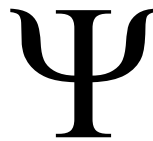




## DET PSYKOLOGISKE FAKULTET



*Wanting to do Just Anything Else:*

*A Q-Methodological Step Towards Defining Boredom*

HOVEDOPPGAVE

*profesjonsstudiet i psykologi*

**Liss Gøril Anda**

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Veileder Helge Holgersen.

Denne artikkelen er utformet i tråd med retningslinjene til tidsskriftet *Journal of Personality and Social Psychology, section of Personality Processes and Individual Differences*. Disse er vedlagt i Appendix B.

Spesiell takk for støtte og rådgivning til Kolbjørn Brønnick, uten hvis denne oppgaven ikke ville eksistert.

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Og sist men ikke minst, takk til den aldri kjedelige Bjørn-Are Ågotnes for heroisk innsats i heimen som sørget for at vi ikke druknet i oppvask og at vår datter aldri kjedet seg i mitt fravær. Og for at han har holdt ut med at jeg har snakket om denne oppgaven i det kjedsommelige.

“Ennui has made more gamblers than avarice, more drunkards than thirst,  
and perhaps as many suicides as despair.”  
(Buddha)

Running head: Q SORT BOREDOM STUDY

Wanting to do Just Anything Else:

A Q-Methodological Step Towards Defining Boredom

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**Abstract**

Boredom is a commonly reported phenomenon with apparent ecological validity which remains under-researched and poorly defined by academic literature. This study used Q methodology in moving towards a unifying conceptual understanding of how people perceive boredom, thereby improving the foundation for further research and for the creation of valid measuring instruments for both state and trait boredom. The sample consisted of 10 Norwegian students (aged 19-26) and 10 seniors (aged 61-89). All completed a 40-statement Q-sort task, with data subjected to an inverse factor analysis using the PQMethod computer software. Results identified three factors to the students' perception of boredom: Active boredom, boredom coping, and passified boredom, with aspects of restlessness and disengagement from a current task common to all factors. Elderly people appeared to be markedly less prone to boredom than were students, and possible reasons for this are also discussed.

Keywords: Boredom, engagement, generational differences, Q methodology

Contemporary Western societies arguably offer the public a greater selection of activities than perhaps any other before them (Carr, 2011). The Oxford English Dictionary describes being bored as a passive feeling of weariness or ennui, associated with “dissatisfaction produced by want of occupation, or by lack of interest in present surroundings or employments” (2011). Given that our culture of entertainment provides “ubiquitous opportunities for stimulation” (Stromberg, 2009), we are unlikely to suffer from a greater “want of occupation” than did our counterparts of pre-modern eras. Yet paradoxically, we experience an “oscillation between boredom and being caught up” (Stromberg, 2009, p. 158), and boredom as a phenomenon appears to be on the rise (Spacks, 1995; Svendsen, 2005).

Boredom is an important topic for several reasons. It has been linked to negative mental health factors such as depression, anxiety and increased mortality (Sommers & Vodanovich, 2000). It is a common experience among inpatients of mental health treatment facilities, and might impede recovery (Binnema, 2004). Boredom is associated with compulsive behaviours such as eating (Koball, Meers, Storfer-Isser, Domoff, & Musher-Eizenman, 2011) and gambling (Blaszczynski, McConaghy, & Frankova, 1990), and has been suggested as a focus of efficient treatment options (Mercer & Eastwood, 2010). In professional settings, boredom proneness and work related state boredom are linked to reduced job satisfaction and performance, increased absenteeism (Kass, Vodanovich, & Callender, 2001) and even counterproductive behaviour such as theft (Bruursema, Kessler, & Spector, 2011). Boredom is associated with attention deficit / hyperactivity disorders (AD/HD) in adults (Kass, Wallace, & Vodanovich, 2003), indicating emotional and motivational links between boredom and inattention (Wallace, Kass, & Stanny, 2002). Children with attention deficit disorder have also been found to suffer from impaired time perception, potentially increasing their vulnerability to boredom (Gooch, Snowling, & Boredom – a Q sort impression

Hulme, 2011). Overt behaviours linked to AD/HD diagnoses could in fact be expressions of a subjective state of boredom, with the apparent rise in AD/HD diagnoses (Akinbami, Liu, Pastor, & Reuben, 2011) a potential phenomenological expression of a societal state of collectively increasing boredom. These issues all underscore the wide influence of boredom, rendering strange the relative lack of attention devoted to it by psychologists.

In the psychological literature, boredom is defined variously as an active and aroused state of restlessness (Zuckerman, 1971), as an underaroused and passive emotion (Goldberg, Eastwood, LaGuardia, & Danckert, 2011), or as a metacognitive process with people sensing they are bored when “they find they cannot keep their attention focused where it should be” (Damrad-Frye & Laird, 1989, p. 316). Proneness to boredom is seen as a trait (Farmer & Sundberg, 1986) linked to “an aversion for repetitive experience” (Zuckerman, 1971), despite possibly varying across the lifespan (Martin, Sadlo, & Stew, 2006). Boredom is probably a multifaceted experience affected by emotional, cognitive, personality and situational variables (Hill & Perkins, 1985), with confirmatory factor analyses of existing boredom proneness inventories describing factors linked to a lack of internal and external stimulation (Stephen J. Vodanovich, Wallace, & Kass, 2005), or internalising or externalizing behaviour (Mercer & Eastwood, 2010).

No consensus has been reached on how to describe boredom as a phenomenon, except a general acknowledgement that it is a complex construct resistant to exact definition (Goldberg, et al., 2011). This is in our opinion partly due to previous studies failing to subject the concept of boredom to a systematic inductive, exploratory research phase. Given the subjectiveness both of boredom as an experience (Martin, et al., 2006) and of its antecedents (Damrad-Frye & Laird, 1989; Pekrun, Goetz, Daniels, Stupnisky, & Perry, 2010; Perkins & Hill, 1985), an examination  
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of subjective boredom is required to allow for a rigorous and precise description to be made of boredom as a psychological construct. Thus, systematic exploration appears a logical first step towards a scientific definition.

Several strategies are available for this exploratory phase, which should aim to examine how people subjectively conceptualize and experience boredom. One approach is to use Q methodology, which allows an exploration of heterogeneous perceptions of boredom, and through by-person factor analysis of whether people's experiences fall into meaningful operant categories (Brown, 1993). Q methodology allows for the ipsative assessment of a variable, and has been described as preferable to regular by-item factor analysis in exploratory designs (Ozer, 1993). It also encourages the inclusion of qualitative data at the stage of analysis for greater depth (Watts & Stenner, 2005). Any emergent categories in this study may be examined for common elements appearing to form a core boredom experience, thereby rendering boredom a unified, valid concept. This might contribute to the process of confirming a more widely accepted operationalization of boredom.

## **Method**

Q methodology involves a two stage procedure for the systematic exploration of subjective experience. The first inductive phase identifies and selects items for further analysis (defining and selecting items from the "concourse"). The second phase sees these items evaluated by a set of respondents using the characteristic Q-sort technique. Response data are then subjected to a factor analysis.

### **Stage I: Induction. Identification and selection of statements from the concourse**

Items for a 40-statement Q-sort were based on material from a literature search as well as from two focus groups conducted to inductively identify themes not described by existing Boredom – a Q sort impression

research. Generation and selection was done according to the criteria described by Watts & Stenner (2005), whom recommended using 40-60 items to create a sufficiently “representative condensation of information” structured around the main research question, in our case “What is subjective boredom?”. The final selection of statements was made using an unstructured sampling technique (McKeown & Thomas, 1988), aiming for maximum variability as well as to encompass cognitive, arousal related, existential and emotional elements as set out by existing theories of boredom, and included 25 drawn from the pools generated by focus groups, as well as 15 from literature.

### ***Literature search and selection.***

The literature search was performed to identify existing operationalizations of boredom in the form of inventories, and existing qualitative studies which might provide suitable statements. This allowed Q-sort respondents to validate statements resembling their own boredom experience, also linking the current study to existing theory. Three general boredom inventories were identified: the Boredom Proneness Scale (Farmer & Sundberg, 1986), the Zuckerman Boredom Susceptibility subscale of his Sensation Seeking Scale (Zuckerman, 1971), and the Multidimensional State Boredom Scale (Fahlman, Mercer-Lynn, Flora, & Eastwood, 2011). One qualitative study of general boredom was found (Martin, et al., 2006). From these, a total of 29 unique suitable items were extracted, with some being rewritten to subjective form.

### ***Focus groups.***

*Focus group participants.* Focus group A consisted of 3 high school students aged 17, all of whom were female. Focus group B consisted of 3 university academic staff aged 55-65, out of whom one was female. They were chosen to maximize variability in viewpoints.

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*Procedure.* For each group, semi-structured interviews were conducted, each lasting approximately 45 minutes. Eight questions concerning boredom were asked, with the group allowed to discuss each question until they felt the topic was exhausted. Follow-up questions were asked for clarification throughout. Questions asked included “how would you describe boredom to someone who has never been bored”, “what experiences would you say are very different from or opposite to being bored”, and "Do you get bored as often as you used to five or ten years ago?". For a complete list of questions, see Appendix A. Each session was sound recorded, with statements about boredom extracted from a transcript of this recording. A total of 74 items were extracted from the two sessions.

## **Stage II: Gathering Q-sorts**

### ***Q-sort Respondents.***

Two groups of respondents were selected in order to ensure variability of subject demographics, thereby aiming to identify distinct viewpoints on boredom (Stainton Rogers, 1995). Students were 10 undergraduate students aged 19-24 at the University of Stavanger out of whom 7 were female. Seniors were 10 people recruited from activity centers for the elderly, one run by a charity and the other run by the local council. These participants were aged 61-89, and 5 were female.

### ***Q-sort procedure***

Respondents were given a set of 40 statement cards, and told that the statements were made by other people about boredom. They were then instructed to sort the cards into two piles, for statements agreeing and not agreeing with their own experience of boredom respectively. They were given the option of creating a third pile containing statements which were neither suitable nor unsuitable. Having completed this task, they were asked to sort all statements onto a Boredom – a Q sort impression

forced, quasi-normal distribution grid (Fig. 1) based on the extent to which each card was seen as concurrent with their boredom experience. Ranking values of the distribution grids ranged from “least like my experience” (-5) to “most like my experience” (+5). At having finished, respondents were allowed to comment on boredom, the sorting procedure or any of the cards. Comments were written down by the experimenter in note form.

### **Analysis**

Q factor analysis is based on correlations between individual statement sorting patterns (Q-sorts), rather than between items or statements as is the case with traditional factor analysis. This correlation matrix is then subjected to a by-person factor analysis. Each emerging factor hence describes a constellation of individuals rather than the variables. The DOS-based software PQMethod (Schmolck & Atkinson, 2002) was used to analyze the data, with a principal component analysis and Varimax rotation applied to the Q sorts. Traditional tests for violations of assumptions inherent in factor analysis were deemed unnecessary, as the forced, quasi-normal distribution grid ensures suitability of the data. Each factor was assumed to reflect certain aspects of boredom underlying the Q sorts correlation matrix. Individual Q sorts loading significantly on a given factor were assumed to be representative of that factor, and formed the basis of that factor's composite typical sort pattern. In computing the composite sort, the contribution of individual sorts was weighted according to their factor loadings.

Interpretation of the yielded factors was based on an examination of each composite sort, with special attention given to characterizing statements (items with the most extreme Q sort values in the composite sort, i.e.  $\geq |3|$  on the sorting grid), and distinguishing statements (items having received significantly different ( $p < .05$ ) scores between the composite sorts). Items given neutral Q sort values are also taken into account, as these may yield further detail about the Boredom – a Q sort impression

viewpoint expressed, and because the interpretation of a Q sort should aim to be holistic (Watts & Stenner, 2005). Consensus statements significantly failing to distinguish between any of the factors were also interpreted.

## **Results**

For the following factor descriptions, the number and Q sort array value for each statement are in brackets. Distinguishing statements significant at  $p < .05$  have been marked with a single asterisk, while distinguishing statements significant at a  $p < .01$  are marked with a double asterisk. In interpreting factors, further comments from participants and focus groups have been inserted for illustrative purposes.

### **Analysis of the complete set of respondents.**

A Q analysis was carried out for the full set of data. However, on examination, the loadings on each factor appeared contradictory and not meaningful. Based on the nature of the sorts and comments made by both the elderly focus group and the elderly Q-sorters, it was thought this might be due to them not having at present a clear subjective view regarding the state of boredom. In fact, most of the senior respondents denied feeling bored. Comments made by participants during sorting revealed that while the students of students viewed boredom as a state, the elderly of seniors saw boredom as behaviour related and akin to inactivity, with one respondent commenting that *“people who feel bored often are just plain lazy. They should feel ashamed of themselves just sitting there, they should get out of their chair to find something useful to do, like knitting something.”* Inactivity appeared to be seen as acceptable only if associated with sadness, as indicated by a senior sorter commenting: *“When my husband died, I did sit around doing nothing for a while. But I didn’t feel bored, I just felt sad”*. Similarly, a senior focus group participant remarking that *“if you just sit there lazing about, that’s not so*  
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*much boredom as depression*". This apparent discrepancy in boredom experiences between Groups 1 and 2 led us to carry out separate analyses for each group.

### **Students' data analysis.**

Analysis of the students' data set yielded four factors with an Eigenvalue of 1.00 or above, accounting for 71% of the total variance. Following a Scree plot analysis and the exploration of various options, a three factors solution deemed the most appropriate, also satisfying the Q methodological criterion of at least two individual sorts loading significantly on each factor (Watts & Stenner, 2005). These three factors accounted for 60% of the total variance. Out of the 10 Q sorts, 9 loaded significantly on one factor exclusively with loadings  $\geq .45$  (see table 1). Correlations between factor scores ranged from .23 to .26., and were as such considered moderate to low (Cohen, 1988). These are displayed in Table 2. A complete list of statements and student factor loadings is displayed in Table 3.

### **Interpretation of students' factors.**

#### ***Students factor 1.***

This factor (4 respondents) explained 23% of the total variance and had an Eigenvalue of 3.22. The factor array indicated that respondents experienced boredom as a state in which they felt engaged in an irrelevant activity (34, +2\*\*) or doing nothing at all (31, +5\*), and as the opposite of being engaged in an enjoyable activity (17, +4). When bored, time passed slowly for them (6, +4\*; 8,+5\*\*). They associated boredom with feelings of restlessness (25, +4; 24, +3\*\*) and frustration (13, +4). They did not become passive when bored (28, -4\*\*; 1, -5\*\*), although they occasionally experienced problems getting going with an activity (36, +2\*). Boredom was neither seen as the opposite of happiness (18, -4), nor as emotionally neutral (16, -3\*\*). It was not seen as having a major social component (19, -3; 39, 0).

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*Interpretation of students factor 1 : Active, frustrated boredom.*

Boredom was described as an aroused state of restless frustration over being stuck in a situation found neither enjoyable nor relevant, with time appearing to pass slowly. Boredom meant acutely and actively wanting to act to get away from the current situation, as engagement in an enjoyable activity was seen as the opposite to boredom. Social and emotional factors were less central to their boredom experience. Illustrative focus group comments are that when bored, “*I just want to do just anything else*”, and that “*I would choose to do something else if I could*”.

***Students factor 2.***

Factor 2 (3 respondents) accounted for 14% of the total variance and had an Eigenvalue of 1.45. This factor consisted of people who were not often bored (37, +4\*\*), expecting a level of triviality as part of life (33, +5\*\*). They were likely to find entertainment in fidgeting (26, +4), but would not eat when bored (27, -4\*\*). They tended to lose interest in their current activity when bored (4, +3), to feel impatient (15, +2) and easily distracted (7, +2). They felt strongly that control alleviated boredom (38, +5\*\*), and did not feel trapped (12, -3) nor unable to get going (30, -3) when bored. They appeared to feel responsible for their own boredom experience (21, +2) and were able to find value even in boring tasks (35, -4\*\*). They felt boredom to be emotionally neutral (16, +4), but agreed that the opposite of boredom was happiness (18, +1).

*Interpretation of students factor 2: Boredom copers.*

This factor appeared to be made up of respondents rarely feeling bored and expressing high levels of active boredom coping. They appeared to find meaning or entertainment in most activities and situations, despite losing interest and getting distracted easily. Control was a central mediator, as described by a focus group participant: “*Overcoming boredom is part of Boredom – a Q sort impression*”

*taking responsibility for myself and my own wellbeing.*” Another said that *“being able to overcome boredom is part of how I cope with daily life”*. Time perception and emotional factors appeared not to be central aspects of their experience.

### ***Students factor 3.***

Factor 3 (2 respondents) accounted for 14% of the total variance and had an Eigenvalue of 1.37. Respondents loading on this factor felt tired when bored (23, +5\*\*), falling into a state of passivity (5, +3\*\*; 9, +1\*\*) which they failed to get out of (36, +5\*). More than other groups they felt trapped when bored (12, +1\*\*), but also reported feeling frustrated (13, +4) and restless (25, +3), although time did not appear to pass slowly for them (6, 0; 8, -2). They denied being unable to concentrate (3, -2) or sit still (24, -4), but would often eat when not hungry (27, 4\*\*). They strongly denied feeling irritable (13, -3\*), impatient (15, -4\*\*) or agitated (11, -5\*\*). They were the only group not seeing enjoyable activity as the opposite of boredom (17, -1\*). They appeared undecided about the emotional valence of boredom (35, 0) but did not think of its opposite as happiness (18, -3).

### ***Interpretation of students factor 3: Passified boredom.***

Persons loading on this factor appeared to experience boredom as a passifying state. They felt empty, fatigued, trapped and unable to pull themselves out of it. They appeared to lack a very clear idea of what might negate boredom, but a common reaction was to eat something. An illustrative focus group comment was that *“When I’m bored, I sort of switch off, without falling asleep.”* Although these people felt frustrated and restless when bored, no strong emotional component was reported to boredom.

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*Consensus statements students.*

Eleven statements, highlighted in Table 3, failed to significantly distinguish between any of pair of factors, and were hence seen as consensus statements indicating potential cross-factorial agreement. All listed statements failed to distinguish between factors at  $p > .05$ , except statements 7, 14 and 40 which failed to do so at  $p > .01$ . Statement numbers and respective composite Q sort array scores for factors 1, 2 and 3 are in brackets. Respondents generally reported losing interest in their current activity (4; +1, +3, +2) when bored as well as feeling restless (25; +4, +1, +3), though none reported a strong inability to concentrate (3; -1, 0, -2). All strongly denied experiencing a link between levels of stress and boredom proneness (10; -5, -5, -5). They did not feel aggressive (20; -4, -5, -4) nor irritable (14; -1, -1, -3) when bored. All disagreed with the notion of boredom as related to being around others (19; -3, -2, -1). Respondents were quite neutral about purposely feeling more bored when forced to do something (2; 0, -1, -1), being easily distracted (7; +1, +2, 0) and about whether they were more easily entertained when younger (40; 0, -1, 0).

*Interpretation of students' consensus statements.*

Consensus statements indicate a loss of interest in a current activity as well as restlessness as core aspects of boredom. Focus group participants made comments describing this, such as: “*When something is boring, it’s tempting just to switch off from it*”, and “*If I can’t get away, I feel even more bored*”. However, respondents still felt able to concentrate on the boring task at hand if need be. Boredom does not appear to be experienced as linked to negative emotions and states such as irritability, aggression or stress levels for this group.

## **Elderly data analysis.**

### ***Interpretation of seniors' data.***

A separate principal components analysis of the elderly sample revealed a total of four factors with an Eigenvalue >1, accounting for 74% of the total variance. Exploration of various options following a Varimax rotation and examination of a Scree plot revealed a three factor solution as the most appropriate, with all individual sorts loadings on a factors at  $|\geq .54|$  or more and at least two sorts loading on each factor. Factor loadings are displayed in table 6. The three factors contributed 64% of the total variance. See Table 4 for a list of elderly Q sorts and loadings. Correlations between factor scores, displayed in Table 5, ranged from .18 to .32, and were as such considered low (Cohen, 1988).

### ***Seniors' factor 1.***

Persons loading on this factor rarely felt bored (33, +5), and more rarely with age (37, +4\*). They thought the opposite of boredom as being engaged in an enjoyable activity (17, +5), excitement, surprise and drama (29, +4\*\*), happiness (18, +3\*) and being around other people (19, +2). They found some meaning in boring activities (31, -2\*\*; 32, -1\*). They associated boredom with feeling restless (25, +4) and impatient (15, +3), but not unable to sit still (24, -1\*) or concentrate (3, -4\*\*). They felt tired (23, +3) but denied becoming passive (28, -5\*\*; 5, -5\*\*), and did not associate boredom with a feeling of time passing slowly (6, -1\*), agitation (11, -4) or frustration (13, -4).

### ***Interpretation of seniors' factor 1 – Rarely bored, with abstractions on boredom.***

Despite saying they felt restless and impatient, persons loading on this factor did not appear to feel greatly affected by boredom as a state, making comments such as “*I don't have the time to be bored these days*”. Focus group participants also expressed being bored less and less Boredom – a Q sort impression



with age, saying that “*even though others may say that on the surface my life is more and more boring, I don’t feel that way myself*”, and that “*I have less of a need for something to be happening constantly*”. This group might be denying boredom. However, the high sorting rank given to statements describing what boredom is *not*, might indicate them simply having an abstract relationship to boredom as a concept due to rarely being bored.

### ***Seniors’ factor 2.***

This group strongly indicated that they felt bored only rarely (33, +5), and less with age (37, +5\*\*; 40, -3). Being in control would make a situation less boring (38, +4), though they would not want to leave if it would ruin an experience for others (39, +4). When bored, they felt easily distracted (7, +3; 3, +2), restless (25, +4; 24, +2), impatient (22, +3), and even provoked (15, +3). However, they denied feeling irritable (14, -2) or aggressive (20, -2). More than other seniors they associated boredom with passivity (5, +2\*\*; 28, +1\*\*), and with time passing slowly (5, +2\*\*). Boredom was neither related to meaninglessness (35, -4\*\*, 32, -4\*), nor was the opposite of boredom enjoyable activity (17, 0\*\*), happiness (18, -3\*\*), or excitement, surprise and drama (29, -5\*\*), but instead being around others (19, +1). .

### ***Interpretation seniors’ factor 2 – Boredom as socially mediated.***

Persons loading on this factor appeared to feel bored only rarely, associating boredom with a tendency to go into a passive yet simultaneously restlessness state where was is hard to concentrate. They had few clear ideas of what might be the opposite of boredom. However, boredom appeared to be socially mediated with concern for others a central aspect, and socializing a possible remedy. In support of this, elderly focus group participants said that “*common boredom creates strong bonds between people*”, and that “*if people find the same things boring as you do, you know you’ll get on with them*”.

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*Seniors factor 3.*

Respondents loading on this factor thought of happiness (18, +5\*) and enjoyable activities (17, 4) as the opposite of boredom, rather than excitement, drama or surprise (29, -1\*\*). They strongly perceived time as passing slowly when bored (6, +5\*\*; 8, +4\*\*) and found their current activity meaningless (31, +1; 32, +2\*\*; 34, +1; 35, +1), leaving it hard to sit still (24, +3). Control of a situation and social concerns were important boredom mediators (39, +4). They were the only subgroup to feel more prone to boredom while stressed (10, +2\*\*). Although they rarely felt bored (33, +2), and more rarely with age (37, +1\*), they gave the lowest score out of the seniors to these statements. They strongly denied feeling passive or trapped in boring situations (1, -3; 9, -4\*; 21, -2; 28, -2\*\*; 12, -4\*\*; 30, -4\*\*) nor did they feel aggressive (20, -5\*\*).

*Interpretation of seniors factor 3 - Boredom as a lack of meaning and control*

The decline in boredom proneness was felt less keenly than by the remaining respondents of seniors. These respondents felt boredom as a state in which time passes slowly while engaged in a non-pleasurable, meaningless activity, especially if they could not leave without having a negative impact on others or in situations over which they had limited control. One senior focus group participant described a very boring family get-together: *“You know exactly how it goes from beginning to end... You just count down the hours until it’s over. You can’t do anything to change the situation.”* They felt frustrated when bored, and did not become passive or feel trapped by boring situations. An illustrative focus group comment was that boredom *“makes you more active, makes you do things.”* Happiness and enjoyment was seen as the opposite of boredom.

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*Consensus Statements for elderly respondents.*

A total of 10 of statements failed to distinguish between any of the factors in the elderly group. All listed statements were non-significant at  $p > .05$ , except statement 38, which was non-significant to the  $p > .01$  level. All respondents agreed to some extent that being around others was the opposite of being bored (19, +2, +1, +1), and felt disinclined to leave a boring situation at the expense of the enjoyment of others (39, +2, +4, +4). They said that being in control makes a task less boring (38, +2, +4, +3), although they denied feeling deliberately bored when forced to do something (2, -3, -2, -3). They did not feel irritable when bored (4, 0, -2, -2) nor strongly inclined to fidget (26, +1, -2, -1). All composite sorts ranked as fairly neutral statements about losing interest (4, +1, -1, 0), finding an activity irrelevant (34, +1, 0, +1) or feeling indifferent (16, 0, +1, 0) when being bored. They also remained neutral to a statement about remaining passive in front of the TV when bored (36, +1, 0, -1).

*Interpretation of consensus statements*

Seniors as a group agreed that their experience of boredom, although not emotionally neutral, was socially mediated, with being around others seen as opposed to boredom, and concern for social surroundings always a concern. One focus group participant stated for instance that just leave a boring meeting would be “*a great offense... People would think you were ill or just being demonstrative*”. Situational control was also an important mediating factor for boredom, with one focus group comment being that “[*over time,*] you gain more control over your everyday life. My children would be immensely bored doing their household chores, but I have the power to define my housework which makes it less boring, despite the tasks themselves still being bothersome.”

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## **Discussion**

An unexpected main finding in the present study was the striking disparity between the young students' and seniors' subjective experiences of boredom. The analysis indicated that differences between the two groups in both the experience and conceptualization of boredom rendered the full sample solution invalid, and separate analyses were consequently carried out for each group.

### **Aspects of students' boredom experience.**

Students seemed to see boredom as a common, describing it in focus groups or while sorting as a de facto state, often arising in suboptimally stimulating situations such as a boring lecture or family get-together. The separate analysis of student Q sorts revealed three factors to subjective boredom. These were described as Factor 1: "active boredom"; Factor 2: "boredom copers" and Factor 3: "passified boredom". The majority of respondents reported feeling prone to experience boredom in either a predominantly active or a passified way, while "boredom copers" appeared to be adept at entertaining themselves or finding some meaning while still trapped in a boring situation, thus reporting feeling bored more rarely.

The Students Factor 1 and 3 experiences of active and passified boredom appears to agree with and expand on existing theoretical views. The active and restless boredom of Factor 1 seems well described by arousal theories, which see boredom as an activity-seeking state arising when an individual is unable to achieve an optimum level of activation (O'Hanlon, 1981). It also seems analogous to the external stimulation factor of boredom proneness described by Vodanovich et al. (2005), involving the need for excitement in order to avoid feeling bored, with Factor 1 respondents similarly seeing excitement and drama as the opposite of boredom. They also felt quite impatient, which might be linked to outward expressions of emotional distress as Boredom – a Q sort impression

involved in Mercer & Eastwood's (2010) externalized boredom proneness factor. The passified experience of Students Factor 3, on the other hand, seems better described by emotion based theories, which put boredom alongside negative and passifying feelings such as depression, apathy and anhedonia (Goldberg, et al., 2011). Existential theories also conceptualize boredom as a passified "all-purpose register of inadequacy" related to modern society's loss of life meaning (Spacks, 1995, p. 23). In addition, the passive Factor 3 also appears similar to Mercer & Eastwood's (2010) factor of internalized boredom, described as expressed as for instance through emotional eating. The internal stimulation factor described by Vodanovich et al. (2005) also involves passivity, though this is seen as caused by an apparent lack of boredom coping skills, akin to a merging of elements from the current study's passive and coping Factors 2 and 3. Thus, the active and passive experiences of boredom may be described by combining theoretical directions focusing on arousal related, emotional and existential ideas.

The Factor 2 boredom copers of the current study reported feeling bored more rarely than did those loading on the active and passive factors. Studies have linked boredom proneness to cognitive factors (Conroy, Golden, Jeffares, O'Neill, & McGee, 2010) as well as to a tendency to procrastinate (S. J. Vodanovich & Rupp, 1999), indicating that a person's conscious coping strategies may play a role. Authors of the commonly used Boredom Proneness Scale (BPS) describe boredom as mediated by "the ability to access adaptive resources and realize competencies" (Farmer & Sundberg, 1986): i.e. as affected by coping mechanisms, and it should be noted that the active and passive boredom factors of the current study could also be seen as reflecting different coping styles. From examination of current data, it appeared that boredom copers felt much of the same disconnection and restlessness as did the active and passified bored respondents. They were set apart by their ability to endure the disconnection of boredom in a Boredom – a Q sort impression

different way by for instance fidgeting or daydreaming, as described by one young focus group participant: “*If I get bored, I’ll just sit and philosophize, which is sort of nice, as otherwise I would never find the time to do that.*” Although previous factor analyses of the BPS have included factors interpreted as related to the similar concept of “creativity” (Gordon, Wilkinson, McGown, & Jovanoska, 1997; Stephen J. Vodanovich, Watt, & Piotrowski, 1997), these see creativity as a “general ability to keep interested” rather than a specific set of skills to cope with boredom once it actually occurs. Thus, they fail to extract boredom coping as a distinctive aspect from boredom proneness. The emergence of boredom coping as a separate factor the current study thus underscores coping strategies as a major mediating factor which should be taken into account when assessing boredom and boredom proneness.

### **Boredom as a state of disengaged restlessness**

Losing interest in and disengaging from a current activity as well as restlessness was central to the boredom experiences of all three factors, indicating these to be core elements of boredom. This view of the boredom experience as essentially disengaged and restless fits in with ideas that boredom is at the opposite end of an engagement spectrum from mindfulness (LePera, 2011) and flow (Nakamura & Csikszentmihalyi, 2009). A disengagement-boredom connection is also indicated by research showing links between boredom, inattention and related cognitive processes (Damrad-Frye & Laird, 1989; Wallace, et al., 2002). At a neurobiological level, this might imply the involvement of the noradrenergic *explore-exploit* system as described by Aston-Jones (2005), which regulates a switch from being engaged in a task of perceived high utility, to a disengagement mode where looking for more rewarding activities takes precedence.

Dopaminergic circuits encouraging environmental exploration for potential reward, termed the *seeking* system (Panksepp, 2004) might also be involved. The characteristic restless discomfort

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of boredom may in fact be triggered by an inability to seek such rewarding stimulation despite having switched from being engaged to explore mode. Boredom in essence appears to be described by participants of the current study as an unpleasant state of restlessness arising when disengagement from a current task or situation is coupled by an involuntary lack of engagement with a new stimulus.

### **Generational differences.**

Marked differences appeared from the data material between the students' and seniors' boredom experiences. In contrast to students' description of boredom as a common state, seniors' consensus statements indicated that they felt bored very rarely. Rather than seeing it as an inner state, they appeared to associate boredom with overt behaviour. In commenting, they described boredom as analogous to inactivity, for which the bored person is himself responsible. They also approached boredom as socially mediated, with this being the main focus of Seniors factor 2, a finding supported by strong correlations found between loneliness and boredom proneness in elderly people (Conroy, et al., 2010). However, most statements chosen for the current study described boredom specifically as a state, and there was limited scope for seniors to express their behaviour based or social conceptualization through their sorts. Q methodology is assumed to give robust data based on people's "vigorous attempts to impose their viewpoints onto any set of statements they are given" (Watts & Stenner, 2005), meaning that even a suboptimal set of sorting statements might provide representative results (Stainton Rogers, 1995). Attempts at doing so can perhaps be read into their high rating of items indicating they were rarely bored. Still, seniors' differing view of boredom as not simply a state may have contributed to the full-set data being difficult to interpret. Although semantic patterns extracted by Q methodology may be in general be socially organized (Watts & Stenner, 2005), leaving Boredom – a Q sort impression

scope for intergenerational differences, senior Q sort data from this study, despite expressing valid ideas about the nature of boredom, appear to be *invalid* as an exploration of boredom as a subjective state.

Still, the inclusion of seniors as respondents is a marked strength of this study. Although some studies have looked at aspects of boredom in the elderly (Clarke & Clarkson, 2008; Conroy, et al., 2010) and authors have highlighted the possible effect of age on the conceptualization of boredom proneness (Melton & Schulenberg, 2009), no studies to our knowledge have explicitly compared the experience of boredom across generations. The existence of a generational gap is supported by one study of the conceptually similar experience of tedium, described as “distress and discontent with one's work and way of life, the feeling of “I have had it!””, in women across three generations, with the youngest experiencing the most tedium and the oldest generation experiencing the least (Pines & Kafry, 1981). Nicely illustrating the differences in boredom-related experiences and expectancies across generations, one senior focus group participant described a recent holiday spent alongside a group of younger family members, : *“Once I got settled in, I would have been happy to just sit there for a week, but after about 15 minutes the young ones were feeling bored and wanted to find things to do. I, on the other hand, found having to do something rather boring!”* Seniors of the current study generally reported being rarely bored, feeling less of a need for external stimulation to avoid boredom, and being quite happy leading a more relaxing life than they did when they were younger. This underscores the problematic aspects of relying exclusively on undergraduates as research subjects, as does much of the existing research into the experience of boredom (Fahlman, et al., 2011; Kass, et al., 2001; Koball, et al., 2011; Mercer & Eastwood, 2010).

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The apparent difference in proneness to boredom between the young and old may have been due to seniors underreporting their boredom due to associating it with inactivity, laziness and thus shame, supported by previous findings that subjective guilt may arise over “wasting time” when bored (Martin, et al., 2006). A view of boredom as partly a social construction (Conrad, 1997) leaves space for cultural or generational factors to affect expressed views. The boredom-shame connection might be particularly evident in our sample of seniors from the traditionally observant Lutheran Southwestern Norway, whom have embraced the Protestant work ethic including its view that time wasting of any kind is a sin (Jones, 1997). Seniors hold the bored person to account for his boredom. Younger people, on the other hand, appear to think that “people have a right to not be bored”, with surroundings somehow expected to prevent boredom (Farnworth, 1998). The generational difference appears to mirror boredom’s historical transition from being “an individual’s ethical failure, whose cause was always internal,” to being something external to the individual (Farnworth, 1998). Having knowledge of boredom as a subjective experience is to the young not shameful, and may thus be more freely admitted to.

The difference in reported boredom might also reflect actual levels of experienced boredom. Going back to the idea that boredom in Western societies is currently is on the rise (Svendsen, 2005), the higher boredom proneness of students might be due to their greater exposure to information in our society, and to social media in particular. Used more heavily by the younger generation, these provide endless opportunities for individual comparison and may increase feelings of inadequacy (Spacks, 1995) and failed expectations (Conrad, 1997) interpreted as boredom. The link between boredom proneness and private self-consciousness, self-reflectiveness as well as paranoia (von Gemmingen, Sullivan, & Pomerantz, 2003) seems to support this view. The elderly may remain to some extent protected from these potential

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boredom-stimulating effects of the digital world, thus creating a generational gap both in boredom frequency. However, boredom's role as a socially mediated carrier of cultural meaning does not mean it lacks a core psychological experience as a phenomenon. Indeed, the majority of seniors, like students, associated boredom with restlessness or frustration.

The students-seniors differences might in fact be due to physiological life course changes in the neurological systems described above as potentially driving the boredom experience. Active and restless aspects of boredom might be linked to the arousal functions of the noradrenergic explore-exploit system (Aston-Jones & Cohen, 2005) as well as to dopaminergic brain circuits such as the seeking system (Panksepp, 2004) assumed to facilitate curious and energized exploration of surroundings for potential reward. Reward-anticipation related prefrontal cortex functions and the dopaminergic tuning mechanism of reward functions have been shown to alter in response to normal ageing (Dreher, Meyer-Lindenberg, Kohn, & Berman, 2008). This might leave elderly people feeling less of an urge to seek new stimulation, and they might feel less rewarded for doing so. As a consequence, healthy elderly may simply be less vulnerable to boredom as compared to younger people, with their report of boredom likely to change accordingly.

### **Suggestions for further research.**

Results from this study indicate that the boredom experience is tied to disengagement and linked to factors affecting the ability to cope with boredom. Data from this study might provide a first step in the development of a new boredom inventory based on known factor contents, as suggested by the inventor of Q methodology, Stevenson (1935). This would facilitate further research into the psychological, social and economic consequences of boredom. Further work might investigate any relationship between levels of boredom proneness and a person's tendency

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to experience restless or passified boredom. Given the link between boredom and disengagement, further research is needed on the already indicated connection between AD/HD and boredom (Kass, et al., 2003), for instance looking into whether behaviours contributing to the AD/HD diagnosis may be expressions of subjective boredom. Further longitudinal work should examine whether the boredom experience does vary across the lifespan, and if so, why. If boredom proneness appears not to be a stable personality trait, this leaves scope for developing possible treatment strategies to alleviate chronic boredom, perhaps informed by studying boredom copers.

### **Limitations.**

The results of this study may have important implications for further research on boredom, but there are important limitations to be considered. Q methodology has been criticized for having weaker reliability as compared to R methods (Danielson, 2009), and the generalizability of this study, looking at the subjective experiences of a small number of adults in Norway, is clearly limited. The two groups were demographically quite narrowly defined, and as results indicate, boredom might not manifest in the same way across the adult population, let alone for children. More research is therefore needed before concluding that the factors and core elements of boredom identified by this study are be replicable in other demographic groups, and as such representing fixed and universal aspects of boredom.

A second limitation is that the Q set might have omitted important aspects of the boredom experience, despite the effort made to include varied statements to cover the whole range. In using Q methodology, one acknowledges that no Q-set can ever be complete, as the concourse from which it is drawn is infinite and as such cannot be entirely encompassed by one Q-set (Watts & Stenner, 2005), although it appears that studies using different statements drawn  
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from the same concourse tend to yield equivalent factors when presented to similar populations (Thomas & Baas, 1992). Further exploration using alternative methodologies is required to resolve these issues.

### **Conclusion**

The core experience of boredom may be described as an unpleasant, restless state arising due to disengagement from a current task, paired with an involuntary failure to find of new engagement, regardless of antecedents or situational factors. This theoretical conceptualization encompasses both active/restless and passive elements of boredom with coping strategies an important mediating factor, allowing for boredom to be explicitly and comprehensively operationalized. Although Q methodology cannot claim for individual factor loadings to represent stable psychological constructs such as personality traits, the extracted factors are thought to reflect the existence of viewpoints likely to be consistent over time among similar populations (Watts & Stenner, 2005). Findings from this study might thus suitable as an initial basis for further exploration of boredom and its correlates.

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## Tables and figures

Table 1 Complete list of Q sort statements with students composite sort scores for each factor.

*Distinguishing statements for each factor underscored. Consensus statements in italics.*

St.no	Statement	1	2	3
1	When I'm bored, I don't think, I just sit there.	<u>-5</u>	<u>0</u>	<u>4</u>
2	<i>If I'm forced to do something, I'll feel especially bored just in spite.</i>	0	-1	-1
3	<i>I can't concentrate on one thing when I feel bored.</i>	-1	0	-2
4	<i>When I feel bored, I lose interest in what I'm doing.</i>	1	3	2
5	When I'm bored, I enter a sort of hibernating state where I'm just waiting for things to pass.	-3	-2	<u>3</u>
6	When I'm bored, time passes really slowly.	<u>4</u>	0	0
7	<i>When I get bored, I'm easily distracted.</i>	1	2	0
8	When I'm bored, I sit there wishing time would pass faster.	<u>5</u>	-1	-2
9	If I'm bored but know it's unavoidable, for instance waiting at a bus stop, I descent into passivity.	-2	-3	<u>1</u>
10	<i>When stressed I am also more likely to feel bored.</i>	-5	-5	-5
11	When bored, I feel agitated.	-2	-2	<u>-5</u>
12	I feel bored I feel trapped, as if I cannot get away.	-2	-3	<u>1</u>
13	I feel frustrated when bored.	3	<u>-1</u>	4
14	<i>I feel irritable over little things when I'm bored.</i>	-1	-1	<u>-3</u>
15	I feel impatient when I'm bored.	3	2	<u>-4</u>
16	When I'm bored, I have reason neither to be happy nor sad. I	<u>-3</u>	4	3

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	become quite indifferent.			
17	The opposite of being bored to me is to do something enjoyable.	4	3	<u>-1</u>
18	The opposite of being bored to me is being happy.	-4	<u>1</u>	-3
19	<i>The opposite of being bored to me is to be around other people.</i>	-3	-2	-1
20	<i>If I have to do something really boring I am filled with aggression.</i>	-4	-5	-4
21	If I fail to understand something, it's my own fault if I get bored, in which case i just resign into passivity.	<u>-1</u>	2	1
22	When something is boring and I know it could have been done differently, I feel provoked inside.	2	-2	1
23	I feel tired when I'm bored.	0	1	<u>5</u>
24	When I'm bored, I can't sit still.	<u>3</u>	-4	-4
25	<i>When I'm bored, I feel restless.</i>	4	1	3
26	Even little things seem fun when I'm bored, such as drawing in the margins or clicking my pen.	1	4	0
27	When I'm bored, I'll eat even if I'm not hungry.	<u>0</u>	<u>-4</u>	<u>4</u>
28	When I'm bored, I'll just sit there waiting for something to happen.	<u>-4</u>	0	1
29	The opposite of boredom for me is excitement, surprise and drama.	-1	<u>1</u>	-2
30	When I'm bored, I'll try to get going, but can't. This tires me out.	1	-3	-1
31	When I'm bored, it feels like I'm doing nothing at all.	5	1	1
32	When trapped in a boring situation I am filled with meaninglessness.	-1	2	0
33	I tolerate life's trivialities and hence rarely feel bored.	1	<u>5</u>	-1

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34	In boring situations, what I'm doing feels irrelevant.	<u>2</u>	0	-2
35	In boring situations, what I'm doing feels worthless.	0	<u>-4</u>	0
36	Sometimes I can't overcome my boredom and remain passive, for instance just watching TV.	<u>2</u>	<u>0</u>	<u>5</u>
37	As I get older, I feel bored less and less.	-2	<u>4</u>	-3
38	A boring task is less boring if I can control it myself.	2	<u>5</u>	2
39	<i>Even if something is boring, I feel I can just leave the situation if that would be rude or ruin things for others.</i>	0	3	2
40	<i>When I was little, even small things would entertain me. Nowadays it takes more to keep me from feeling bored.</i>	0	-1	0

*Table 2 students factor correlations*

<i>Factors</i>	<i>1</i>	<i>2</i>	<i>3</i>
1	1.000		
2	0.249	1.000	
3	0.226	0.248	1.000

Table 3 Factor loadings of students Q sorts

<i>Subjects</i>	<i>Factors with loadings</i>		
	1	2	3
1	<u>0.672</u>	0.508	-0.027
2	-0.048	-0.125	<u>0.825</u>
3	0.140	<u>0.481</u>	-0.033
4	0.069	<u>0.790</u>	-0.016
5	<u>0.815</u>	0.117	0.161
6	0.353	0.455	<u>0.670</u>
7	<u>0.626</u>	0.246	-0.169
8	<u>0.669</u>	-0.259	0.265
9	0.477	0.089	0.487
10	-0.085	<u>0.699</u>	0.484

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Table 4 Complete list of Q sort statements with scores for composite sorts of Seniors' factors.

*Distinguishing statements for each factor underscored. Consensus statements are in italics.*

<i>St.no</i>	<i>Statement</i>	<i>1</i>	<i>2</i>	<i>3</i>
1	When I'm bored, I don't think, I just sit there.	-2	-1	-3
2	<i>If I'm forced to do something, I'll feel especially bored just in spite.</i>	-3	-2	-3
3	I can't concentrate on one thing when I feel bored.	<u>-4</u>	2	2
4	<i>When I feel bored, I lose interest in what I'm doing.</i>	1	-1	0
5	When I'm bored, I enter a sort of hibernating state where I'm just waiting for things to pass.	<u>-5</u>	<u>2</u>	<u>-3</u>
6	When I'm bored, time passes really slowly.	<u>-1</u>	<u>2</u>	<u>5</u>
7	When I get bored, I'm easily distracted.	-1	3	0
8	When I'm bored, I sit there wishing time would pass faster.	-2	0	<u>4</u>
9	If I'm bored but know it's unavoidable, for instance waiting at a bus stop, I descent into passivity.	-2	-1	<u>-4</u>
10	When stressed I am also more likely to feel bored.	-3	-4	<u>2</u>
11	When bored, I feel agitated.	-4	<u>0</u>	-5
12	I feel bored I feel trapped, as if I cannot get away.	-1	-1	<u>-4</u>
13	I feel frustrated when bored.	-4	-3	<u>3</u>
14	<i>I feel irritable over little things when I'm bored.</i>	0	-2	-2
15	I feel impatient when I'm bored.	3	3	<u>0</u>
16	<i>When I'm bored, I have reason neither to be happy nor sad. I become quite indifferent.</i>	0	1	0



17	The opposite of being bored to me is to do something enjoyable.	5	<u>0</u>	4
18	The opposite of being bored to me is being happy.	<u>3</u>	<u>-3</u>	<u>5</u>
19	<i>The opposite of being bored to me is to be around other people.</i>	2	1	1
20	If I have to do something really boring I am filled with aggression.	0	-2	<u>-5</u>
21	If I fail to understand something, it's my own fault if I get bored, in which case i just resign into passivity.	-3	-5	-2
22	When something is boring and I know it could have been done differently, I feel provoked inside.	2	3	0
23	I feel tired when I'm bored.	3	1	-1
24	When I'm bored, I can't sit still.	<u>-1</u>	2	3
25	When I'm bored, I feel restless.	4	4	<u>-1</u>
26	<i>Even little things seem fun when I'm bored, such as drawing in the margins or clicking my pen.</i>	1	-2	-1
27	When I'm bored, I'll eat even if I'm not hungry.	0	0	<u>-2</u>
28	When I'm bored, I'll just sit there waiting for something to happen.	<u>-5</u>	<u>1</u>	<u>-2</u>
29	The opposite of boredom for me is excitement, surprise and drama.	<u>4</u>	<u>-5</u>	<u>-1</u>
30	When I'm bored, I'll try to get going, but can't. This tires me out.	1	-1	<u>-4</u>
31	When I'm bored, it feels like I'm doing nothing at all.	<u>-2</u>	1	1
32	When trapped in a boring situation a feeling of meaninglessness descends on me.	<u>-1</u>	<u>-4</u>	<u>2</u>
33	I tolerate life's trivialities and hence rarely feel bored.	5	5	2
34	<i>In boring situations, what I'm doing feels irrelevant.</i>	1	0	1

35	In boring situations, what I'm doing feels worthless.	0	<u>-4</u>	1
36	<i>Sometimes I can't overcome my boredom and remain passive, for instance just watching TV.</i>	1	0	-1
37	As I get older, I feel bored less and less.	<u>4</u>	<u>5</u>	<u>1</u>
38	<i>A boring task is less boring if I can control it myself.</i>	2	4	3
39	<i>Even if something is boring, I feel I can just leave the situation if that would be rude or ruin things for others.</i>	2	4	4
40	When I was little, even small things would entertain me. Nowadays it takes more to keep me from feeling bored.	0	<u>-3</u>	0

*Table 5 Seniors factor correlations*

<i>Factors</i>	<i>1</i>	<i>2</i>	<i>3</i>
1	1.000		
2	0.252	1.000	
3	0.322	0.184	1.000

Boredom – a Q sort impression

Table 6 Factor loadings of seniors Q sorts. Loading sorts are underscored.

<i>Subjects</i>	<i>Factors with loadings</i>		
	1	2	3
1	0.475	<u>-0.615</u>	0.249
2	<u>0.831</u>	0.054	0.034
3	0.311	0.105	<u>0.545</u>
4	<u>0.697</u>	0.052	0.437
5	0.210	<u>0.775</u>	0.171
6	0.444	0.292	<u>0.639</u>
7	-0.219	0.124	<u>0.602</u>
8	0.132	-0.065	<u>0.859</u>
9	0.232	<u>0.713</u>	0.187
10	<u>0.823</u>	0.298	-0.019

Boredom – a Q sort impression



<b>APPENDIX A – Focus group interview questions</b>
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When were you last bored, and what was it like?

Describe the time in your life when you were the most bored.

... And a situation in which you were definitely not bored.

What factors affect whether or not you get bored in a situation?

What experiences would you say are very different from or opposite to being bored?

How would you describe boredom to someone who has never been bored?

What happens to your thinking when you are bored?

Does it affect your perception of time passing?

How do you feel when you are bored?

What experiences would you describe as similar to being bored?

Describe any physical sensations you find accompany boredom.

Describe what it would be like to have to finish a task with which you were bored.

Do you get bored as often as you used to five or ten years ago? Why / why not?

**APPENDIX B – Instructions to authors  
from  
Journal of Personality and Social Psychology.**

The following instructions have been extracted from <http://www.apa.org/pubs/journals/psp/>, and may be accessed by clicking on the “Instructions to Authors” tab of this website.

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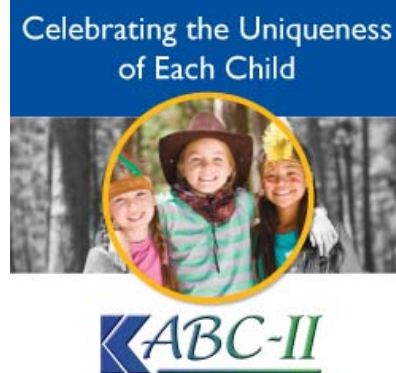
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