender and age differences were found. Where boys tend to use more aggressive and sexual related strategies in coping humor, girls prefer to get cheered up by humor and this tendency increased with age for girls but not for boys. The use of humor as a coping tool when focusing uncertain and stressful situations shows an overall significant increase at the age of 12 for both genders. Focusing on the appearance of humor as an reflective chosen strategy in various situations and emotional states for the age group investigated, this study strongly suggests the view of coping humor as multidimensional in early adolescence. Suggestions for necessary future research are given.

Introduction

Coping humor has been subject for humor research during the past decades. This research has given its priority to adult humor, investigating the use of humor as a coping tool in adulthood. Investigating the concept of “coping humor” important distinctions have to be made. Valuable contribution on this matter is given by Rod A. Martin (1998).

By pointing at the distinction between humor as a coping strategy or defense mechanism, Martin notes that where Freud (1928) viewed humor (as distinct from jokes, or wit) as the highest of the defense mechanisms, Mishkinsky (1977); quoted in Martin 1988: 44 referred to humor as a "courage mechanism," ... suggesting that, like defense mechanisms, humor serves as a device for contending with unpleasant aspects of reality; however, unlike defense mechanism, it is based on cognitive processes that do not reject or ignore the demands of reality (Martin 1998: 44). A further important distinction mentioned by Martin (1998) is whether coping humor can be regarded as a kind of an ability or as a habitual behavioral style or trait. This distinction is important as Martin continues: "If it is conceptualized as an ability or skill, then this would mean that individuals vary in their capacity to use humor as a coping strategy, and it might lend itself to a performance testing approach or assessment. In contrast, a habitual style or trait view would imply that, that although all individuals may have the ability to use humor in coping, they vary in their habitual tendency to do so, and in this case a trait measurement would be more appropriate" (Martin 1998: 45). Investigating coping humor in early adolescence may make further distinctions and conditions necessary due to the age group investigated and to the instruments used in empirical research.

As empirical research, however, requires the availability of assessment instruments and research on humor as a coping variable did not start before appropriate instruments were developed. Martin and Lefcourt constructed two self-report instruments measuring individual differences in sense of humor (Situational Humor Response Questionnaire, SHRQ; Lefcourt and Martin 1986; Coping Humor Scale, CHS by Martin and Lefcourt 1983) for use in investigating the role of sense of humor in the moderation of life stress (Lefcourt and Martin 1986; Martin and Lefcourt 1983; Martin et al. 1993). Especially the CHS was designed to "... assess more specifically respondents tendency to make use of humor as a coping strategy for coping with stress" (Martin 1998: 44–45).

As reported in Martin (1998) several beneficial effects underline the importance of the ability to use humor as a coping tool. Martin and Lefcourt (1983) found a significant interaction between the SHRQ and the CHS revealing, that as stressful life events increased, individuals with higher scores on the humor measures showed less of an increase in disturbed moods. Furthermore, Martin and Dobbins (1988) found that coping humor has a positive effect on the immunity system, and Kuiper

and Martin (1993) report a higher level of self-esteem, less discrepancy between actual and ideal self-concepts, and greater stability in self-concepts overtime for individuals scoring high on both humor scales. An extensive overview for the benefits of coping humor in adulthood is given at Ruch, ed. (1998) and Galloway and Cropley (1999).

Coping humor in children?

Knowing about the above-mentioned beneficial effects of coping humor in adulthood it may wonder, that no attempt has been made to explore the importance of humor as a coping tool in childhood and early adolescence. The question "when does it start?" and the question "is there any reason to look for coping humor in children and adolescents?" has not been subject of humor research yet.

On the contrary, researchers argued that children are not able to use humor for coping with adversity. For example, the existential philosophers, like H. Høffding (1916) argue, that children: "... *do not have the necessary life experience to use humor as an attitude towards life*" (Høffding 1916: 89) believing that children are not fully aware of themselves — unable to make an existential choice. However, Vejleskov (1998) argues that as Høffding doesn't make a clear distinction between what he calls "*small humor*" (like jokes and wit e.g.) apparent in childhood and "*great humor*" (an attitude towards life), it should be regarded reasonable to look for humor as an attitude towards life already in childhood. Psychoanalysts like Freud (1905) mention, that children lack the cognitive conditions to understand and use humor in an appropriate way. Incongruity theorist McGhee (1979) describes the development of child humor analog to the four-stage model by Piaget (1952) arguing, that each step in cognitive development opens the opportunity to use and understand more sophisticated types of humor. This may determine the cognitive ability of a child to understand certain types of jokes; but does this indicate an age-related prediction in using humor as a coping tool? However, Wolfenstein (1954) concluded that forms and themes of children's jokes are related to their psychosexual development, which may be regarded as a first attempt to consider the use of jokes related to developmental or actual life tasks. Søbstad (1998) points at the use of humor in kindergartens for children aged 3–6 years, frequently related to talk about excrements, with children laughing by just using the

"forbidden" words. Again, this may be seen as a use of humor to deal with challenges imposed on them during socialization.

Coping humor as strategy or attitude towards life

More evidence for humor in early childhood is found in McGhee and Chapman (1980) overall suggesting the impression that humor in childhood is related to developmental stages. It is not clear at all, in how far this first attempts in childhood can be considered just cheer expressions of childhood's joy — and playfulness (as suggested by existential philosophers or psychologists), or a spontaneous release of tension (e.g. Freudian theories 1905), or whether we actually can talk about attempts to "tackle" actual life tasks with humor as tool; i.e. a learned — perhaps even purposefully/reflective chosen strategy for tackling actual life tasks, which stands as an alternative to more primitive emotion driven reactions. However, due to the psychoanalytical and incongruity approach the developmental conditions (sexual maturity — concrete operational thinking) may be considered satisfied not before the age of 10 years in general, varying possibly about 1–2 years due to individual differences. On this background it seemed to be reasonable to focus on the age groups between 11 and 14 years, to discover in how far coping humor can be traced in early adolescence.

Although the preconditions claimed by the psychoanalytical and cognitive approach appears to be satisfied in this age group, it may still appear unreasonable to look for coping humor in early adolescence, as the claim of existential philosophers in concern of life experience and the ability of making an existential choice may considered lacking in this age group. Viewing coping humor as an attitude towards life may require certain life experiences, but viewing coping humor as a reflective chosen strategy in certain life situations, offers the opportunity to regard the successful use of humor as a coping tool as first step towards humor as an outlook of life. In partial support of this, Ruch and coworkers find that while "cheerful composure" (a facet of trait cheerfulness, reflecting a composed and humorous way to look at the world) is increasing strongly after age 40, it is already there in their youngest age groups (16 to 20 years) investigated (Ruch 1996, 1997; Ruch et al. 1997). However, where the importance of humor in early adolescence has been subject of research in concern of peer acceptance, social status, competence and popularity

among children (Bergen 1998; Führ 1998; Masten 1986; Søbstad 1998), but research on coping humor in childhood and early adolescence in general, as strategy, state, personality trait or even as an attitude towards life is still lacking.

What constitutes the major challenges for boys and girls in early adolescence?

Before we ask whether humor is used as a coping tool in early adolescence, we must ask the question what obstacles are there for boys and girls during this age span? Developmental psychology (e.g., Erikson 1968) regards adolescence as the most difficult period in human life. The challenge of growing sexual maturity, indicated by visible changes of the body, sexual interest in own and inter-gender sexuality and the respond of the surroundings on this changes, as well as the growing *ego-reflectivity* described by Stern (1925) has to be considered as a common challenge to this age group. However, gender differences have to be taken in account especially in this age group, as research (Fendt 1990, 1992, 1994) points at an advance for girls in biological and mental development. Furthermore, the question "who am I" and "which way do I want to go" is "*redefined*" including the challenge to move from the dependence of family towards the first own attempt of an attitude towards life. Kauke (1996) refers to this as "*Lebensentwurf*" (outcast of life), an outline for a wished self which is seen as an aim for the development of self. Furthermore, according to Fendt (1990) the psychological structures defined in childhood are destabilized which brings about a large number of processes of learning and change. Transition from childhood to adolescence is seen as a step towards personal awareness implying self-observation and self-reflexivity. The growing awareness of one's own self maintains a conflict potential, wherever the expectations of for instance the family, friends and surroundings differs from the child's first "*personal project*" (Kauke 1996). Furthermore, substantial choices have to be done, like the choice of school type, subjects or choices combined to other educational matter, following the first attempt towards an outlook of life. According to Fendt (1994) the first intersexual relationship is regarded a major challenge for this age group as well as the attempt to define and place oneself among others. But how to cope with success and defeat, how to cope with not being accepted, being teased and looked over and how to tackle

situations when feeling down, awkward, embarrassed or aggressive? One possible way to tackle these situations is humor.

A pilot study: Development of a coping humor survey

In April 1998 a pilot study was carried out in the northern part of Denmark in which 112 children aged 12–16 years were surveyed with a questionnaire, and 57 children were interviewed (Führ 1998). As mentioned in this article the children pointed at the use of humor as a coping tool by themselves. Asking about the importance of jokes and funny remarks in regard of peer acceptance and social status, I was told that I actually was asking the wrong questions, as humor was regarded as a possible way to feel better when feeling sad, angry, uncertain or being in a bad mood. Becoming aware of this shortcoming in my investigation, questions about humor as a coping were added at the end of each interview for the remaining 47 children. Analyzing these answers (which were recorded on tape) already suggested the "existence" of coping humor in the age group investigated.

However, coping humor appeared to be used as a strategy in certain situations, and not all possible ways (as mentioned in the above lines) to feel better by using humor were mentioned by all children interviewed. Furthermore, in the interview study the children did not raise at all the ideas that jokes serve as a socially acceptable tool to talk about sex (as suggested by Freud's theory), or that laughing at others goes along with feeling superior (like mentioned in the disparagement theory, La Fave 1972). As for the present study it was desirable to survey an expanded list of ways in which humor is used by adolescents to overcome negative states, the pools of questions was fed by two sources. First, all coping humor strategies mentioned in the interviews were collected, and second these items were supplemented by strategies derived from well-known theories. By constructing each item as close to the expressions and situational metaphors used by the children in the interview, it was meant to ensure that the items appeared fully understandable and relevant to the age group investigated. All in all 11 questions were formulated and combined in the *Children Coping Humor Strategy Survey* (CCHSS), which is a first step towards a coping humor scale for children. The 11 items used in the CCHSS are shown in the appendix. The CCHSS was applied to 50 participants using a four-point scale ranging

from 1 to 4 (1=totally disagree, 4=totally agree). All questions were regarded understandable but the scoring scale was regarded insufficient as a more differential scoring scale was asked for and thus the answer format was expanded to 6 steps.

The present study

The major aim of the present study is to investigate whether or not coping humor can be found already in children of early adolescence. As no coping humor test for children seems to exist (see overview given by Ruch 1998) two strategies were pursued. First, the afore mentioned CHS, originally developed for use with students and adults, was employed. This seemed to be justified as none of the items seemed to be formulated specifically for adults and informal application of the scale to children of the targeted age group did not reveal problems with understanding the items. In addition, the CHS has been used testing undergraduate students aged 18 years (Kuiper et al. 1992). Second, a list of statements was generated (and refined in discussion with children, see above) that represents humor behaviors in response to diverse age-related challenges. Care was taken to cover divergent emotional states and to distinguish between coping humor as a reflective chosen strategy and an unconscious reaction, as problemized in the foregoing paragraphs. These 11 questions relating to coping with humor by laughing, using jokes, funny remarks and other forms of humor were combined in a survey, the Children Coping Humor Strategy Survey (CCHSS).

In addition to surveying whether or not boys and girls in early adolescence report to use humor to tackle and solve actual life tasks, it will be examined whether or not some of the strategies involved are used more frequently than others, whether coping humor is an unidimensional or multidimensional ability among children of this age group, and whether or not the CHS predicts whether or not children report the use of the different coping strategies/behaviors depicted in the survey.

Furthermore, and most importantly, it will be examined whether or not the use of humor in coping (assessed by both the CHS and the CCHSS) increases during the age-span investigated. While generally a slight increase in the use of humor as a coping tool is expected to occur with

increasing age, the lack of knowledge regarding when coping humor begins in childhood does not allow more specific predictions. Finally, it will be studied whether the above-mentioned gender differences emerge.

Method

Participants

Subjects were 960 children (488 boys and 472 girls) between the ages of 10 to 16 years. They were drawn from rural and town schools in the eastern part of Denmark and come from 55 classes in grade 5–8 with altogether 1062 children. More details regarding the distribution of age and gender are given in the result section.

Instruments

The questionnaire used includes 44 questions (with altogether 91 variables) investigating several complexes of humor research, such as humor appreciation, joke preferences, humor as a social competence, humor and social status, parent humor, the importance of humor in regards of self-confidence and coping humor. The two instruments of interest in the present study are the following.

Coping Humor Scale (Martin and Lefcourt 1983; translated with permission by the first author). A seven item self-report scale in a 4-point Likert scale ("1=strongly disagree" to "4=strongly agree") answer format which assesses the degree to which individuals make use of humor in coping with the stressful events that they encounter in their lives. Due to the scoring scale used, the total score can range from 7–28, with a typical mean score between 18 and 21 (Kuiper and Martin 1983). The internal consistency of this scale is described by several authors (Deaner and McConatha 1993; Korotkov 1991; Thorson and Powell 1991) with Chronbach alphas ranging about 0.60–0.70. In order to make sure that the CHS is applicable to this age range, 8 children aged 11–14 were asked to explain the items and all items appeared to be fully understandable.

Children Coping Humor Strategy Survey (CCHSS). A self-report survey consisting of 11 questions to be answered in a 6-point answer format (1=totally disagree; 6=totally agree). All items are treated

separately and no total score is considered as nothing is known about whether this survey is uni- or multidimensional.

Procedure

In a first step the community schoolboards received broad informational material about background, subject and purpose of the investigation. After agreeing to the research project in general, each school was contacted separately. Before starting the investigation all schoolboards, including the parental representatives were asked for permission. Schools offering participation without parental permission were excluded. All information's provided by the school as well as the questionnaire could be treated completely anonymous due to the code-system developed. All teachers involved received instructions about how to carry out the survey. It appeared doubtful if the youngest participants in grade 5 (aged 11 years) would be able to read and understand all questions by themselves. For grade 5 the teachers were asked to read each question and be of assistance if necessary, all other grades completed the questionnaire handed out by their class teachers on their own.

Results

Demographic characterization of the sample

This survey was carried out in the eastern part of Denmark, geographically covering the islands of Falster and Sjælland (with the capital Copenhagen). 1062 questionnaires were sent out to 13 schools covering 55 classes in grade 5–8 with altogether 1062 children. The distribution in age and gender is shown in (Table 1).

Table 1 shows that the distribution of age and gender appear quite homogeneous within the age groups 11, 12, 13 and 14 years and in study as whole. 10 participants are below the age of 11, and 19 participants are older than 14 years. Altogether 488 boys ($M=12.44$) and 472 girls ($M=12.48$) filled out the questionnaire. The 13 schools chosen overall cover urban as well as town schools with the following distribution for urban schools: 296 boys and 274 girls (total 570); and for town schools: 192 boys and 198 girls (total 390).

Table 1. *Distribution of age and gender*

Age	10	11	12	13	14	15	16	All	Mean	SD
Boys	7	112	149	109	100	10	1	488	12.44	1.16
Girls	3	100	139	135	87	8	0	472	12.48	1.09
Total	10	212	288	244	187	18	1	960	12.46	1.13

The completion rate (90.4 percent) is considered acceptable. Warwick and Osherson (1973) points at the importance of the rest group, as this group often differs from the main group. The rest group in this survey, 102 participants (9.6 percent) could be investigated separately by comparing the information schedule provided for each participant by the schoolboard, to the main group. This information schedule included five information's about: amount of days absent from school during the last year, contact to a psychologist, eating disorders, participation in special reading classes and ethnic origin. No significant differences could be found.

Evidence for coping humor among children?

To answer the question whether or not the concept of coping humor can be meaningfully applied to the study of children of that age group several analyses were undertaken. First, it was examined how frequent children report to use the depicted humor behaviors. As the theoretical midpoint of the scale is 3.5 (the range of scores is 1 to 6), an quite arbitrary cut-point of 2.5 is set as a criterion for whether or not the strategy is existent in the group or not, and at least a few of the scales should exceed that value the answer the questions affirmatively as a whole. Secondly, it will be examined whether or not the CHS has an acceptable alpha coefficient; i.e., whether or not the items form a homogeneous concept also in this sample. Thirdly, and most importantly, it will be requested that the items of the coping survey and the CHS correlate substantially. Table 2 presents the means and standard deviations of the 11 items of the CCHSS along with the correlation of the individual items with the CHS.

Table 2 shows that the means were between 2.48 and 4.77 (with an over-all mean of 3.35) suggesting that the children did report to show the depicted behaviors. The two items referring that humor of others serves

Table 2. Means, standard deviations of the items of the CCHSS and their correlations with coping humor

Item	M	SD	r
1. When you are really angry at someone, will you consider to poke fun at him/her?	3.45	1.65	0.10
2. When you want to talk about sex, will you consider to tell jokes about sex to get on to this subject?	2.48	1.58	0.23
3. When you are really frightened, does it help to laugh?	3.01	1.74	0.37
4. You have to be examined in a subject you know you are not good at, and you are told that your answers were bad. Could you laugh about it anyway?	2.71	1.52	0.31
5. Would you consider to make fun on others?	3.42	1.53	0.13
6. When you are in a bad mood, and something funny happens, could that bring you in a better mood?	4.77	1.30	0.20
7. Do you use humor to feel good yourself, by laughing at others?	2.70	1.40	0.16
8. When you have mastered a challenge, is it possible that you laugh?	3.84	1.54	0.19
9. When you have made a fool of yourself, can you react by saying something funny?	3.38	1.70	0.38
10. When you are really sad and someone tells something funny to bring you into a better mood, does it feel good?	4.10	1.47	0.21
11. When you feel uncertain in a situation, can it then happen that you say something funny?	3.01	1.46	0.40

Note: M = arithmetic mean, SD = standard deviation, r = correlation.

as a means to get cheered up obtained the highest means; this is not surprising, as this requires the least effort on side of the receiver. Using humor to talk about sexual matters (item 2), laughing after failing in exams (item 4), and laughing at others for the sake of feeling better (item 7) received the lowest means but were still beyond the 2.5 cut-point (except item 2). All items had a SD of higher than 1.40 showing substantial interindividual variation.

The correlation's between the items of the survey and the CHS range from .10 (poking fun at somebody one is angry with) to .40 (saying something funny when feeling uncertain in a situation). Due to the high number of subjects all are significant at least at the .01 level. Nevertheless, it is obvious that the majority of the correlations are substantial, suggesting that individual differences in the ability to use humor as a coping strategy (i.e., CHS-scores) predict individual differences in the items of the survey. Finally, the Cronbach Alpha of the CHS and the CCHSS are 0.60 and 0.75, respectively, suggesting that the items within the inventories overlap.

Dimensional structure of the CCHSS

In order to examine how much the answers to the individual items of the CCHSS overlap, the intercorrelations were computed for the sexes separately ($N=470$ boys, $N=459$ girls; as only participants aged 11–14 years were included) and are presented in Table 3.

Table 3 shows that there are exclusively positive intercorrelations ranging from .05 to .56. Furthermore, the pattern of correlation is comparable across the sexes. However, some of the correlations are rather low suggesting that this set of items is not unidimensional.

To further condense these interrelations, principal components analyses were performed for the sexes separately. Three eigenvalues exceeded unity in the analyses of both boys (eigenvalues = 3.01, 1.52, 1.16, 0.88, 0.84, and 0.75) and girls (eigenvalues = 3.31, 1.45, 1.07, 0.89, 0.76, and 0.70), and also the scree-test suggested the retention of the same number. Three factors, which explained 52 and 53 percent of the variance, respectively were rotated according to varimax and the loading are represented in Table 4.

Table 4 shows a factor pattern that is remarkable stable across the sexes. Factor I is most potent and includes variables dealing with stressful situations. Item 8 can be considered related to cope with stress, as the situation described in item 8 may point at release of tension in a tense situation. Factor II includes 3 items 1, 5 and 7 merging a more aggressive strategy of coping humor by laughing at others with the use of humor to talk about sexuality. This factor combines the topics of

Table 3. *Intercorrelation among the 11 survey items for boys and girls separately*

	1	2	3	4	5	6	7	8	9	10	11
1	1.00	0.31	0.06	0.11	0.54	0.03	0.23	0.16	0.12	0.05	0.14
2	0.25	1.00	0.16	0.19	0.19	0.15	0.26	0.22	0.19	0.11	0.24
3	0.09	0.19	1.00	0.30	0.05	0.17	0.14	0.24	0.27	0.25	0.31
4	0.09	0.21	0.28	1.00	0.22	0.05	0.16	0.25	0.29	0.18	0.30
5	0.56	0.21	0.08	0.06	1.00	0.10	0.30	0.26	0.19	0.09	0.18
6	0.13	0.10	0.20	0.23	0.14	1.00	0.09	0.16	0.17	0.45	0.10
7	0.32	0.30	0.14	0.12	0.35	0.23	1.00	0.28	0.12	0.12	0.22
8	0.19	0.19	0.25	0.19	0.30	0.22	0.21	1.00	0.24	0.26	0.29
9	0.20	0.25	0.32	0.38	0.18	0.17	0.18	0.31	1.00	0.23	0.42
10	0.15	0.21	0.24	0.24	0.13	0.39	0.23	0.20	0.20	1.00	0.28
11	0.22	0.24	0.32	0.33	0.18	0.15	0.27	0.32	0.41	0.24	1.00

Note: Boys below the diagonal, girls above the diagonal. (For wording of Items see Table 2).

Table 4. Factors underlying the 11 survey items and their correlation with the CHS (for boys and girls separately)

	Factor I		Factor II		Factor III	
	B	G	B	G	B	G
1. When you are really angry at someone, will you consider to poke fun at him/her?	-0.04	0.08	0.82	0.82	0.00	0.02
2. When you want to talk about sex, will you consider to tell jokes about sex to get on to this subject?	0.24	0.38	0.50	0.38	0.09	0.08
3. When you are really frightened, does it help to laugh?	0.64	0.65	0.00	-0.01	0.18	0.19
4. You have to be examined in a subject you know you're not good at, and you are told that your answers were bad. Could you laugh about it anyway?	0.68	0.66	0.16	-0.04	-0.11	0.23
5. Would you consider to make fun on others?	0.06	0.05	0.80	0.83	0.01	0.01
6. When you are in a really bad mood, and something funny happens, could that bring you into a better mood?	0.01	0.10	0.07	0.10	0.88	0.83
7. Do you use humor to feel good yourself, by laughing at others?	0.20	0.13	0.55	0.58	0.06	0.31
8. When you have mastered a challenge, is it possible that you laugh?	0.44	0.43	0.34	0.34	0.18	0.15
9. When you have made a fool of yourself, can you react by saying something funny?	0.64	0.74	0.09	0.16	0.14	0.01
10. When you are really sad and someone tells something funny to bring you into a better mood, does it feel good?	0.29	0.23	0.05	0.11	0.77	0.75
11. When you feel uncertain in a situation, can it then happen that you say something funny?	0.71	0.69	0.17	0.23	0.09	0.04
Correlation with the CHS	0.47*	0.49*	0.06	0.06	0.15*	0.20*

Note: B = boys (N = 470), G = girls (N = 459) * $p < 0.001$.

aggression and sexuality with the use of humor as a coping tool. Factor III is loaded by the two items related to a upward shift in mood, and related to humor as a mood booster.

Next the product moment correlations between the factor scores and the CHS were computed for the two sexes separately. Clearly, the CHS related with factors I and III but not with factor II. Thus, coping humor as measured by the CHS predicts the children's use of humor in difficult situation as well as their tendency to get cheered up by others humor. It does not predict whether they use humor to put others down.

All in all, the results suggest that the use of humor in coping in 11 to 14 years olds is not strictly unidimensional. While factor III might be tautological as it is composed of similar item contents (though referring to different mood states), the second factor covers two different problem areas (sex and aggression), which themselves are not highly related to the items of the first factor (see Table 4) and also independent from the CHS. In order to examine whether factors II and III only emerged because of the use of similar contents (were tautological), the analysis were repeated eliminating items 1, 5, and 7 and this still suggested a 2-dimensional solution, as any item of the package that was left as single item did not load on the first factor. Hence, while the present study is not suited to suggest a definite factor structure for coping styles of children it strongly suggests that this ability is not unidimensional.

Age and gender differences

In order to explore age and gender-related changes in coping humor, 2 (gender) by 4 (age groups) ANOVAs were computed for the three factors scores and the total score of the CHS. Sex differences were most pronounced for factor II ($F[1, 820] = 45.254, p < .0001$) and for the CHS ($F[1, 820] = 29.834, p < .0001$), suggesting that boys report more often than girls to use a more aggressive coping style and they also scored higher in the CHS ($M = 18.7, SD = 3.2$) than girls did ($M = 17.5; SD = 3.2$). However, girls more often than boys agreed that humor has the ability to cheer them up ($F[1, 820] = 7.342, p = .0069$). Finally, boys also tend to use humor more often in the face of uncertainty ($F[1, 820] = 6.611, p = .0103$).

None of the interactions were significant (although the one for factor III just failed the 5 percent level). However, there were age-related changes in factors I ($F[1, 820] = 4.021, p = .0074$) and III ($F[1, 820] = 2.902, p = .0341$), but not in factor II ($F[1, 820] = 2.558, p = .0540$) or in coping humor ($F[1, 820] = 1.113, n.s.$). *Post hoc* comparisons (Fisher's PLSD) showed that the 11-year olds were significantly lower ($p < .01$) in factor I than each of the three older age groups (which did not differ from each other); thus, there seems to be a significant increase in the use of humor in uncertain situations between the ages of 11 and 12. The age effect regarding factor II is quite different, as the effect of humor as a means to get cheered up seems to fall into disuse for the 13 year olds (in particular the boys); *post hoc* comparisons (Fisher's PLSD) showed that both the

11- and 12-year olds were significantly higher ($p < .05$) than the 13 year olds. For a better illustration of the age effects (and a better estimation of its size), the raw scores of the items loading on the factors I (i.e., items 3, 4, 9, and 11) and III (i.e., items 6 and 10) were summed up (and averaged to remain within the 1 to 6 answer format) and means scores for boys and girls of the four age groups are presented in Figures 1 and 2.

Figures 1 and 2 illustrate the age and gender differences mentioned. As shown in Figure 1 the mean score for boys raises from 2.97 (age 11) to 3.21 (age 14) and for girls from 2.61 (age 11) to 3.13 (age 14). This increase of using humor as a coping tool when feeling uncertain occurs quite simultaneously for both genders. On the other hand, gender differences appear for factor III shown in Figure 2. The use of humor to get cheered up when feeling sad or being in a bad mood shows a significant decrease for boys indicated by a mean score of 4.54 (age 11) to 4.24 (age 14). On the contrary an increase of the meanscore for girls from 4.31 (age 11) to 4.63 has to be taken to account. Beside these gender differences mentioned, the importance of humor to get cheered up is underlined by the high meanscore for both genders.

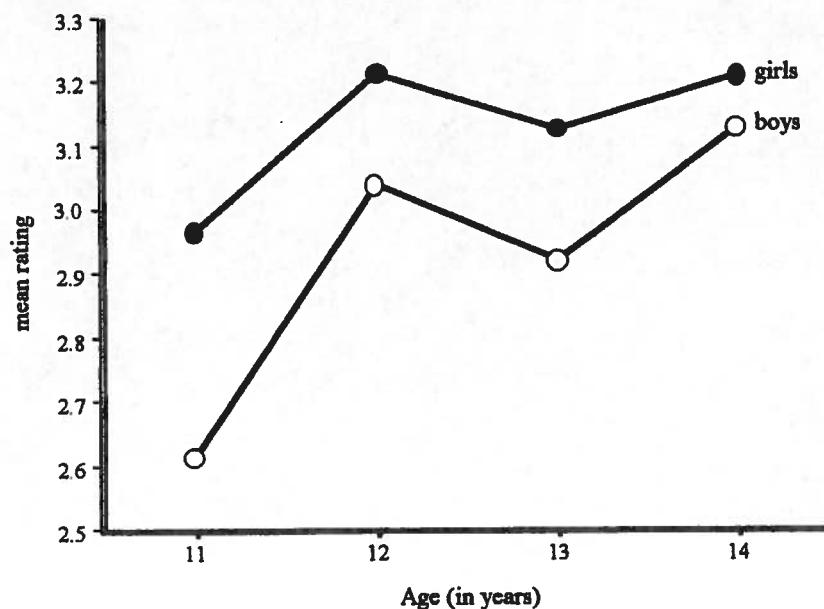


Figure 1. *Age differences in factor I (coping with stress) for boys and girls separately*

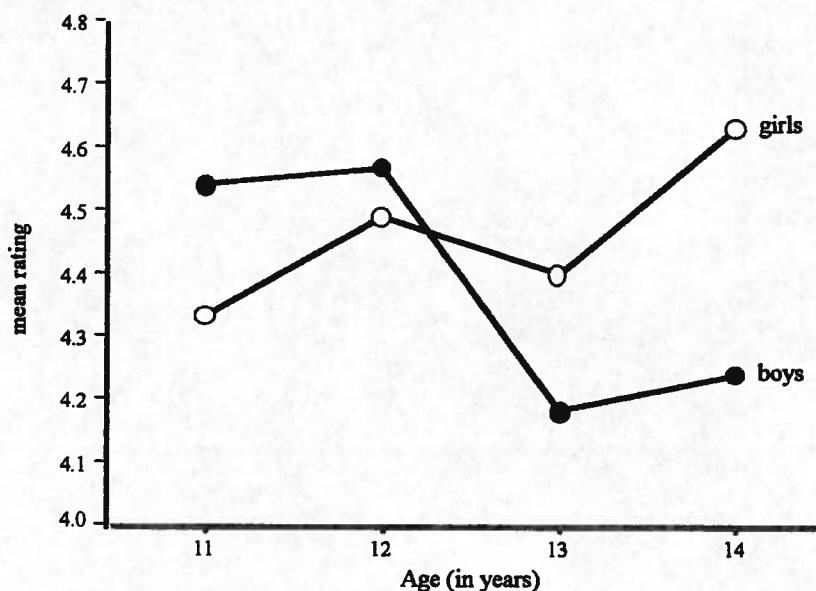


Figure 2. Age differences in factor III (getting cheered up) for boys and girls separately

Discussion

Due to the results shown in this study coping humor may be considered existent in early adolescence. The expected correlation for the CHS and CCHSS were found especially for factor I and more moderately so for factor III. Although the present study cannot provide a definite answer, it is obvious that at least two broader dimensions are involved. The first one — which is well predicted by the CHS — represents coping humor when feeling uncertain or being in a stressful situation. The second one refers to the use of humor by poking fun at others and is not correlated with the CHS. To laugh at others appears to be separated from other strategies in using humor as a coping tool. Though the items used in the CCHSS on this matter tried to distinguish between hostile and unhostile by tackling aggression with or without the feeling of superiority, at least two dimensions in coping humor appear to exist. With regard to the third factor found in this study, the use of humor to get cheered up, it is questionable, in how far this factor can be considered stable, due to the closely related item contents and the weak correlation with the CHS. However, overall this study provides evidence for the use of humor as

individual chosen strategy in different situations and emotional states indicated by the mean score and the variance between gender and age groups involved.

Furthermore the assumption, that the use of humor as a coping tool may be related to developmental and actual life tasks tends to be confirmed by this study. The increasing use of humor to tackle uncertain and stressful situations with increasing age (e.g. Figure 1), assumes a relation to developmental changes and probably increasing life experience. Looking at the age related developmental challenges mentioned in this article, this might be regarded as a link between the predictions of coping humor and its actual use. By trying to develop personal identity, children in this age group have to tackle developmental, biological and social tasks as well. Regarding this as a learning process it has to be asked, how often a child has to experience others using humor to tackle defeat, conflicts, uncertainty, anxiety, sexuality or even aggression before it makes an own attempt? Watching others using humor successfully in divergent situations may contribute to give it a try by your own.

Here it may be asked, how often an individual has to use humor successfully as an alternative strategy- probably in only one specific situation like tackling uncertainty, before it is used in other situations as well. Furthermore it has to be asked, is it the amount of experiences or the quality of the single experience when successfully using humor as a coping strategy, that makes it a personality habit throughout the years and finally the suggestions made by Martin (1998) in concern of "emotional", "appraisal" and "problem focused" use of humor has to been taken to account as well.

Age and gender commonalities and differences

The opportunity to use humor to get cheered up when feeling sad or being in a bad mood turned out to be the most common strategy in coping humor for both genders. Using humor to talk about sexual matters, laughing after failing in exams, and laughing at others for the sake of feeling better received the lowest means. As all items used in the CCHSS had a standard deviation of higher than 1.40, substantial interindividual variation have to taken to account, beside the significant differences related to age and gender. The preference of boys for aggressive and sexual related humor especially in regard of sexual related jokes

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Appendix

Children Coping Humor Strategy Survey (CCHSS)

Instruction:

Please answer the following questions by marking (X) the most appropriate number.

You can choose between: (1) (2) (3) (4) (5) (6) where (1) indicates "totally disagree" and (6) "totally agree". Each question is allowed to be marked (X) only once.

1. When you are really angry at someone, will you consider to poke fun at him/her? (1) (2) (3) (4) (5) (6)
2. When you want to talk about sex, will you consider to tell jokes about sex to get on to this subject? (1) (2) (3) (4) (5) (6)
3. When you are really frightened, does it help to laugh? (1) (2) (3) (4) (5) (6)
4. You have to be examined in a subject you know you're not good at, and you are told that your answers were bad. Could you laugh about it anyway? (1) (2) (3) (4) (5) (6)
5. Would you consider to make fun on others? (1) (2) (3) (4) (5) (6)
6. When you are in a really bad mood, and something funny happens, could that bring you into a better mood? (1) (2) (3) (4) (5) (6)

7. Do you use humor to feel good yourself, by laughing at others? (1) (2) (3) (4) (5) (6)
8. When you have mastered a challenge, is it possible that you laugh? (1) (2) (3) (4) (5) (6)
9. When you have made a fool of yourself, can you react by saying something funny? (1) (2) (3) (4) (5) (6)
10. When you are really sad and someone tells something funny to bring you into a better mood, does it feel good? (1) (2) (3) (4) (5) (6)
11. When you feel uncertain in a situation, can it then happen that you say something funny? (1) (2) (3) (4) (5) (6)

Del 6

The applicability of the GELOPH<15> in children and adolescents: First evaluation in a large sample of Danish pupils

Martin Führ¹

Abstract

Gelotophobia is defined as the fear of being laughed at. This is the first empirical study on gelotophobia among children and adolescents (aged 11-16 years). Data was collected in Denmark ($N = 1,322$). The Danish version of the GELOPH<15> (Führ, Proyer & Ruch, 2009) was used and yielded good psychometric properties in terms of a high internal consistency of the items and the factorial structure (one-dimensional solution) was highly similar to data for the adult version. As in adults, higher bullying experiences were well predicted by the individual expression of the fear of being laughed at. While the actual number of absent days from school was widely unrelated to gelotophobia, those pupils who frequently think about not attending school but have a low number of actual absent days yielded the highest gelotophobia scores. This study shows that gelotophobia can be reliably measured with the standard form of the GELOPH<15>. The pupils did not report problems with understanding the items (though the eleven year olds needed help by teachers for filling in the items). This study allows planning and conducting follow-up studies (e.g., longitudinal design) with much younger populations as has so far been studied. The knowledge about the fear of being laughed at among children and adolescents is still very limited.

Key words: absenteeism, adolescents, children, gelotophobia, humor

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During the past decades, humor research has given its priority to adult humor; for example, investigating the use of humor as a coping tool, as communicative or social competence, or as attitude towards life (see Martin [2007] or Ruch [2008] for an overview). Thus far no studies have empirically dealt with the subject of being laughed at in childhood – especially, its causes and consequences. However, humor plays an important role in the life of children and adolescents (e.g., Bergen, 2007; Wolfenstein, 1978). For example, there is evidence that children use humor as a coping mechanism (Führ, 2002a). In an influential work, Rod Martin (1998), favored the distinction between humor as a coping strategy and defense mechanism. Mishkinsky (1977; cited after Martin, 1998) referred to humor as a *courage mechanism* “... suggesting that, like defense mechanisms, humor serves as a device for contending with unpleasant aspects of reality; however, unlike defense mechanism, it is based on cognitive processes that do not reject or ignore the demands of reality” (p. 44). A further important distinction mentioned by Martin (1998) is whether coping humor can be regarded as a kind of ability or as a habitual behavioral style or trait. Thus, it is suggested that humor can be beneficially used by some children to cope with adversities of life. However, data collected with adults suggest that those who fear being laughed at (gelotophobes) do not endorse the use of humor as a coping strategy (Ruch, Beermann, & Proyer, 2009). Empirical data are needed for testing whether fear of being laughed at exists among children and adolescents as well or whether it develops later. It is assumed that it exists at all stages in life from childhood to higher age (see Platt & Ruch [2010] this issue) and that certain periods in life might provide more pitfalls for being laughed at than others. In studying the fear of being laughed at among children and adolescents, a special look at challenges that children and adolescents face needs to be taken.

Specific challenges in adolescence that might be related to being teased and bullied by others. Developmental psychologists (e.g., Erikson, 1968) regard adolescence as the most difficult period in human life. It seems obvious that this period of life provides multiple “chances” for being laughed at. The challenge of growing sexual maturity, indicated by visible changes of the body, sexual interest in own and opposite-gender sexuality and the response of one’s own *entourage* to these changes, as well as the growing *ego-reflectivity* (Stern, 1925) have to be considered as a common challenge to this age group. Furthermore, the question “who am I” and “which way do I want to go” is *redefined*. At this time, the challenge of moving from one’s own dependence on the family towards the first own attempt of an attitude towards life has to be faced. Kauke (1996) refers to this as *Lebensentwurf* (outline of life); i.e., an outline for a wished self, which is seen as an aim for the development of self. Führ (2002b) showed that the ability to be good to talk to, have your own opinion on things, have humor, to be good looking and to be dressed with the right clothes are the major predictors for acceptance and status in this age group. Lacking these “abilities” or “physical fortunes” may contribute to the fear of being laughed at in a very vulnerable developmental period of life; but for the analyst, the question remains of how to access gelotophobia in adolescence.

Studying gelotophobia among children and adolescents. Thus far all studies on gelotophobia – including the articles in this special issue except for the present one – have been conducted with adults. Therefore, there are no experiences with using the GELOPH<15>

(or an alternate instrument or any other technique) with non-adults. The items in the scale reflect typical convictions, ideas, and behaviors of gelotophobes and were developed with a focus on adults. Nevertheless, they seem to be applicable to younger samples as well as they deal mainly with everyday situations that might also be encountered by children and adolescents. However, the assumption that the GELOPH-15 might be suitable for studying children and adolescents as well has not yet been tested empirically.

A large survey among Danish children and adolescents, that focuses on humor and the use of humor as a coping tool (Führ, 2009), provided the possibility to collect data on gelotophobia with this age group. This study also provided information on self-reported bullying experiences and absences from school that may be related to the fear of being laughed at. The absences are available from self-reports but also from an objective source (i.e., from the schools directly).

Platt, Proyer, and Ruch (2009) found that gelotophobia is a very potent predictor of experiences of having been bullied (see also Platt, 2008). Based on theoretical considerations by Titze, one would expect that repeated and intense experiences with having been laughed at (which might be translated as "bullying") lead to the development of gelotophobia (see Titze [2009] for an overview). As bullying in schools or new forms of bullying (e.g., cyber bullying; see for example Riebel, Jäger, & Fischer, 2009; or the EXBUS-project [*Exploring Bullying in Schools*] in Denmark, Kofoed, 2009) seem to be a quite frequent experience among children and adolescents, it is assumed that bullying experiences can be observed in the present sample of children and adolescents as well. Given the serious (psychological) consequences that have been reported for bullying victims (e.g., Bowling & Beehr, 2006; Gini & Pozzoli, 2009; Gladstone, Parket, & Mahli, 2006; Neary & Joseph, 1994), this seems to be an important research topic. Furthermore, gelotophobes do not appreciate the positive effects of humor, it seems evident that humor-related incidents might play a key role in remembered events of having been bullied (harmless jokes and funny remarks might be misinterpreted as offensive). However, results should be about comparable to what adults report; i.e., gelotophobes are more prone to experience (to recollect) bullying incidents than non-gelotophobes.

Thus far, there are no data on whether gelotophobia is associated with a higher number of absences from work or school or not. However, there is literature that indicates that psychological distress is a predictor of absenteeism (see e.g., Dake, Price, & Telljohann, 2003; Hardy, Woods, & Wall, 2003). One might assume that gelotophobes have a higher number of absent days at work or school for avoiding to be the butt of jokes by colleagues and to protect themselves from derision. Three different sources of information on absence days from school are being reported in this study: (1) a self-report on whether the person has already skipped school or not; (2) self-report data on whether the person frequently thinks about skipping school; and (3) schools provided information on the actual number of absent days for their pupils. However, the latter does not contain information on *why* a pupil has been away from school. Therefore, the reasons for absent days might be quite diverse (e.g., [chronic] illness, other obligations, skipping school, etc.). As these data cannot be coded retrospectively, they might be difficult to interpret, as chronically ill pupils would fall in the same category as those who frequently skip school. Therefore, it is suggested not only to relate gelotophobia to the single variables but also

to combine them. For example, one might differ between pupils who frequently think about not going to school with high or low numbers of actual absent days. Other combinations might also contribute to the further understanding of these relations.

The fear of being laughed at in Denmark. Gelotophobia (in adults) has been studied in Denmark before (Führ, Proyer, & Ruch, 2009). Compared to other data that has been published (e.g., Carretero-Dios, Proyer, Ruch, & Rubio, in press [Spain and Colombia]; Forabosco, Dore, Ruch, & Proyer, 2009 [Italy]; Hrebícková, Ficková, Klementová, Ruch, & Proyer, 2009 [Czech Republic and Slovakia]; Kazarian, Ruch, & Proyer, 2009 [Lebanon]; Platt et al., 2009 [England]; Ruch & Proyer, 2008a [Germany]; Sarid, Ruch, & Proyer, in press [Israel]), Denmark had the lowest number of gelotophobes in the sample (< 2 %). In this study, the Danish version of the GELOPH<15> demonstrated high internal consistency ($\alpha = .84$) and as in the initial German version (Ruch, & Proyer, 2008a) a one-dimensional factor solution did fit the data best. While gelotophobia existed independently from demographics in German data (Ruch & Proyer, 2008ab), younger Danes that were males and not in a relationship tended to score higher in the fear of being laughed at. It was concluded that the Danish version has satisfying psychometric properties and could be used for research purposes. The present study contains the first data that were collected among children and adolescents with the GELOPH<15>.

Method

Sample. $N = 1,322$ children and adolescents between the age of 11 and 16 entered the study; $n = 102$ were 11 years (53 boys and 46 girls; 3 did not indicate their gender), $n = 255$ were 12 years (124 boys and 123 girls; 8 did not indicate gender), $n = 291$ were 13 years (139 boys and 148 girls; 4 did not indicate gender), $n = 337$ were 14 years (160 were boys and 169 were girls; 8 did not indicate gender), $n = 231$ were 15 years (118 were boys and 110 were girls; 3 did not indicate gender), and $n = 106$ were 16 years (59 were boys and 43 were girls; 4 did not indicate gender). The mean age in the total sample was 13.50 (SD = 1.39). The gender distribution was about equal with 653 boys (49.4 %) and 639 girls (48.3 %); 30 (2.3 %) did not provide information on their gender.

Instruments

The GELOPH<15> (Ruch & Proyer, 2008a) is a 15-item questionnaire for the subjective assessment of gelotophobia. Führ, Proyer, and Ruch (2009) authored the Danish version that was used in the present study. 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 assessment of the fear of being laughed at. It has been widely used in research and has been translated to more than 40 different languages so far (e.g., this issue; Papousek, Ruch, Freudenthaler, Kogler, Lang, & Schulter, 2009; Ruch, 2009a; Ruch & Proyer, 2009a).

Information on bullying-experiences, thoughts about not going to school, and having skipped school were gathered via single item measures; i.e., "I have been bullied in school" (four categories, 1 = "no experiences" to 4 = "lots of experiences"); "It appears quite often, that I have thought about not attending school" (four point answer form; 1 = "totally agree" to 4 = "not agree at all) and "I did stay away from school without permission" (four point answer form; 1 = "totally agree" to 4 = "not agree at all").

Procedure

As humor, especially as a communicative, social and coping tool in children has been subject of massive public interest in the recent years, several articles and interviews on this matter had been available in schools in Denmark. The majority of the participating schools in this survey reacted on a request by the author, when announcing the wish to investigate humor in childhood and adding the question of gelotophobia in children to earlier research subjects.

In a first step the community school boards received broad informational material about background, subject and purpose of the investigation. After agreeing to the research project in general, each school was contacted separately. On the one hand, all information provided by the school as well as the questionnaire could be treated completely confidentially and correlated to each other due to the code-system developed and on the other hand, all questionnaires could traced back to the single participant on behalf of a follow up qualitative interview study (Führ, 2009). All teachers involved received instructions about how to carry out the survey. It appeared doubtful whether the youngest participants in grade 5 (aged app. 11 years) would be able to read and understand all questions by themselves. Therefore, the teachers were asked to read each question and be of assistance if necessary in the fifth grade but all other grades completed the questionnaire handed out by their class teachers on their own.

Additionally, the school administration was requested to provide two types of information for all participants: (1) Ethnicity and (2) the number of absence from school during the last school year. In Denmark, the class teacher reports the attendance and absence from classes on a daily basis for each pupil using a class list. These lists are handed out to the school administration on a monthly basis and the results are reported once a year to the community school board. Parents had to provide consent for the participation of their children and the information on absences were handed out to the project leader. The participants were informed that participation in the study is voluntary and that they could refuse participation or stop filling in the questionnaires at any time they wanted to.

This survey covers geographically all parts of Denmark, with participating schools from the very south of Gotland and the north of Sealand including the islands of Falster and Lolland. Demographically the study covers urban and town schools, a catholic private school, a gymnasium school in Copenhagen, as well as an urban school with 35 % of non-ethnic Danes. The entire study covers eleven schools with 91 classes in grades 5 to 9.

Results

Descriptive statistics were computed along with the correlation between the fear of being laughed at and demographics (age and gender). Furthermore, a reliability analysis was conducted. Finally, a factor analysis was computed for testing the assumption that a one-dimensional solution fits the data best (as for the adults). These analyses were performed for the total sample and subsequently also for the six age groups that entered the study (11 to 16 years). All statistics for the total sample are shown in Table 1.

Table 1 shows that the data were normally distributed. Neither a single item nor the total score correlated strongly with age or gender. None of the correlation coefficients indicated more than 4 % of shared variance between the expression of gelotophobia (single item, total score) and one of the demographic variables. This remained also true for gender if data was analyzed for each of the age groups separately. The correlation coefficients (gender and the total score of the GELOPH<15>) were .13, -.01, .00, .02, .07 (all n.s.), and .21 ($p < .05$) for the six age groups (starting with eleven year olds). However, it should be noted that three items were equal to or exceeded a correlation coefficient of .30 for the group of the *16-year-old* adolescents. Girls tended more strongly to agree to the items "When others make joking remarks about me I feel being paralyzed" ($r = .30$), "If I did not fear making a fool of myself I would speak much more in public" ($r = .36$), and "When I have made a fool of myself in front of others I grow completely stiff and lose my ability to behave adequately" ($r = .33$; all $p < .05$).

Table 1 shows that all items yielded high corrected-item total correlation and the alpha-coefficient was .84 in the total sample indicating a high internal consistency. The median of the corrected-item total correlations was .47 and ranged from .34 to .56. The inter-item correlations were in the expected range. Their mean was .26 and ranged between .13 and .48.

The reliability coefficients and item statistics were highly similar for each of the age-groups. The alpha-coefficients were .82, .83, .82, .86, .86, and .86 for the 11 to 16 year-olds. The median of the corrected item-total correlations ranged from .44 (11 year-olds) to .52 (14 year-olds). Across all age groups and items, the lowest corrected item-total correlation was .17 and the highest was .63. The mean of the item-intercorrelations ranged from .23 to .30 in the six age groups and range between -.05 and .64. The latter was found in the group of 16 year olds between the two items reflecting suspiciousness on the laughter by others (i.e., items number 1 and 3).

The correlation coefficients with age shown in Table 1 indicated that gelotophobia did exist widely independently from age. However, as there might also be a non-linear relation between age and gelotophobia, means and standard deviations were computed for each age group separately and compared (see Table 2). This analysis should also enable future comparisons with data collected with participants in this age group.

Table 2 shows that there were only minor differences between the age groups. More specifically, the largest difference in the mean scores for the total scores was 0.08. The standard deviations were also very similar (e.g., the largest difference for the standard

Table 1: Descriptive statistics, corrected-item total correlations, factor loadings and correlations with age and sex for the items or the total score of the Danish GELOPH<15>

Items		M	SD	Sk	K	CITC	Loadings	Age	Sex
When others laugh in my presence I get suspicious		2.17	0.95	0.40	-0.78	.41	.51	-.03	.01
I avoid showing myself in public because I fear that people could become aware of my insecurity and could make fun of me.		1.94	0.97	0.72	-0.54	.56	.65	-.03	.07*
When strangers laugh in my presence I often relate it to me personally.		2.01	0.94	0.62	-0.52	.55	.64	-.03	.04
It is difficult for me to hold eye contact because I fear being assessed in a disparaging way.		1.77	0.92	0.89	-0.30	.53	.63	-.02	.01
When others make joking remarks about me I feel being paralyzed.		2.04	0.96	0.55	-0.71	.50	.59	-.05	.16*
I control myself strongly in order not to attract negative attention so I do not make a ridiculous impression.		2.24	0.94	0.25	-0.86	.46	.55	.00	-.01
I believe that I make involuntarily a funny impression on others.		1.75	0.85	0.98	0.31	.43	.51	.03	-.06
Although I frequently feel lonely, I have the tendency not to share social activities in order to protect myself from derision.		1.61	0.89	1.32	0.64	.47	.56	-.01	-.06*
When I have made an embarrassing impression somewhere, I avoid the place thereafter.		2.04	0.94	0.55	-0.63	.41	.50	-.01	.13*
If I did not fear making a fool of myself I would speak much more in public.		2.31	1.07	0.22	-1.20	.42	.51	-.02	.06*
If someone has teased me in the past I cannot deal freely with him forever.		1.76	0.91	0.98	-0.01	.37	.45	.02	.07*
It takes me very long to recover from having been laughed at.		1.67	0.86	1.19	0.60	.56	.65	-.02	-.10*
While dancing I feel uneasy because I am convinced that those watching me assess me as being ridiculous.		2.22	1.08	0.37	-1.16	.34	.42	-.04	-.15*
Especially when I feel relatively unconcerned, the risk is high for me to attract negative attention and appear peculiar to others.		1.83	0.85	0.83	0.04	.49	.58	-.01	-.02
When I have made a fool of myself in front of others I grow completely stiff and lose my ability to behave adequately.		1.77	0.88	0.94	0.02	.54	.63	-.06*	.05
Total score		1.94	0.52	0.56	0.19	—	—	-.04	.04

Note. N = 1,179-1,322. M = mean, SD = standard deviation, Sk = skewness, K = kurtosis; CITC = corrected item-total correlation; Loadings = factor loadings; age = correlations with age (Pearson); gender = correlations with gender (1 = boy, 2 = girl; Spearman), p < .05.

Table 2: Means and standard deviations for the items and the total score of the Danish GELOPH<15> split by six age groups
(11 to 16 years)

	11 years		12 years		13 years		14 years		15 years		16 years	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Total score												
GELOPH<15>	2.00	0.51	1.96	0.50	1.95	0.49	1.92	0.53	1.92	0.53	1.94	0.56
<i>Item content</i>												
Suspiciousness	2.20	1.01	2.22	0.99	2.14	0.91	2.17	0.96	2.14	0.93	2.12	0.96
Public appearance	2.07	0.97	1.97	0.94	1.93	1.01	1.85	0.94	1.99	0.96	1.88	1.01
Strangers	2.08	0.97	2.10	0.99	2.02	0.95	1.93	0.89	1.96	0.90	2.10	0.99
Assessment by others	1.90	0.96	1.78	0.92	1.80	0.90	1.71	0.89	1.72	0.92	1.88	0.96
Feeling paralyzed	2.05	0.95	2.13	0.98	2.04	0.96	2.06	0.99	1.94	0.88	1.94	1.06
Control behavior	2.25	0.96	2.26	0.93	2.25	0.94	2.19	0.94	2.25	0.92	2.30	1.00
Funny impression	1.58 ^a	0.76	1.70 ^b	0.81	1.88 ^{ab}	0.94	1.76	0.81	1.74	0.83	1.74	0.87
Social activities	1.77	1.08	1.57	0.87	1.68	0.91	1.53	0.81	1.58	0.89	1.63	0.93
Embarrassment	2.20	1.02	1.98	0.90	2.03	0.94	2.05	0.97	2.07	0.94	1.99	0.89
Public speaking	2.34	1.08	2.33	1.04	2.36	1.07	2.25	1.06	2.26	1.08	2.35	1.09
Dealing with others	1.75	0.93	1.78	0.92	1.72	0.85	1.77	0.94	1.74	0.88	1.90	1.04
Recovering	1.71	0.84	1.71	0.90	1.64	0.79	1.67	0.85	1.61	0.89	1.69	0.95
Dancing	2.34	1.11	2.28	1.06	2.17	1.07	2.19	1.08	2.32	1.10	1.99	1.09
Appearing peculiar	1.84	1.01	1.81	0.81	1.88	0.87	1.83	0.83	1.79	0.80	1.81	0.89
Growing stiff	1.99	0.94	1.78	0.89	1.75	0.85	1.80	0.91	1.66	0.84	1.74	0.82

Note. N = 102 (11 years), n = 255 (12 years), n = 291 (13 years), n = 337 (14 years), n = 231 (15 years), n = 106 (16 years). M = mean, SD = standard deviation.

^{a,b} Means sharing a superscript differ significantly from each other.

deviations in the total score was 0.07). Thus, there does not seem to be much variation in the mean scores across the age groups. However, some of the differences in the mean scores were much larger in size (the largest absolute difference between two mean scores was .30). Nevertheless, they almost all failed to reach statistical significance. Analyses of variance with the total score for the items as dependent variables and the age groups as grouping variable yielded a significant effect only for a single item ($F[5, 1303] = 2.40, p = .035$). This result should be further highlighted. The item was "I believe that I make involuntarily a funny impression on others". A subsequently conducted post hoc test (LSD) indicated that the eleven-year-old children scored lower than the 13 year old ones and that the same was true for the twelve-year-old children. However, it has to be mentioned that there was no correction for attenuation in this analysis and that these differences should not be over-interpreted.

How many gelotophobes are in the sample? Ruch and Proyer (2008a) suggested that scores in the GELOPH<15> could be classified (based on empirically validated cut-off scores) as *no* gelotophobia (i.e., mean scores < 2.50), *slight* gelotophobia (< 3.00), *marked* gelotophobia (< 3.50), and *extreme* expressions of gelotophobia (> 3.50). Additionally, Ruch (2009b) suggested a *borderline* category that comprises mean scores ≥ 2.00 and < 2.50 . These cut-off scores were validated for adult samples and there are no experiences with its application to samples of non-adults. However, it seems to be instructive to apply them to the present data for a first verification of the expression of gelotophobia in this age group. In any case, results should be interpreted conservatively. The data shows that 85.85 % could be classified as non-gelotophobes ($n = 1,135$). Out of this group $n = 353$ were in the borderline category (26.70 %). 10.44 % ($n = 138$) had a slight, 3.33 % ($n = 44$) a marked, and 0.38 % ($n = 5$) an extreme expression of the fear of being laughed at. This indicated that 14.15 % of the participants could be classified with at least a slight expression of gelotophobia. This frequency analysis was repeated for all age groups separately (see Table 3).

Table 3:
Percentage of non-gelotophobes (and borderline gelotophobes) and gelotophobes (slight, marked, and extreme) in six age groups (11 to 16 years)

	11 years	12 years	13 years	14 years	15 years	16 years
no	56.86	57.65	59.79	59.64	59.74	60.38
borderline	26.47	28.63	25.09	28.78	25.97	21.70
slight	11.76	9.80	12.37	7.72	11.26	12.26
marked	3.92	3.14	2.75	3.56	2.60	5.66
extreme	0.98	0.78	0.00	0.30	0.40	0.00
<i>Total</i>						
gelotophobes	16.66	13.72	15.12	11.58	14.26	17.92

Table 3 shows that the percentage of gelotophobes ranged between 11.52 % and 17.92 %. A χ^2 -test did not reveal differences among the frequencies. Nevertheless, it should be noted that there were only very few extreme gelotophobes in the samples and that most of those exceeding the cut-off score were in the "slight"-category.

Does the GELOPH<15> among children and adolescents yield a one-dimensional factor structure? A principal component analysis was conducted based on the intercorrelation among the 15 items found in the total sample. One very potent first factor emerged with an eigenvalue of 4.76 followed by eigenvalues of 1.06, 1.00, and 0.90 for the subsequent factors. The first factor explained 31.70 % of the variance. Thus, although three eigenvalues exceeded unity, the scree test suggested the retention of only 1 factor. The item loadings on the first factor were between .42 for the item "While dancing I feel uneasy because I am convinced that those watching me assess me as being ridiculous" and .65 for the items "I avoid showing myself in public because I fear that people could become aware of my insecurity and could make fun of me" and "It takes me very long to recover from having been laughed at". The median of the loadings was .56.

This analysis was repeated for each of the age groups separately. In all cases a strong first factor emerged that explained 29.20 %, 30.41 %, 29.23 %, 33.83 %, 34.98 %, and 34.35 % of the variance in the six age groups. The median of the loadings ranged from .54 (13 year olds) to .61 (14 year olds) with the lowest loading being .21 (for the item "If someone has teased me in the past I cannot deal freely with him forever" for the 13 year olds) and the highest one being .72 (for the item "When others make joking remarks about me I feel being paralyzed" in the group of the 15 year olds).

How does gelotophobia relate to bullying in children and adolescents? There was a correlation of $r = .33$ ($p < .05$) between gelotophobia and self-reported experiences of having been bullied in the total sample. However, there were both non-gelotophobes that reported such incidents and gelotophobes that have not been bullied. Nevertheless, it was clear that mean scores in the bullying question were higher, the higher the expression of the fear of being laughed at was. Out of those who were either marked or extreme gelotophobes, slightly more than half (about 53 %) were also in the group with the highest mobbing experiences. An ANOVA with gelotophobia as dependent variable and bullying experiences (four groups from "no experiences" to 4 = "lots of experiences") as grouping variable was conducted. There was a significant main effect ($F[3, 1287] = 49.67, p = .0001$). Those with the highest level of bullying experiences yielded the highest mean score in gelotophobia ($M = 2.27, SD = 0.61$). Subsequently conducted post hoc tests (LSD) indicated that this mean score was higher than the one for any other group; i.e., no bullying experiences ($M = 1.80, SD = 0.46; d = 0.87$), almost no bullying experiences ($M = 1.95, SD = 0.48; d = 0.58$), and some bullying experiences ($M = 2.10, SD = 0.47; d = 0.31$). Furthermore, all other groups also differed significantly from each other; i.e., no experiences from almost no experiences ($d = 0.32$) and from some experiences ($d = 0.65$) as well as almost no from some experiences with bullying ($d = 0.32$). Boys and girls did not differ with respect to recollections of bullying experiences ($t(1261) = 0.73, p = .47$).

When the data on the relation between gelotophobia and self-reported experiences of having been bullied were analyzed separately for all age groups, there were highly similar outcomes; i.e., $r = .35$, $r = .35$, $r = .24$, $r = .33$, $r = .35$, and $r = .37$ (all $p < .05$; ages 11 through 16). It should be noted that the correlation coefficients tended to be higher for girls in all of the age groups but none of these coefficients was significantly different from those of the boys. Though there apparently was a lower coefficient for the 13 year olds; none of the coefficients differed significantly in size from any of the others. As for the total sample, ANOVAs with bullying experiences as grouping variable were conducted. Results are not reported in detail but were highly similar as in the total sample (all with significant main effects). There was one exception worth reporting. In the group of eleven-year-old children only those with the lowest ($n = 53$) and highest amount of bullying experiences ($n = 12$) differed significantly ($M = 1.83$, $SD = 0.41$ vs. $M = 2.32$, $SD = 0.56$; $d = 1.00$) and the lowest groups also differed from those with *almost no* ($n = 18$; $M = 2.16$, $SD = 0.60$; $d = 0.64$) but not from those with *some* bullying experiences ($n = 12$; $M = 2.10$, $SD = 0.46$).

Gelotophobia and absenteeism. Information was available on (a) how frequently the pupils think about staying away from school; on (b) whether they already did stay away from school; and (c) on the actual number of absent days in the last year of school. Data on the absenteeism varied strongly. There were children and adolescents without any days off while a single person did not attend school for 133 days (next highest number of absent days were 93, 87, and 79). Thus, these data have a high peak (kurtosis = 20.97; skewness = 11.24; $M = 10.27$, $SD = 11.24$). The other variables were normally distributed. Table 4 shows correlations between gelotophobia and the two self-estimations

Table 4:
Correlations between gelotophobia and indicators of self-reported and objective data on absenteeism in Danish children and adolescent (in a total sample and split by age)

	<i>Think</i>	<i>Stay</i>	<i>Absent</i>
Total	.22*	.10*	-.07*
11 years	.30*	.09	-.01
12 years	.28*	.20*	-.08
13 years	.23*	.14*	-.13*
14 years	.19*	.11	-.03
15 years	.15*	.03	-.11
16 years	.30*	.07	.08

Note. $N = 1,127-1,289$. $n(11) = 82-96$; $n(12) = 211-243$; $n(13) = 236-282$; $n(14) = 289-335$; $n(15) = 211-231$; $n(16) = 98-106$; Think = having thought of not attending school (1 = "totally agree" to 4 = "not agree at all"); Stay = stayed away from school (1 = "totally agree" to 4 = "not agree at all"); Absent = number of days a pupil did not attend school in the last year.

* $p < .05$.

(Person correlations) and the relation to the objective data on absenteeism (Spearman rank correlation).

Table 4 shows that the fear of being laughed at was robustly positively related to thoughts of not attending school. Except for a peek at 12 years staying away from school was not largely associated with the fear of being laughed at. Also, the total numbers of days that a pupil did not attend school did not seem to be related to gelotophobia. However, the latter variable is confounded with different reasons for not attending school and might, therefore, be difficult to interpret.

The available data allows for a more in depth analysis of these results. Therefore, the variable on the actual number of absent days was split into four categories of equal size (lowest quartile to highest quartile). This data was used for creating a new variable that described: (a) those who say that they frequently think of not attending school and actually have a high number of absent days ($n = 52$; "absent"); (b) those who say that they frequently think of not attending school and have a low number of absent days ($n = 53$; "negatively present"); (c) those who say that they do not frequently think of not attending school and actually have a high number of absent days ($n = 57$; "inhibited"); and finally, (d) those who say that they do not frequently think of not attending school and actually have a low number of absent days ($n = 93$; "positively present"). These categories represent different extreme groups regarding absenteeism in school. A comparison of these groups allows testing whether specific combinations (e.g., the *absent* pupils) are linked to higher expressions of gelotophobia. Other pupils that could not be classified in any of these groups were not considered for further analysis.

In an ANOVA, these four groups were compared with respect to the dependent variable *gelotophobia*. The analysis revealed a significant main effect ($F[3, 254] = 7.77, p = .001$). Subsequently conducted post hoc tests (LSD) revealed that the inhibited group (who do not think of not going to school but have a high number of absences) yielded lower gelotophobia scores than any of the other groups ($M = 1.62, SD = 0.46$ vs. $M = 1.87, SD = 0.46$ ($d = 0.54$) for positively present ($p = .01$); vs. $M = 2.04, SD = 0.57$ ($d = 0.81$) for negatively present ($p < .001$), and $M = 1.99, SD = 0.52$ ($d = 0.75$) for the absent group ($p = .001$). The other groups differed not significantly from each other. However, it should be noted that it is somewhat striking that the group that frequently thinks about not going to school but has a low number of absent days yielded the highest mean score in the fear of being laughed at².

² As a side-note it should be added that analyses with bullying as a dependent variable indicated that the group with the lowest frequency of ideas of not attending school and a low number of absent days was lowest in bullying experiences (lower than any of the other groups). The highest score in bullying experiences was found for the group with most frequent ideas of not going to school and a high number of absent days (yet this was not significantly different from other groups except for the one previously mentioned).

Discussion

The present study shows that the GELOPH<15> seems to be applicable to children and adolescents between 11 and 16 years of age. Reliabilities as well as the factorial structure were highly comparable with the data obtained with Danish adults (Führ et al., 2009). Gender did not turn out as an important predictor as boys and girls did not differ strongly in their expression of the fear of being laughed at. This replicates findings from many studies on gelotophobia with adults (see this issue and Ruch [2009] for an overview). It seems as if fear of being laughed at is equally disturbing for males and females (at any age) – even if the causes why males and females fear being laughed at might be different (see Proyer, Hempelmann, & Ruch, 2009). This study enables studying the fear of being laughed at among children and adolescents by means of the same questionnaire that has been used frequently in studying adults' gelotophobia.

The results clearly show that the number of gelotophobes in this sample was about seven times higher than in the Führ et al. study with adults. There, about 2 % were gelotophobes, whereas slightly more than 14 % (total sample) of the pupils in the present sample displayed at least slight expressions of the fear of being laughed at. Overall, the eleven to sixteen year old participants did not differ in their mean scores for gelotophobia (except for differences in single items). However, the number of those exceeding the cut-off point indicating gelotophobia differed (i.e., between 11.52 and 17.92 % across the six age groups). From a developmental perspective, one might argue that the topics and challenges for the pupils are somewhat similar or at least comparable. This refers to aspects such as biological maturation, sexuality but also growing independence (from the family) and search for ones own self. This is also a time where identification with others (e.g., peer) and security (e.g., in attachments) are topics of interest.

Thus far it is unclear in how far teachers have an impact on the development or expression of gelotophobia. Ruch, Proyer, and Ventis (2010, this issue) did show that remembering having been laughed at by parents, peers, and teachers contributes to some degree to the expression of gelotophobia (in adults) but does not explain it fully (especially not among clinically diagnosed gelotophobes). However, Edwards, Martin, and Dozois (2010, this issue) found a relation of the fear of being laughed at to academic excellence. Thus, there seem to be specific aspects in school life that might be sources for being laughed at and ridiculed. Führ (2001, 2002a) asked about 1,100 pupils what they think is of importance for gaining status and respect within but also outside the school. Their rank-ordered nominations were "showing that one has his/her own mind/opinion", "being someone with whom others can talk", "having a sense of humor", "being attractive", and "clothes". Of course, these aspects may be good sources for being laughed at; especially, as the outer appearance (e.g., attractiveness, clothing) is directly visible for everyone. During puberty and the associated processes with this time, experiences of shame and insecurity might be fostered (e.g., if the outer appearance does not meet with their own expectations but also does not meet expectations by others).

It is not surprising that higher experiences with having been bullied lead to a higher number of absent days in school (e.g., for avoiding being ostracized). Of course, this

notion is strengthened if a person has the conviction that s/he cannot solve the problem and/or causes of bullying. Interestingly, Führ (2008, 2009) found that humor does not seem to be protective factor against the fear of being laughed at.

As in adults (see Platt et al., 2009), bullying experiences are positively associated with higher fear of being laughed at among children and adolescents (in all age groups that entered the study). However, only a longitudinal study can test whether bullying causes the fear of being laughed at or whether the children and adolescents are already gelotophobes and get bullied because of their peculiar behavior (e.g., a wooden appearance when confronted with laughter; i.e., the so-called *Pinocchio syndrome*, see Ruch & Proyer, 2008b; Titze, 2009). It is a challenge for future research to study the relations between bullying and the fear of being laughed at more closely. In doing so it can be differentiated more closely to what degree bullying experiences might be traced back to misinterpretations of laughter-related events. This would lead to different interventions as gelotophobes were shown to have problems in appreciating the positive effects of laughter and humor and might benefit from programs for fostering their appreciation of laughter.

However, the study of the relations between the way people deal with laughter and bullying should not only be restricted to those who *fear* being laughed at. Ruch and Proyer (2009b) introduced recently to new concepts that are of relevance in this respect. They described those who enjoy being laughed at (gelotophiles) and those who enjoy laughing at others (katagelasticists). It seems to be well worth studying bullies in these relations as they might really enjoy laughing at their victims but do not feel guilt or have a bad conscience about this as they think that laughing at others is part of life – and that those who do not like being laughed at should simply fight back. Gelotophiles do enjoy the laughter of others at their own cost and it may be assumed that they are more resilient against bullying as they gain joy out of the laughter by others. Thus, one might study bullying among children and adolescents from this perspective to test whether different ways of dealing with the laughter by others contributes to different experiences with bullying.

The number of absent days per se did not predict the expression of gelotophobia very well in this study. As a limitation, it has to be noted that this variable did not distinguish different reasons for not having been in school (e.g., illness, avoidant behavior, etc.) and, therefore, it is a composite of various factors. However, those pupils who tend to think more frequently about staying away from school seem to score higher in gelotophobia. Though there are no data on the reasons why they think so, one might assume that feelings of being ostracized and/or ridiculed (or bullied) by colleagues or teachers in school could be among these reasons. This is, however, at the level of speculations at the moment. Other explanations (e.g., anxiety, below or above average performance in school etc.) might also apply. Nevertheless, it is striking that those pupils score highest in gelotophobia that frequently think of not attending school but who have a low number of actual absent days.

Further studies should focus on the correlates of gelotophobia among children and adolescents. For example, in how far secure self-evaluations, the process of building and fostering one's own identity and finding one's values and valuable characteristics con-

tribute to the expression of gelotophobia. However, influences by society and specific rules in a society might also have an impact on how members of these societies deal with being laughed at. Additionally, one might set up a longitudinal study that follows highest and lowest scorers in gelotophobia in the present sample for a longer period of time (e.g., ten years) and check which variables do change and which do not change.

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Correlates of gelotophobia

Submitted to: European Journal of Humor Research

Running head: Correlates of gelotophobia

A Study of the Relationship Between Gelotophobia and Coping Humor as well as Self-Ascribed Loneliness and Some Other Person Variables

Self-Ascribed Loneliness, Reflectivity, Attractiveness, Self-Acceptance, and Life Expectations

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Abstract

Gelotophobia (the fear of being laughed at) was studied in a sample of $N = 1,322$ Danish adolescents aged 11 to 16. When using a measure of coping humor in three different respects (using humor to (1) overcome uncertainty and stress, (2) in relation to aggression and sexuality, and (3) to get cheered up), it was indicated that the fear of being laughed at existed independently from the use of humor as a coping strategy. It is suggested that interventions targeting the positive side of laughter and humor may have a potential for increasing the well-being of adolescents with high levels of the fear of being laughed at. In single item ratings higher levels of gelotophobia were associated with greater self-ascribed loneliness, lower perceived attractiveness, lower self-acceptance, and rather negative life expectancies. Findings are discussed in the light of current literature and with respect to potential implications for the school life of adolescents are highlighted.

Keywords. adolescents; gelotophobia; coping humor; loneliness; self-acceptance

Testing the Relations of Gelotophobia With Humor as a Coping Strategy and Self-Ascribed Loneliness, Reflectivity, Attractiveness, Self-Acceptance, and Life Expectations

Humor research has given priority to adult humor during the past decades – for example when studying humor as coping tool, as indicative of social competence, or as an attitude towards life (see Martin [2007] or Ruch [2008] for an overview). As to gelotophobia (the fear of being laughed at), no empirical studies have dealt with the subject of being laughed at in childhood,

including its causes and consequences. However, there is evidence that children use humor as a coping mechanism, and this ability may contribute positively to avoiding gelotophobia.

In a study of people more than 50 years old, Platt Ruch and Proyer (2010) showed that the various known vulnerabilities give gelotophobes further reasons to withdraw, which have a negative impact for them with respect to get support from friends, relatives and caregivers. Furthermore, Platt and Ruch (2010) studied age related vulnerabilities in more detail and how they were related to three dispositions towards being laughed at, namely gelotophobia, gelotophilia (the joy of being laughed at), and katagelasticism (the joy of laughing at others). The study first asked participants if they had ever experienced the various age related vulnerabilities, and secondly, if they worried about them as they got older.

The katagelastacists neither worry nor acknowledge experiencing the identified vulnerabilities, but it seems that even if the gelotophiles had experienced vulnerabilities like loneliness, failing health or financial problems, they did not worry about them. Gelotophiles who were higher educated and who did not worry, also had a tendency to recount their problems to others in order to make them laugh. However, the picture was very different for those with gelotophobia. They were not inclined to tell anyone about their anticipated concerns for fear of ridicule, but they worried about the vulnerabilities, even when they had never experienced them. As regards the vulnerability of loneliness, earlier research on gelotophobia in adults (Ruch, 2008) has shown that individuals with high scores on gelotophobia more significantly report the feeling of loneliness. This study based on adult populations clearly show that humor and the ability to joke about the weaknesses that come with old age help to facilitate or maintain connections to other people: being able to turn difficult conditions of life into something to laugh about, makes a person less likely to worry and to withdraw from the much needed support of others.

Only few studies have been conducted on the impact of gelotophobia on these matters in adults, and so far nothing is known about whether the ability to use humor as a coping tool, when being laughed at, can protect a person from feeling low. However, it seems reasonable to suggest that children who are able to laugh at themselves in various situations may be less vulnerable to the

impression of being the subject of others' laughter. But can this be compared to the characteristics for gelotophobia?

Some earlier studies on much younger populations highlight the importance of humor as a social and communicative competence as well as humor as an attitude towards life in early adolescence. Führ (2002) showed that peers aged 11-16 with high humor scores reported to be less lonely and had an overall more positive view of their own personality. The majority of studies have focused on adults, but several important findings, eg. Søbstad (1993), and Führ (2002), indicate that children with a well developed sense of humor show greater self-confidence, are more popular, less lonely and find it easier to establish positive relations and friendship with other peers. Furthermore, the ability to use humor in various daily life situations appears to be a strong predictor for happiness and wellbeing. Beside all differences in divergent scientific approaches to the problem of *how* humor develops in childhood, humor researchers generally agree that children as well as adults use humor to tackle actual life tasks.

As to the view of humor as an attitude towards life, prominent early researchers like Höffding (1916) and Freud (1905) have argued that children lack the necessary life experience on the one side or the cognitive preconditions on the other side. However Führ (2002) showed in a study of 962 Danish children aged 11-16 years that there is reason to believe that humor as an attitude towards life can be found in that age group.

Classical developmental psychology (e.g. Erikson 1968) regards adolescence as the most difficult period in human life. The challenge of growing sexual maturity indicated by visible changes of the body, sexual interest in one's own and inter-gender sexuality, and the responses of the surroundings to these changes, as well as the growing *ego-reflectivity* described by Stern (1925) has to be considered as a common challenge to this age group. Beside many differences between divergent scientific approaches to the question of *how* humor develops in childhood, there is an overall agreement about the fact that children as well as adults use humor to tackle actual life tasks.

Furthermore, the question "who am I" and "which way do I want to go" is "*redefined*" including the challenge to move from the dependence of family towards the first own attempt of an attitude towards life. Kauke (1996) refers to this as "*Lebensentwurf*" (outcast of life), an outline for

a wished self which is seen as an aim for the development of self. Transition from childhood to adolescence is seen as a step towards personal awareness implying self-observation and self-reflexivity. The growing awareness of one's own self maintains a conflict potential, wherever the expectations of, e.g., the family, friends and surroundings differ from the child's first "*personal project*" (Kauke 1996). Furthermore, substantial choices have to be done, like the choice of school type, subjects or choices combined to other educational matter, following the first attempt towards an outlook of life. Thus, adolescence generally appears to be a very difficult and vulnerable period in childhood. – This vulnerability may open the door for *gelotophobia* (the fear of being laughed at). The child's various attempts to *test* different approaches to form one`s own outlook of life, e.g. new clothing to signalize sympathy or affiliation to a group of peers, or inclinations to share specific values or hobbies, may not always reveal a positive reaction.

A first indicator for the importance of gelotophobia in adolescence was provided by (Führ, 2010). In a large sample (N= 1322) of Danish school pupils aged 11-16 years, the participants answered the GELOPH <15> which is a self report questionnaire measuring the fear of being laughed at. Whereas the result of an earlier study of Danish adults (Führ, Proyer, & Ruch, 2009) showed that less than 2% in the adult sample fulfilled the criteria for being *slight* gelotophobic, the result for the 2010 study was that about 7 times as many adolescents (14.67 %) fulfilled the criteria.. The GELOPH <15> showed good psychometric properties and revealed a one-factor structure in both samples. Nevertheless, the fear of being laughed at turned out to be a relevant factor in the peer`s attempts to find their identity and first outlook towards life.

Aim of the present study

The aim of the present study is to investigate the relationship between gelotophobia and the use of humor for coping against various adversities among adolescents. Coping in three areas will be considered, namely coping with uncertainty and stress, coping with aggression and sexuality and the use of humor to get cheered up/to cheer others up. These questions will be investigated for boys and girls separately, and differences between age groups will also be considered. Furthermore, gelotophobia will be studied in relation to self-ascribed loneliness, reflectivity, perceived

attractiveness, self-acceptance, and life expectations. These correlations will help to illuminate the embedding of gelotophobia in a variety of variables relevant to adolescents.

Method

Table one gives an overview on the participants in the present study n = 1.322

Table 1:

Age	Boys	Girls	Unknown	Total
11 years	53	46	3	102
12 years	124	123	8	255
13 years	139	148	4	291
14 years	160	169	8	337
15 years	118	110	3	231
16 years	59	43	4	106
11-16 years	653	639	30	1322

The average age was M: 13.5 years

Instruments

The *GELOPH<15>* (Ruch & Proyer, 2008a) is a 15-item questionnaire for the subjective assessment of gelotophobia. Führ, Proyer, and Ruch (2009) authored the Danish version used in the present study. 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 assessment of the fear of being laughed at. It has been widely used in research and has so far been translated to more than 40 different languages (e.g., Papousek, Ruch, Freudenthaler, Kogler, Lang,

& Schulter, 2009; Ruch, 2009a; Ruch & Poyer, 2009a). The alpha-coefficient in this sample was .84.

The *Children Coping Humor Strategy Survey* (Führ, 2002) is an 11-item questionnaire developed to investigate children's use of humor when tackling various challenges in daily life (for a closer description of the CCHSS see Führ, 2002). The CCHSS showed good psychometric properties in Führ (2002), and factor analysis pointed at the use of humor when tackling, a) uncertainty and stress, b) aggression and sexuality, and finally c) the use of humor to get cheered up/to cheer others up. The 6-point answer format ranges from 1 = "strongly disagree" to 6 = "strongly agree". Alpha-coefficients were between .73 and .75.

Participants completed *single item ratings* on whether they feel lonely, whether they think of themselves as a reflective person, on their self-acceptance, and on their level of positive life expectancy on a 6-point scale (1 = "not at all" to 6 = "to the highest degree"); and on whether they perceive themselves as attractive on a 4-point scale (1 = "not at all" to 4 = "very much").

Procedure

As humor, especially as a communicative, social and coping tool in children has been the subject of massive public interest in the recent years, several articles and interviews on this matter had been available in schools in Denmark. The majority of the schools participating in this study reacted on a request by the author, when announcing the wish to investigate humor in childhood and adding the question of gelotophobia in children to earlier research subjects.

As a first step the community school boards received broad informational material about background, subject and purpose of the investigation. After agreeing to the research project in general, each school was contacted separately. On the one hand, all information provided by the school as well as the questionnaire could be treated completely confidentially and correlated to each other due to the code-system developed, but, on the other hand, all questionnaires could be traced back to the individual participant. All teachers involved received instructions about how to carry out the survey. It appeared doubtful whether the youngest participants in grade 5 (aged app. 11 years)

would be able to read and understand all questions by themselves. Therefore, the teachers were asked to read each question and be of assistance if necessary in the fifth grade, whereas all other grades completed the questionnaire handed out by their teachers. Parents had to provide consent for the participation of their children, and the information on absences was handed out to the project leader by the school administration. The participants were informed that participation in the study was voluntary and that they could refuse participation or stop filling in the questionnaires at any time they wanted to.

The survey covers geographically all parts of Denmark, with participating schools from the very south of Jutland and the north of Sealand including the islands of Falster and Lolland. Demographically the study covers urban and town schools, a catholic private school, high school in Copenhagen, as well as an urban school with 35 % of non-ethnic Danes. The entire study involves eleven schools with 91 classes in grades 5 to 9.

Results

The relations between gelotophobia and humor as coping. The total score of the GELOPH<15> (Führ, Proyer, & Ruch, 2009) was correlated with the Children Coping Humor Strategy Survey (Führ, 2002). Correlations were computed for the three subscales (a) coping with uncertainty and stress; (b) coping with aggression and sexuality; and (c) the use of humor to get cheered up/to cheer others up. Data was analyzed for the total sample but also separately for boys and girls; the coefficients are given in Table 2

Insert Table 2 about here

Table 2 shows that gelotophobia existed widely independently from components of children's use of humor for coping. There was a small positive relation with aggression and sexuality ($r^2 = .01$). If boys and girls are considered separately, there was no correlation for the boys

between gelotophobia and coping with aggression, whereas the correlation coefficient was .17 ($r^2 = .03$) for the girls. If the age groups are analyzed separately, there were strong positive relations between uncertainty and stress and gelotophobia (in boys and girls) and aggression and sexuality in the girls. It was striking that several correlation coefficients were negative for the 14-year olds pupils. Inclination to use humor to cope with aggression and sexuality was positively correlated with gelotophobia in the 12-year olds pupils as well as and in 11- and 15-year old girls. Furthermore, there was a negative relation between greater fear of being laughed at and the use of humor to get cheered up/to cheer others up in the 11-year old boys and in 14 year old girls. The multiple squared correlation coefficient between gelotophobia and all three scales of the CCHSS was $R^2 = .02$ indicating independence of the two measures.

Relations between gelotophobia and various self-descriptions. The adolescents answered questions about (a) how lonely they perceived themselves, (b) whether they considered themselves as a rather reflective person or not, (c) whether they perceived themselves as attractive, (d) their self-acceptance, and (e) whether they have a positive expectation towards their own life, cf. Führ (2010). The adolescents provided single item ratings (six-point scale). The results for loneliness are separately shown in Figure 1.

Insert Figure 1 about here

There were 486 adolescents, who did not at all feel lonely, followed by $n = 331$, $n = 188$, $n = 150$, $n = 109$, and $n = 66$ in the following categories ($M = 2.45$ on a 6-point scale; median = 2). Of those feeling lonely to the highest degree, there were 40 girls and 26 boys Overall, girls scored higher than boys in the category, $t(1296) = 4.85$, $p < .001$. The scale for the reflectivity had a mean score of 4.09 (median = 4) and less than five percent indicated that they were not reflective at all. Girls described themselves with greater self-reflection than the boys, $t(1298) = -7.78$, $p < .001$. About 6% ($n = 88$) indicated that they were not good looking at all ($M = 4.24$, median = 4) but more than one fifth (22.8%) rated themselves as very good-looking. Boys rated their attractiveness higher than the

girls did, $t(1298) = 4.25, p < .001$. The self-acceptance scale had a mean score of 4.48 (median = 5) and about one third (30.3%) was very happy with the way they were. Boys were also higher in their self-acceptance ratings than the girls, $t(1297) = 4.34, p < .001$. About 2.7% of the children had not at all a positive outlook on their lives while close to one half (48.5%) had a highly positive outlook on their life. The mean score was 3.32 (median = 3; 4-point rating for this item). Boys indicated having a more positive life expectations than the girls did, $t(1264) = 2.53, p < .05$. The self-ratings were correlated with the gelotophobia scores; the coefficients are given in Table 3.

Insert Table 3 about here

Table 3 shows that gelotophobia was positively correlated with self-ratings of loneliness (in boys and girls to the same degree) with r^2 of about .12. There was a numerically small but significant positive association between the fear of being laughed at and greater self-reflectivity. The size of the correlation coefficients, however, was rather small and perhaps practically negligible. Those with greater fear of being laughed at also described themselves with lower attractiveness, lower self-acceptance, and not with positive expectations towards their lives. When the different age groups were analyzed separately, the findings were rather similar, and therefore they are not reported in detail.

Discussion

This is the first study of the relation between gelotophobia and the use of humor for coping with adversity in adolescents. The findings suggest that the fear of being laughed at exists widely independently from the self-ascribed use of humor as a coping strategy. The zero-correlations can be interpreted in the sense that there are gelotophobes who are able as well as others who are unable to use humor as a coping strategy.

As with the adult gelotophobes, it was evident that gelotophobia was associated with feelings of loneliness in both boys and girls. Of course, the present study does not allow for causal

inferences; i.e., it cannot be implied whether the adolescents are gelotophobic because they are lonely (e.g., lacking opportunities to practice social skills associated with laughter and humor in general), or whether they are lonely because they are gelotophobic (e.g., being perceived as somewhat “strange” by class mates and peers). Nevertheless the relationship can have an impact on school life. Führ (2010) already showed that gelophobia is associated with more frequent thoughts about skipping school (without actually having a higher number of absent days), and a study by Edwards et al. (2010) suggests that subjects with high gelophobia scores remember having been laughed at in school in spite of academic success; they also report to have been laughed at by peers as well as teachers (Ruch, Proyer & Ventis, 2010). In any case it seems as if the perception of social support has an impact on the fear of being laughed at (Weibel & Proyer, 2012).

There were small positive correlations between gelophobia and how reflective the adolescents perceived themselves. However, at the moment it is unclear how to interpret this fact. One way would be to argue that children who were laughed at in the past ponder about it and reflect what the reasons might have been. In fact, a hierarchical factor analysis of the GELOPH <15> in extreme scorers in gelophobia yields that there are three positively correlated components of coping with derision (by control, withdrawal, internalizing), disproportionate negative responses to being laughed at, and paranoid sensitivity to anticipated ridicule (Platt, Ruch, Hofmann, & Proyer, 2012). It might be plausible to assume that the reflectivity is part of the coping with derision: reflective people will ponder on why others laugh at them.

It was evident that subjects with high gelophobia scores perceive themselves as rather not-attractive. So far, no data is available that show whether gelophobes differ from non-gelophobes in their physical appearance, or whether others perceive them as more or less attractive. However it should be reminded that gelophobes do underestimate their intelligence as well as their humor production abilities (Proyer & Ruch, 2009a; Ruch, Beermann & Proyer, 2009). Neither is data available on how gelophobes behave in intimate relationships; one study by Proyer, Estoppey, and Ruch (2012) indicates that gelophobes seem to stick together as there were positive relations between the gelophobia scores of couples. Platt and Forabosco (2012) find that adult

gelotophobes are more often singles; even at a older age they relatively often stay in the household of their parents.

Gelotophobia was also associated with lower levels of self-acceptance. This seems in line with expectations derived from descriptions of the experiential world of gelotophobes (e.g., Ruch & Proyer, 2008; Titze, 2009).

Finally, gelotophobia was negatively associated with positive life expectations which is in line with earlier findings of lower levels of life satisfaction in gelotophobes (Proyer, Ruch & Chen, 2012; Weibel & Proyer, 2012) as well as with data showing a negative correlation between gelotophobia and optimism as a strength of character (Proyer & Ruch, 2009b; Proyer, Wellenzohn, & Ruch, *in press*). Correlation coefficients for boys and girls did not differ from each other. Generally, on the basis of these self-ratings gelotophobic adolescents can be described as feeling lonely, with the impression of not being attractive, low self-acceptance, and a negative expectation for their own life. Taken together with findings on greater levels of bullying experience with increasing levels of gelotophobia in children (Proyer, Neukom, Platt, & Ruch, 2012), adolescents (Führ, 2010), and adults (Platt, Ruch & Proyer, 2009) this seems to point to the need of addressing the question of laughter, ridicule and being laughed at in school programs. The prior findings for humor as a coping strategy might indicate that this could be a resource which can be addressed in intervention programs (see also Titze, 2009). One way to facilitate changes might be not to focus on laughter but rather on the implementation of positive emotions in gelotophobes. A recent experiment with adults showed that gelotophobes generally display genuine smiles and laughter less frequently and less intensively (Platt, Hofmann, Ruch, & Proyer, *in press*). In this study 16 variants of enjoyable emotions were studied, and the Duchenne Display (i.e., the facial expression of joy) was recorded while people talked about emotional experiences. Interestingly, the gelotophobes primarily differed from non-gelotophobes only in those of the 16 enjoyable emotions that typically go along with laughter. However, programs aimed at bettering the life of gelotophobic children through positive experiences need to consider the problem that perhaps such enjoyable emotions that typically do not involve laughter (e.g., gratitude, contentment) are the most useful. A further consideration could be that it has been shown that while fearful adult individuals mimicked more

contempt towards contempt photos of different smiles, compared to those in a no-fear group, and also rated joy in photos displaying faces showing contempt, even though they rated the same amount of contempt as subjects without a fear of being laughed at (Hofmann, Platt, Ruch & Proyer, in prep). This misattribution of enjoyment of others when they display contempt, help us to understand why gelotophobes feel laughed at when they have not been. Training children to understand facial expressions and the emotions that go along with the display of faces may help them form better friendships and thus feel less isolated and lonely.

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Table 2. Correlation Coefficients Between Gelotophobia and Components of the Children Coping Humor Strategy Survey.

	All			Boys			Girl		
	Stress	Agg	Cheer	Stress	Agg	Cheer	Stress	Agg	Cheer
Total	.01	.10**	-.04	.05	.03	-.01	-.01	.17**	-.08
11-y	.08	.18	-.16	.06	.11	-.29*	.14	.37*	-.01
12-y	.24**	.21**	.04	.28**	.11	.14	.21*	.28*	-.04
13-y	.05	.14*	-.03	.09	.13	-.02	.01	.14	-.04
14-y	-.14*	.03	-.12*	-.09	.02	-.03	-.15	.05	-.20**
15-y	.01	.12	-.04	.00	-.01	-.05	.02	.26**	-.05
16-y	-.09	-.05	.09	.05	-.19	.09	-.14	.17	.08

Note: N(total) = 1294-1322 (643-653 boys; 624-639 girls); n(11 year) = 98-102 (52-53 boys; 44-46 girls); n(12year) = 250-255 (124 boys; 119-123 girls); n(13year) = 284-291 (136-139 boys; 144-148 girls); n(14 year) =329-337 (157-160 boys; 164-169 girls); n(15year) = 229-231 (117-118 boys; 110 girls); n(16year) = 104-106 (57-59boys; 43 girls); Stress = uncertainty and stress; Agg = aggression and sexuality; Cheer = the use of humor to get cheered up/to cheer others up.

* $p < .05$; ** $p < .01$.

Table 3. Correlations Between Gelotophobia and Self-Ratings of Loneliness, Reflectivity, Appearance Towards Others, Self-Acceptance, and Positive Life Expectation

	Total	Boys	Girls
Loneliness	.35**	.32**	.36**
Reflectivity	.12*	.09*	.13**
Attractive	-.25**	-.22**	-.28**
Self-acceptance	-.26**	-.23**	-.28**
Positive expectation	-.21**	-.19**	-.23**

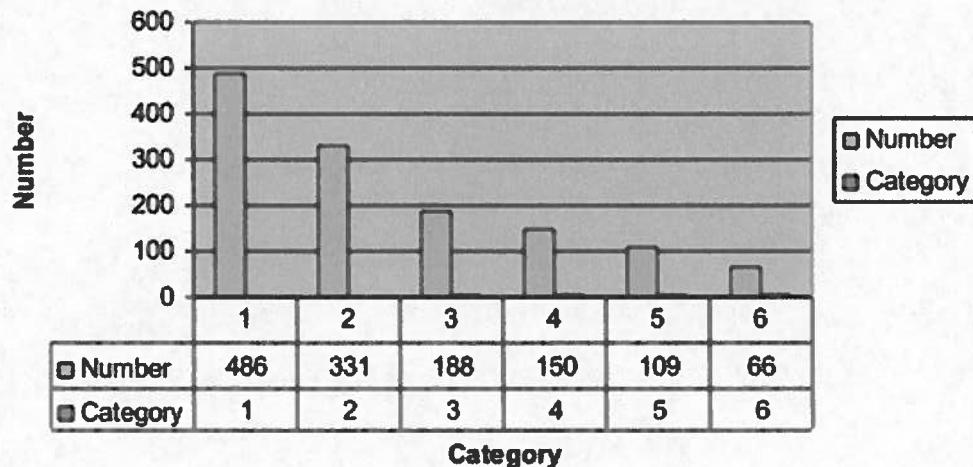
Note. N = 1,266-1,331; N(Boys) = 638-658; N(Girls) = 624-640. Attractive = Attractiveness; Positive expectation = Positive life expectation.

* $p < .05$; ** $p < .01$.

Figure 1

Loneliness in children aged 11-16 years

Loneliness



Del 8

Sammenfattende diskussion

I introduktionen nævntes fire overordnede forskningsspørgsmål som genstand for det samlede forskningsprojektet. Det første spørgsmål var: *"Hvilken form og funktion har humor for børn og unge i aldersgruppen 11-16 år?*

Resultaterne af Führ (2001) bekræftede antagelsen om humorens betydning som et socialt og kommunikativt redskab, og samtidigt at humor i den undersøgte aldersgruppe blev betragtet som et vigtigt redskab til at opnå status i klassen. Grundlæggende pegede undersøgelsen på, at piger i denne alder i mindre grad end drenge anser humor for at være et vigtigt redskab til at opnå status i klassen. Vedrørende spørgsmålet om, hvad børn i denne aldersgruppe især er optaget af, viste det sig ikke overraskende, at betydningen af *familien* aftager med tiltagende alder, og at betydningen af *kærester* få stigende betydning. Dette antages ligge i den i litteraturen beskrevne løsrivelse fra forældre og i hele selvstændiggørelsesprocessen i denne periode. Den i undersøgelsen påviste sammenhæng mellem vitspræferencer og vitsproduktion tyder endnu engang på humorens betydning som social og kommunikativ kompetence. Ved via fælles morskab at signalisere til andre, at man synes at det, de andre spørger med, er noget, som man selv synes er sjovt, viser man, at man selv er optaget af dette emne, og samtidigt giver man udtryk for samhørighed med denne gruppe. Den i undersøgelsen synlige generelle præference for sex-vitser og egen brug af humor med sexrelateret indhold tydede på, at denne form for humor var af større betydning for de yngre børn. Det antages at hænge sammen med de med den biologiske modning forbundne synlige forandringer af kroppen for begge køn.

Resultaterne af interviewundersøgelsen – med dens omtalte metodologiske begrænsninger – pegede på, at humorens funktion med hensyn til at tackle modgang i live opleves overvejende positiv og nyttig af den undersøgte aldersgruppe. Blandt de udtryk, børnene anvendte til at beskrive en positiv oplevelse af at blive mødt af en anden, som forsøgte at opmunstre dem, var de positive "det føltes godt, rart og forløsende"; blandt udtryk for en negativ oplevelse af hændelsen var "ambivalent, to følelser på samme tid". Der er altså ikke tale om en *universel* positiv oplevelse af, at blive opmuntrer af andre ved hjælp af humor, hvilket både pædagogisk-psykologisk personale og i endnu

højre grad forældre bør være opmærksom på, når de i god mening forsøger at hjælpe et barn i denne aldersgruppe. Mange børn gav tydeligt udtryk for, at når der indtræffer virkelig alvorlige hændelser i deres liv, kan humor nok bruges til en kortvarig fornemmelse af at blive hjulpet og "forløst", men der søges primært efter trøst, nærhed og omsorg. Dette tyder på, at børn med humoristisk sans ikke går gennem livet uden at forholde sig til de hændelser, der påvirker deres liv, og det underbygger betydningen af humor som en *supplerende forsvarsmekaniske*, der kan hjælpe umiddelbart og situationelt. Som nævnt i Führ (2001) svarer dette fund til tidligere fund blandt collegestuderende i USA (Lefcourt og Martin 1986), som betragtede humor én mulig måde at håndtere modgang i livet på, der – kombineret med andre måder – kan hjælpe børn og unge gennem sårbare og vanskelige perioder i deres udvikling. Undersøgelsens resultater peger i deres helhed på humorens betydning som såvel inter- som intrapersonel kompetence i denne aldersgruppe. Undersøgelsens kvalitative del giver anledning til nærmere at undersøge anvendelse af humor som et redskab til at tackle modgang i livet på allerede i denne alder, idet interviewunderundersøgelsens mere nuancerede svar peger på velreflekterede overvejelser om, hvor humor kan bruges, hvor den kan være et supplement, og hvor der skal mere til, når modgang i livet skal håndteres.

Dette ledes hen til forskningsprojektets anden overordnede forskningsspørgsmål: *Anvender børn og unge humor som en måde at tackle udviklingsbetingede udfordringer på, og hvilken betydning har denne evne for positiv psykisk trivsel?*

Ud fra resultaterne i Führ (2001) var der grund til at mene, at humor som et redskab til at tackle livets modgang anvendtes betydelig tidligere end hidtil antaget i litteraturen. Resultatet af en ny undersøgelse, Führ (2002), viste det samme billede for CHS-testen, som er kendt fra et hav af voksen-besvarelser (se omfattende oversigt i Martin, 2007), dvs. en én-faktor løsning, næsten identiske gennemsnitsværdier, samt en Cronbach Alpha koefficient på 0.60, som ligeledes er blevet målt i tidligere undersøgelser med voksne.

Analyse af den nykonstruerede CCHSS-test førte derimod frem til en tre-faktor løsning, som pegede på, at humor – som et middel til at begå sig i livet på i denne aldersgruppe – bør betragtes som et redskab, der omfatter mere end dimensionen håndtering af *stress* og *usikkerhed*. tre-faktor-løsningen pegede på (1) brug af humor i forbindelse med stress og usikkerhed, (2) brug af humor ved håndtering af aggression og seksualitet, samt (3) brug af humor til at få et positivt humørskifte – at blive opmuntret og i forlængelse heraf ligeledes at opmuntre *andre* som ikke har det godt.

Med hensyn til at bruge humor som et redskab til at håndtere usikkerhed og stress fandtes signifikant stigning fra 12 års alderen og frem for begge køn. Den med alderen tiltagende anvendelse af humor til tackling af vanskelige situationer leder hen til en mulig forbindelse mellem udviklingsbetingede forandringer og tiltagende livserfaring. Ydermere viste det sig, at drenge i signifikant større grad anvendte sex- relateret humor og brugte humor til at gøre grin med andre. Hvad angår brug af humoren til at blive opmuntret eller komme i bedre humor viste det sig at betyde meget for begge køn; denne funktion mister betydning for drenge med tiltagende alder, men ikke for pigerne. Overordnet set, fremstår humor her som en individuel valgt strategi til håndtering af en bred vifte af udfordringer i tilværelsen, der hjælper børn gennem en sårbar udviklingsperiode. Samlet set, fremstår humor som et redskab til at opnå status og popularitet, indgå relationer og vise tilhørighed til en specifik gruppe, som børnene deler humor med.

Afhandlingens tredje forskningsspørgsmål lød: *Hvilken betydning har angst for at blive leet ad (gelotofobi) i denne aldersgruppe, og findes der en sammenhæng mellem geletofobi og fravær i skolen?*

En relativ ny gelotofobitest, GELOPH<15>, der var gennemprøvet på voksne i mange lande, viste sig at være anvendelig ved undersøgelse af gelotofobi i den undersøgte aldersgruppe. Såvel faktorstruktur som reliabilitetstest viser stort set samme resultat som for danske voksne (Führ, Proyer og Ruch, 2009). Undersøgelsens resultater udviste ikke signifikante forskelle med hensyn til hverken køn eller alder; dog var der i én af aldersgrupperne kønsforskelle i svarene på nogle enkelte spørgsmål. Det skal fremhæves, at modsat voksenresultatet, at 1.62% danske voksne var gelotofo-bikere, er resultatet for de danske børn og unge gennemsnitligt, at 13,62 % er det, dvs. en næsten 7 gange så høj værdi som hos voksne danskere. Gennemsnitsværdierne for de enkelte alderstrin viser ingen signifikante forskelle, men varierede fra 11,52% - 17.92%.

Med hensyn til den store forskel på (danske) børn og voksne, kan der på *den ene side* argumenteres for, at der er et stort sammenfald af udviklingsbetingede udfordringer for denne aldersgruppe, både for drenge og piger. Som nævnt tidligere tænkes her på den biologiske modning og de hermed forbundne fysiske forandringer af kroppen samt seksualiteten, tiltagende selvstændighed, løsrivelse fra forældrene som identifikationskilde, orienteringen om hvilken gruppe man føler at man hører til i, opnåelse af anerkendelse og status blandt jævnaldrende, betydningen af en positiv selvopfattelse m.m. Samtidig bør tænkes på, at udseende og påklædning er vigtige faktorer med hensyn til at opnå anerkendelse og status i denne aldersgruppe (se Führ 2004, 2012). Disse ydre

faktorer er netop umiddelbart synlige for andre og kan føre til eller være forbundet med angst for at blive leet ad, hvis man møder med det forkerte tøj eller det forkerte udseende i børne- og ungegruppen. Disse mange ydre faktorer taber imidlertid betydning i voksenalderen, og dette er én mulig forklaring på den store forskel på resultaterne for børn og voksne.

På den anden side kan der yderligere argumenteres for, at det internationalt set meget lave resultat for danske voksne tyder på, at vi har et tolerant samfund, hvor udseende og påklædning er af ringe betydning, og hvor forskelle og en anderledes måde at være bliver tolereret eller i det mindste ikke fører til, at man bliver genstand for latter. Men netop for børn og unge, som er på vej til at finde deres identitet, kan fx påklædning signalisere tilhørighed til en gruppe eller udtrykke et ønske om at blive del af en gruppe og ikke at være alene.

Som nævnt i resultatdelen i Führ (2010) viste sig at være visse forskelle for drenge og piger vedkommende med hensyn til antallet af fraværsdage, der varierende fra 0 til 133 fraværsdage. I alt pegede 41.64% på, at de ikke havde lyst til at gå i skole – eller slet ikke havde lyst til at gå i skole, idet drenge bekræftede dette udsagn i signifikant højere grad end piger ($p < .01$). Der findes ingen umiddelbar forklaring på denne kønsforskelse med mindre man følger den "common sense"-antagelse, at piger generelt er mere pligtøpfyldende, når det gælder skolesager, og derfor har mindre fravær. Der viste sig dog ingen kønsforskelle på spørgsmålet om, hvorvidt man have prøvet at pjække fra skolen, hvor 23.23% af eleverne angav, at dette var helt rigtigt. Der fandtes i øvrigt ikke sammenhæng mellem gelotofobi og de anvendte skolerelaterede variable, og på det punkt fandtes ingen kønsforskelle. Det må dog fremhæves, at elever som havde erfaringer med at blive mobbet, scorede højere i gelotofobi-testen.

Derudover viste der sig hos børn med højere gelotofobi-score en tendens til oftere at angive ikke at have lyst til at gå i skole. Men hverken gelotofobi eller "coping humor" viste signifikante sammenhænge med antallet af fraværsdage. Det betyder, at antallet af fraværsdage næppe er relateret til gelotofobi, idet det dog må bemærkes, at spørgsmålet om selve årsagerne til fraværet beklageligtvis ikke er oplyst. Interessant er dog under alle omstændigheder, at de elever, der angav hyppigt at have *overvejet* at pjække fra skolen, også havde den højeste score i GELOPH <15>, men samtidigt havde meget lille *faktisk* fravær. En tænkelig forklaring på dette kunne være, at man ved at pjække fra skolen signaliserer til den gruppe af børn, der gør grin med en, at man er sårbar på dette område, og det vil så igen kunne medføre, at man fortsat at blive leet ad. En anden tænkelig forklaring er, at børnenes forældre simpelthen sørger for, at børnene passer deres skolegang, selv om de giver udtryk for at være negativ påvirket af at have været genstand for andres latter.

Afhandlingens fjerde forskningsspørgsmål: *Hvilken betydning har gelotofobi for positiv psykisk trivsel, og beskytter evnen at ty til humor mod angst om at være genstand for andres latter?*

Resultaterne af den seneste undersøgelse, Führ (2013), peger på, at gelotofobi på den ene side og udtryk for tilbøjelighed til at bruge humor i trængte situationer ("coping humor") på den anden side stort set er uafhængige af hinanden. Dog er der for seks items vedkommende signifikante positive korrelationer. Umiddelbart tyder dette på, at angst for at blive leet ad ikke umiddelbart medfører, at børn generelt undlader at ty til humor som redskab til at håndtere trængte situationer; enkelte gør det, andre ikke, hvad der ville forklare 0-korrelation ved de fleste af de 15 spørgsmål i GELOPH<15> (Führ 2013).

Yderligere viste det sig, at positive emotionelle oplevelser ved at grine sammen i klassen hænger sammen med lavere værdier med hensyn til gelotofobi. Det tyder på, at oplevelsen af at kunne le sammen med klassekammerater og lærer fører til positive oplevelser af fællesskab og samhørighed, og at man, når man er inkluderet i dette fællesskab, ikke (eller kun i ringe grad) oplever nogen *fare* for at blive genstand for andres latter.

Det er imidlertid fortsat bekymrende, i hvor høj grad børn i 11-16-årsalderen giver udtryk for at føle sig ensomme. Kun 36,54% af børnene svarer, at de slet ikke føler sig ensomme, men ses på andelen af børn, der svarer 5 eller 6 på sekstrinsskalaen, udgør de 25%, som kender til at føle sig ensomme. Derudover viste det sig, som nævnt i resultatdelen af Führ (2013), at piger hyppigere beskrev sig selv som ensomme end drenge. Påfaldende var det også, at i gruppen på 66 personer, som betegnede sig selv som ekstremt ensomme, var der 40 piger og 26 drenge. På samtlige alderstrin anså børnene med større angst for at blive leet ad sig også som mere ensomme. Endnu engang peger disse resultater på aldersgruppens (11-16 år) sårbarhed og på den særlige problematik for pigergruppen, hvor hyppigheden for selvdestruktiv adfærd og selvmordsforsøg er langt større end hos drenge³.

At 19,79% af børnene betegner sig selv som særdeles selvreflekterende peger på betydningen af dette fænomen i ungdomsårene. Det er nok ikke særdeles overraskende, at pigerne i den undersøgte aldersgruppe signifikant hyppigere betegner sig som selvreflekterende end drengene, der generelt vurderer sig selv som mere tilfredse med deres udseende, mere tilfredse med sig selv og i forlængelse heraf også hyppigere udviser positive fremtidsforventninger.

³ http://fpn.dk/liv/born_unge/article1955751.ece

De efterfølgende resultater viste, at piger som hyppigt reflekterede over sig selv, indikerede større tilbøjelighed til at bruge humor som en måde at begå sig i livet på. Piger, som angav i højere grad at være bange for at blive leet ad, beskrev sig selv som mere ensomme, mindre tilfredse med deres udseende og med ringere grad af selvtildfredshed, og de havde i mindre grad positive fremtidsforventninger. På den anden side kunne konstateres, at ensomme piger brugte humor til at håndtere aggression, men ikke til at opmuntre andre. Derudover viste det sig, at piger, der beskrev sig selv som ”med godt udseende” og som tilfredse med sig selv, og som havde positive fremtidsforventninger, brugte humor til at opmuntre andre. Dette taler for, at CCHSS-testens 3 faktorer virkelig er uafhængige af hinanden, og det vil kunne forklare, at der er større individuelle forskelle m.h.t. at anvende humor i den undersøgte aldersgruppe, og at flere faktorer end ”en veludviklet sans for humor” gør sig gældende i dagligdagen, når livet skal mestres.

Forslag til fremtidig forskning

Nærværende arbejde må betragtes som et stykke eksplorerende grundforskning, som efterlader flere åbne spørgsmål. Anvendelsen af GELOPH <15> over for en større gruppe børn og unge samt en mindre gruppe voksne fra samme kulturkreds rejser spørgsmålet, hvad der er grunden til, at børn og unge tilsyneladende meget hyppigere føler, at de er genstand for andres latter. De ældste unge i den større undersøgelse var 16 år, de yngste i voksenundersøgelsen 26 år. Det vil sige, at man må forvente en evt. gradvis aftagen af angstens at blive leet af med stigende alder. For at finde frem til årsagerne hertil vil det være nødvendigt med en longitudinal undersøgelse, hvor de samme unge følges gennem op til 10 år med gentagen dataindsamling. Samtidigt bør en sådan kvantitativ undersøgelse (med GELOPH<15>) følges op af en kvalitativ, der vil kunne bibringe *forklaringer* på resultaterne i den kvantitative undersøgelse.

Herudover vil det også være relevant at foretage en nøje undersøgelse af, hvad det konkret er, der af børn og unge opleves som værende årsag til, at andre ler ad dem. For at få indblik i dette vil det igen være nødvendigt med en åben interviewundersøgelse af et repræsentativt udvalgt antal børn og unge. Det kunne her overvejes at anvende IPA (Indepth Phenomenological Analyses, Langdrigde 2007), idet dette kvalitative redskab lægger op til systematisk udforskning af et givent fænomen. Endvidere ville det være nødvendigt at gennemføre en lignende undersøgelse men af tværkulturel art. Det er jo nemlig på ingen måde utænkeligt, at antallet af gelotofobe børn ikke varierer i lige så stor grad på tværs af kulturer, som resultater af Prøyer, Ruch et al (2009) viser for en større tværkulturel undersøgelse. Det kan f.eks. antages, at hvor børn i en kultur som vores med tiltagende alder

erfarer, at der er ringe eller ingen grund til at være genstand for andres latter, kan det være, at børn i andre kulturer efterhånden erfarer, at det respektive regelsæt for acceptabel adfærd, påklædning, udseende m.m. betyder, at der evt. er mere man kan gøre forkert som voksen – med andres latter til følge. Resultaterne af disse undersøgelser af humor hos 11-16-årige lægger altså op til videre udforskning af børns humor via kvalitative undersøgelser og observationsstudier for at opnå større forståelse for humors betydning i barndoms- og ungdomsårene – især i forbindelse med børns brug af humor som socialt og kommunikativt redskab, men også i forbindelse med en dybere forståelse af, hvad det egentligt betyder at ty til humor for at mestre livet.

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Acknowledgements

Da jeg i efteråret 1997 overværede en forelæsning af Hans Vejleskov i faget udviklingspsykologi på DLH (Danmarks Lærerhøjskole) blev det foreslægt, at alle dem, som endnu ikke havde fundet et

emne til deres eksamensopgave kunne overveje *humor* som tema. Jeg ved den i dag ikke, hvorfor jeg gjorde det, men i dag, 16 år senere, hænger jeg fortsat på den. I første omgang førte dette til deltagelse i ISHS-konferencen i Bergen i 1998, hvor jeg kun mødte interesse og tilbud om støtte til en novice i humorforskningen. Efter afleveret speciale sagde Hans Vejleskov: "Nu må du flyve selv", og første flyvetur (med toget) førte mig til W. Ruch (der den gang var ansat ved Universitetet i Düsseldorf) med de netop indsamlede data fra Führ (2002). Da jeg ankom til Tyskland vidste jeg ikke, hvad der ventede mig, og om jeg skal skulle være der i få timer eller i længere tid. W. Ruch regnede på de medbragte data samme søndag eftermiddag i sit private hjem, stillede uddybende spørgsmål i ny og næ, når nogle dansk benævnte variabler skulle oversættes, og så – tog han en uge fri, hvor vi arbejdede fra morgen til aften med at analysere disse data.

Samme holdning, åbenhed og parathed til at hjælpe novicer videre på vej har jeg fortarende mødt hos det hav af humorforskere, som jeg har mødt og sammenarbejdet med årene igennem. I dag er jeg besluttet på selv at finde tid til at gøre det samme. Udeover ovennævnte vil jeg gerne takke forskningsteamet omkring W Ruch, ved universitetet i Zürich og her især R. Proyer og T. Platt for interesse og værdifulde bidrage til min forskning. Samme tak går til Josiane Boutonnet, fra University of Wolverhampton, som har hjulpet med korrekturlæsning ved de engelsksprogede artikler. Endelig en stor tak til Tia Hansen, som trådte til som vejleder ved genindlevering af denne afhandling i allersidste stund..

Til sidst: Tak til mine børn Anna, Niels og Karen, som måtte undvære deres far i mange hundrede timer.

Bilag

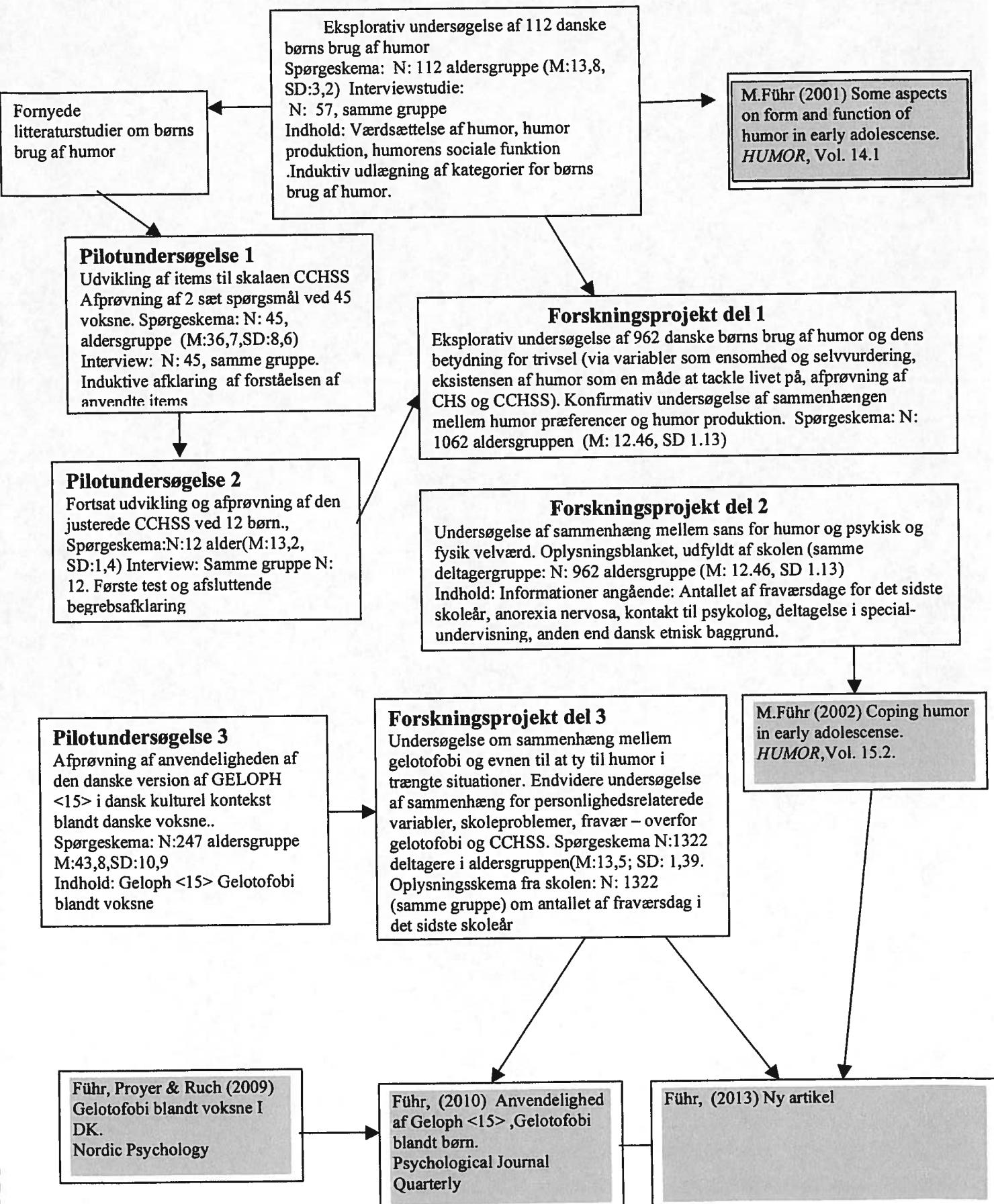
- 1. Oversigt over forskningsprojektet**
- 2. CHS**

- 3. CCHSS**
- 4. GELOPH <15>**
- 5. Spørgeskemaet**
- 6. Medfattererklæring**

Liste over vedlagte bilag

- 1. Oversigt forskningsprojektet**
- 2. Coping Humor Scale (CHS)**
- 3. Children Coping Humor Strategy Survey (CCHSS)**
- 4. Geloph <15>**
- 5. Medforfattererklæring**

Struktur og udvikling af humor- forskningsprojektet



The Coping Humor Scale

Instructions:

This questionnaire is concerned with the way you express and experience humor. Obviously, there is wide variation among individuals and therefore no right or wrong answers to these questions. Below you will find a list of seven statements. In the space at the beginning of each sentence, please indicate the degree to which you agree or disagree with that statement by printing a number from 1 to 4, using the following scale:

- 1 = strongly disagree
- 2 = mildly disagree
- 3 = mildly agree
- 4 = strongly agree

- 1. I often lose my sense of humor when I'm having problems.
- 2. I have often found that my problems have been greatly reduced when I tried to find something funny in them.
- 3. I usually look for something comical to say when I am in tense situations.
- 4. I must admit my life would probably be easier if I had more of a sense of humor.
- 5. I have often felt that if I am in a situation where I have to either cry or laugh, it's better to laugh.
- 6. I can usually find something to laugh or joke about even in trying situations.
- 7. It has been my experience that humor is often a very effective way of coping with problems.

Scoring: Reverse scoring for items 1 and 4, and sum across all 7 items.
(i.e., Add up the responses to questions 2, 3, 5, 6, and 7, then subtract the responses to questions 1 and 4, and finally add 10 to the total.)

Interpretation: > 23 : above average use of humor in coping with stress
18-22 : average use of humor in coping
< 18 : below average use of humor in coping

Children Coping Humor Strategy Survey (CCHSS)

Instruction:

Please answer the following questions by marking (X) the most appropriate number.

You can choose between: (1) (2) (3) (4) (5) (6) where (1) indicates "totally disagree" and (6) "totally agree". Each question is allowed to be marked (X) only once.

1. When you are really angry at someone, will you consider to poke fun at him/her? (1) (2) (3) (4) (5) (6)
2. When you want to talk about sex, will you consider to tell jokes about sex to get on to this subject? (1) (2) (3) (4) (5) (6)
3. When you are really frightened, does it help to laugh? (1) (2) (3) (4) (5) (6)
4. You have to be examined in a subject you know you're not good at, and you are told that your answers were bad. Could you laugh about it anyway? (1) (2) (3) (4) (5) (6)
5. Would you consider to make fun on others? (1) (2) (3) (4) (5) (6)
6. When you are in a really bad mood, and something funny happens, could that bring you into a better mood? (1) (2) (3) (4) (5) (6)
7. Do you use humor to feel good yourself, by laughing at others? (1) (2) (3) (4) (5) (6)
8. When you have mastered a challenge, is it possible that you laugh? (1) (2) (3) (4) (5) (6)
9. When you have made a fool of yourself, can you react by saying something funny? (1) (2) (3) (4) (5) (6)
10. When you are really sad and someone tells something funny to bring you into a better mood, does it feel good? (1) (2) (3) (4) (5) (6)
11. When you feel uncertain in a situation, can it then happen that you say something funny? (1) (2) (3) (4) (5) (6)

G E L O P H

Kode: _____

Alder: | ____ |

Køn: O mand O kvinde

Er du: O enlig O samlevende O gift O skilt O enkemand/kvinde

Instruktion:

De følgende påstande refererer til dine følelser og indtryk **generelt**. Forsøg venligst at beskrive dit sædvanlige adfærdsmønster og opførsel så godt som muligt, ved at afkrydse et af de fire alternativer. Anvend venligst følgende skala.

- (1) stærkt uenig
- (2) moderat uenig
- (3) moderat enig
- (4) stærkt enig

F. eks.

Jeg er en lystig person. (1) (2) (3) (4)

Hvis du er stærkt enig i denne påstand, altså hvis du generelt er en lystig person afkryds (4). Hvis du er stærkt uenig, altså hvis du **sædvanligvis ikke** er lystig overhovedet, afkryds (1). Hvis du har vanskeligt ved at besvare et spørgsmål, så vælg det svar som ligner mest.

Besvar venligst *hvert* spørgsmål, spring ingen over.

-
- 1. Når andre ler i min tilstedeværelse bliver jeg mistænksom. (1) (2) (3) (4)
 - 2. Jeg undgår at stå offentligt frem, fordi jeg frygter at folk ser min usikkerhed og vil gøre nar af den. (1) (2) (3) (4)
 - 3. Når fremmede ler i min tilstedeværelse, tror jeg ofte de ler ad mig. (1) (2) (3) (4)
 - 4. Det er vanskeligt for mig at holde øjenkontakt, fordi jeg frygter at blive nedsættende vurderet. (1) (2) (3) (4)
 - 5. Når andre gør nar af med mig føler jeg mig lammet. (1) (2) (3) (4)
 - 6. Jeg behersker mig meget for ikke at vække negativ opmærksomhed, så jeg ikke virker latterlig. (1) (2) (3) (4)
 - 7. Jeg tror jeg virker ufrivillig latterlig på andre. (1) (2) (3) (4)
 - 8. Selvom jeg ofte føler mig ensom, deltager jeg ikke særlig tit i sociale aktiviteter for at beskytte mig selv for hånlige bemærkninger. (1) (2) (3) (4)
 - 9. Når jeg har gjort et pinligt indtryk et sted, så undgår jeg stedet herefter. (1) (2) (3) (4)
 - 10. Hvis jeg ikke var bange for at gøre mig selv til grin, ville jeg tale mere i forsamlinger. (1) (2) (3) (4)
 - 11. Hvis én har drillet mig førhen, kan jeg aldrig have noget at gøre med vedkommende igen. (1) (2) (3) (4)
 - 12. Det tager mig lang tid at komme over, når nogen har grinet af mig. (1) (2) (3) (4)
 - 13. Når jeg danser føler jeg mig akavet, fordi jeg er overbevist om at dem der ser mig synes jeg er latterlig. (1) (2) (3) (4)
 - 14. Når jeg føler mig relativt ubekymret, er der høj risiko for at tiltrække negativ opmærksomhed eller virke underlig. (1) (2) (3) (4)
 - 15. Når jeg har gjort mig til grin overfor andre, bliver jeg totalt stiv og mister min evne til at opføre mig passende. (1) (2) (3) (4)

CO-AUTHOR'S DECLARATION¹

This co-author's declaration concerns the scope of corresponding author (Martin Führ) contribution to the following scientific work:

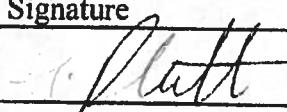
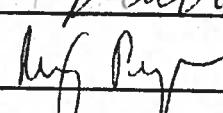
Please evaluate the scope of her/his contribution on the basis of the following scale:

- A. Contributed to cooperation (0-33%).
- B. Contributed substantially (34-66%).
- C. Did by far the majority of the work independently (67-100%).

Declaration in respect of individual elements.	Scope (A,B,C)
1. Formulation in concept phase of basic scientific problem based on theoretical questions that require clarification, including summary of problem in questions that can be answered by carrying out analysis or concrete experiments/investigations.	C
2. Planning of experiments/analysis and formulation of study methodology in such a way that the questions asked under 1 can reasonably expect to be answered, including choice of method and independent method development.	C
3. Involvement in analysis work or concrete experiments/investigation.	C
4. Presentation, interpretation and discussion of the results obtained in article form.	C

As co-author's we are informed about the content and submission/publication of this manuscript and have no objections to it.

By our signature we declare the scope of Martin Führ's contribution.
Co-authors' signatures:

Date	Name	Title at work	Signature
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02 06 2013 Martin Führ

¹ According to guidelines in the Vancouver Declaration. www.icmje.org