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6

**CHILDREN'S FEARS AND
COPING STRATEGIES:
A COMPARATIVE PERSPECTIVE**

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ABSTRACT

The aims of the dissertation were: firstly, give a theoretical overview about fear concept, children's fears and coping, the role of significant others (e.g. family) and some background factors (e.g. age, gender, SES, etc.) in children's fears; secondly, analyse differences in preschool children's fears and coping strategies over the ten years by comparison of two studies (1993 and 2002); thirdly, find out the impact of children's gender on their fears and coping strategies; fourthly, analyse the agreement about children's fears between two informants' (i.e. children's and parents' assessments) and fifthly, analyse the impact of some background factors and parental role in provoking children's fears.

Overall, six hypotheses were generated on the basis of theoretical literature and previous studies and all of them were confirmed. Fear was selected as the one of the indicators of children's insecurity. The sample consisted of two informants' groups, parents and their preschool age children who were selected randomly. We used parents' questionnaire and children's interview which included three main parts (question about child's social network, semi-structured and picture-aided parts) as research methodology. The first study was conducted in 1993 and was repeated in 2002.

The main findings and results are following: (1) children's fears are different over the ten years. The most dramatic difference proved to be the increase of imagination related fears including the fears of television, imagined creatures and nightmares. Also the huge amount of several self-reported fears is noteworthy; (2) social fears and fears of bodily injury have been expressed by preschool children at quite a high level, particularly in picture-aided interview. Both of these fear categories have been thought to first appear mainly in school age; (3) children reported several coping ways with fears, more in 2002 than in 1993 study. It is important to point out the significant increase of cognitive coping ways in 2002 study, which were not mentioned in 1993 study; (4) agreement between two informants, children and parents was low which is in concordance with several previous studies. It is clear that young children can already be good informants for their problems/fears and should be considered as primary informants in child research; (5) parents themselves can induce children's fears by the use of fear as socialization mean; (6) the unique methodology developed in our project and used in these two studies proved to be suitable to investigate such a sensitive topic as fears in preschool children.

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INTRODUCTION

The dissertation is one part of a large Finnish-Estonian cross-cultural research-project "Children's Insecurity, Causes and Coping" which started at the beginning of the 1990s and is directed by Professor Lahikainen. We carried out the first study in 1993 in both countries and repeated the study in 2002 in Estonia and 2003 in Finland.

Awareness of children as persons with their own rights is increasing in European educational discussion. We can hear more and more people speaking about children's needs, rights and well-being. At the same time there are many aspects of children's lives about which we do not know enough. What do young children think about their well-being? How do they feel in a rapidly changing society?

One of the indicators of overall quality of children's environment and well-being is a sense of security. In our project we define children's insecurity as feelings of defencelessness, anxiety and prevalence of worries and fears (Lahikainen et al., 1995). Children's fears are practical as well as analytic indicators of children's general level of security (Taimalu et al., 2004b), but only one of the indicators.

Because this project has been planned as part of a bigger project concerned with security and well-being of population, 5–6 year old children were chosen as the youngest age group which could be interviewed. In the dissertation, author treats and analyses children's sense of security through the study of their fears and coping strategies from a comparative perspective – i.e. 1) searching for differences in children's fears and coping methods in a society in transition according to two studies done in 1993 and 2002 and 2) comparing the two groups of respondents, children and parents, to analyse agreement between their assessments about children's fears.

Fears are chosen as the indicator of insecurity for several reasons. Firstly, even young children can be valid informants of their condition in terms of fears. Secondly, fears give information about the child's acute situation. Thirdly, the conceptual validity of fear as one indicator of psychological well-being is implicated in many earlier studies, because fears have connections to stress, anxiety and worries (e.g. Izard, 1977; Muris et al., 1998; Ollendick et al., 1991; Rutter & Rutter, 1993; Öhman, 2000). Fourthly, fears are related to intergenerational relationships (see Ben-Arieh, 2000 by Lahikainen et al., 2007).

Previous studies about children's fears have several limitations:

1. Children's fears have been the subject of many studies, but the majority of these are about school-aged children. There is a lack of studies about younger children's fears. Most likely, this is due to younger children's limited cognitive abilities as well as the need for demanding research methods.

2. Most studies present children's fears in one certain period of time or are cross-sectional comparing children from different gender, age or nation groups. But there are few longitudinal studies, or studies which try to find out the differences in children's fears over a longer time period, or studies which try to demonstrate the influence of societal change or find relations with family environment or children's experiences.
3. Usually parents or children are used as informants, but there are very few studies where both parents and children have been used (e.g. Muris et al., 2001; Rapee et al., 1994). Furthermore, agreement between parents' and children's reports is low and parents tend to underestimate their children's fears (Lahikainen et al., 2006).
4. Majority of studies tend to use one method to investigate children's fears (e.g. different scales, such as Fear Survey Schedule for Children (FSSC)). We think using a combination of several methods is necessary and gives us a more complete picture about children's fears (e.g. combination of open-ended questions and FSSC).

Most studies present only what children are afraid of and do not give us a full understanding about this phenomenon. It is quite difficult to find studies about other important aspects of fear, e.g. coping ways (Graziano et al., 1979; Kirmanen, 2000; Mahat & Scoloveno, 2003; Mooney, 1985; Mooney et al., 1985; Muris et al., 2001), longitudinal research (e.g. Eme & Schmidt, 1978; Gullone & King, 1997; Silverman & Nelles, 1989; Spence & McCathie, 1993), the influence of societal changes (e.g. Draper & James, 1985) and family factors on fears (e.g. Brar & Brar, 1990; Maurer, 1965; Muris et al., 1996a; Peleg-Popko & Dar, 2001; Rapee, 1997; Sidana & Sinha, 1973). Also there are only a few studies about children younger than 7 years old (e.g. Bauer, 1976; Bouldin & Pratt, 1998; Draper & James, 1985; Lentz, 1985a, 1985b; Mooney, 1985; Muris et al., 2000, 2001, 2003b; Spence et al., 2001; Stevenson-Hinde & Shouldice, 1995), studies where several methods were combined (e.g. Muris et al., 1997a, 1997b, 2001), and where more than one informant has been used (e.g. Barrett et al., 1991; Jersild & Holmes, 1933; Kolko & Kazdin, 1993; Muris et al., 2001; Sorin, 2000, 2003, 2004; Thompson et al., 1993). So, we in our research project tried to avoid these limitations and carry out the study about preschool aged children, use multi-method approach and use both parents and children as informants. We also wanted to get a picture about the differences in children's fears over the 10 years of rapid societal changes.

The question may arise why the investigation of children's fears is important? Author suggests three main reasons:

1. It gives us the possibility to *learn more about the emotional development* of children at a certain age and information about each individual child and her/his fearfulness. For example, a study by Gullone and King (1997) showed that although children's level of fearfulness decreased with age

over a 3-year period, initial fear scores were good predictors of follow-up fear scores, suggesting a trait component of fearfulness.

2. *Preventive value* – there are several studies that show the long-term relationship between early childhood fears and some phobias in adulthood (e.g. Berg, 1976 by Ollendick, 1983), and that excessive fearfulness during childhood may place children at risk for the development of anxiety disorders in adolescence (Biederman et al., 1993 by Shore & Rapport, 1998, 437). If we get information about the child's fears maybe we can do something to prevent the development of these fears into more serious problems in later childhood or even in adulthood.
3. *Diagnostic value* – research on normal fears in children is important as it provides us with information about the developmental patterns, frequency, intensity and duration of these phenomena against which pathological fears and phobias can be identified (Muris & Ollendick, 2002). A valid classification scheme of fears throughout childhood would be an invaluable diagnostic tool (Murphy, 1985, 185). As Erol and Sahin (1995, 85) say: “Since children's fears generally reflect a cognitive and social awareness within the interactional context of the family and social values, knowledge and recognition of fears in children from different cultural backgrounds may facilitate the understanding of children's fears and may provide cues for clinical practice”.

Knowing the common “fear objects” of childhood, all of those symbols, concepts, and things that children perceive could cause pain, injury or loss, helps one better understand children and prepare for helping children cope with fears during childhood (Robinson et al., 1988, 84). For adults who live or work with young children, awareness of situations that elicit fear, ways that children display fear, and ways of responding to fear can lead to a richer understanding of fear and indeed of all emotions (Sorin, 2004).

Children's fears are also susceptible to changes in historical, cultural and environmental factors. Although commonalities exist for all cultures and some patterns have held across time, there are also notable changes and differences (Robinson et al., 1988). The interest toward the impact of societal change is not new, already Croake (1969, 239) has written that the world situation has altered, particularly in the political sphere, also emphasizes the increasing effect of mass media as transmitter of the alteration, and supposes that children's fears may be vastly different from the fears of children some decades previous.

The dissertation further addresses questions about methodological problems in childhood studies and adds on a comparative dimension.

Aims of the dissertation

Main aims of this dissertation are the following:

1. Give a theoretical overview about fear concept, children's fears, coping, and the role of significant others (e.g. family) and some background factors (e.g. age, gender, SES, etc.) in children's fears,
2. Analyse differences in Estonian preschool children's fears and coping strategies over the ten years of rapid societal transformations by comparison of children's assessments according to two studies (1993 and 2002),
3. Find out if there are any differences in fears and coping strategies according to children's gender,
4. To analyse the agreement between two informants', children's and their parents' reports about the child's fears,
5. To analyse the impact of some background factors and parental role in promoting of children's fears.

Methodology and sample

Many authors have written about the changes of childhood and the necessity to understand childhood – as the child him(her)self feels and understands it. So, it is especially important to investigate the child's own thoughts and feelings about how they feel in our changing world, which problems and worries they have and how they can cope with these problems. There are numerous studies about children's fears, but not enough investigations about preschoolers' fears. Young children as the object of the study are a rarity. Information about the prevalence of fears in normal populations of young children remains quite scarce. That's why we decided to investigate younger children and try to develop and test the integrated methodology for interview and use both informants.

For this purpose, this project developed a detailed *child interview method*, which is in concordance with studies emphasizing the importance of children as informants (see Lahikainen et al., 2003). The methodology to measure children's assessments was developed by the head of this project Professor Anja Riitta Lahikainen (Finland), Associate Professor Inger Kraav (Estonia) and PhD student Tiina Kirmanen (Finland). The interview consists of three main parts: target diagram for the investigation of the child's significant others, semi-structured part with open-form question and picture-aided part with eight pictures for investigation of children's self-reported fears. Although it is suggested to use children as first and main informants about their fears, young children have several cognitive and verbal limitations which makes it difficult to ask them questions about their background or conduct a long interview. So, we decided to use also *parents* as informants about their children's fears, experiences and other background information. Therefore, the questionnaire to measure parents' opinions was also developed.

The main “object” of research in this dissertation is the child of preschool age. Usually “preschooler” is defined as the child from three to six-seven years, but in this dissertation author uses the term *preschooler* or *preschool child* in a stricter sense to mean only 5–6-year old children who were the sample of our study.

Quite often children’s problems (including fears) are investigated on so called “clinical” children, which mean children who have already some psychological/behavioural problems. But it is necessary to get information also about normal children, so the sample of this study is picked up randomly from the selected population (one town) from Estonia. The main two criteria we followed in the sample formation were the age of children (5–6-year old) and the language of children (we included only Estonian speaking children into Estonian sample). Gender distribution in the sample is the result of random selection.

General structure of the dissertation

This dissertation consists of two main parts: theoretical and empirical. The theoretical part (Chapter I) consists of six paragraphs:

1. Main concepts of the dissertation, give brief overview about five important concepts – security/insecurity, fear, anxiety, phobia, worry
2. Theoretical frame for the dissertation, where Bronfenbrenner’s Bioecological Systems Theory and Integrative Theoretical Model of Children’s Fears are described
3. The concept of fear and acquisition ways of fears, where fear concept, fear development and acquisition are analysed in more detail
4. The overview of previous fear research, which presents previous studies of preschool and older children’s fears
5. The background factors such as gender, age, culture, socioeconomic status (SES), societal changes, television, parents and family influences, all of which can have an impact on children’s fears
6. Coping with fears

The empirical part of dissertation (Chapter II and III) consists of five paragraphs:

7. Methodology and sample (Chapter II)
8. Children’s fears and differences in their fears comparing two studies, in 1993 and 2002
9. Coping ways and differences over the ten years
10. Agreement between two informants, children and parents, and differences over the ten years
11. Children’s fears’ relations with family background factors and the use of fear as socialization mean by parents

1. MAIN CONCEPTS OF THE DISSERTATION

It is necessary to give a brief survey about some key concepts in the beginning of the dissertation for a better understanding of main objects of the study. The concept of well-being frames the background in my analysis. In well-being context, there are four close concepts, which will be analysed – fear, anxiety, worry and phobia, which are related to the concept of insecurity.

One of the indicators of overall quality of children’s environment and well-being is a sense of *security*. The sense of *insecurity* is a key concept, which is used as an umbrella concept for subjective feelings of helplessness, anxiety, worry and fear (Lahikainen et al., 1995; Lahikainen & Kraav, 1996) (see Figure 1). Empirically we in our research interpret children’s *insecurity* as a general notion linking such phenomena as distress, anxiety, **fears** and psychosomatic disorders (Lahikainen et al., 1995, 308). Children’s *fears* are practical as well as analytic indicators of children’s general level of security. Author treats in the dissertation “fear” as a normal emotion, which each person feels and which is an important part of development.

In the following paragraphs, author will focus on the concepts in Levels 2 and 3. A question may arise why to explain here with concept *fear* also such concepts as *worry*, *anxiety* and *phobia*? These three are not really the topic of the dissertation. But author has experienced that quite often these concepts are treated as very similar or even synonymous with concept *fear*. Also – *worry*, *anxiety* and *phobia* – are often defined through the concept of *fear*. So author felt it would be necessary to explain the similarities and differences between these concepts.

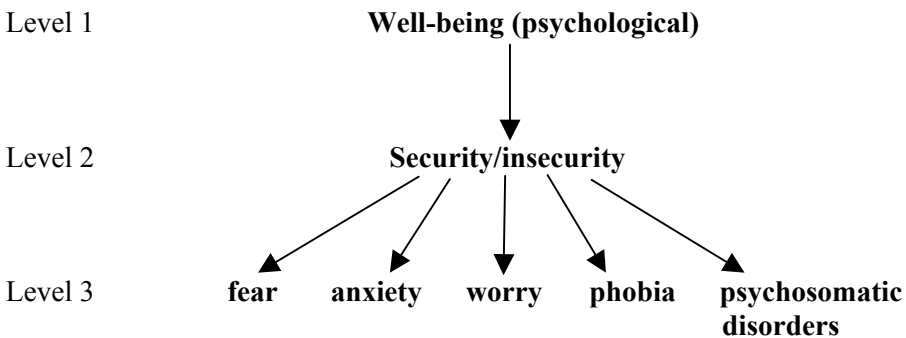


Figure 1. Fear and related concepts (according to Lahikainen et al., 1995, Lahikainen & Kraav, 1996)

1.1. Security/insecurity

Traditionally, insecurity in social political discourse has been equated with the lack of people's safety, caused by different kinds of risks and threats (Lahikainen & Kraav, 1996, 111). A sense of insecurity, of being homeless in the worlds, is said by existentialists to be basic to human existence (e.g. Heidegger, 1927 and Sartre, 1943 by Lahikainen & Kraav, 1996, 112). Fear is an integral part of insecurity: it is seen as a way of articulating the relationship between the self and the external world, and to an extent, an inevitable part of life at all ages (Lahikainen & Kraav, 1996).

Security can be treated from two aspects – as the *objective state* of individual, his/her defence from dangers and as the person's *subjective feeling* about the situation.

The sense of security is one of the indicators of overall quality of children's environment and well-being.

Niemelä (1991) has explained security as a *need* that forces us to form relationships with other people; as *value* which means the feeling of sureness, the conditions where stability and balance exist and dangers are eliminated and as *human right*. Security can be treated also on different levels:

- Level of individual – person's own inside feeling and balance
- Level of group – the security of family and its members. From the standpoint of children this level is the most important as their security is dependent on parents' security
- Level of state – foreign and domestic policy, police and legislation. It also influences the security of family (e.g. economical well-being, parents' feelings about future, etc.) (Niemelä, 1991).

Lahikainen and Kraav (1996, 112) contend that a sense of insecurity is a residual or supplementary experience, which most people try to avoid at all costs, but without the possibility of permanent success. The superiority and power of the surrounding world are reflected in feelings of insecurity.

It is noteworthy that the sense of insecurity and other experiences are not determined exclusively by the outer world. An individual is capable of interpreting his/her relationships with the world in countless ways. Subjectively experienced insecurity is linked with objective threats in complex ways (Lahikainen & Kraav, 1996, 112).

To understand childhood we have to take into consideration its two sides. On the one side the child's relationships with the world are influenced by his/her individual and age differences, which don't depend on time and place. But on the other side the child's life depends on context – the childhood of every child passes through certain family, society settings, in unique time and place. Security depends on the child's lifestyle; it is a central individual factor of well-being, which is influenced by many factors of the child's environment.

However, we can't treat security only as good and insecurity as bad. According to psychoanalytical theory, an optimal amount of anxiety and insecurity is necessary for optimal human development (Lahikainen et al., 1995).

Defencelessness and insecurity are quite common feelings and are perceived in situations where one can't manage using normal or customary forms of behaviour. The state of anxiety forces a person to act and search for means of decreasing these feelings and so normal development is going on (Kraav, 1996). Total security is illusory, impossible to attain. The younger the child is, the more he/she continually risks being overwhelmed by too great a distress; the need for help and protection is dependent on the child's condition and context (Lahikainen & Kraav, 1996, 115).

So we can say that insecurity is an essential part of human life and it has adaptive and promotive value. The most important outside factors for small children's security and development are those relationships with close people and a supportive environment developed by these persons who care about the child.

In any case, adults are contributors to children's insecurity and security in multiple ways and are responsible for children's insecurity (Lahikainen & Kraav, 1996, 115, 117). Author will focus in the dissertation on the 5–6-year-old children's fears and use them as the indicators of children's sense of security.

1.2. Fear

Here the concept of fear is explained only very briefly because it will be discussed in the 3th chapter (see chapter 3 page 34). The word "fear" comes from the Old English *faer* for sudden calamity or danger, and was later used to describe the ensuing emotion (Marks, 1987a, 7). There is no one complete definition of fear.

Usually it is seen as primitive, inborn natural emotion. *Fear* is also characteristic for animals not only for human beings. All (higher) animals feel this emotion, which is necessary for survival and notifies us about dangers (Tuan, 1979). Öhman (2000, 587) says that responses of fear (and also anxiety) originate in an alarm system shaped by evolution to protect creatures from impending danger. This system is biased to discover threat, and it results in a sympathetically dominated response as a support or potential flight or fight.

Fear is frequently defined as a normal, developmental reaction to a real or perceived threat – this definition is one that predominantly is used in child development literature (Smith et al., 1990, 151). Gullone and King (1997) and also Gullone (2000) define fear in a more detailed way as the normal reaction for real or imagined danger which is based on the instinct of self-preservation and seems to be an important integral part of and adaptive aspect of develop-

ment whose primary function is promoting survival. For children, fear is an integral part of their lives and, as such, a part of their normal development (Robinson et al., 1991, 187).

I. M. Marks (1987a, 5) gives a similar, but very brief and clear definition about fear: it is the usually unpleasant feeling that arises as a normal response to realistic danger. Izard (1977, 356) also claims that there are undoubtedly overlapping components in the emotions of startle, fear, and excitement, and depending on its intensity, fear is experienced as apprehension, uneasiness, uncertainty or complete insecurity. Fear is a psychosomatic and socio-emotional reaction to a certain situation. It involves a feeling of alarm or dread that is invoked by some specific object or situation or by an anticipation or thought of that object or situation (Rutter & Rutter, 1993, 161).

Newborns can already express the so-called Moro reflex, which is considered to be an inborn reaction of fear (the child throws his/her head backwards and extends hands as response to sudden noise or loss of support) (Liebert et al., 1986). These automatic responses may well play a significant role in fear development (Ferrari, 1986). Individuals feel fear and from this standpoint fears are subjective.

Also superstitious fears and taboos can be brought out as a kind of fears – these are seen as collective beliefs shared by members of a culture about danger, such as the notion that bad luck follows walking under a ladder or black cat crosses the street (Marks, 1987a, 6). While normal fears tend to be experienced in phases and tend to be outgrown by adulthood, abnormal fears are those that are persistent and recurrent (Gale Encyclopedia..., 2001). If the fears are suppressed or children can't cope with them, then the problems like various psychosomatic disorders may occur (e.g. headache, stomach-ache, tiredness, nighttime fears, enuresis) (McDougall, 1989; Tucker-Ladd, 2004).

1.3. Anxiety

Research has indicated that fears in childhood are frequently related to other unpleasant emotions, in particular anxiety (e.g. Ollendick et al., 1991). Izard (1977) has argued that *anxiety* is the result of the combination of *fear* with two or more of the emotions of distress, anger, shame, guilt and excitement. She has said that the concept has suffered for a lack of a clear and widely accepted definition and defines “anxiety” as a complex combination of affects and affective-cognitive structures. Most definitions have tended to treat it as a unitary state (or trait) and failed to recognize its complexity (Izard, 1977, 355).

Anxiety has been defined as a dysphoric, aversive feeling, similar to fear. Quite often “fear” is defined very similarly with “anxiety”, or even these two are used by authors as synonyms (Gale Encyclopedia..., 2001). But other

authors (e.g. Gullone et al., 2001; Levitt, 1971, 28) criticize this viewpoint and believe these two concepts must be differentiated from each other.

Lahikainen and Kraav (1996, 112) explain anxiety and a feeling of helplessness as appearing in situations where one cannot cope with the difficulties and obstacles met. Anxiety disorders represent one of the most common forms of child psychopathology and studies suggest that around 8–12% of children meet diagnostic criteria for some form of anxiety disorder (Spence, 1998).

Fear and anxiety clearly overlap with regard to affective and physiological patterns (e.g. both involve feelings of apprehension and physiological reactions including sweating, trembling and gastrointestinal distress). However, there are data that suggest that there may be important differences between these two concepts, particularly in relation to their cognitive composition (Gullone, 2000; Gullone et al., 2001). Fear and anxiety are both functional, but fear is developmentally a more advanced feeling than general anxiety or helplessness, in which cognitive elements are missing (Lahikainen & Kraav, 1996, 113).

According to the glossary of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV, APA, 1994, 764 by Öhman, 2000, 574) the term *anxiety* denotes “apprehensive anticipation of future danger or misfortune accompanied by a feeling of dysphoria or somatic symptoms of tension”. Fear differs from anxiety primarily in having an identifiable eliciting stimulus. So, anxiety is often “pre-stimulus”, whereas fear is “post-stimulus”.

According to I. M. Marks (1987a, 5) anxiety is an emotion similar to fear but arising without any objective source of danger. Compared with anxiety, fear has rather more physiological associations and its cause is more obvious. Similarly Levitt (1971, 28) says that anxiety should be reserved for fear stemming from a source that is unknown to the stricken individual. It occurs without stimulation from external situations. When a person is aware of a threatening object or situation, we should speak of fear rather than of anxiety.

So we can view anxiety as “undirected arousal” – the person knows that something is wrong, but cannot pinpoint any clear reason for it (Öhman, 2000, 588).

Curiously, the tendency for authors to use terms fear and anxiety interchangeably is most evident in the normative fear literature. In contrast, research on children that makes specific reference to anxiety tend to focus on pathology, even though anxiety has been defined and recognized as a normal emotion (Gullone et al., 2001). When the psychologist says that a person is anxious, the statement may be interpreted in either of two ways: it may mean that the individual is anxious at the moment, or that he/she is an anxious person. The interpretations are usually differentiated by applying the adjectives acute (high intensity and relatively short duration) and chronic (relatively low intensity and indefinite duration). Fear can also be differentiated in the same way, i.e. acute or chronic (Levitt, 1971, 34).

Children of any age have fears and worries, but when these don't go away, are inappropriate for their age, and stop children from engaging in their normal

activities in the usual way, an Anxiety Disorder (AD) may be present. Everyone worries sometimes, but there are some people, even children, who just can't stop or ignore their worries. It has been estimated that 5–20 percent of all children have been diagnosed with AD. The most common types of AD are Separation Anxiety Disorder, Generalized Anxiety Disorder, Social Phobia and Panic Disorder. Such disorders result from a combination of family and biological influences and tend to run in families. Moreover, evidence suggests that anxiety and phobic reactions can be learned (Goodman & Gurian, 2001b).

The findings of research about anxiety (e.g. Gullone et al., 2001) are consistent with studies of normal fear – the significant degree of continuity in anxiety over time has found that girls and younger children show higher scores on anxiety than boys and older children.

As anxiety, like fear, is a normal, natural emotion experienced by most human beings, everyone must learn to live with a certain amount of anxiety. Although it seems difficult, parents should let their child feel some distress, question the child about what is happening and think about what he or she should do. In this way, parents let the child experience some struggle, help the child choose ways to manage the situation and praise them for their attempts as well as for their success (Goodman & Gurian, 2001b).

1.4. Phobia

The concepts of fear and phobia are often mixed together. Ordinary fears are a normal part of childhood and can actually help children work through certain developmental issues. However, when fears cause a child to repeatedly avoid certain situations or when they persist for an unusually long time or occur at an inappropriate age, they are considered to be phobias (Gale Encyclopedia...., 2001).

I. M. Marks (1987a, 5) defines *phobia* as the *fear* of a situation that is out of proportion to its danger, can neither be explained nor reasoned away, is largely beyond voluntary control and leads to avoidance of the feared situation. Phobia is an exaggerated fear of a specific object or event when the probability of harm to the individual is very small, so they are seen as unrealistic and often extreme (Ferrari, 1986; Levitt, 1971, 29). Also *phobias* can be treated as persistent, irrational, illogical and disruptive *fears* of a specific object, activity or type of situation. A *fear* can be classified as a *phobia* when it is substantially greater than what seems justified or when it has no basis in reality (Boon, 2002). Graziano and colleagues (1979) say that phobia is commonly used to denote a specific fear in which at least one of the three elements (behavioural, cognitive or physiological) is excessive, persistent and unadaptive.

Fear can blossom into phobia – common and normal childhood fears are short-lived and dissipate within months, but sometimes in some children

specific fear persist and become invalidating in the sense that they interfere with normal functioning. In such cases a diagnosis of specific phobia should be considered (Muris et al., 2002a).

King, Gullone and Ollendick (1998, 297) equalize terms *clinical fears* and *specific phobias*: "...fear reactions that are maladaptive, persist for a considerable period of time (over two years, Graziano et al., 1979), cause much distress and are debilitating to the child's routine lifestyle are referred as "clinical fears" and "specific phobias". For clinical diagnosis of a phobia the fear must persist for a period of at least six months (Gale Encyclopedia..., 2001).

So it may be quite difficult to understand when there is a case of fear or when it is phobia. Maybe two simple examples can illustrate the difference better: it is normal fear when the child is afraid of a dog when he/she meets the strange, barking dog on a street; but it is an irrational and disrupting phobia when the child avoids going out of the home because he/she feels frightened already about the possibility that he/she could meet some dog on a street.

Word *phobos* comes from Greek language where it really means *fear*, but phobias in our context have certain criterions, which are not present in the case of normal fear:

- Marked and persistent fear that is excessive or unreasonable, cued by the presence or anticipation of a specific object or situation;
- Exposure to the phobic stimulus almost invariably provokes an immediate anxiety response or panic attack;
- The person recognizes that the fear is excessive or unreasonable (children may not be able to recognize that);
- The phobic situation is avoided or else endured with intense anxiety;
- The phobia causes significant interference with functioning or there is marked distress about having the phobia;
- In individuals under 18 years the duration is at least six months;
- The anxiety or phobic avoidance is not better explained by another disorder such as obsessive-compulsive disorder and separation anxiety disorder (King et al., 1998, 298).

Phobias can be *simple* (according to DSM-IV five subtypes: 1) animals; 2) blood-injection-injury, e.g. dental phobia; 3) situational, e.g. flying phobia; 4) natural environment, e.g. phobia of heights; and 5) miscellaneous other type, e.g. fear of loud noises), *social* (e.g. extreme fear of being criticised by other people leading to avoidance of social interactions or doing anything which might result in criticism of any kind) or *complex* (e.g. agoraphobia – fear of open or public places) (Boon, 2002; Gale Encyclopedia..., 2001; King et al., 2005).

Children's phobias are believed to have complex etiology involving genetic, constitutional and environmental factors (King et al., 1988 by King et al., 1998).

Estimates of specific phobia range in prevalence from 2.4 to 9.1%, and average about 5% across studies, and phobias are more prevalent among girls than boys (Anderson et al., 1987 by King et al., 1998; Gale Encyclopedia., 2001).

Childhood phobias appear to be relatively stable, but fortunately can be successively treated via exposure-based interventions such as in vivo desensitisation, modeling and other procedures (King et al., 1998, 298). So phobias may occur with considerable frequency and those close to the child have to be attentive, take children's fears seriously and try to find out when normal fear changes to phobia and needs intervention.

1.5. Worry

As Lahikainen and Kraav (1996, 113) say, *worry* is one of the narrative forms of insecurity. Worry about something is a genuine, fundamental quality of human existence.

Fear can be described as an unpleasant feeling that arises as a normal response to realistic danger but *worry* belongs to fearful thinking processes (Marks, 1987a). So it is important to differentiate between these two phenomenon – fear appears if individual is really in face-to-face situations with dangerous stimuli or situation, while worry takes place in the situation where real danger is missing and consists of primarily the *thinking* about threatening scenarios. Compared with fears worries are documented more rarely, but there is evidence that worries also exist frequently in children (Muris et al., 1998; Muris & Merckelbach, 2000). Worry might be seen also as fear without the inclination to escape (Ortony & Turner, 1990).

So, according to these explanations given above author has to concede that in this dissertation not all insecurities are considered by studying fears. In addition to fears, insecurity also includes anxieties, worries and phobias, and also that as a consequence of several insecurities psychosomatic disorders may appear. Therefore, in studying fears we investigate only a part of insecurity, leaving several related phenomena untreated in our discussions. But phobias and psychosomatic disorders are not very common among normal children. Fears are common and frequent during the preschool years in every person's life (Elbedour et al., 1997). Thus, we can presume that fears constitute a significant part of preschool children's insecurity.

2. THEORETICAL FRAME

2.1. Bronfenbrenner's Bio-ecological Systems Theory as theoretical frame for investigation of children's well-being and security

Human beings do not develop in isolation; their development is influenced by a variety of contexts – environments which surround the individual and which he/she is in constant interaction play a major role in development (Bronfenbrenner, 1977, 1979). While we sometimes tend to focus on family or school influences on human development, we should always remember that there are other important influences (Huitt, 2003).

A broader approach to research in human development is proposed that focuses on the progressive accommodation, throughout the life span, between the growing human organism and the changing environments in which it actually lives and grows. The latter include not only the immediate settings containing the developing person but also the larger social context, both formal and informal, in which these settings are embedded. The changing relation between person and environment is conceived in systems terms. The ecological environment is conceived topologically as a nested arrangement of structures, each contained within the next (Bronfenbrenner, 1977, 514) (see Figure 2).

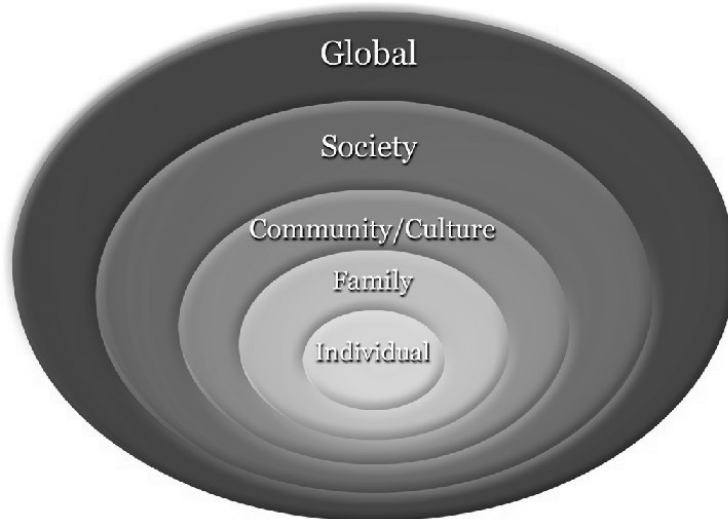


Figure 2. The model of ecological environment of individual human being (source: Huitt, 2003)

Bronfenbrenner's theory looks at a child's development within the context of the system of relationships that form his/her environment. It defines complex "layers" of environment, each having an effect on a child's development. This theory has been renamed by him "bio-ecological systems theory" to emphasize that a child's own biology is a primary environment fuelling her/his development. The interaction between factors in the child's maturing biology, his/her immediate family/community environment, and the societal landscape fuels and steers his/her development. Changes or conflict in any one layer will ripple throughout other layers (Paquette & Ryan, 2001). To study a child's development, we must look not only at the child and her/his immediate environment, but also at the interaction of the larger environment as well.

In this theory, Bronfenbrenner establishes clearly, the need for the child to be visible in all of his/her ecological (sub)systems. Each of these (sub)systems has a role in the development of the individual and is accompanied by a definition describing this role (Diamond, 2000).

The first level of the ecology or the context of human development is the *microsystem* – the complex of relations and interactions between the developing person and environment in an immediate setting containing that person and has the most immediate and earliest influences (Bronfenbrenner, 1977, 514). It also can be seen as a pattern of activities, roles and interpersonal relations experienced by the developing person in a given setting with particular physical and material characteristics. A critical term in the definition of the microsystem is "experienced" (Bronfenbrenner, 1979, 22). This level includes the settings where people can readily engage in face-to-face, direct interaction – home with family, along with local neighbourhood or community institutions as schools or kindergartens with peer groups and religious institutions (Bronfenbrenner, 1979, 22; Huitt, 2003). A setting is defined as a place with particular physical features in which the participants engage in particular activities in particular roles (e.g. daughter, parent, teacher) for particular periods of time (Bronfenbrenner, 1977, 514). Later in his work, Bronfenbrenner (1989, 227) emphasized further that the microsystem contains other persons who have distinctive characteristics of temperament, personality and systems of belief.

The relationships and influences are bi-directional and they occur among all levels of environment (see Figure 3, page 25). The interactions of structures within a level and interactions of structures between levels are key to this theory. At the microsystem level, bi-directional influences are strongest and have the greatest impact on the child and are the foundation for a child's cognitive and emotional growth (Boemmel & Briscoe, 2001; Paquette & Ryan, 2001).

The second level, *mesosystem* comprises the interrelations among major immediate settings containing the developing person at a particular point in his/her life (e.g. connections between child's kindergarten-teacher and his/her parents). In sum a mesosystem is a system of microsystems (see Figure 3, page 25) (Bronfenbrenner, 1977, 515; Bronfenbrenner, 1979, 25). Increasingly we

have seen a breakdown in the structures of a child’s mesosystem. Author will discuss the societal changes and present situation in Estonia more below, in the end of this chapter. Large and rapid changes in mesosystem level may encourage the development of children’s insecurity and fears also.

The third level is *exosystem*, which is an extension of the mesosystem embracing other specific social structures that do not themselves contain the developing person as an active participant, but in which events occur that affect, or are affected by, what happens in the setting containing the developing person. These structures include the major institutions of the society as they operate at a concrete local level (e.g. parent’s place of work, parent’s friends, the mass media, agencies of government, the distribution of goods and services, communication and transportation facilities, and informal social networks) (Bronfenbrenner, 1977, 1979). These structures provide the support for relationships in micro- and mesosystems. They provide the values, material resources and context within which these relationships operate (Paquette & Ryan, 2001).

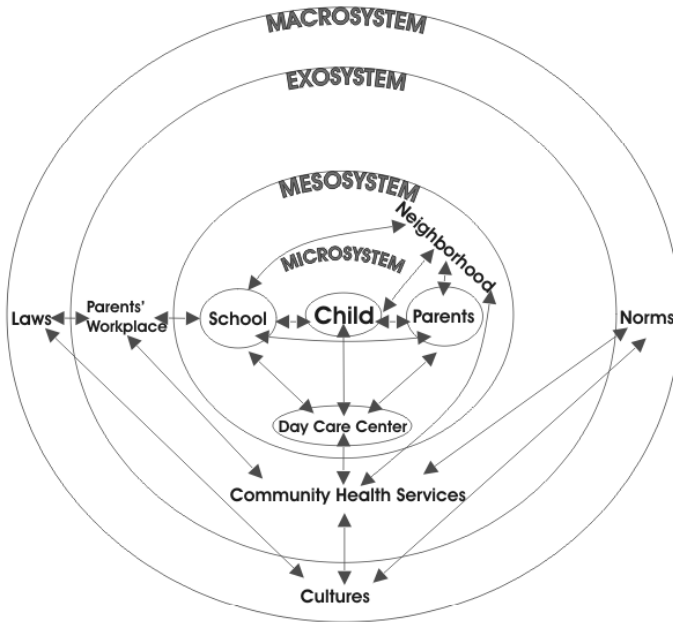


Figure 3. The four levels of Bronfenbrenner’s Bio-ecological Systems Theory (on the basis of Boemmel & Briscoe, 2001)

The influence of these systems and institutions interact with, and is filtered through, the microsystem institutions (Huitt, 2003) (see Figure 3, page 25). The community provides parents with access to people with similar concerns that can function as resources and emotional support. Communities also provide child care, parent employment and programs designed to encourage interaction

among families. Partnerships between community agencies and business and industry will provide invaluable resources for families (Paquette & Ryan, 2001). So, primarily the exosystem provides security (or induces insecurity) for parents and families, not directly for children (except in the case of mass media).

The fourth level is *macrosystem*, which is level containing the most removed influences such as international, regional or global changes or even more abstract aspects of culture (e.g. movement from the agricultural and industrial economies to an information-age) (Huitt, 2003). Macrosystem refers to general prototypes. Some actually exist in explicit form as recorded laws, regulations and rules, but most macrosystems are informal and implicit – carried in the minds of the society's members as ideology made manifest through custom and practice in everyday life (e.g. belief systems, cultural values, etc.). Later Bronfenbrenner (1989, 228) defined macrosystem as consisting of the overarching pattern of micro-, meso- and exosystems characteristics of a given culture, subculture, or other broader social context, with particular reference to the developmentally-investigative belief systems, resources, hazards, lifestyles, opportunity structures, life course options and patterns of social interchange that are embedded in each of these systems.

Children are affected by their culture through the communication of beliefs and customs parents receive from other structures in the mesosystem and exosystem. Our culture promotes beliefs concerning religion, school, family and community life. Generations pass on cultural values via these structures and the developing child receives them in turn. Cultural beliefs have real power in affecting all Bronfenbrenner's systems. These beliefs are deeply held and become a basis for a child's sense of self (Seifert, 1999 by Paquette & Ryan, 2001). Child-rearing practices and educational methods used by parents may be strongly influenced by the macrosystem level, so this level may have an impact on children's security.

Changes in the larger or global environment have a strong impact on children's immediate environment, e.g. accidents on the other side of globe are attainable for our children by television or internet or changes in the world cause changes in the values in our society and families.

As Paquette & Ryan (2001) say, there is no way to ignore the impact that global events have on even local individuals as we enter the 21st century. With satellites linking every corner of the planet, global news is a constant in the lives of today's children. We are truly living in a global village today. However, because of this globalization, there are now many new ways to cause insecurity and fears in small children.

Bronfenbrenner says that there are two environmental conditions that are necessary for human development. The first is that one or more adults must love the child unconditionally; the second is that the adults must encourage the child and spend time doing joint activities with the child in and out of the home environment.

Bronfenbrenner (1978 by Boemmel & Briscoe, 2001) points out some problems in and suggestions for society, which are related to families and children's security also. Bronfenbrenner introduced these observations about 30 years ago already, but surprisingly these problems and suggestions seem very appropriate, modern and "fresh" in today's society also:

- 1) Many families don't live close enough to rely on one another for the necessary support needed to nurture a family. We must keep our families together. This is important for teaching children values and culture and also provides support for the young parents (Bronfenbrenner, 1978 by Boemmel & Briscoe, 2001). Nowadays it is very necessary to support closer relationships with grandparents and other relatives. Frequent changing of livingplaces and moving because of work and career may cause the break of social networks of families and individuals.
- 2) Many neighbourhoods are not safe – we need to have extended families living together again and a community where everyone knows their neighbours (Bronfenbrenner, 1978 by Boemmel & Briscoe, 2001). Again, this is a very useful suggestion for our society. It is quite common that families living next door to each other don't know anything about their neighbours. But it would be very necessary for safety ("neighbour-watch") and for supporting families in child-rearing to know and have good relationships with neighbours.
- 3) Many families are experiencing stress trying to balance work and family (Bronfenbrenner, 1978 by Boemmel & Briscoe, 2001). In Estonia this is also a very urgent problem, because work is very demanding and intensive now. Many parents are very engaged with their work and find little time to spend with their children. We hope that we will have more time in the future, but child-rearing is nothing to postpone. A "hurrying lifestyle" is very common for our families now. Help from good relationships with grandparents, relatives or neighbours can be very helpful.
- 4) All families do not benefit from certain laws that are presently in effect (Bronfenbrenner, 1978 by Boemmel & Briscoe, 2001). This is sometimes a problem today in our society also. For example, some legislation about financial support for families with children does not help families where parents earn minimum-salary or don't have a job.

The ecological systemic approach alerts one to the notion that an ecological environment, responsive to the developmental needs of children, would include visible evidence of three principles:

- Children have unassailable rights to opportunities likely to support their positive development.
- Caregivers have rights to the necessary support/opportunities to undertake their parenting functions, and associated ongoing responsibilities to the children.

- The macrosystem (the State) acknowledges its broad role in the parenting and development of children and as such carries responsibilities for, and obligations to, children and their caregivers, in the articulation, upholding, promotion and realisation of their individual and collective rights (Diamond, 2000).

This theory clearly establishes the responsibility of several different environments supporting the healthy development of children.

So, when we study children's fears or some other problems, we have to remember that there are many factors that can influence the development of fear – the child (her/his unique character which is the result of interactions of biological and environmental factors), his/her close environment (e.g. family) and larger environment (society, culture, values, societal changes).

In our study and this dissertation all levels of children's environments are included. **Children's** fears, the influence of their **families** (*microsystem*) background and other factors will be analysed. Also the influence of larger contexts (*exosystem*), which affect events within the immediate settings, will be analysed – **societal changes** (e.g. the impact of mass-media on children's fears), and the **global factors** and changes (*macrosystem*) which also have influence on the children's environment and security (e.g. change of educational values and/or norms, cultural differences, etc.).

Next author will describe some changes in Estonian society and families during the ten years between our two studies.

Societal changes during the ten years in Estonia

“Childhood” should not be seen as a chronological category (from birth to 18, for example), but should be conceived as the particular *life space* of a child in a given society, a space that is defined by prevailing material, social and cultural conditions surrounding the child. As these conditions change, childhood also changes – so, childhood is socially constructed according to the dynamics of societal forces and is therefore changeable over time (Dencik, 1998).

The parents of young children who had their own upbringing in the socialist system had to take care of their children in an altered society, in a free market economy. Societal changes made the role of the parents complicated because their own childhood experience derives from a very different society (Dencik, 1995). This has been especially true in Estonian society among young parents in the 1990s.

As one of the main purposes of this dissertation is to analyse the differences of preschoolers' fears over the ten-year period (1993–2002) author will first give some background information about societal changes and tendencies which have taken place in Estonia during this period.

After the regaining of independence in 1991 many rapid changes took place in Estonia which had impact on children's environment and well-being:

reduction in the marriage-rate and birth-rate in correlation with economic growth and new career opportunities for both men and women, transformation from a closed to an open society with international and especially European educational and job opportunities for younger people, a belated sexual revolution with its positive and negative consequences like improved options of birth control and an increase of pre-marital sex, and a growth in social and economic inequalities with higher levels of stress, insecurity and risk (Narusk & Hansson, 1999, 18).

The pace of change is fast and the positive changes are remarkable, but the pace itself causes problems which burden the families. The stability of family life has been decreasing, and the numbers of divorces, non-married people, children born out of wedlock as well as the number of single-parent families, has been steadily increasing (Kutsar & Tiit, 2002; Kutsar et al., 2004; Narusk & Hansson 1999). For example, the percentage of children born in legal marriage in 1993 was 62%, but in 2002 only 44%. Mothers were on average two years older in 2002 than in 1993 when the child was born (27 and 25, respectively)(Eesti Statistikaamet, 2005; Kutsar & Tiit, 2002, 30).

Estonia has undergone during the last 15 years a period of transition which is still going on. Inevitably these changes have had an impact on children; their dependence on care makes them the weakest link in the chain of security in any society. In addition to being a major indicator of current trends of development, redistribution of resources and outcomes of welfare, they unlike other marginal groups like the aged or the handicapped, paradoxically also represent future resources upon which further economic and social growth of society depends. Children's double role in the production and reproduction of welfare makes research into their conditions particularly challenging as well as rewarding. Politically, Estonia has experienced penetrating changes by re-independence after the dissolution of Soviet bloc (1991). Informationalization and globalisation, increased impact of media (especially television) and technologisation have had a strong impact on the everyday life of all parents and children. The result of these changes has been described as general insecurity (Taimalu et al., 2004b).

Estonian mothers' employment has increased constantly since the beginning of the 1990s because of the materialistic change in values, career opportunities with more prestige and esteem, money and self-realization outside the family (Narusk & Hansson, 1999, 17). The connection to the labour market of adult members of the household has a direct impact on children's economic welfare. During the transition period unemployment and low level of earnings of many adults were a problem. Even children with dual-income parents can be endangered by income poverty owing to the low level of the parents' earnings (Kutsar et al., 2004, 98). According to Kutsar and her colleagues (Kutsar et al., 2004, 106) the number of children in the household was an important risk factor for poverty: about one fifth of families with children, a quarter of families with two children, and a third with more than two children were extremely poor.

The Estonian father's role in child-rearing is now more esteemed and is acknowledged by the state. The equalization of parental roles is ongoing in society (Uljas et al., 2003). At the same time fathers work longer hours, on average 44.6 hours a week while mothers work 40.4 hours. Long working days are necessary for better income as well as for career opportunities, especially among younger men whose options to participate in child-rearing and family life are diminished (Uljas et al., 2003). Today many parents (apparently fathers more) have to work far from home and family (in another city or abroad) and see their children quite rarely. So it may happen that they can't participate in their children's daily lives for some time.

Increasingly we have seen a breakdown (e.g. close relationships tend to be shorter, more unstable than before) in the structures of a child's *mesosystem* (according to Bronfenbrenner). Bronfenbrenner sees the instability and unpredictability of family life we have let our economy create as the most destructive force to a child's development (Addison, 1992). Children do not have the constant mutual interaction with important adults that is necessary for development. According to the ecological theory, if the relationships in the immediate *microsystem* break down, the child will not have the tools to explore other parts of his environment. This theory has dire implications for the practice of teaching. Is it possible for our educational system to make up for these deficiencies which have occurred in family? Is it necessary for schools and teachers to provide stable, long-term relationships? No, because schools and teachers fulfil an important secondary role, but cannot provide the complexity of interaction that can be provided by primary adults.

It is in the best interest of our entire society to lobby for political and economic policies that support the importance of parent's roles in their children's development. Bronfenbrenner would also agree that we should foster societal attitudes that value work done on behalf of children at all levels: parents, teachers, extended family, mentors, work supervisors, legislators (Paquette & Ryan, 2001).

Increasing number of hours worked outside the home by both mothers and fathers means that they have less time to spend being involved in their child's development. With this breakdown occurring on the mesosystemic level, the structures of Bronfenbrenner's exosystem must be called upon to shore up or provide primary relationships (Taimalu et al., 2004a). Also intergenerational relationships have been weakened by the older generation's need to work, or because of the increased mobility of young couples around Estonia or even all of Europe or the whole world where they search for better working conditions (Kutsar et al., 2004).

In 2002 Estonian household was quite small – consisted of an average of 2.4 members and only less than 1/3 of households had children. The absolute level of poverty was 1593 Estonian crowns and 23% of households lived under this level, thereby 34% of children. Internationally comparable relative level of poverty was 1730 Estonian crowns, 18% of Estonian people lived under that

level. Their economic conditions were assessed very bad by 7% of households, who claimed that the money is not enough even for necessary food (Leibkonna elujärg, 2002).

In conclusion, one of the principal characteristics of these social changes is the increased stress of parents concerning working life, meaning stress-factor as a crossover in parenthood suggesting a risk for the child's well-being (Lahikainen et al., 2007).

Author considers the following as the most remarkable changes in our society which can have a significant impact on young children's security: parents' higher work demands with correspondingly less time to spend with their children, fewer siblings in the family to promote the sense of security and togetherness, and the high level of globalization, technologization and informatization.

2.2. Integrative theoretical model of children's fears

Next author wants to introduce an integrative theoretical model of children's fears developed by Smith, Davidson, White and Poppen (1990) (see Figure 4 page 33). The model integrates an overview of the process of stress as described by Maccoby (1983) and individual fear variables proposed by Graziano, DeGiovanni and Garcia (1979), and is based on a review of the normative fear literature. This model offers a unifying comprehensive framework for studies that investigate all variables important in the development of children's fears.

Smith and her colleagues try to integrate several theoretical approaches each of which appears to select one limited aspect of focus to explain the development of fear (e.g. behavioural, maturational, cognitive developmental, biological and psychoanalytic approaches) and give a more comprehensive model. This model integrates environmental, social and intrapersonal variables that begin with individual characteristics and proceed in a circular chain of events, including fear stimuli, arousal, and affective state of fear, and conclude with coping strategies and adaptation (Smith et al., 1990, 151). Their model represents a circular flow of conditions in which each set of variables influences the outcome of the child's normal fear response. Each child's individual characteristics influence his/her susceptibility to fear stimuli, arousal, fear, and his/her ability to cope with and adapt to fear-producing situations (Smith et al., 1990, 153).

The first stage in this model, **individual factors** (e.g. gender, age, subculture, SES, etc.) influence the type of stimuli that evoke fear among children (see also Figure 4 page 33). The findings have often been conflicting, for example, in the case of gender influences – many studies have reported that girls are more fearful than boys (e.g. Burnham & Gullone, 1997; Croake, 1969; Croake & Knox, 1973; Davidson et al., 1990; Gullone, 2000; Gullone & King,

1997; King et al., 1989; Lapouse & Monk, 1959; Lichtenstein & Annas, 2000; McCathie & Spence, 1991; Muris et al., 1997b, 2003b; Muris & Ollendick, 2002; Ollendick, 1983; Ollendick et al., 1985, 1989, 1991, 1996; Shore & Rapport, 1998; Slee & Cross, 1989; Spence & McCathie, 1993; Stevenson et al., 1992), whereas other studies have found no significant differences between boys and girls (e.g. Eme & Schmidt, 1979; Lentz, 1985a, 1985b; Maurer, 1965; Miller et al., 1972; Muris et al., 1996b; Silverman & Nelles, 1989; Stevenson-Hinde & Shouldice, 1995).

Next stage focuses on the **fear stimuli** – the origin of the stimuli (internal, external or combination) and the content, number, intensity, duration, familiarity and predictability of these. The content and number of fears have been studied quite often, but not the other aspects.

The next stage in the model is **arousal**, which describes the type of physiological (e.g. heart rate, respiratory changes) and cognitive alerting (e.g. information-seeking or a belief in own ability to control the fearful event) responses to fear stimuli.

This model supports the analysis of **fear** according to **four basic variables**: latency, intensity, duration and situational context. Latency refers to the present or potential, but not realized fear response. The intensity describes the severity of fear (e.g. not afraid, mildly afraid, excessively afraid). The duration of the response is the course of time during which the fear arousal occurs and is recognized. For example, Smith and Carr found that fear among preschool children was stable for six months.

The next stage is **coping** – the child will engage in overt (child's attempt directly to alter fear-evoking conditions) or covert (child's attempts to change his/her appraisal of the fear stimuli) coping strategies when fear is experienced. Personal and social resources impact the strategies that children use. Limited information is available on determining how children cope with fears. Therefore this aspect needs further research attention.

The last, sixth stage of the model is **adaptation**. Preceding conditions which lead to coping responses will affect the types of adaptation (Smith et al., 1990, 156).

So, we have studied and author gives in this dissertation an overview about children's fears, taking into consideration several aspects of fears: children's individual factors (e.g. age, gender), characteristics of fear stimuli (content, number, intensity) and coping ways (strategies and determinants, e.g. social resources, family background, parental consciousness about children's fears). Also author analyses children's fears in two main environments which can influence these fears: family context (e.g. family background factors) and societal context (societal changes during about ten years). Also there are several theories of fear acquisition which will be presented and explained in the chapter 3.4. page 54.

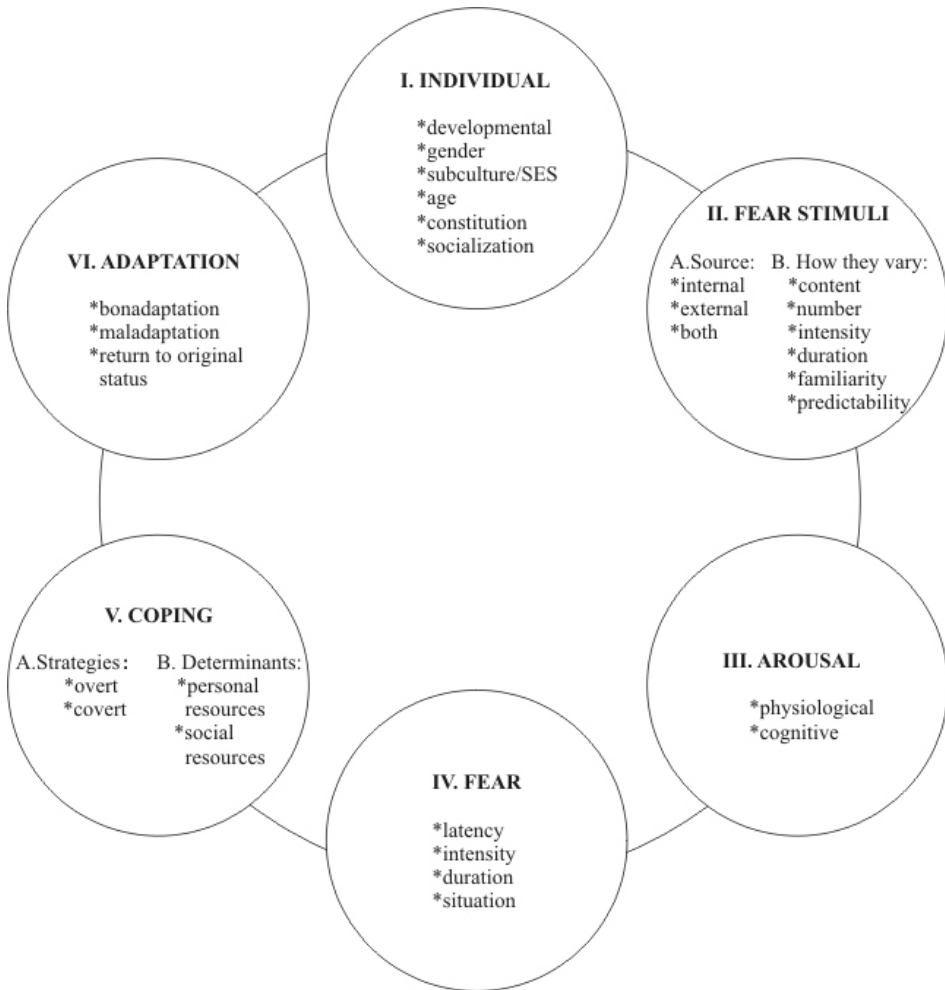


Figure 4. Theoretical Model of Children's Fears (source: Smith et al., 1990, 153)

3. THE CONCEPT OF FEAR AND ITS CONTENT

3.1. Fear as emotion

Emotions are basic psychological systems regulating adaptation to important environmental and personal demands, and are closely interrelated with physiological, cognitive and behavioural processes and are thus of great importance for teaching, learning and educational achievement (Pekrun, 1994). Emotions are often defined as systems of interacting processes including emotional feelings, cognitive appraisals, physiological processes, expressive behaviour, and motivational tendencies (Kleinginna & Kleinginna, 1981 by Pekrun, 1994). The primary function of emotion is to mobilize the organism to deal quickly with important interpersonal encounters, prepared to do so by what types of activity have been adaptive in the past (the *past* means here both the past history of our species and our own individual life history) (Ekman, 1999).

Fear as basic emotion

Emotions are a very complex area of psychological study and there are many theories concerning what causes them, why we have them and how they develop. For example, Plutchik (1980) believes that emotions are the result of evolutionary processes and are present in animals as well as humans. Emotions have an adaptive function related to survival. Watson, basing his views upon the observation of young infants in experimental situations, proposed three elementary emotional patterns: *rage* (the response to being hampered in its movements), *fear* (response to pain, a loud sound, or to loss of support), and *love* (response to cuddling or stroking sensitive skin areas). Allport reported, according to the study of facial expressions, five somewhat distinct emotional patterns: the pain-grief group of expressions, the surprise-fear group, anger, disgust, and pleasure (Jones & Jones, 1928, 137).

Some authors (e.g. Izard, 1977; Plutchik, 1980) have considered some emotions to be “basic”(or primary or fundamental) and these can be seen to be sets of opposites and are the components from which more complex emotions are made. There are three meanings of the term “basic”: first, it distinguishes those who maintain that there are a number of separate emotions that differ from one another in important ways; the second meaning is to indicate that emotions evolved for their adaptive value in dealing with fundamental life tasks (e.g. in fear there is an expectation of failure to achieve a goal); and thirdly it has been used also to describe elements that combine to form more complex or compound emotions (Ekman, 1999). For example, Pekrun (1994) has named following emotions as basic: joy, interest, sadness, *fear*, anger, disgust, shame, contempt and surprise.

Plutchik (1980) in his psycho-evolutionary theory of basic emotions has pointed out ten postulates:

1. The concept of emotion is applicable to all evolutionary levels and applies to animals as well as to humans.
2. Emotions have an evolutionary history and have evolved into various forms of expression in different species.
3. Emotions serve an adaptive role in helping organisms deal with key survival issues posed by the environment.
4. Despite different forms of expression of emotions in different species, there are certain common elements, or prototype patterns, that can be identified.
5. There is a small number of basic, primary or prototype emotions.
6. All other emotions are mixed or derivative states; that is, they occur as combinations, mixtures or compounds of the primary emotions.
7. Primary emotions are hypothetical constructs or idealized states whose properties and characteristics can only be inferred from various kinds of evidence.
8. Primary emotions can be conceptualized in terms of pairs of polar opposites.
9. All emotions vary in their degree of similarity to one another.
10. Each emotion can exist in varying degrees of intensity or levels of arousal.

Ortony & Turner (1990, 316) have analysed several authors as to how they treat basic emotions and which they consider basic emotions. Table 1 (page 36) lists fourteen authors (or groups of authors) and their viewpoints. Author has highlighted throughout the table where the fear emotion appears. Nine of fifteen authors have *fear* as belonging to the basic emotions, but three of them haven't named fear at all. Two authors named *anxiety* instead of fear. Also the number of named emotions is very different, fluctuating from two (e.g. Mowrer, 1960; Weiner & Graham, 1984 by Ortony & Turner, 1990) to eleven (e.g. Arnold, 1960 by Ortony & Turner, 1990).

However, some theorists do not support the attitudes about few basic and other “non-basic” emotions (e.g. Ekman, 1999; Ortony & Turner, 1990), but consider all emotions which share certain characteristics to be basic (Ekman, 1999) or suggest that a theoretically more neutral label for basic emotions might be (*culturally*) *common emotions*, because they could not find any small group of emotions which are primitive biologically and psychologically, and universal in all situations and cultures (Ortony & Turner, 1990).

Gorman (2004, 90) also says that it is difficult to accept the classical approach to emotions (i.e. that there are some basic emotions, the only states that could be regarded as pure or primary emotions, from which all other emotions sprout). It is almost impossible to say how each of these emotions would be experienced in different situations, e.g. the fear of a strange, aggressive dog, or fear that the child feels seeing his/her parents arguing very angrily – it is obvious that the child may feel fear in these situations, but is this

the same emotion? However, author thinks that according to the majority of authors fear can be considered as one of the primary (basic) emotions.

Table 1. A selection of lists of “basic” emotions according to fourteen authors

	Basic Emotions	Basis for Inclusion
Arnold (1960)	Anger, aversion, courage, dejection, desire, despair, <u>fear</u> , hate, hope, love, sadness	Relation to action tendencies
Ekman, Friesen, & Ellsworth (1982)	Anger, disgust, <u>fear</u> , joy, sadness, surprise	Universal facial expressions
Frijda (1986)	Desire, happiness, interest, surprise, wonder, sorrow	Forms of action readiness
Gray (1982)	Rage and terror, <i>anxiety</i> , joy	Hardwired
Izard (1971)	Anger, contempt, disgust, distress, <u>fear</u> , guilt, interest, joy, shame, surprise	Hardwired
James (1884)	<u>Fear</u> , grief, love, rage	Bodily involvement
McDougall (1926)	Anger, disgust, elation, <u>fear</u> , subjection, tender-emotion, wonder	Relation to instincts
Mowrer (1960)	Pain, pleasure	Unlearned emotional states
Oatley & Johnson-Laird (1978)	Anger, disgust, <i>anxiety</i> , happiness, sadness	Do not require propositional content
Panksepp (1982)	Expectancy, <u>fear</u> , rage, panic	Hardwired
Plutchik (1980)	Acceptance, anger, anticipation, disgust, joy, <u>fear</u> , sadness, surprise	Relation to adaptive biological processes
Tomkins (1984)	Anger, interest, contempt, disgust, distress, <u>fear</u> , joy, shame, surprise	Density of neural firing
Watson (1930)	<u>Fear</u> , love, rage	Hardwired
Weiner & Graham (1984)	Happiness, sadness	Attribution independent

Source: Ortony & Turner, 1990, 316

Note. Not all the theorists represented in this table are equally strong advocates of the idea of basic emotions. For some it is a crucial notion (e.g. Izard, 1977; Panksepp, 1982; Plutchik, 1980; Tomkins, 1984 by Ortony & Turner, 1990), whereas for others it is of peripheral interest only, and their discussions of basic emotions are hedged (e.g. Mowrer, 1960; Weiner & Graham, 1984 by Ortony & Turner, 1990)

Classification of emotions

To convey the range of current approaches is to categorize emotions by those pertaining to the body, to the mind and to culture.

The classic **bodily approach** is best represented by Cannon (1927 by Leary, 1998) and focuses upon emotions as inherited bodily expressions that have helped species survive. Continuing along this line Ekman and his associates

(1987) have concluded that there are six basic facial expressions of emotion – anger, disgust, fear, happiness, sadness, and surprise – that are truly universal.

The **cognitive approach** to emotion has stemmed from the two-factor theory proposed by Schachter and Singer (1962 by Leary, 1998). According to this the experience of an emotion depends upon the feeling of psychological arousal plus a cognitive interpretation of that arousal. It is clear that cognition does play a significant role in emotional life, e.g. the ways of thinking can influence the intensity of emotions. For example, if children tend to be afraid of going to a doctor, she/he may think that the doctor will cause a pain, and therefore feels really frustrated, but she/he also can think that the doctor will cure her/him to become healthy, and then the fear is not so intense and maybe she/he can even think positively about the going to a doctor.

The **cultural approach** to emotion has typically tried to differentiate those emotions and expressions that are specific to particular cultures from those that seem to be universal (Ekman et al., 1987). While all cultures distinguish positive emotions (e.g. joy, admiration) from negative emotions (e.g. anger, fear), there are many cultural variations as regards to the objects of emotions, the situations in which emotions are felt, and the ways in which emotions are expressed (Leary, 1998).

Not all primary emotions are available at birth. The sequence in which primary emotions emerge seems to be universal across cultures and conditions of rearing, indicating that early emotional development is largely a function of maturation, based on species-specific genetic programs (Izard & Malatesta, 1987 by Pekrun, 1994). From birth on, there are striking individual differences, some portion of them is considered to be due to individual genetic differences. Additionally, environmental factors play a role, with social influences probably being highly important even in the first months of life. Two important influences on changes are also cognitive development and socialization (Pekrun, 1994). Izard and Malatesta (1987 by Pekrun, 1994) have claimed that three emotions present in the newborn are interest, distress and disgust. Other basic emotions – surprise, sadness, anger and fear – do not appear to arise before the third month of life. The emergence of these emotions is congruent with the development of cognitive capabilities and of emotion-related instrumental behaviour during the first year of life.

Fear in infancy has been researched extensively. At some point in time between the sixth and twenty-fourth months, nearly all children display negative emotional reactions to strange adults and to separations from the caregiver in unfamiliar situations. These reactions seem primarily to be related to fear, although other emotions (e.g. anger) may also play a role. Stranger- and separation-related fearfulness gradually vanishes during the following two years of life and are replaced by fears of different kinds (e.g. animal-related fears), which are typical of childhood (Bowlby, 1969; Marks, 1987b; Spitz, 1945 and Bowlby, 1959 by Patterson & Hidore, 1997).

The certain expression and feeling of fear doesn't exist equally for everyone and for each fear-provoking situation. The perception of fear is individual and thus the feeling is subjective. It is quite common to separate emotions into two groups – positive and negative ones. Usually fear is treated as negative emotion. Author thinks that fear should not be only negative; it has also positive aspects and functions. In this dissertation author treats fear as a normal emotion of human being.

3.2. The concept and content of fear

Definition

According to McCathie and Spence (1991, 495), King and colleagues (King et al., 1989), Graziano and his colleagues (Graziano et al., 1979, 805) and Murphy (1985, 172) fears can be described as complex reactions to a specific stimulus that is perceived by an individual to be threatening. The specific stimulus feared may be either *real* (e.g. dogs, thunder or sickness) or *imaginary* (e.g. ghosts). The individual's perception of the stimulus as threatening may be either *rational* (e.g. fearing a dog that bites) or *irrational* (e.g. fearing the dark).

Fears create discordance in a person's well-being through mood, cognitive, somatic/physiological and overt-behavioural symptoms (or responses). *Mood symptoms* include the feelings of tension and apprehension. *Cognitive symptoms* include or may include the subjective feeling of distress and related negative thoughts concerning the aversive nature of the feared object, a person's spending a lot of time trying to work out why a particular mood or symptom occurring. *Physiological responses* may include such bodily responses as sweating, heart palpitations, a pounding heart, tense muscles, trembling, dryness of the throat and mouth, a sinking feeling in the stomach, nausea, perspiration, difficulty in breathing, weakness or even paralysis of the limbs (Boon, 2002; King et al., 1998; Marks, 1987a, 4; Murphy, 1985, 172; Ortony & Turner, 1990, 323). *Overt behavioural responses* include actions designed to reduce contact with the feared stimulus (e.g. avoidance, escape, rigid body posture, etc.) (Boon, 2002; Graziano et al., 1979; King et al., 1989, 1997b, 1998; McCathie and Spence, 1991; Ortony & Turner, 1990, 323). In humans as well as in animals, two obvious behavioural expressions of fear present a striking contrast – one is the tendency to freeze and become mute, which reaches its extreme form in death feigning, while the opposite is to startle, scream and run away from the source of danger. Behaviour may shift rapidly from one pattern to the other Marks (1987a, 4).

There are various kinds of fears with different symptoms. A typical case of fear is the kind that might occur if a person were to suddenly meet a bear in the woods. The expression of fear in this case would probably include an open mouth, raised eyebrows, widely opened eyes and a staring expression. This state

is quite different from that produced by another kind of fearful situation, one that does not induce surprise, and from which one cannot fly, such as the fear that could result from the thought that one might have cancer. Other, rarer components can also be added to the assembly to form another variety of fear. One such component is an uncanny feeling, manifested by such responses as goosebumps, raising the hair, shivering, “crawling” skin and the like. Typically uncanny feelings and reactions like these occur when something happens that is far outside one’s experience of the world (e.g. supernatural events, inexplicable eerie noise in quiet home late at night) (Ortony & Turner, 1990).

Fear is the anticipation or awareness of exposure to injury, pain or loss (Robinson & Rotter, 1991). Smith et al. (1990) in their integrative theoretical model viewed fear as an individualized, dynamic process that is affected by various environmental, social and intrapersonal variables. By Lahikainen and Kraav (1996) fear is explained as an integral part of insecurity: it is seen as a way of articulating the relationship between self and the surrounding world and, to an extent, as an inevitable part of life at all ages. Fears belong to normal child development, but in excess they may block exploration with the world (Bowlby, 1978 by Lahikainen et al., 2003). See also definitions of fear in chapter 1.2. page 17.

Fear Cycle

In the fear cycle (see Figure 5 page 40), the child perceives an object or concept, which is compared with one’s sense of self and one’s personal resources.

There may be four responses: the child may experience this with a sense of power and a feeling of confidence (**affect**); the child may realize that he/she has the resources to deal effectively with the source of potential threat (**cognition**); the child may get “butterflies” (**physiological response**) and then the child may take some action (**behavioural response**). As a result of the action, the child again examines the potential threat of the fear object. The more children successfully handle such situations, the less vulnerable they may feel, and conversely (Marks, 1987a, 7; Robinson et al., 1991, 190). Some aspects of what we fear and how we show it are biologically determined, while others are influenced by individual and group experience (Marks, 1987a, 7).

- (A) the potential fear object is in the child’s environment
- (B) the child becomes aware of fear object
- (C) the child evaluates the threat of the potential fear object from his/her own sense of power
- (D) the child may respond to the fear object with the patterns of cognitive, affective or physiological responses
- (E) fight or flight response – the child may undertake some action to avoid (escape) or try to overcome the fear object by the control strategy

(F) the child assesses again the threat of potential fear object, according to the success or failure of strategies. Success leads to the increase of self-confidence and adaptive behaviour, unsuccessful coping strategies lead to a higher level of fear and nonadaptive behaviour (Robinson et al., 1991, 192).

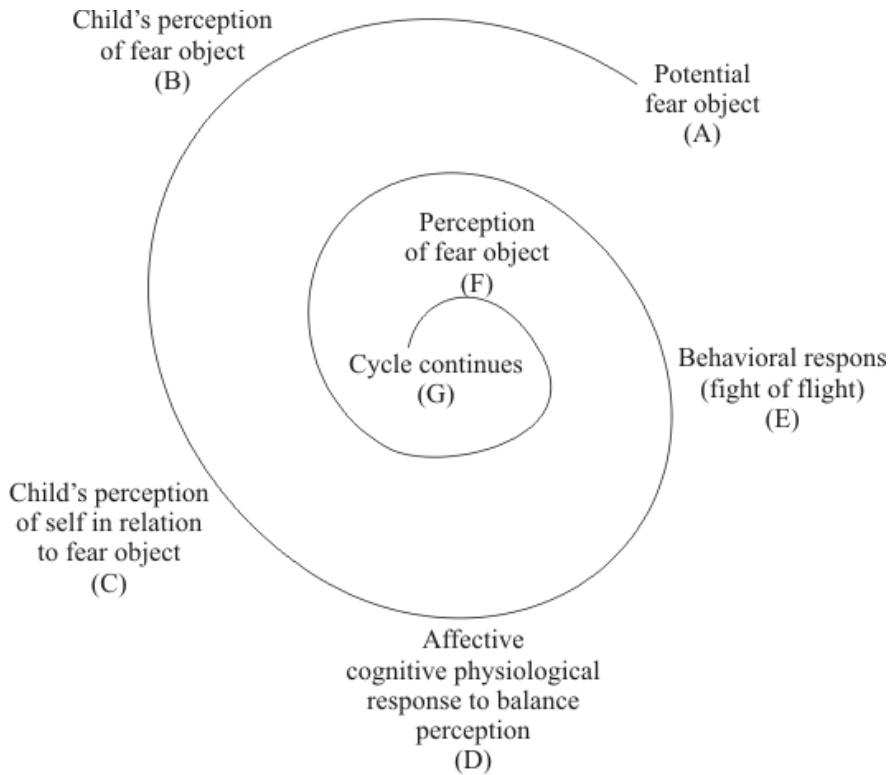


Figure 5. Conceptualization of Fear Cycle (source: Robinson et al., 1991, 191).

Fear as necessity and problem

We can speak about fear from two main viewpoints. On the one hand, fear is a part of everyone's life and thus it can be treated as an **inevitability and a necessity**. Fears are an important part of normal development; it is a functional emotion. Fear includes the challenge to overcome and so it promotes development. Thus, we can speak about the motivational power of fear (Lahikainen et al., 1995).

From a biological perspective the function of fear is to protect the organism from harmful or noxious circumstances, whether actual or anticipated. In the same way as other primary emotions, fear is elicited in a particular situation,

and it can be indexed by measures from three systems – verbal reports, physiological responses and overt motor behaviour (Öhman, 1986). Most normal children experience specific fears of mild to moderate intensity (according to several studies approximately 50–90% or more of children). Fears of a greater intensity (or phobias) have found to exist for 3–7% of children (Murphy, 1985). It is not possible to eliminate fears, but rather it is better to teach or help children to cope with them. If children learn to cope with their fears they can better manage with other changes, new things and situations in their life where adaptation is needed. So, fear can be seen also as emotion, which motivates and promotes learning and adaptation.

Several authors write about fear as a negative emotion, but many theorists emphasise that fear is not bad thing, but instead is a valuable, adaptive emotion which possesses survival value (e.g. Chazan, 1989; Graziano et al., 1979; Izard, 1977; Kirmanen & Lahikainen, 1997; Marks, 1987a; Ollendick et al., 1991, 2001; Robinson & Rotter, 1991; Sorin, 2000). Graziano and his colleagues (Graziano et al., 1979) emphasise that recognition of the possible adaptive value of childhood fear is important. Of course, fears may be age-linked and transitory, but they have important short-term effects on coping with the social environment and on learning how to appropriately sensitise and desensitise oneself. Fear may constitute an important part of children's experiences in learning to successfully cope with problems.

Fear is valuable if it serves a useful purpose, such as creating caution or being prepared for emergencies. Developmental fears provide individuals with a means of adapting for various life circumstances and situations (Burnham & Gullone, 1997, 165). For example, plusses of fear can be illustrated through their value in defining and maintaining relationships as well as setting limits and controlling approach and avoidance behaviour which may be vital to an organism's success and ultimately its survival (Ferrari, 1986, 77). As Gullone (1996, 144) says: "It is not surprising that normal fear has been identified as one of our most important emotions since it motivates us, throughout our lives, to behave in ways which will promote our survival and, ultimately, the survival of our species".

Marks (1987a, 3) says: "Fear is a vital evolutionary legacy that leads an organism to avoid threat and has obvious survival value. It is an emotion produced by the perception of present or impending danger and is normal in appropriate situations. Without fear few would survive long under natural conditions. Fear girds our loins for rapid action in the face of danger and alerts us to perform well under stress. It helps us fight the enemy, drive carefully, parachute safely, take exams, speak well to a critical audience, keep a foothold in climbing a mountain".

In its less extreme form fear can be not only useful but also enjoyable. Many people actively seek out and enjoy the fearful thrill of mastering danger (e.g. racing car drivers, mountaineers, etc.) (Marks, 1987a, 3). So we also can see

children enjoying, for example, a frightful film or some other action, which causes a (nervous) thrill.

However, when fear and anxiety persist, increase in intensity and become more pervasive, causing unwanted psychological distress and significant negative interference with one's performance and adjustment, they are no longer considered adaptive (Kendall & Ronan, 1990). So, on the other hand, fear can be treated as a **problem**, because it is possible that sometimes normal developmental or individual fears can become too intensive, permanent, numerous, and children can't cope with them. As Reesa Sorin (2000, 1) says: "While it motivates us to defend ourselves and avoid dangerous situations, it can also limit memory, perception and problem-solving abilities, impair social interactions and threaten the sense of self".

Fears that should weaken normally during the child's development become stronger and persist for a long time after their survival value has decreased (Craske, 1997). Fears are necessary but in excess they can inhibit and disturb human development. They can hinder exploration and make it difficult to trust other people. They can distort learning, undermine concentration and block creativity and play. They can also engender different kinds of symptoms, like sleeplessness, restlessness and psychosomatic disorders (See, for example, Cantor, 2002; Valkenburg, 2004) and become socially incapacitating (Rutter & Rutter, 1993).

Adults seem to minimize the importance of children's fears, viewing them as common, short-lived and transitory and thus not a particularly serious part of normal development. But children's fears may not always be transient and some may persist as adult problems (Graziano et al. 1979). Marks (1987b) claims that two fears when found in adults – blood-injury and animals fears – have usually persisted since childhood. It is possible that some typical childhood fears can have long-ranging impact into later childhood or perhaps adulthood, e.g. the fear of being left alone (abandonment) may induce a more complex fear, one that the child interprets to be so, of being unloved, which in turn may lead to undesired or even sociopathic behaviour many years down the road.

Children's fears have been found to be more serious than supposed earlier. For example, Ollendick and King (1994) have found that over 60% of children reported that their fears disturb their everyday life and activities. Muris et al. (2001) study's results showed that over 20% of children fears reflect serious anxiety disorders, mainly specific phobias. Muris and his colleagues (1997a, 1997b) also have found that common childhood fears can be quite distressing. A considerable amount of children reported physical symptoms (66%), negative thoughts (81%) and avoidance behaviour (75%) when confronted with their most feared stimulus or situation. Muris, Merckelbach, Mayer and Prins (2000) found that childhood fears reflect significant anxiety disorders in a substantial minority (23%) of children.

So, in most children childhood fears are part of the normal development, but in some (almost 1/4) children these fears reflect serious problems, which

interfere with daily routine. Ollendick with his colleagues (Ollendick et al., 1985) argues that fears may not be transitory as many authors have claimed. Thus, although there is tendency to talk about childhood fears as mild, temporary and non-pathological, several studies have shown that at least some children suffer because of clinically remarkable and disturbing fears, and that childhood fears may be more seriously distressing than previously thought.

A great variety of stimuli have been identified as having fear-stimulus value, ranging from specific objects (e.g. bees) to abstract and imaginative stimuli such as communism and ghosts. Almost any event or object may be a potential fear stimulus (Graziano et al., 1979). The most negative fears are those which the child experiences at an age where he/she has not yet formed the power for coping with them. Also fears caused directly or indirectly by children's close people are very dangerous for the child's well-being and security because there is no possibility to escape from such fears or seek help from anybody (Kraav & Lahikainen, 2000). In the end, children are usually loyal to their parents, which make exposure and investigating of such fears especially complicated.

Thus, as Maccoby (1983) has said, we can see fear as a quite complex emotion which can cause both positive and negative affect; mild and moderate levels of this emotion can produce a sense of challenge and pleasantly excited affect, while higher levels produce disorganization and distress.

Fear must be understood on an individual basis, yet, children exhibit many responses of the same type to fear objects and report many similar fear objects around the same age; thus, there must also be some common phenomenon shared by children in general regarding fear (Robinson et al., 1991).

So, fear has a *dual nature* – fears can be treated on the one hand as specific and individual (specific individual fears), and on the other hand as shared and collective phenomenon, or collectively experienced emotions at a certain developmental stage (developmentally appropriate fears which majority of children have).

The threshold of fear

Fear is an integral part of a child's life and reflects both the cognitive milestones of normal childhood development as well as emotional vulnerability to dangers. Children's fears range from those that are age related and transitory to those that are incapacitating, requiring professional help. Hence, a challenge for the helping professionals is to determine whether a child's fears represent a transient and developmentally appropriate response to normal age-related concerns or whether the fears signal a more deep-seated issue that could adversely affect emotional and cognitive well-being (Owen, 1998). It is a delicate balance in terms of what level of intensity and qualitative features of fear we might assume are positive versus negative influences on the development of children (Ferrari, 1986). When feelings and reactions become too strong and out of proportion to what's really going on, and the fears

interfere with the child's life, it's time to speak openly with the child to try and ascertain what he/she is experiencing. If the symptoms are pervasive and persistent, result in intense and irrational behaviours that threaten a person's well-being, or if fears become disabling and intrude on a child's life and development, consultation with a specialist is warranted (Goodman & Gurian, 2001a).

How to determine the borderline where fear is functional and useful from where it becomes negative and impedes normal everyday life and needs intervention? Normal and adaptive fears have been differentiated from clinical fears or phobias on the basis of several criteria, which also help to determine if intervention is needed or not:

1. *Level of fear* – e.g. it is normal to feel a moderate level of fear in using an old run-down elevator, but is not normal if the person is unable to use any elevator due to a fear that he/she will get stuck between floors – so that the fear is the result of a non-real threat; is it likely to be of mild intensity and short duration?
2. *Persistence of fear* – does it persist over an extended period of time? For example, serious or “clinical” fear is defined as one with a duration of over 2 years (Murphy, 1985). For clinical diagnosis of a phobia the fear must persist for a period of at least six months (Gale Encyclopedia...., 2001).
3. *Justification for the fear* – all people feel somewhat frightened while undertaking a new experience, but it is not normal to feel the same when there are no precipitating events (Boon, 2002);
4. *Consequences of the fear* – does it significantly interfere with the normal everyday life and/or development of the child; how much discomfort the fear causes the child and his/her parents, peers, teachers and others with whom the child comes in contact (Boon, 2002; Gullone, 2000; Murphy, 1985);
5. *Developmental nature of the fear* – whether or not the expressed fear is age- or stage-specific (e.g. fears of animals, bogies, nightmares for pre-schoolers) or is it very specific and rarely found among the child's peers (Gullone, 2000; Murphy, 1985).

As Deborah Beidel (1999 by Boon, 2002) has said, childrens' fears are part of growing up, but when it stops being developmentally appropriate, if fear is keeping a child from doing things that he should be doing (e.g. exploring new things, playing, having friends, sleeping away from parents) then it's a problem and is necessary to get help. But as children learn to deal with each fear in turn, the fears pass on without great disruption, helping the child to learn adaptive ways of coping with fear (Robinson et al., 1991, 187).

Children's fears can span a continuum from having a positive self-preserving and motivational quality to having an inhibiting or even debilitating effect. A child attempting to cross a busy street may exhibit a fear of cars. Under such

circumstances fear clearly can be self-enhancing. Another child may have great difficulty going to sleep because of a fear of the monster under the bed. In such case the fear has not positive but negative effect (Robinson et al., 1991, 187).

Hierarchical model of fears

It is really difficult to answer questions about what causes the broad and potentially limitless array of fears and why some people readily acquire fears while others remain fearless. S. Taylor (1998) has described the *hierarchical model* of fears where he suggests two kinds of etiologic factors: (1) factors common to all fears, determining the tendency to become fearful (factors influencing fear-proneness) and (2) factors specific to particular fears (e.g. specific learning experiences). This model proposes that fears arise from a hierarchy of causal factors, ranging from specific to general (see Figure 6 page 46). Taylor suggests that fears arise from a combination of general and specific etiologic factors. There are at least three levels in the hierarchical structure of fears – general factors such as neuroticism form the highest level, and the major factors of fear (social/school related fears, animal fears, agoraphobia, physical injury/blood-illness fears) form the next level of factors, and fears of specific stimuli form the lowest level (Taylor, 1998).

We can see in the definition of fear both the normative aspect (fear is an expected affective state) and also the dynamic aspect (developmental and reaction components are frequently included into the definition). Although fear is commonly treated as a negative emotion, author thinks that this is not necessarily so. Author treats *fear* as one of the emotions that is inborn, but can be learned also, occurs already in very little children, as an emotion which is very necessary for survival and learning, which has positive and negative aspects and which plays a great motivational and developmental role in an individual's life. Furthermore, if somebody claims that he/she hasn't any fear author thinks it is not true and the person is lying or has taught/learned to suppress his/her fears and to not express them.

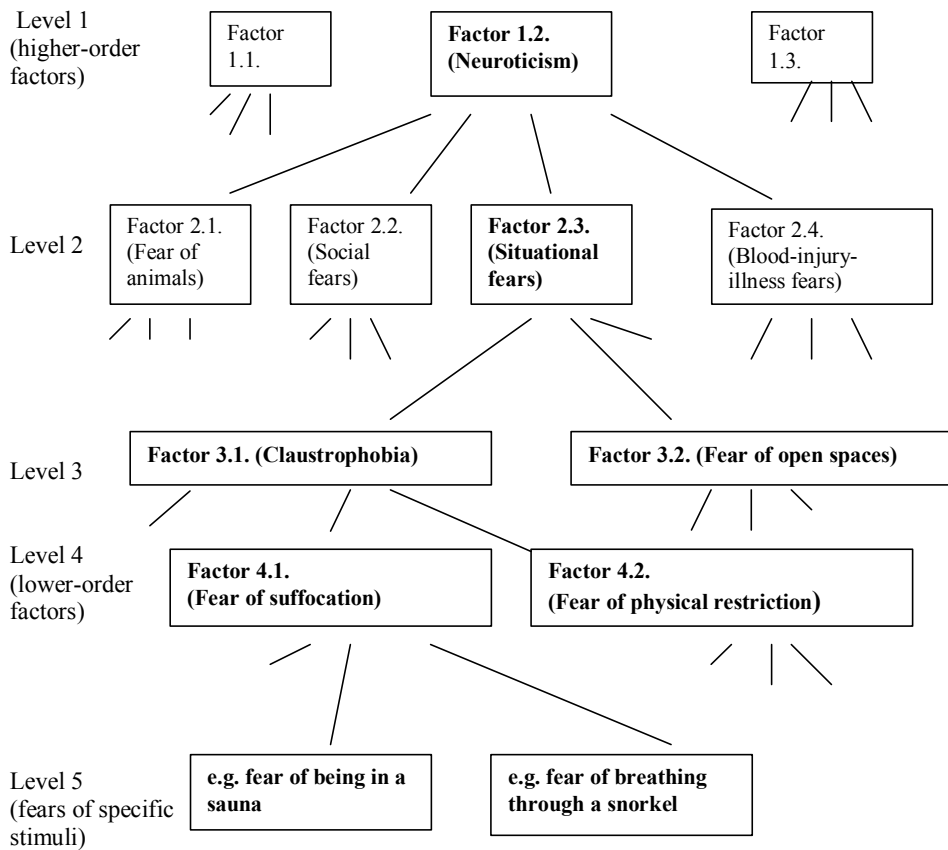


Figure 6. Hierarchic structure of situational fears (source: Taylor, 1998, 209)

3.3. The developmental pattern of fear

Children's fears tend to be a reflection of their perceptions of the environment that surrounds them, as well as a sign of their emotional well-being (Staley & O'Donnell, 1984). Every child perceives the world differently, and thus each child develops a unique set of fears for a variety of objects and situations (Jones & Borgers, 1988). Several authors have described the development of fears through childhood and adolescence until adulthood. Numerous studies have documented the qualitative and quantitative changes that occur in the normal development of fears (e.g. Bauer, 1976; Davidson et al., 1990; Goodman & Gurian, 2001a; Marks, 1987a; Ollendick et al., 1985; Tuan, 1979). Thus, author thinks we can speak about the developmental pattern of normal (as opposed to clinical) fears. Usually these fears are short-time fears, but some children have

fears that are maladaptive, exist for a long time and cause disorders. Such fears are called “clinical fears” or “specific phobias” (e.g. some unreasonable fears of animals, water, high places, darkness, etc.).

The content of fears appears to change with age and corresponds to changes in cognitive, perceptual and emotional development (Owen, 1998; Robinson et al., 1991, Ollendick et al., 2001). For example, specific fears of the dark, animals, blood, heights, and so on are common in childhood, yet most of them are short-lived and dissipate within months (Bauer, 1976; Ferrari, 1986). A great deal of research suggests that many of children’s fears are both age-related and transitory in nature. Certain patterns have held across time, thus indicating a normative progression of fear objects. These fear objects occur at, or about, the same age for many children and tend to be replaced by other objects later on in the child’s life (Robinson et al., 1988, 94). It is also found that individual fearfulness tends to be stable over time and is partly under genetic control (Marks, 1987a). It is generally assumed that the genetic factor constitutes the biological substrate of what is typically referred to as “neuroticism” or “negative affectivity” (see Craske, 1997).

Causes of fear

Causes of fear may derive from internal and external events, conditions, or situations that signal danger. The threat or potential harm may be physical or psychological. As Bowlby pointed out, the cause of fear may be either the presence of something threatening or the absence of something that provides safety and security (e.g. an infant’s mother) (Izard, 1977, 356). The causes of fear are influenced by their contexts, by individual differences in temperament and predisposition and by experience or person-environment interactions. Finally, the causes of fear are in part a function of age or maturation (Bowlby, 1973; Jersild & Holmes, 1935). As Jersild and Holmes (1933, 118) have stated, “...as the child grows older he becomes conditioned to many stimuli which previously had no meaning to him and he becomes capable of entertaining fears of remote and improbable dangers”.

“Ontogenetic parade” of fears (named so by Marks, 1987b) refers to the predictable pattern of normal fears and worries that emerge, plateau and decline in the course of children’s development (Marks, 1987b; Muris et al., 2002b). This ontogenetic sequence reflects maturation under genetic control during interaction with the environment (Marks, 1987b). Marks (1987a) has accumulated evidence documenting the existence of sensitive periods for the development of certain fears. In 1986 Kagan conducted a longitudinal study of children from birth to age eight. He concluded that children may have some inherent predisposition toward fearfulness. He also noted that the level of fearfulness can change during development (with the age of the child) which proves the important impact of environmental factors in the development of children’s fears (Robinson et al., 1991, 188). So, the development of fears can

be explained as by a balance between heredity and environment (Marks, 1987a; Robinson et al., 1991, 188).

Jones & Jones (1928, 137) have commented that the only general statement which seems to cover all the cases of fear which they have observed in children is that children tend to be afraid of things that require them to make a sudden and unexpected adjustment (e.g. stimuli which are startlingly strange, which are presented without due preparation, or which are painful or excessively intense). They have said (Jones & Jones, 1928, 143): “Fear arises when we know enough to recognize the potential danger in a stimulus, but have not advanced to the point of a complete comprehension and control of the changing situation”.

Fear is in its nature rather undifferentiated or a not very clear or precisely defined emotion and sometimes it is really difficult for both children and adults to decide exactly what it really is that frightens the child in real situation (Kirmanen & Lahikainen, 1997). For example, what exactly does the child fear if she says she is afraid of a monster when she is alone in a dark room and hears the wind blowing outside? Is the fear object the monster or being alone or darkness or wind?

Although some fears can remain stable through childhood, adolescence and even adulthood (e.g. fear of death/dead people) the interpretation of such fears changes significantly. For example, 5–6-year-old children tend to anthropomorphize *death* as a monster when asked to explain its meaning, while 7–10-year-olds associated death with separation and bodily injury. Children do not recognize the universality of death until after 9 years of age (Bauer, 1976).

Bowlby and others have pointed out that the natural clues to fear (e.g. darkness, animals, strange objects and persons) are age-related, or dependent on developmental or maturational processes. For example, the well-known “fear of strangers” cannot occur in the first few months of life because the child has not developed a perceptual-cognitive capacity to discriminate familiar from unfamiliar faces; or fear of animals and dark usually do not occur in the first one-two years of life, but they are observed with great regularity in children from age three upwards (Izard, 1977, 359). Also fear of imaginary monsters, ghosts, may be a rationalization of the fear of darkness (Izard, 1977, 359).

According to Bowlby’s immersion in the phenomenon of attachment and separation, it is easy to understand that he considered being alone as the most fundamental and important of the natural clues for fear (Izard, 1977, 359).

Influence of cognitive development on the development of fears

Childhood fears are very common and it is well known that fear objects are related to children’s specific developmental stages (Bauer, 1976). Children have very different fears and many authors have discussed the causes from which the individual differences in fearfulness arise. Many specific *cognitive characteristics* and limitations of preschool aged children may cause or support the development of fears. Young children’s typically hazy and often inaccurate

conceptualization of cause-and-effect relationships may contribute to a sense of the world as a rather scary place. Animistic thinking is characteristic for them, and they tend also to think the world centres around themselves. Consequently, inanimate objects may appear to be a personal threat. The thoughts of young children tend to focus on current states that appear to the child to be irreversible. This further contributes to fearfulness, for example, being ill or lost or separated from the parent may be perceived as a permanent state (Crosser, 2002a).

Bauer (1976) has suggested that children's fears reflect the succession of changes in their perception of reality, from lack of differentiation to increased differentiation of internal from objective reality, and greater separation of fantasy from reality in perceptual processes. It has also been argued that more abstract and future-oriented fears and fears associated with interpersonal relations, personal safety and social concerns develop only later, during the school years (Murphy, 1985; Ollendick et al., 1985).

Piaget noted that as part of the normal maturation process, children move from egocentric perceptions of causality involving realism, animism and dynamism to an increased understanding of real-life cause and effect. Furthermore, very young children's experiences are largely connected to what is concrete and are more influenced by things and events that *look* scary (e.g. ghosts) as opposed to real things that *can* do great harm (e.g. violence) (Bauer, 1976; Owen, 1998). According to Piaget, the concrete operational stage begins at the age of 7 years. At this age the child begins to develop logical reasoning ability and to understand cause and effect relationships. This developing cognitive ability determines how the child perceives situations – as fearful or not (Mahat et al., 2004).

Several fear studies have found different *numbers of fears* reported by children. For example, Ollendick, King, and Frary (1989) and King et al. (1989) found an average of 14 fears reported by American and Australian youths aged 7 to 17 years. That is quite a high number of fears. The number of fears per child is dependent on the research methodology and children's age and gender, and varies from an average of 2–3 fears per child (e.g. Hagman, 1932; Maurer, 1965) to 9–10 fears (Lapouse & Monk, 1959; Ollendick, 1983; Slee & Cross, 1989) and more (as previously mentioned Ollendick et al., 1989). In her master thesis (Taimalu, 1997) author has also found that the average number of fears per 5–6-year-old Estonian child was 5. The number of fears is believed to be closely comparable across different nationalities (e.g. Ollendick et al., 1996). Much research has also considered fear scores at one point in time to be a good predictor of fear scores at a later point in time, suggesting a trait component of fearfulness (e.g. Gullone, 1996; Gullone & King, 1997; Spence & McCathie, 1993).

Gullone (2000) has carried out a theoretical analysis of a high number of fear studies. She has concluded that the most consistently documented findings include that fear decreases in prevalence and intensity with age and that specific fears are transitory in nature. There are predictable changes in the content of

normal fear over the child's development. Such changes are characterized by a transition from infant fears which are related to immediate, concrete and prepotent stimuli, and which are largely non-cognitive, to fears of late childhood and adolescence which are related to anticipatory, abstract and more global stimuli and events.

In the case of children, significant increases are seen in the amount and variety of fears related to the child's attendance to preschooler age-period (beginning from about 3 years old)(Elbedour et al., 1997). It is related to the broadening of the child's environment and development of fantasy, imagination and other specific age characteristics. The peak prevalence of fears is about the age of three years, with a progressive fall thereafter (Rutter & Rutter 1993, 161).

Although preschoolers can be afraid of real things (animals, burglars breaking into the house, etc.), the things and events generated by their imagination can also be just as frightening as the real things, as long as they have problems with distinguishing reality from fantasy. The majority of preschoolers' fears are unrealistic, impossible events, e.g. the attacks by exotic animals or imaginary creatures (Davidson et al., 1990). Preschool children do not usually report being afraid of the realistic things we teach them to fear, such as playing in traffic, but they fear unrealistic monsters and wild animals that pose no real threat. Because it is cognitively difficult for young children to separate the real from the imaginary, they include the impossible as well as the possible in their mental category of scary things (Crosser, 2002a).

Ramirez and Kratochwill (1997) have investigated children with and without mental retardation and have found that the children with mental retardation tended to self-report higher levels of fears, generalized anxiety and more fears that were concrete and had animal content than did their peers without retardation.

Older children express more realistic and specific fears, such as fears of bodily injury and physical danger. These changes indicate increased differentiation of internal representations from objective reality (Bauer, 1976, 71; Davidson et al., 1990, 52).

Because of the transient nature of most childhood fears and because of the extensive behavioural and cognitive changes children undergo several different fears as they mature (Murphy, 1985).

So, theories of cognitive development may provide an explanatory and predictive framework for understanding children's fears (Cantor & Sparks, 1984). Many authors have commented on the development of normal fears and have shown how these are connected with the cognitive development of children (Bauer, 1976). But the majority of such studies are cross-sectional, but not longitudinal. Only some *longitudinal research* on children's fears is available (e.g. Eme & Schmidt, 1978; Gullone & King, 1997; Hagman, 1932; Jersild & Holmes, 1935; Silverman & Nelles, 1989; Spence & McCathie, 1993) which investigates the same groups of children over time (Eme & Schmidt one

year later, Spence & McCathie after two years, Gullone & King after three years). These studies also show a decline in general fearfulness with the increase of children's age, but the individual level of fearfulness remains basically the same – those children who reported a higher level of fearfulness in the first study tended to express a higher level also in the second study. It is noteworthy that there appears to be a trait component to fearfulness such that individuals express stability over time in their level of fearfulness, regardless of age (Gullone & King, 1997, 109).

Normative data on children's fears

Although some longitudinal studies have reported that normative fears are relatively short lived, it seems to be valid in the younger years (Draper & James, 1985; Jersild & Holmes, 1935). However, the content of children's fears is stable from the end of primary school through to adolescence, and primarily concern death, physical danger and safety (Eme & Schmidt, 1978; Gullone & King, 1997; Silverman & Nelles, 1989; Spence & McCathie, 1993). Studies show that the content of fears has remained virtually the same, for example, among the ten most common fears was only one new fear (and one was left out) after a two-year period (Spence & McCathie, 1993). Eme & Schmidt (1978) found that one year later 83% of the fourth grade children's fears were still present, and Silverman & Nelles (1989) also reported high stability over time. Neal and Knisley (1995) investigated African-American and white children with the mean age 9 years across a 12-month period and found that mean intensity ratings tended to increase at the 12-month administration, and that boys total fear scores were more stable than girls'.

The changes in fearfulness and the content of fears during development are understood to be associated with the growing child's cognitive capacities for recognizing and understanding the potential harm or danger inherent in such events or places. Common fears constitute a protective response to a situation that is neither fully understood nor controllable (Dong et al., 1994, 352; Ollendick et al., 1991).

Miller, Barrett, Hampe and Noble (1972) have found that two main fear dimensions carry through much of the life span: fear of physical injury and fear of psychic stress. The fear of natural events is clearly associated with childhood, and tends to disappear with increasing age or to become focused around the dark and a sense of loneliness. Children experience similar fear patterns in each developmental stage from infancy to adolescence, but this pattern is different in different developmental stages. In infancy those are usually attachment-related fears, or immediate environment such as loud noises or loss of support. The first fears are stranger anxiety and fear of separation. Those are very important indicators of the child's cognitive development, which shows that the infant begins to distinguish between people she/he knows and those she/he doesn't know or remember. This fear usually disappears within a short time as

the child begins to feel more comfortable in new conditions. This fear may re-occur or develop at a later age when a child has experienced stress (e.g. the death of relative or pet, an illness or a major change such as moving or divorce) (Gullone, 2000).

It is typical for 1–2-year-old children to express concrete and immediate fears (e.g. loud voices, strangers and separation) and more global, anticipatory or imaginary fears for 4–8-year-olds (e.g. ghost, darkness, animals). Their fears tend to be a mix of unrealistic and/or imaginary fears. Older children (preadolescent and adolescent years) are able to distinguish “innate imaginations from objective reality” and their fears are more realistic and specific: fears related to physical harm, personal failure, school success, social critique and societal violence become predominant (Bauer, 1976; Davidson et al., 1990; King et al., 1997a; Muris & Merckelbach, 2000; Ollendick et al., 1985; Owen, 1998). Fears of the unknown are more troublesome for younger children and fears of danger and death cause more fears for schoolchildren (Ollendick et al., 1985) (see also Table 2 page 48). It seems according to several studies that normative fears develop in the following way: infancy and early childhood – immediate and concrete situations and events and environment => 4–8-year-olds – animals and imagined creatures => preadolescents – getting physical harm, injury => adolescents – social situations and critique (Muris et al., 1997a, 1997b; Ollendick & King, 1991).

According to Table 2 (page 53) we can see that infants’ fears are most frequently related to sudden movements or loud noises, both of which are considered to be inborn fears. During preschool years the fears of animals, dark/dark rooms, imagination-related fears and separation/being alone are most frequent. In early school years the fears of bad dreams, bodily injury and bad strange people accrue while fears of animals and imagination-related things decrease. A quite remarkable change in the content of fears is seen in adolescence where school performance, social fears and more global fears are common. More long-lasting fears appear to be separation from parents (through early childhood and preschool), dark rooms/darkness (for about ten years from preschool age until the beginning of adolescence) and being alone (mostly during six first school years). As we saw above 5–6-year old children’s fears usually are a mix of unreal imagined fears (e.g. imagined creatures, exotic animals) and more real fears, connected with their close environment (e.g. separation, being alone, darkness, bad strangers). So, fears of those children can be seen as combination of fears typical for younger (early childhood) and older children (school-aged children).

Table 2. Normative data on children's fears

Age	Fears
0–6 months	Loss of support, loud noises, sudden movement
7–12 months	Strangers, sudden appearance of large objects, loud noises, separation, novelty, heights
1 year	Separation from parent, strangers, injury, toilet
2 years	Large animals, dark room, large objects and machines, loud noises, sudden changes in personal environment, separation from parent
3 years	Dark room, masks, large animals, snakes, separation from parent, being left alone
4 years	Dark room, noise at night, large animals, snakes, separation from parent
5 years	Wild animals, imagined creatures, bodily injury, dark, bad people, separation from parent, bad dreams
6 years	Ghosts, monsters, witches, dark, being alone, thunder and lightning, bad dreams
7 years	Dark, monsters, storms, being lost, kidnapping, being alone
8 years	Dark, bad people (kidnapper, robber, mugger), guns and weapons, being alone, animals, physical danger
9 years	Dark, being lost, bad dreams, bodily harm or accident, being alone
10 years	Dark, people, bad dreams, punishment, strangers
11 years	Dark, being alone, bad dreams, bodily injury, being sick, school performance, social fears, war
12 years	Dark, punishment (being in trouble, bad grades), being alone, being hurt or taken away, test, grades
13 years	Crime in general, being hurt or kidnapped, being alone, economic and political fears (e.g. war in general and nuclear war), bad grades, tests, punishment
14 years and older	Failure at school, personal relations, war, tests, sex issues (pregnancy, AIDS), being alone, family concerns

Sources: Robinson et al., 1991, 189*; Bauer, 1976; Ferrari, 1986, 80; Goodman & Gurian, 2001a; Gullone, 1996, 145; Lentz 1985a, 1985b; Mooney, 1985; Muris & Merckelbach, 2000a; Muris et al., 2001

**Note.* Compiled from works by Croake & Knox, 1971; Jersild & Holmes, 1935; Kellerman, 1981; Maurer, 1965; Morris & Kratochwill, 1983; and Robinson, Robinson & Whetsell, 1988, 87

As Murphy has said back in 1985, additional investigations are required to determine if these types of fears have changed over the last several decades, if the nature of these typical fears (e.g. the severity of fear and the specific stimuli feared) differs within this age group, and also if preschoolers report having fears different from those reported for them by their parents or other adults.

Thus, we can say that there is a general developmental pattern of children's fears – fears change when children grow older, some fears disappear (or hide), but some new can arise. We can see that children in 1990s and now express quite the same fear classes as children of previous generations did. However, fears of a real life situation (e.g. violence) can appear at an earlier age among

present day children than earlier studies show. Because of that it is necessary to find out if younger children are cognitively and emotionally mature enough to cope with those new fears. Adults (parents, teachers and helping professionals) have to find ways of helping children to express their fears, and study these fears and the effects to children's behaviour within children's developmental stage (Owen, 1998). It is very important that appropriate methods are chosen for investigation of young children's fears and some different methods and informants are used, for example, both parents and children, questionnaires, interviews, open-form questions, pictures. So it is possible to get various, but complementary information about children's fears.

3.4. Etiology of fears – associative and non-associative acquisition

As Maurer (1965) said more than forty years ago, it's quite paradoxical that children rarely report the fear of cars (or some other dangerous vehicle, or just traffic in general), kidnappers, fire, electricity or something like that – things they have been taught to fear, or of which their parents deliberately tried to frighten them. But the strange truth is that they fear many unrealistic things in our urban civilization, e.g. wild animals (lion, tigers, wolfs, etc.) or imagined creatures (ghosts, monsters, dinosaurs, etc.). Is this a matter of inborn, archaic fears, which the child "remembers" from their evolution? If so, then it is surprising how little effect the teaching and even "frightening" by adults has had.

Since the beginning of 19th century, many researchers and therapists have been interested in the etiology of children's fears. From the behavioural viewpoint, early theoretical explanations emphasized the importance of direct conditioning, (i.e. classical conditioning in the case of unpleasant or harmful experience). But soon it became clear that fears could arise by the indirect way also. As Poulton and Menzies (2002a) said: "Two major schools of thought are apparent: those suggesting dysfunctional fear arises largely as the result of associative-conditioning processes *versus* those who favour more biologically based etiological explanations".

Of course, it is quite complicated to investigate the acquisition of fear. Several studies have been retrospective (e.g. Menzies & Clarke, 1993; Poulton et al., 1998), and have some limitations, for example, due to characteristics of memory. Using more objective methods are limited here by ethical questions. However, it is possible to find some experimental studies (e.g. Field & Lawson, 2003; Field et al., 2001; Gerull & Rapee, 2002; Muris et al., 2003a), interviews (e.g. Merckelbach & Muris, 1997; Milgrom et al., 1995 – telephone interviews), questionnaires (e.g. Murray & Foote, 1979), and longitudinal research (e.g.

Poulton et al., 2001a). Also different informants have been used – mainly parents or children or both (e.g. Merckelbach & Muris, 1997).

Izard (1977, 357) divides specific activators or causes of fear into four classes: 1) environmental events or processes; 2) drives (e.g. pain); 3) emotions (e.g. excitement, interest or fear itself); 4) cognitive processes (e.g. memory) and says that causes within each of these classes may be primarily innate or primarily learned. Gray has proposed that all fear causes can be put in four categories: *intensity* (e.g. loud noise, pain), *novelty* (e.g. strange persons), *special evolutionary dangers* (e.g. darkness, heights), and causes arising from *social interaction* (e.g. anger) (Izard, 1977, 358).

There are three hypotheses about fear origin in children:

1. *Genetic factors*, e.g. inborn temperament, which predisposes for the development of children's fears and anxieties, vulnerability, etc. (Craske, 1997; Taylor, 1998). Reported fear heritabilities range from 0.30 (Stevenson et al., 1992) to 0.50–0.60 (Poulton & Menzies, 2002b), suggesting a quite similar role for environmental influence and genetic factors.
2. *Environmental factors* and experiences (shared and nonshared environment), e.g. family dynamics (parental behaviour which includes either the direct formation and supporting of childhood fears and/or the specific patterns of attachment and autonomy which generate anxious thoughts and behaviours in childhood and youth) and specific experiences in family and outside environment (Craske, 1997; Lichtenstein & Annas, 2000; Stevenson et al., 1992; Taylor, 1998).
3. *Interaction* between parental behaviour and children's anxious temperament – thus, the combination of biological and environmental factors (Craske, 1997).

In his paper about the hierarchical model of fears Taylor (1998) explains that two types of genetic influences can be seen: a *general genetic factor* which would act as a vulnerability factor to a wide range of fears and *specific genetic factors* which would only predispose to certain types of fears. He says that it is also necessary to distinguish two types of environmental influence: *shared environmental factors* (e.g. parental rearing style for twins in family) and *individual-specific* (non-shared) environmental factors (e.g. traumatic events specific to one twin). It is interesting to say that studies have found that non-shared individual-specific environmental factors appear to be generally more important than shared factors.

In their interesting study about twins' fears Stevenson, Batten and Cherner (1992) found that there is significant *genetic influence* on fear factors of 1) unknown, 2) injury and small animals, and 3) danger, but two factors did not have such influence – 4) fear of failure (social fears) and 5) medical fears. The intensity of fears was more similar in identical than non-identical twins. Non-shared environmental effects would be strongest for fears related to specific experience (e.g. medical fears). There was no evidence for a genetic

contribution to general fearfulness, but extreme fearfulness on certain specific fear dimensions showed significant heritability. The mean heritability across the five fear factors was 0.30, and also it is found that heritability may be increasing with age. Lichtenstein and Annas (2000) also investigated twins and concluded that shared environmental effects contribute to a general susceptibility for fearfulness, but genetic and nonshared environmental effects contribute both to the general susceptibility and specific fearfulness.

According to the paper of Muris and his colleagues (Muris et al., 2002a) fear can be best viewed as the output of a subcortical circuit dubbed the Behavioural Inhibition System (BIS). In order to predict events, the BIS constantly compares new information from the outside to what is already stored in memory. As soon as the individual is confronted with aversive, novel, and/or unpredictable stimuli, the BIS is activated and fear arises. Stimuli that are characterized by higher level of aversiveness, novelty and/or unpredictability will elicit greater BIS activity, and hence higher level of fear. Also temperamental differences are believed to exist between people in BIS functioning, which are thought to be stable.

Muris, Merckelbach, de Jong and Ollendick (2002a) have presented the multifactorial model of childhood fears and phobias. It rests on the following observations:

- The majority of children display *normal developmental fear* that decreases with the passage of time;
- A minority of the children have a *genetic* vulnerability factor that predisposes them to develop maladaptive fears;
- This genetic vulnerability manifests itself in certain behavioural patterns (e.g. behavioural inhibition, trait anxiety, neuroticism, negative affectivity, disgust sensitivity);
- *Environmental factors* (e.g. learning experiences) interact with normal developmental fears and genetically linked behavioural patterns to produce extremely persistent fears that culminate in specific phobias;
- Once a specific phobia exists, it is maintained by *cognitive biases* (e.g. hyper-attention toward specific threatening stimuli).

Several authors emphasise that certain personality vulnerability or experiential factors can influence the likelihood of fear acquisition (e.g. disgust sensitivity, temperament/personality, locus of control, predictability, behavioural inhibition), especially in the case of evolutionary-neutral fears (Mineka & Öhman, 2002; Poulton & Menzies, 2002b).

In support of the environmental affects to fearfulness, *three different ways of fear acquisition* have been found: direct conditioning, modeling (or vicarious conditioning) and negative information (Rachman, 1977, 1991). Many studies have supported and given evidence to the conditioning model in fear acquisition and Rachman's theory, which emphasises the role of three main ways in the

acquisition of fears (e.g. Field et al., 2001 – information; Muris et al., 1996a – modeling; Jones & Menzies, 1998 – anxiety disorder; King et al., 1997a – fear of dogs; Kirkby et al., 1995; King et al., 1998; Merckelbach & Muris, 1997 – spiders; Milgrom et al., 1995 – dental fear; Murray & Foote, 1979 – snakes; Poulton et al., 2001a – fear of separation). More about Rachman’s theory see below in the chapter 3.4.1 (page 59).

But there are also studies which show that some children have been afraid of some things without any direct conditioning or indirect way of fear acquisition – so called innate fears, expressed often or seen as “always been this way” or “from the first contact with fear object”. Such findings give more support to the non-associative fear acquisition theory (Menzies & Clarke, 1993 – water; Merckelbach & Muris, 1997 – spiders; Poulton et al., 1998 – height; King et al., 1998; Menzies & Clarke, 1995; Poulton & Menzies, 2002a; Poulton et al., 2001b; Rachman, 2002). Marks (2002) views innate and learned fears at the opposite ends of a continuum of associatability and argues that the question should not be black or white, whether a given fear is associative or not, but rather *how much* association (learning) is needed to evoke a particular kind of fear. The less the aversive pairing needed to establish that fear, the more innate it is (Marks, 2002; Poulton & Menzies, 2002b; Poulton et al., 2001b).

Some commentators appear to have interpreted the non-associative model of fear acquisition as rejecting associative learning models. But it is not so. Non-associative model of fear acquisition postulates the existence of a limited number of innate, evolutionary-relevant fears (e.g. water, spiders, height, strangers, separation), while emphasizing conditioning modes of onset for evolutionary-neutral fears (e.g. cars, dentists) (Poulton & Menzies, 2002a, 2002b; Poulton et al., 1998). Thus, it is most probable that there are both associative and non-associative ways of fear acquisition.

Poulton and his colleagues (Poulton & Menzies, 2002a; Poulton et al., 2001b) have viewed non-associative fears (e.g. darkness, height, water, strangers, separation) as a *fourth* possibility of fear acquisition and said that the four pathways might be viewed hierarchically, with the non-associative as primary. The addition of the fourth, non-associative pathway strengthens Rachman’s model of fear acquisition by providing a more complete account of the possible developmental routes to fear. Both models of fear acquisition have received supportive and critical comments. The non-associative model has been especially criticized by several researchers (e.g. Kleinknecht, 2002; Mineka & Öhman, 2002; Muris et al., 2002a) often because of the retrospective method used. It is argued that designation of non-associative fear stimuli must be differentiated by criteria other than lack of memory for onset events.

As Jones and Jones (1928) said, many common childhood fears arise because of the child’s increasing ability to perceive potential danger in the situation, but she/he doesn’t understand completely this situation and is not able to gain the control over it. In the case of the preschooler probably the main cause of fear arising is children’s complex emotional development and

developmental characteristics (e.g. highly developed imagination, egocentrism, limited ability to distinguish reality and phantasy). As all new things and situations are frightening to some extent, but children's life-experience is small, the sense of fear arises frequently. Because of these characteristics the preschool age period is the most loaded with different fears. Many kinds of things and situations can cause fears in children, frequently impossible for adults to understand. Also television offers many possibilities and sources for potentially frightening imaginations.

According to Izard (1977, 382) there are both innate (natural, e.g. being alone, strangeness, height, sudden change or approach, pain, darkness, animals) and learned (cultural) causes or clues for fear.

So, we can classify fears into three main categories according to the way of acquisition:

- 1) learned fears (by three ways of Rachman's theory)
- 2) innate fears (present at birth)
- 3) developmental fears (require the development of the nervous system to a particular stage, i.e. maturation).

The first class of fears consists of individual, specific fears, which format the individual fear pattern for everyone; the fears from the second and third class are often those that all or the majority of children experience in particular stage of development.

Fear arises as the response of potentially dangerous stimuli as, for example, height, loud voices, darkness, strangers, separation – these are inborn fears because the avoidance of such conditions may have survival value. But fears can also be learned and those fears constitute the majority of children's fears (Lewis & Michalson, 1983). Two types of danger can be brought up: subjective and objective. Objective dangers are "real" threats – e.g. statistics shows us that a child could be hurt by these things. Subjective dangers are those of which the child is afraid. These things may be incredible to actually happen but nevertheless keep the child in anxiety and tension (Garbarino, 1995).

It is important to have knowledge about the etiology of fears because this may also be of relevance for the treatment of children who suffer from this phenomenon. There is some evidence that the pathway along which a fear has been acquired determines the type of treatment (Muris et al., 2000). Next author will explain the two main fear acquisition ways – associative and non-associative fear acquisition.

3.4.1. Associative acquisition

The child is born with the capacity to fear, apparently more than is necessary to preserve his/her life. Although he/she feels fear, the child does not know with the same certainty as the smaller-brained mammals just what objects or situations are to be feared (Maurer, 1965, 276). So, they need to learn.

For many years, childhood fears and phobias were explained by traumatic experiences and classical conditioning theory. Laboratory demonstrations of fear induction with children are frequently cited as evidence for the conditioning theory account of childhoods fears and phobias (e.g. Watson ja Rayner, 1920 where they, in a now legendary study, succeeded in conditioning an 11-month old infant (little Albert) to fear a white rat and later fear reactions generalized to stimuli resembling the conditional stimulus such as Watson's white hair and a Santa Claus mask) (King et al., 1998, 29). The greatest limitation of conditioning theory is that this theory alone cannot explain all fears of children (Izard, 1977, 360). Not all children having traumatic experiences have fears of these situations or objects, and not all children with fears or their parents can remember an unpleasant experience with the fear object or situation (e.g. Rabbit & Parris, 1991). It is now realized that nontraumatic learning experiences can play a pivotal role in the etiology of childhood fears.

Rachman, the author of the *three pathways theory* of fear acquisition (1977), suggests that vicarious conditioning is probably an important factor in fear acquisition, and similarly he posits that negative information and instructions from parents and family members are also likely to be influential in fear acquisition (Rachman, 1977, 384). Rachman (1977, 1991) proposes that there are three distinct pathways in fear acquisition:

- Direct conditioning – direct way (e.g. child being attacked by a dog)
- Vicarious conditioning or modeling – indirect way (e.g. child observing fearful nighttime behaviour of older sibling), this is according to social learning
- Negative instruction/information – indirect way (e.g. child hearing stories about dentists).

These three associative way are not considered to be independent, but rather interacting between themselves (e.g. one fear has several origins) (King et al., 1998). Rachman's three pathways theory has also been used as a guide in the selection of treatment strategies – for example, directly conditioned fear is thought to be appropriate for desensitisation, while fears acquired through the indirect ways (vicarious conditioning or negative information) are seen as being more appropriate for modeling and cognitive restructuring (King et al., 1998, 301; Muris & Merckelbach, 2000).

Rachman supposed that conditioning experiences were connected with the intensity of fears – intensive fears are acquired by direct conditioning and mild (moderate) fears by indirect conditioning (e.g. vicarious and instructional learning – modeling and negative information) (Menzies & Clarke, 1995; Withers & Deane, 1995). Also he thought that the majority of common, mild and everyday fears are the result of indirect conditioning (Menzies & Clarke, 1995). The research of Withers and Deane (1995) (and also many other studies) hasn't proved that statement; they didn't find a relationship between the intensity of fear and acquisition way. They have found evidence on the basis of which it is possible to suppose that directly conditioned events can be remembered better than indirectly conditioned events (Withers & Deane, 1995).

Several studies have continued to investigate the sources and acquisition ways of children's fears. Majority of them are focused on clinical fears or phobias, but some of them are also about the normal fears of sample of normal children. Table 3 presents the results of four studies where three fear acquisition ways were investigated according to Rachman's theory. In some studies exposure to negative information seems to be the most prominent of the three pathways.

Table 3. Three fear acquisition ways according to four studies of normal fear (percentages of children who named this ways)

Fear acquisition way (according to Rachman's theory)	Ollendick & King, 1991	Muris et al., 1997a	Muris & Merckelbach, 2000	Muris et al., 2001 (night-time fears)
Direct conditioning	35.7	45.8	33.1	25.6
Vicarious conditioning (modeling)	56.2	3.8	25.5	13.2
Information/instruction	88.8	35.1	55.2	77.5

Ollendick and King (1991) analysed how much the Rachman's model "three ways to fear" is valid for childhood common fears (ten most common fears of children). They found that the majority of children (~89%) ascribed their fear to getting negative information. Modeling (vicarious conditioning) and direct conditioning were mentioned more rarely (56 and 36% respectively).

Later, with the sample of 8–12-year old children, **Muris, Merckelbach and Collaris (1997)** tried to repeat the research of Ollendick and King (1991). They used more precise definitions of these three acquisition ways and took into consideration the critical analysis of Rachman's theory by Menzies and Clarke (1995). However, the results were different from results of Ollendick and King's (1991) study – direct conditioning was found to be the most frequent way of fears acquisition (46%) , followed by negative information (35%) and vicarious conditioning (only ~4%).

The third analogical study was carried out by **Muris and Merckelbach (2000)** where 4–12-year old children were participating. They found that the

commonest acquisition way for fears was again getting information (55%). Direct conditioning was endorsed in 33% of fears and vicarious conditioning in 25%. In this research nightmares were specially studied also. The majority of children (69%) named information as the source of nightmares – their fears were related to some frightening things that they have seen on television. Only 1/10 named vicarious conditioning way (e.g. “I have had nightmares about dogs from the time I have seen my mother being afraid of dogs”) and 15% mentioned direct conditioning (e.g. “I have nightmares about being hit in a car ever since I was in an accident”).

Muris and his colleagues (2001) studied the nighttime fears (not only nightmares) of 4–12-year old children – frequency, content, sources, coping ways and intensity. They used both children and their parents as informants. Majority of children (almost 80%) named negative information as the source of nighttime fears; direct conditioning and vicarious conditioning were named 26% and 13% respectively. It seems alarming that although parents reported highly similar percentages as to the pathways of their children’s nighttime fears, the negative information by television was significantly more frequently mentioned by children than by parents.

Poulton, Milne, Craske and Menzies (2001) carried out a longitudinal research about the development of relations between separation experience and the fear of separation (separation anxiety) in 3–18-year-old children. All acquisition ways were investigated – directly conditioning events, modeling and getting information. The research showed that successful coping with fear of separation may be dependent from timing and also the character of separation experiences. The hypothesis was the following: learning not to be afraid of separation may be related to planned, secure and painless separation experience (e.g. attending day care), at the same time not predicted and potentially more unpleasant experiences (e.g. sudden hospitalization) may be correlated with higher level of separation anxiety. The results showed that planned separation (e.g. attending day care) in 3–5-year old children (but not younger than 3 years) associated with lower levels of separation anxiety in later childhood. Planned and sudden hospitalization experiences were found not to have an impact on separation fear in the years just after such experience, but appeared after adolescence, at age 18. Modeling in middle childhood (9 years old) was the most associated with separation fear in 11-year-old age. Children’s self-reported separation fear in 11-year-old age correlated with their mothers’ separation fear when the child was 7–9-years old, and also with the experience of parents’ death before 11 years age. Separation experiences (hospitalization) before 9 years old were negatively correlated with separation fear in the age 18 – more and longer hospitalization periods in childhood were related to lower level of separation anxiety in late adolescence. But very extreme separation experiences (e.g. parents’ death) and lower SES were positively correlated with separation anxiety in the age 18.

Thus, depending on age, both modeling processes (under age 11) and conditioning events (e.g. parents' death between ages 11–18), and also SES were correlated with children's self-reported separation anxiety. At the same time more separation experiences under the age of 9 years was related to a lower level of separation anxiety in age 18. This is close to association with "innoculation" model (Poulton et al., 2001a).

So, although the results of these studies don't coincide completely, author can point out that receiving negative information is the main fear acquisition way for children. The next by frequency is direct conditioning and the rarest way by which children acquire their fears is vicarious conditioning (modeling).

There are several studies which try to investigate more thoroughly the impact of one fear acquisition way, for example information type. **Field, Argyris and Knowles (2001)** have carried out interesting research in the form of experiment with 7–9-year-old children to investigate in what extent their fear-beliefs are influenced by the type of *information* (direct verbal or indirect by videotape, positive or negative information) and by the source of information (teacher, strange adult, peer). The results showed that the positive information had no significant effect, but negative information increased fear-beliefs. Also direct verbal information had greater impact than observative learning by video. Results showed that the source of information has an important role also: the influence of negative information was greater when it came from adults (compared with the effect of information given by peers) – from teacher (close person for the child) and strange adult (Field et al., 2001). Earlier studies have supported this finding: e.g. Ollendick & King (1991) have found that about 90% of children acquired their fears by negative information-getting. Field et al. (2001) experiment was the first step to show that information is one possible way by which fear beliefs can be changed – and if these can be increased by information why isn't there the possibility to decrease also?

Also **Field and Lawson (2003)** and **Muris, Boddien, Merckelbach, Ollendick and King (2003)** have found in their experimental studies that *negative and positive information* (given about three Australian marsupials in Field & Lawson study, and about doglike animal called "the beast" in Muris et al. study) have dramatic and opposite effects on self-reported fear beliefs, behavioural avoidance and implicit attitudes. Gender had no significant effect in Field and Lawson study, but had effect in Muris et al. study where girls were found to display higher fear levels than boys. It is important to emphasise that while some similar studies have found nonsignificant decreases in fear beliefs following positive information (e.g. Field et al., 2001), these two studies found that positive information can reduce fear beliefs. This demonstrates that positive information can be powerful in reducing fears, for example, in therapy. Interestingly Muris and his colleagues (Muris et al., 2003a) found that the fear of the beast appeared to generalize, that is, children who became more fearful of the beast after receiving negative information, also became more apprehensive of other dogs and predators. This finding seems quite alarming.

Interestingly **Field, Hamilton, Knowles and Plews (2003)** investigated the influence of *getting information* on children's social fears and found quite opposite results: negative information about public speaking situation (fear) did affect fear beliefs but only when the information was given by peers. Surprisingly they also found that the effect of information was opposite what one might expect: negative information reduced fear beliefs and positive information increased them.

Several authors have also investigated the role of modeling (vicarious conditioning). Although *vicarious conditioning* is frequently considered as less important for developing children's fears, **Muris, Steerneman, Merckebach and Meesters (1996)** have found in their study that for general fearfulness of children modeling is the most important way: fearfulness of children was found to be positively related to fearfulness of their mothers' fearfulness ($r=0.56$). They also found that modeling mediates this relationship: children of mothers who often expressed their fears to children exhibited the highest fear levels; children of mothers who never expressed their fears had the lowest fear levels, while children of mothers who sometimes expressed their fears fell in between (Muris et al., 1996c, 267). This study showed that the family pattern exists in fearfulness. The level of mother's fearfulness and also her expression of fears supported the child's fearfulness. To take into consideration that the level of fearfulness develops in early childhood, the process of *social referencing* may also play a role here (Muris et al., 1996c, 268). *Social referencing* refers to the phenomenon that young children search actively for emotional information from their caregiver, and use this to appraise uncertain and unknown situations (see Marks, 1987a, 123).

Milgrom, Mancl, King and Weinstein (1995) have found that parent *modeling and direct conditioning* ways were significant independent predictors of dental fear level in 5–11-year old children. Also **Gerull and Rapee (2002)** have investigated the effects of maternal *modeling* on the acquisition of fear towards novel, fear-relevant stimuli (rubber snake and spider), and found that children showed greater fear expressions and avoidance of the stimuli following negative reactions from their mothers. Also gender had significant effect – degree of modeled avoidance was greater in girls than in boys.

Murray and Foote (1979) have investigated the origins of snake fear and found also little evidence supporting the role of direct conditioning experiences. The results rather suggested a variety of observational (*modeling* mothers) and instructional (e.g. stories about the evils and dangers of snakes) learning experiences as related to the acquisition of this fear.

Muris, Merckelbach and Collaris (Muris et al., 1997a, 935) argue that maybe modeling is the most powerful for the development of children's *general fearfulness*, but plays a minor role in the acquisition of *specific fears*.

The next table (Table 4 page 65) shows the results of eight earlier studies of origins of children's fears and phobias.

Problematic for the traditional learning account is the nonarbitrary nature of the limited set of phobic or fearful stimuli. Not only is the set small, but it appears to consist primarily of objects and situations that represent serious dangers to pretechnical rather than modern man. Objects associated with pain in recent times do not seem to become phobic stimuli often enough. For example, Seligman has written the following: "... agoraphobia, fear of specific animals, insect phobias, fear of heights and fear of the dark...are relatively common phobias. And only rarely, if ever, do we have pajama phobias, grass phobias, electric-outlet phobias, hammer phobias, even though these are likely to be associated with danger in our world". Agras with his colleagues found the prevalence of snake fear to be nearly two times the prevalence of dental fear and five times as common as fear of injections, despite the fact that contact with the dentist and injections are far more frequent, and more likely to be associated with painful episodes (Menziez & Clarke, 1995, 30). As we see in Table 4 (page 65) there are quite frequent answers commenting the fear acquisition way as following: "fear was present at the first contact", "always been this way", "always been afraid".

Seligman proposed that in the past the acquisition of a contingency response toward some fear stimuli by individuals meant the difference between life and death, and so those who quickly acquired it would be more likely to survive, reproduce, and thereby pass on their genetic information to the next generation. If the genetic information influenced the likelihood of the offspring quickly acquiring the same contingency response mechanism, and the adaptive value of the contingency response to the species remained, then the quick acquirers would come to dominate according to Darwin's principle of natural selection. Individual variation in the rate of acquisition would continue, but members of the species, on average, would come to acquire the contingency response more readily than their ancestors. Seligman called the acquisition of such a contingency response trait "prepared" learning and contrasted it to the "unprepared" learning that was typically being examined in the laboratory. He saw phobias as model examples of prepared learning since they involved fears of objects and situations that seemed to represent long-standing dangers to our pretechnical ancestors (Menziez & Clarke, 1995, 31).

Several studies about children's fears have found that there is not a clear relationship between fear or phobia and traumatic conditioning (e.g. only one parent of 50 clinical cases of childhood water phobia could recall a conditioning event, and similar findings have been also obtained in several reports on fear of spiders) (Menziez & Clarke, 1995, 34).

Table 4. Summary of research findings on the origins of childhood fears and phobias

Authors	Fear/phobia	Sample	Method of investigation	Origins	%
Doogan & Thomas (1992)	Fear of dogs	30 children, 8–9-years	Child interview and questionnaire	At least one painful/frightening encounter with a dog (direct cond.) Father dislikes dogs (modeling) Distressed by media reports of dog attacks (info)	91 73 82
Graham & Gaffan (1997)	Fear of water	36 children 5–8 years	Parent-completed questionnaire	Direct conditioning Modeling Fear present at first contact No explanation	0 0 78 22
King et al. (1997)	Dog phobia	30 children 1–12 years	Parent-completed questionnaire	Direct conditioning Modeling Information No explanation	27 53 7 13
Menzies & Clarke (1993)	Water phobia	50 children mean age 5.5 years	Parent-completed questionnaire	Direct conditioning Modeling Information Always been this way No explanation	2 26 0 56 16
Merckelbach et al. (1996)	Spider phobia	22 girls 9–14 years	Child and parent interviews using adaptation of Phobic Origins Questionnaire	Direct conditioning Modeling mother Modeling father Modeling others Information Always been afraid	41 14 5 0 5 46
Merckelbach & Muris (1997)	Spider phobia	26 girls Mean age 12.6 years	Interview	Direct conditioning Modeling mother Modeling father Modeling others Negative information Always been afraid	23 8 4 4 4 62
Muris et al. (in press)	Ten common fears	129 children 9–13 years	Standard interview with child	Direct conditioning Modeling Information	61 50 88
Ollendick & King (1991)	Ten common fears	1092 children 9–14 years	Self-report questionnaire	Direct conditioning Modeling Information	37 56 89

Source: King, Gullone, Ollendick (1998) and Merckelbach & Muris (1997, 1033)

3.4.2. Non-associative acquisition

However, it cannot be assumed that Rachman's three pathways theory accounts for the acquisition of all childhood fears. In some instances, it appears that the fears have always been present, or are from the first contact with the stimulus (see Table 4, page 65, about eight studies), thus suggesting the possibility of a non-associative onset. Of course, absence of recall cannot be taken as absence of an event having occurred (because of the phenomenon of "childhood amnesia", memory errors or verbal/cognitive limitations of respondents). "*Absence of evidence is not evidence of absence*" (old dictum in Kleinknecht, 2002, 160). These findings illustrate the complicated way of fears acquisition, involvement of developmental factors and probable interaction between associative and non-associative processes in fear etiology. Thus, as some fears (e.g. dental fear) are related to conditioning events, others (e.g. separation fear) may be mainly inherited or spontaneous. Separation fear is not related to amount of time spent with caretaker, and more importantly, seems not related to aversive experiences in the past during separation. It is in conformity with the explanation of non-associative fear acquisition, which says that aversive associative learning is not necessary in the case of evolutionary-relevant fears (Menzies & Clarke, 1995). There is also evidence that such evolutionary fears as fear of heights or water are mainly independent from the history of direct aversive conditioning events (Poulton et al., 1998).

Also the non-random distribution of fear and the spontaneous emergence of fear have been the greatest challenges confronting conditioning accounts of fear acquisition (Poulton & Menzies, 2002a). Studies have shown that fearful individuals have significantly *less* relevant direct specific traumatic experiences than those without fear (e.g. Poulton et al., 1998 – height fear). According to associative acquisition ways, it would be logical to predict the opposite results.

There is also some discussion about the concept of "hypophobia" (Marks & Nesse). It has been argued that the absence of "normal" levels of developmental fears is not good, but rather represents a serious disorder that places the individual at increased risk of injury or death (Poulton & Menzies, 2002a).

For example, Menzies and Clarke (1995) argue that previous research on fear acquisition has tended to classify any negative experience as a modeling, informational and/or a conditioning event, but this would have resulted in a significant overestimation of the three pathways of fear and an underestimation of non-associative (spontaneous) scenarios of fear acquisition. Muris, Merckelbach, Ollendick, King and Bogie (Muris et al., 2001) in the study about children's nighttime fears found that about ¼ of children indicated that none of the three pathways played a role in the acquisition of their fears.

Marks (1987b) says that while some fears occur only after a special experience, others like those of separation or of animals arise in most children with no trigger beyond normal experience and are hard to suppress completely.

These fears have been argued to be prepotent or biologically pre-programmed and to occur in the absence of learning.

In addition to Rachman's theory, several studies have found evidence of Darwinian non-associative theory of fear and phobia acquisition. According to this theory "given maturational processes and normal background experiences, most members of the species will show fear to a set of evolutionary-relevant stimuli on their first encounter" (Menzies & Clarke, 1993, 500) or as Marks (1987a, 109) has said, such biologically relevant fears "reflect maturation under genetic control during interaction with the environment". The expression of a genetic program depends on the environment. Though theoreticians assign different level of powerfulness to the impact of environment, modern approaches based on Darwinian ideas think that some fears can develop without any previous experience with this fear stimulus. Darwin proposed that by the process of natural selection, our ancestors developed fear of many consistently dangerous situations, and that the child in present days needs no aversive experience of such stimulus for the acquisition of fear. Fear is said to be "independent of experience" (Menzies & Clarke, 1995).

A good typical example can be perhaps the most frequently cited, and claimed by some to be the best evidence for, the genetic basis of fear – *fear of strangers*. It does not require aversive experience with strangers to develop but readily appears in virtually all cases of many species from set periods following the same pattern. It develops from ages 4 to 9 months, peaking around 12.5 months, before declining in the second year, and doesn't depend on culture or child-rearing practices. This fear has been thought to have adaptive value – the killing of conspecifics is very common in many species, especially strangers and youngsters (Menzies & Clarke, 1995, 39). Strange persons produce the earliest fear reactions reported for human subjects; it is apparent that infants can distinguish a stranger from mother some time before the age when strangers provoke fear (around 7–9 months of age). On the evidence available, the development of fear behaviour follows similar patterns in humans, monkeys, and dogs (Bronson, 1968). These models propose that Darwinian natural selection has favoured individuals who displayed some level of fear on their first encounter with a dangerous object or situation (Poulton & Menzies, 2002a).

Very similar and also having adaptive value is the *fear of separation* which appears in human beings from 8 to 24 months. Again, this occurs despite different child-rearing practices or culture, in blind children, and is the same if the caretaker is male or female, or if the child was reared at home or in day care (Marks, 1987a).

In human subjects, it seems that the most typical fears which don't require aversive associative learning are the fears of water, height, spiders, strangers and separation (Menzies & Clarke, 1995).

Thus, it is confirmed that people are predisposed to develop some fears, perhaps the most common ones. Prepared fears are considered to be both easy to

acquire and unusually stable. But in large part, we learn to not respond fearfully to these predisposed or prepared stimuli; we learn to not fear. Our remaining fears are those that are resistant to extinction or habituation. Paradoxically and in contradiction to conditioning and related theories of fear acquisition, people who seldom or never encounter one of these supposedly prepared or predisposed fearful objects are more likely to fear them than people who come into contact with them frequently (effect of “habituation”) (Rachman, 2002).

Poulton, Davies, Menzies, Langley and Silva (1998) have carried out research about the development of *height fear* with a sample of 9–18-year-old children. They investigated correlations between serious negative experiences (direct conditioning) related to falling from high in children under 9-years old and the existence of fear of height in the 11–18-year-old children. None of them who reported height fear in the age 18 had the experience of falling from high when they were under 9 years old. The positive correlation was not found between the negative painful experience in earlier age (under 9 years old) and fear of height in later age. But interestingly the results showed that serious fallings between ages 5 to 9 have happened significantly more frequently with those who had *no* fear of height in the age 18 ($p < 0.01$) – the finding is opposite with the expectations derived from direct conditioning theory, but is concordant with non-associative fear acquisition theory. **Poulton et al. (2001a)** and **Menzies and Parker (2001)** have also investigated the *fear of height* and found no positive relation between aversive events and height fear. In contrast, direct conditioning events (falls resulting in serious injury) occurred with greater frequency in non-fearful group than in the height-fearful group. Only 14% of subjects were classified into the direct conditioning category, while 54% were classified into the two non-associative categories. So, serious levels of pain/injury or distress caused by falls were found in subjects *without* height fear.

Those findings are in concordance with Davey’s (1989) hypothesis that latent inhibition protects against the formation of fear in the case of “existence-conditioning” experiences (by which is meant negative painful experiences which in reality should support the formation of fear but which in fact do not). The experience of such kind is like an inoculation against the development of fears for some individuals. At the same time this finding may simply reflect the protective value of non-associative height fear – height fear increases in the case of missing traumatic associative learning and protects the individual in the future against dangerous accidents related with heights. But these who have low level of fear, experience serious fallings more frequently according to the model because they more probably behave in risky ways toward the height stimulus (Poulton et al., 1998).

Kirkby, Menzies, Daniels and Smith (1995) found that a majority (86%) of adult *spider phobics* indicated that their phobia has always been present, i.e. had arisen in a non-associative way. Interestingly, although spider phobia has been considered as a classical example for non-associative acquisition, **Merckelbach and Muris (1997)** have found that phobic children more often reported

conditioning events than non-phobic children (42 and 8% respectively), and that phobic children reported more modeling experiences mediated by their mothers than non-phobic respondents. Consistent with non-associative theory they also found high frequency of answers like “always been afraid” (62% of children) (see also Table 4 page 65).

So, the non-associative acquisition model means that for the development of some innate fear conditioning processes are not necessary in the majority of cases, but it doesn't exclude totally the possibility of conditioning events for acquisition of these developmental, innate fears.

Four main features of non-associative fears have been identified: (1) the feared object/situation/activity must represent a long-standing danger to species, (2) fear and avoidance of the object/situation/activity must have increased reproductive opportunities and own adaptive advantages, presumably by extending life in our ancestors, and is found also in other primates and a variety of other species, (3) fear and avoidance of the object/situation/activity is partly under genetic control, (4) human prospective and retrospective evidence suggests that associative learning is not required for the fear; (Poulton & Menzies, 2002a, 2002b).

Non-associative pathway of fear acquisition have been criticized mainly because of following: (1) it capitalizes on negative findings, i.e. the failure to document learning experiences (e.g. conditioning, modeling) in the history of fearful children (frequently used retrospective data gathering method); (2) it largely ignores factors that have been found to be crucial for the acquisition of early childhood fears (e.g. the developmental level of the child, stimulus characteristics such as novelty, aversiveness and unpredictability, and early experience with uncontrollable events) (Muris et al., 2002a).

Why we do not all remain fearful of these stimuli?

It is further proposed that this initial fearful response will typically diminish over time due to repeated, non-traumatic exposure to the feared object or situation (i.e. habituation). On the other hand, poor habituators and those who do not get the opportunity for safe exposure will remain fearful of such stimuli from their first encounter, often appearing for treatment at a later age (King et al., 1998, 304; Menzies & Clarke, 1995, 42; Poulton et al., 2001a).

The biologically relevant developmental fears serve to protect the individual by discouraging full engagement with the stimulus from the earliest possible encounters. Those individuals with stronger fear responses from infancy will be best protected from the dangers associated with the stimulus across the lifecourse, and may go on to display fear in adulthood despite a history characterised by less dangerous/painful encounters with the stimulus (Menzies & Parker, 2001). So, as they have higher level of fear they are more careful and don't have experiences with this fear stimulus. And so they can't get either

painful or “good” nonpainful experiences with this stimulus and they can’t “learn not to fear” this stimulus or habituate with this.

Unlearned fearful response is not eliminated through habituation, but merely subdued. Fears and phobias may arise through the process of dishabituation: Bowlby (1973) and Clarke & Jackson argue that periods of extreme difficulty in a person’s life may act to raise levels of arousal and lower the threshold for the dishabituation of previously mastered reactions to stimuli mastered in early childhood (e.g. separation) (Menzies & Clarke, 1995, 42). Gullone (1996) concludes according to the analysis of several studies that the most-feared stimuli pose or signal a threat to survival or have posed a threat in the evolutionary history of the species.

Menzies and Clarke (1995) propose two explanations for the failure of some individuals to habituate to pre-potent stimuli: (1) insufficient opportunity for exposure at critical points in development, (2) individual differences in the rate or speed at which habituation takes place. They are poor habituators (e.g. people who tend to arouse quickly and habituate slowly).

According to associative acquisition of fear the role of children’s experiences (traumatic or negative) is usually to raise, support or increase children’s fears, but as Menzies and Clarke (1993) have said, according to non-associative acquisition of fear the role of children’s experience is usually to prevent or diminish the strength of fear, rather than to instigate it. Non-associative model also suggests that some treatments will be more appropriate for certain fears, for example, if evolutionary-relevant fears like height fear or separation anxiety result from a failure to unlearn or overcome biological programming (i.e. failures of habituation) then repeated, gradual exposure should be the treatment of choice. In contrast, evolutionary-neural fears like those of the dentist can be influenced by personality traits and conditioning experiences and may benefit from a combination of cognitive and behavioural treatments (Poulton & Menzies, 2002a). Poulton and Menzies (2002a) also say that the most challenging task is to develop a fear taxonomy that takes account of fear acquisition via multiple, interacting pathways.

4. FEAR RESEARCH

In contemporary civilizations there is an ever-increasing number of objects, events, conditions and situations that frighten or are potentially frightening. Perhaps this helps account for the fact that fear has probably been the subject of scientific investigation more frequently than any other fundamental emotion (Izard, 1977, 355). It is very necessary to investigate peoples' fears for better understanding this emotion – although this does not remove dangerous or frightening situations, but may provide an added measure of control over fear emotion.

4.1. Brief historical review – how fear is treated earlier

Fear has been treated in history as a cultural construct not as an internal human response to certain stimulus (Bakker, 2000). Stearns and Haggerty (Bakker, 2000) mentioned, in the transformation from avoiding subject of fear and from fear as an unimportant emotion to treatment of fear as a normal aspect of children's life, the following processes: the decrease of family size, urbanization and secularization, especially in the first decade of 20th century.

In the treatment of children's fears in educational literature it is possible to bring out three main stages:

1. Fear is missing (fear doesn't exist)

In the 19th century children's fears were rarely talked about. However, in the most authoritative family handbook "*The Development of the Child*", published in 1845 in Deutschland and written by Dr. Allebe, the topic of children's fear was treated. Fear was seen then not as a normal aspect of development but as a problem – fear was one of the few behavioural problems which author mentioned. The anxiety of mothers was considered the cause of children's fear. If mother doesn't show her fear to the child then the children's fear doesn't appear. If the fear arises the child must get over this.

2. Fear as weakness or shortcoming

This stage began at the end of the 19th century. In 1894 in Deutschland the handbook for parents "*Moral Education*" (author I. Kooistra) was published, which emphasized children as being susceptible to environmental influences mainly mediated by parents. Children's own sense of guilt played the central role in education and fear-emotion could be ignored. However, fear was more and more frequently mentioned as a serious problem with which parents must deal. For example, behaviourist J. Sully studied children's fears and claimed that only baby's fear of sudden loud voices and falling can be seen as natural, but all other fears (e.g. animals, strangers, darkness) were not universal and thus

not necessary. Parents or small children's imagination were considered the cause of these fears.

3. Fear as normal emotion

Not until the 1920s was more attention directed to children's emotions and fear was one of them. The new generation of child-rearing experts explained that even harmonious family life can't prevent children's nightmares or fear of voices, etc. Since this time parents were advised to have respect toward fearful child. Fear emotion was witnessed as natural, and for example, the fear of strangers or darkness is a typical childhood experience, which may have results in the later stages of life if these fears are not treated in the right way.

After 1930s the main purpose of child education was not more self-control but self-confidence. Good parents were successful in the creating of reciprocal trustful relationships – it meant also that they have to observe their children's "real" emotions, including fear. In 1930–1940 family consultants believed that fear is an unconscious but purposeful defensive reaction of the child against certain unpleasant stimulus coming from the outside world. Fear was considered not to be inner or inborn emotion, and parents didn't inspire it. Instead, it was viewed as children's individual product of feelings toward parents who were too demanding or too indulgent. In any case, the fearful child suffered because of the lack of courage and self-confidence.

The representatives of behaviourists said that only noise and falling caused inborn fears, but other kinds of fear were the result of parents' behaviour. The focus was on that parents would understand why children suffer (e.g. in Deutschland) and on the necessity of prevention of and coping with childhood fears (e.g. in America).

However, until the 1930s, Catholic experts suggested continuously to use strict discipline with children. They didn't join with the "battle" against the intentional use of fear in child-rearing. Only after the 1930s did psychologists finally replace priests in the positions as leading authorities in the family and child-rearing field (Bakker, 2000).

4.2. Preschool children's fear studies

4.2.1. Earlier studies

The study of children's fears has a long and rich tradition, dating back to the early work of G. Stanley Hall in 1897 (Ollendick et al., 1995). "A Study of Fears" was published in American Journal of Psychology. There are many studies from the period before 1970. Next, brief review about some selected earlier studies of preschool children's fears will be given.

Jones and Jones (1928) carried out experiments of fears with children from preschool age to college students (e.g. adults). They used in their experiments a snake of a harmless variety, and found that younger children (up to the age of two years) showed no fear of a snake; by three years old caution reactions were common (children paid closer attention to the snake's movements and were somewhat tentative in approaching and touching it); definite fear behaviour occurred more often after the age of four, and was more pronounced in adults than in children.

Hagman (1932) investigated preschool children's fears by the interview method with the mothers of children. A very detailed interview form was used where a high number of questions were asked to get information about the fear stimulus (e.g. dogs) and the situations when the child has met the stimulus. He found that the child had an average of 2.7 *fears*, and the most common fear objects were dog (46%), doctors (37%) and storms (20%), followed by deep water, vacuum cleaners, darkness and loud voices. Fears of several animals occurred most frequently and fear of people (doctor, teacher, strange people and clown) ranked second. Also he found that in the situation where the fear occurred first the most frequent aspects were no preparation and strangeness (over 90%). Seven categories of overt behaviour of the child were ranked as follows: withdrawal, facial alarm, crying, clutching, trembling, paralysis and startle. Hagman found a real tendency for a child to have fears corresponding to those of his/her mother and a positive correlation (0.67) between the gross numbers of children's and their mother's fears.

Jersild and Holmes (1933) used interesting methodology (several different methods) to investigate preschool children's fears: 1) daily home records of children's (aged 6 months to 4 years) fears by parents during a period of 21 days; 2) fear episodes observed by an additional group of parents, teachers and nurses; 3) experimental study of fear in following fear provoking situations: high place, dark room, being left alone, loud sound, insecure underfooting, strange person, snake, horned toad, small and large dogs; 4) interviews with parents; 5) interviews with children (aged between 5–12 years).

The most frequent fears according to parents' daily records were related to strange objects, persons and situations, followed by noises and objects from which noises have come and animals. Interesting finding was that the mean number of fears per child declined with the age: the *mean number* was 5.8, 6.7, 3.8 and 4.2 for the ages 1-, 2-, 3- and 4-year olds respectively.

In the experimental situation the group (aged between 2 to 6 years) as a whole showed more fear in response to the snake than to other stimuli, followed by dogs, dark room, high place and strange person. Correlation was 0.42 between the experimental situations and their scores when rated by those children's nursery teachers. Similarly the correlation was 0.44 between the number of fears reported by mothers and the children's "fear scores" in the experimental situations. In the individual interviews with children researchers found that a large proportion of fears were more imaginary than real (over 20%

of children). The next fears were fear of dark, being alone (14%) and animals (18%). The majority of the fears were aroused through vicarious stimulation, and children also frequently mentioned the movies, radio stories, terrifying tales told by others and deliberate attempts by adults to frighten as factors in promoting the fears.

Lapouse and Monk (1959) – epidemiological approach to study the behaviour, problems and personality of children in age from 6 to 12 years, and investigated the influence of age, gender, race and SES. Mothers were used as the source of information about their children's problems and interview method was used. The average child possessed *11 fears*; 43% of children were reported by mothers as having 7 or more fears and worries out of the 30 from which the mothers were questioned, and 28% of children had nightmares. Significant differences ($p < 0.05$) appeared according to gender and race – more girls and Negro children showing the larger number of fears and worries than boys and white children. No differences were found according to the age and SES. Interestingly the most frequent fears and worries that children have according to their mothers were of using other people's glasses, dishes, or towels (49%), snakes (44%), someone in family getting sick, having an accident or dying (41%), followed by thunder and lighting, little cuts and bruises, school marks (all 38%).

Maurer (1965) investigated the fears of children aged between 5–12 years by interview method with open form question (“What are the things to be afraid of?”). Boys averaged slightly higher than girls (4.23 vs 4.00) but not significantly. 64% of children named the fear of several animals (46 different) with snake being the most unpopular animal, followed by lions, tigers and bears. One-third of children under 7 years admit to fear of imaginary beings, and a fifth of them fear the dark.

Schwarz (1969) carried out an experiment to test the effect of the presence of an attached individual (mother) as compared with the presence of an adult female when children (mean age 4.6 years) were exposed to novel stimuli. The results were highly interesting and failed to support the prediction of less fear in the presence of the mother. It was suggested that the presence of the stranger inhibited the child's motility and emotional communication.

Thus, according to the studies presented above we can see that earlier researchers have used both experiments and interviews with children on their own and with their mothers.

4.2.2. Later fear studies among preschool children

There is large amount of normative fear research, and the majority of them has focused on the identification of *fear stimuli* using different methods (diary – Jersild & Holmes, 1933; open-form questions – Muris et al., 1997a, 1997b; pictorial self-reports – Muris et al., 2003b; Robinson et al., 1988; Valla et al.,

2000; observations – Schwarz, 1969; standardized fear survey schedules – Ollendick et al., Gullone et al. – many studies) and informants (parents – e.g. Bouldin & Pratt, 1998; Draper & James, 1985; Jones & Borgers, 1988; Sorin, 2000; Staley & O'Donnell, 1984; children – many studies by Muris et al.; teachers – Kolko & Kazdin, 1993; Sorin, 2000, 2003, 2004; peers – Ollendick et al., 1995; Silverman & Nelles, 1987) and then attempting to relate the number, content or intensity of the fear stimuli to demographic parameters such as gender, age, socioeconomic status, culture and other.

Much of the research of children fears is based on self-reported fear survey schedules with children themselves providing information about their fears. The most widely used schedule is the Fear Survey Schedule for Children (FSSC by Scherer & Nakamura in 1968) and its revisions: FSSC-R (Ollendick, 1983), FSSC-II (Gullone & King, 1992) and FSSC-HI (Shore & Rapport, 1998). These similar schedules have given similar results for the children of different cultures and age groups older than 7 years, but are not suitable for self-report use in younger children aged less than 7 years (Lahikainen et al., 2003). There are a high number of studies about school-aged children's fears (e.g. many studies of Muris, Ollendick, King, Gullone and their colleagues), but our knowledge of fears in younger children remains quite sporadic.

Young children are not as easily accessible as schoolchildren and studies with young children require special methods. There exists little consistency in methods and informants used, and because of that the results of one study are not comparable with the results of others (Lahikainen et al., 2003). Often parents are used as informants to get information about preschool age children's fears and worries (e.g. Bouldin & Pratt, 1998; Draper & James, 1985). **Bouldin and Pratt (1998)** have got quite a new finding that the most frequent fears were related to separation (being lost without parental support), while previous studies mostly show that the most common children's fears are thought by parents to be related with danger and death.

In studies where both parents and young children have been used as informants the agreement between parent and child reports has usually been found to be low or moderate. These discrepancies between the two informants reports have led to increased interest in getting the information about children directly from children themselves and use them in child researches as first (most important) informants (see e.g. Barret et al., 1991; Lahikainen et al., 2006; Muris et al., 2001).

Sometimes preschool children themselves have been used as informants but the methods used are very different and so not easily comparable (e.g. Bauer, 1976 used open-ended interview with drawings; Lentz, 1985a, 1985b used semi-structured doll-play situation; Stevenson-Hinde & Shouldice, 1995 asked children if a rabbit doll had worries and what kind of worries; Muris et al., 2003b and Robinson et al., 1988 used individual interview with pictures).

Robinson III, Robinson and Whetsell (1988) investigated 5–13-year old children's fears and used quite similar general methodological idea as we did in

our research. Each child was interviewed and the interview was structured around stimulus pictures. The child was first shown a picture of a child's face that was the same gender as the child being interviewed. Then interviewer said: "The child is the same age as you are. He/she is afraid. What is he/she afraid of?". So, they used the open-form question as we did. After that the child was shown five other pictures of children of differing sexes in different settings – it is similar to our picture-aided part of interview (see chapter 7 "Methodology and sample"). Children mentioned a total of 216 fear objects. The most frequently mentioned fears across all investigated age groups were the fear of dark, being alone, followed by imaginary creatures (ghosts, monsters), strange and potentially bad people, and bad dreams. 6-year-old children most frequently mentioned the fear of ghosts, witches and monsters, being alone, the dark and strangers. Interestingly the results of this study identified two fears with higher frequency than previous studies: the fear of being alone and the dark.

Spence, Rapee, McDonald, Ingram (2001) studied anxiety symptoms among preschoolers and found that the top 10 most prevalent symptoms related to *physical injury fears* (e.g. dark, dogs, spiders, thunder, swimming), *social fears* (e.g. meeting unfamiliar people) and *separation anxiety* (e.g. sleeping alone).

Bauer (1976) investigated 4–12 year old children's fears, and more specifically bedtime and night fears and nightmares. There was clearly seen the development of children's fears with age: for example, fears of imagined creatures such as monsters, ghosts, etc. (74% of preschoolers, 53% 8-year and 5% 12-year olds) and animals (47% preschoolers, 40% 8-year and 10% 12-year olds) decreased with age while fears of bodily injury and physical danger increased (11% preschoolers, 53% 8-year and 55% 12-year olds). Fears related to bedtime and frightening dreams showed an increasing tendency toward early school age and then decreased toward adolescence (bedtime fears – 53% preschoolers, 67% 8-year and 35% 12-year olds; dreams – 74% preschoolers, 80% 8-year and 45% 12-year olds).

Muris and Merckelbach (2000) results are quite different from the results of research carried out 25 years earlier by Bauer (1976). They found that fear of imagined creatures was in the second place among preschool and elementary school children's fears and in the first place in the content of these children's scary dreams. So, it is possible to suppose that the fears of imagined creatures are more important among children's fears today than earlier.

Muris, Merckelbach, Ollendick, King and Bogie (2001) studied 4–12-year old children's nighttime fears (nightmares, burglars, imagined creatures, nature forces, animals), their content, frequency, sources, coping ways and intensity. 73% from all respondents and 59% of preschoolers endorsed night fears. Night fears are very common among preschool children, the frequency increases among 7–9-year-olds and remains at a quite stable level among 10–12-year-olds. The most frequent acquisition way for nighttime fears is getting negative information. Nighttime fears cause an average level of anxiety for children.

Parents' assessments about their children's nighttime fears were different from children's answers about frequency and intensity, but not very much about the content. It is suitable to interpret the developmental pattern of nighttime fears also by the cognitive development of children.

Also **Draper and James (1985)** have used parental report of preschool children simply in the form of open-ended question, and found that the most common fears were startling events and noises, animals, certain persons or objects, the dark, being alone and strange sights. **Bouldin and Pratt (1998)** have modified the Fear Survey Schedule for Children-II (FSSC-II, Gullone & King, 1992) for parent report and a younger age group (FSSC-IIP), and found that parents of children between 3 to 9 years reported a higher overall level of fear for school children compared to preschoolers, and a higher level of fearfulness for girls compared to boys. The most common fears reported by parents were getting lost in a crowd and in a strange place.

Sorin (2000) investigated preschool children's fears and used all three suitable informant groups: children, parents and teachers. She found that the most commonly reported fears were separation fear, fear of the unknown and fear of being harmed. There was the lowest agreement between children and teachers. Teachers were not aware enough about children's fears and tended to underestimate. The only item reported in similar numbers by all three informants was fear of preschool. Also the concordance between children and parents was quite low; the most common fears reported by parents were not the same as those mentioned by children.

Gullone (2000) concludes that the lack of standardized self-report questionnaires has hindered systematic research of fears and fearfulness in young children (6 years and below). Additionally, researchers are increasingly convinced that high levels of fear and fearfulness in pre-school children may be significant predictors of serious anxiety problems in later childhood (e.g. Craske, 1997). As Chazan has said (see in Muris et al., 2003b): "Marked fearfulness in the early years may be long-lasting and affect well-being, achievement and social competence". So, the measurement of fears and fearfulness of younger children badly needs suitable instruments and can have important preventive value for psychological problems in future.

4.3. Different methods in children's fear research

Eleonora Gullone (2000) gives in her paper a thorough review of over a century's research into the developmental patterns of normal fear. Many different methodologies and assessment instruments have been used and the majority of researchers have focused on finding out whether fear content, prevalence and intensity differ depending upon age, gender, SES (socio-economic status) and culture (Gullone, 2000, 429). More than 100 investigations have been concerned with the fears or worries of youth, beginning in the late 1800s

(Hall in 1897) and continuing at a rapidly increasing rate, particularly in the 1980s (e.g. Ollendick, King, Silverman). In recent years there has been an increase in cross-cultural and cross-national research (e.g. Ollendick et al., 1996; Ollendick & Yule, 1990; Owen, 1998).

The main aim of this chapter is to give a review of several different methods used in children's fear research. In author's opinion, Gullone (2000) has provided a very suitable frame for the review of fear research where she has classified fear studies according to the methodology used. Author uses a similar organization of fear studies here also.

Seven general groups can be classified:

- **Retrospective accounts** – this methodology is typical for some earlier studies, for example, the first fear research carried out by Hall in 1897 where he asked over 1000 adults in questionnaire to give detailed descriptions of their fears. Jersild and Holmes carried out similar studies in 1935, and there are several later studies about fear acquisition (e.g. Menzies & Clarke, 1993; Poulton et al., 1998). But the studies that used retrospectively collected data have been criticized because of this problematic method.
- **Observational investigations** – investigations that have used observational methodology are few in number (e.g. Jones & Jones in 1928 where they investigated the specific fear of a big snake in a sample of children from 1.2 to 10 years; and more about fear acquisition ways – Field & Lawson, 2003; Field et al., 2001; Gerull & Rapee, 2002; Muris et al., 2003a). Although the observational method is also considered problematic, such studies have found some general trends, which are still valid today also – e.g. general decrease in fearfulness with development and girls displayed more fear than boys (Gullone, 2000). Because of the ethical implications of purposefully frightening children, only a few experimental studies have been conducted in the area of preschool children's fears (e.g. Jersild & Holmes, 1933; Jones & Jones, 1928; Schwarz, 1969).
- **Parent/teacher reports** – a more frequently utilized method, which is quite easy to use, but there are doubts if parents or other adults can assess children's fears adequately. Several studies have shown that there is quite low agreement between parents' and their children's assessments about the child's fears (e.g. Barrett et al., 1991; Kolko & Kazdin, 1993; Lapouse & Monk, 1959; Mahat & Scoloveno, 2003; Muris et al., 2001; Sorin, 2000). Hagman (1932) was one of the first to implement this methodology. In this study mothers of 70 children aged between 2–6-years participated. Agreement relating to fear content has been found to be better if the parent has increased opportunities in which to observe contact between the child and the fear stimulus or situation as compared to situations more difficult to observe, for example, such as “being kidnapped”. Also the age of child may influence the agreement – younger

children are more likely to exhibit their fears than older children (Gullone, 2000).

Also, Draper and James (1985) have used parental report of preschool children simply in the form of an open-form question, Bouldin and Pratt (1998) have modified the Fear Survey Schedule for Children-II (FSSC-II, Gullone & King, 1992) for parent report and a younger age group (FSSC-IIP), and Sorin (2000) investigated preschool children's fears and used all three suitable informant groups: children, parents and teachers (see more detailed results in the sub-chapter 4.2.2.).

There are not very many studies concerning agreement in fear-reports. In a study by Bondy, Sheslow and Garcia (1985), children's fears were assessed by the mother and the child. Using the Fear Survey Schedule, the authors found a high correspondence in the ranking order of fears, but the correlation of overall fearfulness was insignificant among boys. Investigating children's medical fears, Mahat & Scoloveno (2003) have found a significant difference regarding the level of children's fears, with the children reporting a higher level of fear than their parents did. Kolko and Kazdin (1993) found low agreement between children and parents when they investigated children's behavioural problems.

Muris, Merckelbach, Ollendick, King and Bogie (2001) investigated nighttime fears in children aged 4 to 12 years. Children and their parents were interviewed e.g. about the frequency and content of children's nighttime fears. Results showed that parental reports substantially deviated from children's reports, particularly in frequency of fears. Whereas 73% of the children reported nighttime fears (~60% of 4–6-year olds), only 34% of the parents (44% of parents of 4–6-year olds) estimated that their children had such fears at all (see also Figure 7 page 80).

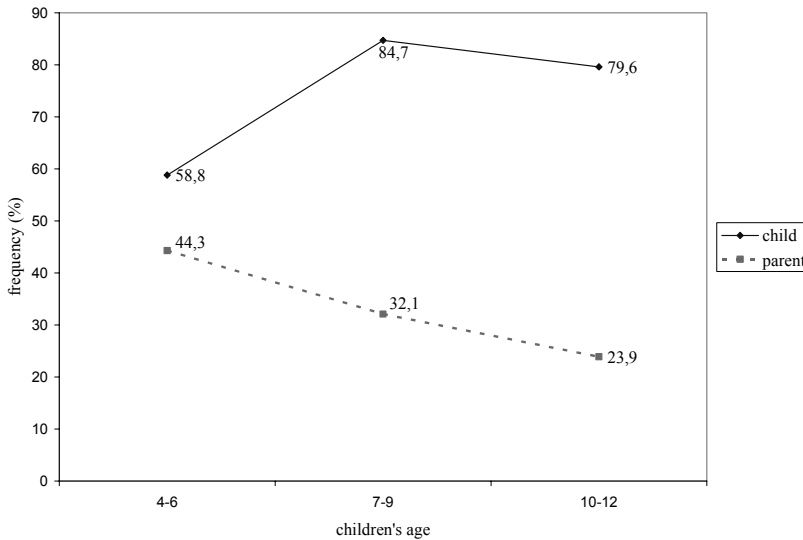


Figure 7. Children’s nighttime fears according to children’s and their parents’ reports (Source: Muris et al., 2001)

Barrett, Berney, Bhate, Famuyiwa, Fundudis, Kolvin and Tyrer (1991) found that fears and phobias as symptoms of depression are more often reported by children only than by their parents (47% child only, 22% parent only). According to Jones and Borgers (1988) children reported more fears than their parents thought they would. The three items with the greatest difference were: being hurt in an accident, nuclear war and having a loved one die. Researchers argue that parents may not expect children to think about adult issues such as war or accidents or death, but seem to expect children to have more traditional concerns such as the dark or animals.

Parents tend to fare better in reporting children's externalized problems, whereas they underreport internalized problems (Kolko & Kazdin, 1993; Thompson et al., 1993). This has been explained by reference to different levels of tolerance of symptoms in adults and children. The informant is likely to report symptoms which bother her/him most. Consequently the differences between the parent’s and the child’s reports reflect differences in their egocentric views about the severity of the symptom (Herjanic & Reich, 1982 by Lahikainen et al., 2006). Greater parent-child agreement was found on the total behaviour problems scale for girls than boys (Kolko & Kazdin, 1993). In the Kolko and Kazdin study (1993) where they used three different informants – children, parents and teachers – they found that the parent-teacher correlations were generally the highest and the child-parent correlations generally the lowest. But it doesn’t mean that children’s reports play a smaller role in evaluating children’s problems. On the contrary, several studies introduced

above show that children should be used as primary informants about their fears and other problems.

Different informants tend to give different information about the same child, regardless of the informant pair selection and the topic (parent-teacher - Kolko & Kazdin, 1993; Lambert et al., 1990 and Keogh & Bernheimer, 1998 by Lahikainen et al., 2006; parent-child – Kolko & Kazdin, 1993; Muris et al., 2001; Sorin, 2000; Thompson et al., 1993; teacher-child – Sorin, 2000; symptoms – Barrett et al., 1991). For example, in study of Barrett et al. (1991) over 50% of symptoms were reported in greater numbers by the child, ten symptoms were reported twice as frequently (including fears and phobias), and seven symptoms were reported three times as frequently (here also general anxiety) as those by parents. From these results it is evident that children, even younger ones, should be asked directly about their feelings (Barrett et al., 1991)(see in Lahikainen et al., 2006).

The consistently moderate levels of agreement found among informants highlight the potential benefit of information obtained from multiple sources insofar as each source provides a unique viewpoint regarding a child's fears and other problems (Kolko & Kazdin, 1993; Sorin, 2003).

Mother-child concordance has also been found to be a function of child gender and age – with higher correlations between mother and child reports in females and younger children (6–7-year-olds) (Thompson et al., 1993). Silverman and Nelles (1989) have concluded that mothers do not perceive changes in the number and in the intensity of their children's fears – the longitudinal study after one year showed no significant differences.

Lapouse & Monk (1959) have found that compared with the agreement in other behaviour problems investigated in their study, the disagreement on fears and worries was the highest. Children report 26 fears and worries more often than mothers did; mothers' positive responses were greater in only 4 fears and worries. The highest agreement (93%) was on the fears of people like postmen, policemen, teachers and tradesmen, going to school (87%), any particular person (85%), going into the water (84%), crossing the street alone (76%), staying alone at home (73%), and animals (69%). The *lowest* agreement was on the fears of being kidnapping (41%), getting sick, having an accident or dying (42%), strangers (43%), germs (44%), the illness, accident or dying of a family member (44%), own health (45%) and events in the world, e.g. wars, floods, hurricanes, murders (48%). In all these low agreement cases the child's report was positive in about 50% of the cases while their mothers' report was negative.

On the basis of previous research the following hypothesis can be generated:

3. Hypothesis: The agreement between different informants, parents and children is quite low.

- **Peer reports** – there are only two studies available where peer's assessments were used to investigate children's fears (Ollendick et al.,

1995; Silverman & Nelles, 1987). Both 8–11-year-old boys and girls judges rated “other boys” as less afraid than “other girls”. *Boys* viewed girls as being significantly more afraid than they were themselves and also rated the frequency and intensity of their own fears as lower than that those of other boys; *girls* rated boys as having significantly less prevalent fears than other girls. Interestingly, girls viewed the fear prevalence for themselves not significantly different from the ratings they assigned to other boys, but rated themselves as having significantly lower fear intensity than other girls (Silverman & Nelles, 1987). Ollendick and his colleagues (1995) investigated Chinese children between 7 to 17 years and found that boys and girls of varying ages rated the fears of their best friends as similar in number, intensity and content to their own, but they perceived those who were not their best friends as having patterns of fear dissimilar to their own and those of their best friends. Interestingly, *boys* perceived “others” to be more fearful than themselves or their best friends, but *girls* perceived “others” to be less fearful than themselves or their best friends – so, boys appear to minimize and girls to accentuate their own fears compared to how they perceive others.

- **Child interviews** – several researchers have used interview with children as research method (e.g. Maurer, 1965; Muris et al., 2000, 2001). One of the earliest studies about children’s normative fears which was based on interview method was conducted by Jersild, Markey and Jersild in 1933. They interviewed individually 398 children aged between 5–12 years and also investigated the impact of age, gender and SES. Several interview-based studies where respondents were aged between 4 to 19 years have found an average fear number per child between 2 (e.g. Maurer, 1965) and 4–5 (e.g. Taimalu, 1997). But Slee and Cross (1989) found the average number per child to be much higher – 9.3.

According to earlier researchers in the 1930–1950s (e.g. Jersild & Holmes, 1933) the fear of animals was recorded as the most common fear in five and six year olds, and along with supernatural events and beings also at age seven and eight. Later studies have also proved that, but Croake (1969, 241) got different results. He questioned the third and sixth grade children about their past, present and future fears, and found that the most consistently held fears for all of the population group comparisons made in the present and future tenses were *political* (e.g. war, communists). Croake supposed that the Vietnam War in that moment, TV and generally improved mass communication may account for the importance of political fears at an earlier age, and that these factors may be the major reasons for the shift in fears away from animals and supernatural phenomena (Croake, 1969, 246).

- **Fear list investigations** – this technique in which children are simply asked to list their fears (e.g. Angelino 1953, Nalven 1970 and Pratt, 1945 all by Gullone, 2000), is not very frequently used in newer studies. This method is somewhat cognitively demanding and is not suitable for use with preschool

children. Nevertheless, Pratt used this method with children aged between 4 to 16 years. In this study children listed an average of 7.5 fears, girls and surprisingly older children more than boys and younger children. This interesting result may be caused by the assessment method. Younger children's (under nine years) fears were more related to animals and older children's more to illness, disease and school (Gullone, 2000).

- **Self-report fear survey schedule investigations** – this method has been the most commonly used for assessing fears in schoolchildren and youth. There have been in use several different fear survey schedules (FSS) – in addition to Scherer and Nakamura's (1968) FSS for Children (80-item schedule with 5-point response scale ranging from 1=none to 5=very much) based upon the adult FSS developed by Wolpe and Lang in 1964, approximately 20 different instruments have been used, such as Croake's 69-item fear schedule in 1967 and Ryall and Dietiker's 48-item schedule in 1979 (Gullone, 2000). Ollendick (1983) revised Scherer and Nakamura's schedule in order to enhance its validity with younger children and children with intellectual disabilities. He replaced the 5-point scale with a 3-point scale (1=none, 2=some, 3=a lot) for each of the 80 items. The revised Fear Survey Schedule (**FSSC-R**) was psychometrically evaluated on two samples of children aged between 8–11 years and shown to have adequate reliability and validity. It is interesting that Ollendick (1983, 691) found that the intensity, frequency and pattern of fears has remained remarkably stable over the past 30 years when comparing his study's results with earlier studies from 1950s.

FSSC-R has been revised a second time (**FSSC-II**) by Gullone & King (1992) for the purpose of updating its content, which had remained unchanged since the original scale was developed in the 1960s. Some new fear items were added (e.g. AIDS and nuclear war), also the 3-point response scale was changed so that items are endorsed on a scale ranging from 1=not scared to 3=very scared. FSSC-II differs quite substantially from the FSSC-R: it comprises 75 items, 28 from original scale, 19 re-worded versions from the original scale and 28 new items. Psychometric analysis yielded good validity and reliability, and also has a five-factor fear structure, which was very similar to Ollendick's fear structure (Gullone, 2000). The second attempt to construct a scale that reflects more current fears and concerns of children was undertaken by Shore and Rapport (1998) and was named as Fear Survey Schedule Hawaii (**FSSC-HI**).

This method's *advantages* are: it is easy, convenient and inexpensive to administer; it makes a big amount of information available in a relatively small amount of time; it can be objectively scored and can assess responses to a large variety of fear stimuli and data are easy to quantify; these schedules enable one to identify the number of fears, and the intensity and content of fears; and finally it's very important that data derived through the use of validated schedules are highly comparable across different subject groups.

But of course, there are some *disadvantages* also: there is some debate about the degree to which the data collected with fear survey schedules are an

accurate reflection of fear; many factors may influence responses; and as mentioned previously, this method is cognitively demanding and so it is suitable only for children aged six years and above.

Thus, it is not suitable for investigation of preschool children's fears (Gullone, 2000). McCathie and Spence (1991) have also suggested that measures such as the FSSC-R do not reflect the most prevalent and actual childhood fears but rather list those items to which children have the most negative attitude or children's reports of their perceptions of these events if they would actually occur. Muris, Merckelbach, Ollendick, King, Meesters and van Kessel (2002) controlled this proposition and found that the most common fears measured by FSSC-R, fears belonging to the factor of danger and death, were ranked high when using the standard FSSC-R procedure, but were significantly less common when using the fear list procedure (children were asked to write down freely all stimuli and situations they feared), and had a low probability of actual occurrence on a daily basis (from 3 to 12%), as well as possessing a short duration and low intensity (according to diary method). So, on the one hand, the FSSC-R includes items that do reflect children's actual fears, but on the other hand, this survey also lists a number of items (in particular those related to danger and death) that probably tap perception of threat and danger (Muris et al., 2002d).

Usually in the studies the *prevalence* (defined as the number of items receiving the maximum rating of 3 (i.e., a lot)), *intensity* (the total score of a multiple-item fear inventory), *content* (items rated most fear-eliciting on average) and *structure* (factor analysis) of fears are usually analysed.

The majority of fear studies have derived fear classifications either on factor analysis (the most common factor analytical technique has been principal components analysis with varimax rotation (e.g. Arrindell, 1993; Bouldin & Pratt, 1998; Campbell & Rapee, 1994; Ollendick, 1983; Shore & Rapport, 1998; Westenberg et al., 2004) or conceptual classifications (e.g. Croake, 1969; Croake & Knox, 1973; Jersild & Holmes, 1933; Sorin, 2000). The conceptual structure of fear has predominantly included such categories as bodily injury, personal relations, animals, physical danger, school, economic and political situation, and supernatural and natural phenomena (Gullone, 1996).

Majority of studies where FSSC-R (and its modifications) have been used have demonstrated the *five factors structure*, which can be generalized across children and adolescents in United States (Ollendick, 1983 – 1.Failure and Criticism, 2.The Unknown, 3.Injury and Small Animals, 4.Death and Danger, 5.Medical Fears), Australia (Ollendick et al., 1989), and England (Ollendick et al., 1991). A quite similar five factor structure has also been found by Gullone & King (1992), McCathie & Spence (1991), Muris & Ollendick (2002), Muris and his colleagues (Muris et al., 2003a), Staley & O'Donnell (1984 – according to mother's reports), to name a few.

However, some studies show a fears structure of only two (Campbell & Rapee, 1994 – physical threat and social threat, but there was only 31-item

scale) or three (Miller et al., 1972 according to parent's ratings – fear of physical injury, of natural and supernatural dangers and of psychic stress), while others have shown six (e.g. Erol & Sahin, 1995) or seven factors (see e.g. Mellon et al., 2004; Shore & Rapport, 1998). Thus, it appears there is a great deal of similarity among the factor structures and more commonly, the factors are dimensions relating to social rejection, death and danger, animals, medical treatment, psychic stress, and fear of the unknown (agoraphobic fears) (Gullone, 1996).

Also Arrindell and colleagues (1991 by Öhman, 2000, 575) provided an analysis of 25 studies containing factor-analyzing questionnaire data on adults' self-reported fears. They found that the 194 factors and components identified in these studies could be classified into a structure involving four factors: *First factor* was “fears about interpersonal events or situations” – included all kind of social fears, e.g. criticism, conflicts, evaluation, interpersonal aggression. *Second factor* was “fears related to death, injuries, illness, blood and surgical procedures”. This had quite a heterogeneous content, including all kind of threats to physical health, but also mental problems, homosexuality.

Third factor was “fear of animals”, including common domestic animals, small and harmless animals, insects and reptiles. *Fourth factor* was “agoraphobic factor” which involved fears of public places, crowd, closed spaces, crossing bridges.

Combination of methods is more suitable

There have been many different methods and instruments used for the investigation of children's fears. Each of these studies has given important and interesting results, but each of them also has some disadvantages presented above. Thus, it is obviously necessary to *combine some different methods* to get a more complete picture about children's fears. For example, Muris and his colleagues (Muris et al., 1997a, 1997b) and Lane and Gullone (1999) have argued that it is a combination of some methodologies that gives a truer picture of the most common fears.

Both Muris et al. (1997a, 1997b) and Lane and Gullone (1999) have used *two methods* to investigate children's fears aged between 9–13 years (Muris) and 11–18 years (Lane). As the first step Lane & Gullone (1999) asked children to list their three greatest fears, Muris et al. (1997a) asked individually open-form question: “What do you fear most?”, and Muris et al. (1997b) asked the children to complete the fears survey scale (FSSC-R). After that Lane & Gullone (1999) and Muris et al. (1997a) asked them to fill out the fear survey schedule (Lane & Gullone FSSC-II, Muris et al. FSSC-R) and Muris et al. (1997b) asked all the children individually the free-answer question: “What do you fear most?”. Although the results were quite different, Muris and his colleagues argued later that maybe the FSSC-R, which was completed first, had an impact on the children's free answers. As the results of open-form question

children's most common fears were related to animals (most frequently spiders and snakes), failure and criticism, unknown and medical fears. In contrast, the most common fears generated on fear schedule related to death and danger in all three studies.

Although the large majority of the free option fears (79%) were also covered by the FSSC-R, such items as spiders, darkness, ghosts, snakes or having my parents argue (Muris et al., 1997b) and being kidnapped, frightening movies, being teased or predators (Muris et al., 1997a) appeared to be far more prevalent with the free option method. According to the Muris et al. study (1997b), only four of the ten most common fears (death, illness, burglars and not being able to breath), and according to study of Muris et al. (1997a) three fears (spiders, burglars and being hit by car or truck) were the same according to both methods. So, the fear rank orders for children critically depend on the method that researchers use. Thus, the latter studies suggest that a complete assessment requires a *combination of methods* (i.e. interviews, behavioural observations, rating scales, self-reports) and possibly *multiple informants* (e.g. child, parent, teacher) (Ollendick et al., 1996, Sorin, 2003).

5. FEAR IN DIFFERENT CONTEXTS

Many authors have investigated the factors which can have an impact on children's fears. The most common of these are age and gender, but also several authors have studied the influence of socioeconomic status (SES) and culture (society). Next author will give an overview about these factors, and also add some others, which are not so often discussed: societal change, family background and media (television). Author has taken these all as different contexts in which we can see fear.

5.1. Age

In addition to demonstrating that stimuli most feared are those that pose or signal a threat to survival, or at least did so in evolutionary terms, normative fear research has shown a decrease in overall fearfulness and the number of fears with a corresponding increase in age (Gullone & King, 1997, 98). Several fear studies have found that younger children express on average more fears (or higher level) than older children – the majority of these studies' sample consisted of children older than seven years old (e.g. Burnham & Gullone, 1997; Davidson et al., 1990; Elbedour et al., 1997; Erol & Sahin, 1995; Gullone, 1996; Gullone & King, 1997; King et al., 1989; Mahat & Scoloveno, 2003; McCathie & Spence, 1991; Muris & Ollendick, 2002; Muris et al., 2002c; Ollendick & King, 1991; Ollendick et al., 1989; Owen, 1998; Shore & Rapport, 1998; Spence & McCathie, 1993; Stevenson et al., 1992; Valkenburg et al., 2000 – television fears; Slee & Cross, 1989 – children aged between 4–19 years).

Jones & Jones (1928, 138) have found a likely explanation as to why the overt expressions of fear is apt to be less marked as children grow older: partly because the older the child is the fewer unfamiliar situations he/she meets and partly because he/she has learned to mask and repress the more conspicuous symptoms of emotions. Effectiveness of a fear stimulus and the type of emotional response are greatly affected by maturation.

Of course, the decrease may not be in simple linear relationship with age, as several studies have shown a sharp increase in the number of reported fears around middle childhood, ages 9–11 (e.g. Ferrari, 1986; Muris et al., 2000, 2002b, 2003b). For example, fear total scores increased from 4–6/7-year-olds to 7/8–9/10-year-olds and then decreased among 10/11–14-year-olds (Muris et al., 2002b, 2003b – 61/ 84/ 74% respectively). On the contrary, Draper and James (1985) believed that general fears peaked between 2 ½ – 4 years of age.

Marks (1987b) says that while specific fears tend to decrease with age, generalized anxiety or general fearfulness does not and tends to be quite stable. Gullone (1996) argues that a decrease in the level of fear (i.e. the frequency) is

not necessarily an indication of a decrease in fear intensity. Jones & Borgers (1988) think that the frequently documented decrease of fears with age may not mean the real disappearance but there may be less overt expression of fears and this may mean that the fear is well (better than earlier) hidden only.

Also Bouldin & Pratt (1998), who have used parents as informants, showed that parents reported a higher overall level of fear for schoolchildren compared to preschool children – so the overall level of fearfulness seemed to increase with increasing age rather than decrease. However, those findings are not necessarily contradictory, as the age range of the samples in many other studies (e.g. Gullone & King, 1992; King et al., 1989; Ollendick et al., 1989) included school-aged children from 7 to 18 years, not preschoolers. Comparing this study with the findings of research of older children, Bouldin and Pratt suggest an inverted U-curve across childhood and adolescence for the description of development of children's fears, with fears increasing from preschool to early school, and then reducing toward adolescence (Bouldin & Pratt, 1998, 276).

Some studies have found that no clear age differences have been reported with regard to the number or prevalence of self-reported fears (in child interviews). For example, in samples between 6–12-years (Eme & Schmidt, 1978; Maurer, 1965; Sidana, 1973) no age differences were reported. Also Lapouse and Monk (1959) and Ollendick, Matson and Helsel (1985) did not find clear support for chronological age differences.

Some studies suggest that the type (*content*) of fears is related to age. Human development generally shows a normal transition from infant fears, which are related to immediate, concrete and prepotent stimuli, and are largely non-cognitive, to fears of late childhood and adolescence, which are related to anticipatory, abstract and more global stimuli and events and are more cognitive (Gullone, 1996). The most consistent findings are an age-related decline in fear of animals (e.g. Bauer, 1976; Ferrari, 1986; Lapouse & Monk, 1959; Maurer, 1965; Robinson et al., 1991; Slee & Cross, 1989; Staley & O'Donnell, 1984) and in fears of the dark or of imaginary creatures (e.g. Bauer, 1976; Ferrari, 1986; Maurer, 1965; Muris et al., 2000, 2001; Robinson et al., 1991; Slee & Cross, 1989), and age-related increase in school and social fears (e.g. Bauer, 1976; Ferrari, 1986; Lapouse & Monk, 1959; Muris et al., 2000; Ollendick et al., 1989; Robinson et al., 1991; Slee & Cross, 1989; Staley & O'Donnell, 1984).

Westenberg et al. (2004) in their study with children between 8–18 years found that fears of physical danger and punishment decreased, whereas fears of social and achievement evaluation increased with age. Younger children were found to be more concerned about getting lost in a strange place and being sent to the principal, whereas older children are more concerned about having their parents argue and failing a test (Ollendick et al., 1989). Campbell & Rapee (1994, 110) found that physical concerns declined with age and were the highest for younger children, but social concerns remained constant and were more common for older children. Muris et al. (2001) in his study about children's

nighttime fears found that the frequency of frightening dreams decreased with age, whereas fears of intruders (e.g. burglars) and frightening thoughts increased as children became older.

Also the effect of television programmes as the generators of children's fears becomes a matter of age – fright films seem to be traumatic before the child thoroughly understands that they are only imaginary, which happens about the age of 9 – 10. With age the subject matter becomes more realistic and more closely tied to learned or experienced objects and situations. As the child matures, the emotion of fear fastens upon more and more realistic objects depending upon experience learning rather than upon instruction (Maurer, 1965).

Several studies employing objective self-report measures have reported more prominent age differences in the *prevalence* and *intensity* rather than in the content of fears, with younger children reporting more fears and fears of greater intensity than older children (Burnham & Gullone, 1997 – American sample; Gullone & King, 1992; Gullone, 1996; Gullone & King, 1993 – Australian sample; Jersild & Holmes, 1935; King et al., 1989; Lapouse & Monk, 1959; Ollendick et al., 1989). For example, LaPouse & Monk (1959, 809) found that younger children (6–8 years) have more fears than older children (9–12 years) as reported by their mothers: little cuts and bruises (younger 47%, older 29%), thunder and lighting (46/31), blood (44/27), staying alone at home (31/18), the dark (30/19), and animals (16/7).

Lentz (1985b) found two age differences in 4–7 year-old children: younger children (4–5-years) reported in the “school outside” context more fears of monsters, ghosts and animals, insects and birds than older children (6–7-years); in the “home playing” contexts younger children endorsed more fears of bodily injury and again monsters and ghosts than older children.

Of course, culture may also have an impact on the decrease or increase of children's fears with age, for example, in Chinese children fears didn't decrease with age, the age group between 11–13 years reported higher levels of fear than younger and older children (Dong et al., 1994; Ollendick et al., 1996).

Actually, there are contradictory findings which show that fears in ages from 7 to 18 remain quite constant both in numbers and content, and that during nearly 20 years (1968–1985) children's fears have not changed significantly (similar number of fears, intensity and the ten most common fears) (Ollendick et al., 1985). Also Staley and O'Donnell (1984) did not find significant differences according to mothers' reports in 6–16 year old children's fears. Ollendick and his colleagues (Ollendick et al., 1996) found that the intensity and prevalence of self-reported fears of Nigerian children and adolescents did not change with age. Also Muris and his colleagues (Muris et al., 2000) have found that the top intense fears and scary dreams remained relatively stable across age levels (from 4 to 12 year olds). Fearfulness decreases over time with an increase in age, but this decrease appears to be most marked in younger years and continues to approximately 11 years of age or the beginning of adolescence, at

which time a degree of stability begins to become apparent (Gullone & King, 1997, 109). In general, age differences seem to be not as clear as gender differences in fear content and level.

5.2. Gender

According to the evidence from literature it might be concluded that there is a general trend for girls to report a greater number of fears than boys, fears of somewhat different type and to express a greater intensity of fear response (Ferrari, 1986). The majority of children's fear studies have shown that girls report more fears than boys (e.g. Burnham & Gullone, 1997; Croake, 1969; Croake & Knox, 1973; Davidson et al., 1990; Ferrari, 1986; Gullone, 2000; Gullone & King, 1997; Jones & Borgers, 1988; King et al., 1989; Lapouse & Monk, 1959; Lichtenstein & Annas, 2000; McCathie & Spence, 1991; Muris & Ollendick, 2002; Muris et al., 1997b, 2003b; Ollendick, 1983; Ollendick et al., 1985, 1989, 1991, 1996; Owen, 1998; Shore & Rapport, 1998; Slee & Cross, 1989; Spence & McCathie, 1993; Stevenson et al., 1992; Valkenburg et al., 2000 and Wilson et al., 1987 – television fears; Smith & Wilson, 2002 – television news). For example, in the study of Burnham and Gullone (1997) fears of war, including nuclear war, were common across all ages in both Australian and American samples, especially for girls. Girls reported more fears than boys on almost all fear factors (Ollendick et al., 1989; Owen, 1998; Spence & McCathie, 1993). In self-assessments about own fearfulness boys rated themselves as less fearful than girls (Ollendick et al., 1995; Silverman & Nelles, 1987). It even seems not to be dependent of culture, SES or other factors of such kind (e.g. Dong et al., 1994 in China; Elbedour et al., 1997 in Israel; Erol & Sahin, 1995 in Turkey; Mahat et al., 2004 in Nepal; Mellon et al., 2004 in Greece; Owen, 1998 in Spain). Also studies where parents have been used as informants (e.g. Bouldin & Pratt, 1998) showed that parents reported a higher overall level of fearfulness for girls compared to boys.

But there are also some studies in which similar methods were used but found small or no gender differences in the frequency of reported fears (Eme & Schmidt, 1978; Lentz, 1985a, 1985b; Maurer, 1965; Miller et al., 1972; Muris et al., 1996; Stevenson-Hinde & Shouldice, 1995; Silverman & Nelles, 1989 – reported by mothers; Ingman et al., 1999 – African children; Kirmanen & Lahikainen, 1997 – Finnish children; Mahat et al., 2004 – American children; Ollendick et al., 1996 – Nigerian children; Taimalu, 1997 – Estonian children). Maurer (1965, 269) found tendency that boys reported slightly higher the average number of fears than girls (4.23 vs 4.00), but this difference was not significant.

So, numerous studies suggest that girls *report* more fears than boys, but it is not fully apparent that girls *have* more fears than boys (Ferrari, 1986).

Observational studies (e.g. Miller et al., 1972) have tended to show the lack of a systematic gender difference. Campbell and Rapee (1994) found that girls (aged between 6–16 years) showed greater social concerns than boys, but there were no gender differences in physical concerns. Ollendick (Ollendick et al., 1985) and King with colleagues (King et al., 1989) in their studies have found great difference according to gender of respondents: girls reported an average of 16 fears while boys only 8 fears by Ollendick's study, and 18 and 10, respectively according to King's study.

These findings are much less conclusive for preschool and elementary school children (e.g. Draper & James, 1985). The majority of studies supporting gender differences, where girls report more fears or higher level of fearfulness, have school-aged children as their sample. It may be that gender differences in fearfulness become more pronounced with an increase in age (Gullone, 1996). For example, Bauer (1976, 72) found that 90% of 12-year-old boys and only 30% of same age girls indicated that they don't have nightmares, while in younger children nearly equal proportions of girls and boys reported such absence.

It is interesting that in children over age 7 girls are found to be more fearful than boys regardless of the method used, but in children under 7 years this is found only when parents have been used as informants (e.g. Bouldin & Pratt, 1998; Burnham & Gullone, 1997; Elbedour et al., 1997; Gullone & King, 1992; King et al., 1989; Owen, 1998). Differences according to children's gender in parental reports about their children's fears also showed mother/child agreement was significant only for daughters. It is supposed that mothers might read their daughters' feelings more easily than their sons' (Stevenson-Hinde & Shouldice, 1995).

Using children as informants, both Lentz (1985a, 1985b) and Bauer (1976), as well as Kirmanen and Lahikainen (1997) have found that boys and girls aged 5–6 had very similar kinds of fears. The only difference observed by Lentz was that girls were more afraid of bodily injury than boys (both in home and school outside context). In the master thesis of author of this dissertation, it was also found that boys don't report fewer fears than girls but even the contrary (see Taimalu, 1997). It seems that cultural role expectations have no significant impact on children before 7–8 years of age (Lahikainen et al., 2003). So, we can conclude that the *age* may have impact on reported gender differences in children's fears.

Both in *intensity* (e.g. Gullone & King, 1997; Ollendick, 1983) and in *prevalence* (e.g. Gullone & King, 1993; King et al, 1989; Lapouse & Monk, 1959; Ollendick, 1983) studies have shown that girls report a higher level of fear. Ollendick (1983) found an average of 13 excessive fears ("is afraid a lot") reported by girls and 9 by boys.

Gender differences in fear *content* have been reported by relatively few fear investigations. Girls have been found to be more fearful of bugs and snakes (or generally other animals also) according to the report of their mothers: girls 61%

and boys 25%, strangers and dirt (LaPouse & Monk, 1959, 809), and rats, spiders, mice, being alone (Gullone & King, 1993) than boys. Also with regard to content differences girls reported being more fearful of darkness, strange sights and sounds, loneliness, personal relationships, being kidnapped or killed. Boys reported being more fearful of bodily injury, nightmares and imaginary creatures (Gullone, 1996, 2000). Girls had more fears of physical injury, animals, night fears and public places according to their mothers' reports (Staley & O'Donnell, 1984). According to Muris et al. (2000) study more girls than boys were afraid of being kidnapped, whereas more boys than girls worried about being punished. Muris and his colleagues (2002d) found that girls were more often scared of animals and less frequently afraid of personal harm. Also boys are more concerned about illness and getting poor grades, whereas girls are more concerned about being lost in a strange place and snakes (Ollendick et al., 1989).

Schaefer, Watkins and Burnham (2003) have found interesting clusters for school-aged children and show that girls exhibited two profiles: high levels of all types of fears and relatively elevated animal fears. Boys were significantly more likely to be members of a profile marked by minimal level of all types of fears. Stevenson-Hinde and Shouldice (1995), who investigated preschool children's fears, fearful behaviour and worries, found that girls expressed worries about family members, while boys tended to worry about their own performance.

Robinson III, Robinson and Whetsell (1988) have found that the top 12 fear objects were very similar for boys and girls. Only the girls' fears of accidents and strange noises did not show up in the top 12 fears for boys, and the boys' fears of snakes and strangers were not listed among the top 12 for girls.

Some gender differences were found to exist also in *coping ways* with fears – girls preferred more frequently than boys to use the support from parents and other close adults, while boys reported more frequently the use of avoidant behaviour or escaping. Girls also tended more frequently than boys to express their emotions (crying) (Kirmanen & Lahikainen, 1997; Taimalu, 1997).

One possible explanation for this widely found gender difference that girls tend to report more and intenser fears may lie in the socialization process during which girls learn that it is permissible to either have or express fears and boys learn to deny or hide their fears and to "be brave" (Dong et al., 1994; Gullone & King, 1997; Jones & Borgers, 1988; Kendall & Ronan, 1990; Ollendick et al., 1995; Owen, 1998). Girls are "socialized" to be more fearful than boys and are reinforced for reporting their inner worries and fears more than boys (Dong et al., 1994, 360; Gullone, 1996, 146), also fearful behaviour is more acceptable for girls than boys (Gullone & King, 1997). Furthermore, girls are often considered more vulnerable to physical injury and sexual exploitation and may be taught more frequently and more explicitly about potential dangers (Lentz, 1985a; Owen, 1998). Some investigations have shown, by using a pulse sensor, that there was no big difference in fright reactions between boys and girls. It is

supposed that some fears (e.g. mice, rats, small animals) are those which men would be more likely to lie about in order to preserve their macho image (Gullone, 2000). Fredrikson, Annas, Fischer and Wik (1996) argue that social transmission of fears (role modeling) might be more frequent or facilitated among women than men.

Actually boys are found to be more vulnerable and they tend to adapt in new situations more slowly, also they survive separation worse than girls (Rutter, 1974). On the other hand boys behave in a more risky way which gives more possibilities for the development of fear. Whatever the explanation, it is important to help children, both girls and boys alike, to articulate and to examine their fears (Owen, 1998).

Thus, there are many studies that confirm the significant impact of children's gender on their fears (girls are found to express more fears than boys). But the samples of the majority of these studies have been school-aged children. Studies with younger children have not found any clear direction of the influence of gender.

On this basis the following hypothesis can be generated:

4. Hypothesis: We can suppose that there are no significant differences in fears of preschool children according to children's gender.

5.3. Socio-economic status (SES)

Socio-economic status of the child's family appears to affect also the expression of fears, with studies reporting greater frequency and intensity of fears among children of lower SES (see e.g. Croake, 1969; Croake & Knox, 1973; Erol & Sahin, 1995; Ingman et al., 1999; Lapouse & Monk, 1959; Owen, 1998; Shore & Rapport, 1998; Sidana, 1973).

Low SES children reported more fears and more intense fears than did middle or high SES children, also low SES children reported more fears related to personal threat/social dangers, small and big biting animals. It does not appear surprising because low SES children often experience directly many of these fears listed on the survey (e.g. shootings, gangs, etc.), and they may be more defenceless against such genuinely dangerous situation as murder, illness, starvation, robbery, from which other children are more protected (Owen, 1998). Angelino and his colleagues in 1956 found that lower SES children listed more money, animal- and job-related fears than upper SES children, who listed more school-related fears (Gullone, 2000). Jersild et al. in 1933 found that lower SES children were more likely to fear supernatural phenomena, failure in school, and being scolded, while wealthier children were more likely to fear illness, injury and death (Gullone, 2000). Staley and O'Donnell (1984) found

that low SES children had more fears related to physical injury but fewer school-related fears than high SES children.

According to Lapouse & Monk (1959, 809), lower SES children have more often fears and worries of using other people's glasses, dishes or towels (54%/41%), school marks (47/29), accidents in the world, e.g. wars, floods, hurricanes, and murders, (44/29), fires breaking out (36/20), being kidnapped (22/9) and peoples of different nationality, race or skin color (10/3) compared with upper SES level children as reported by their mothers. As noted by Graziano, DeGiovanni and Garcia (Graziano et al., 1979) the fears of lower SES children tend to suggest that they may perceive their immediate environments as far more hostile and dangerous places than is the case for their middle or upper SES peers.

Sidana (1973) argues that one possible explanation may be different child-rearing practices of the parents. High SES parents have been found to be more permissive, less punitive and warmer, while low SES parents tend to use more crude controls and give physical punishment to their children. It is also possible that the *age* of children has impact on findings of such kind. For example, Jones and Crosser in 1993 found that there were no significant differences in the numbers of preschoolers' self-reported fears between socio-economic levels (Crosser, 2002a).

There is not formed so clearly defined differences between Estonian people that we could compare low and middle or high SES children. Maybe the family income and living conditions are the simplest characteristics in our society.

Whereas there is cross-national consistency in what constitute childrens' and youths' greatest fears, there are some differences which may be a reflection of cultural and /or national differences (e.g. Burnham & Gullone, 1997; Gullone & King, 1992).

5.4. Cultural background

The nature of and changes in fears depend not only on development, but also reflect children's understanding of their world, and, as such, is affected by the *culture* in which the child lives (Elbedour et al., 1997, 496; Tikalsky & Wallace, 1988, 490). Children learn to fear different things, and what is an "objective source of fear" is partly determined by the given cultural context. Thus, when deciding if a child is phobic, one should consider the impact of cultural variables.

There are some fears which are found to exist among all children around world and across cultures in certain age, for example, as the most typical, fears of strangers and separation, but also fears of abandonment, getting lost, heights, darkness/dark places. But several studies (e.g Dong et al., 1994; Ollendick et al., 1996; Owen, 1998) suggest that fears are modified by cultural factors. More

specifically, culturally mediated beliefs, values and traditions associated with socialization practices play a role in the kinds of problems children display as well as the kinds of problems significant others perceive to be problematic in children (Ollendick et al., 1996, 213). Moreover, society as whole forms a frame for childhood experiences and socialization practices both at home, in care institutions and in schools.

Some fears are born of cultural norms and taboos. Children in multicultural settings will tend to reflect both the fears and coping strategies of home and neighbourhood, religion, community, culture and society (Crosser, 2002a). Cultures tend to define which kinds of situations call for particular emotions and which kinds of emotional patterns will be recognised and experienced (Sorin, 2004).

For example, Ollendick, Yang, King, Dong and Akande (Ollendick et al., 1996) compared children from four countries: America, Australia, China and Nigeria between ages 7–17 years. Neither gender nor age differences were found among Nigerian children, but girls from the other three countries reported more fear than boys. Younger children reported more fear than older in American and Australian samples, and the results of the Chinese sample were consistent with Dong, Yang and Ollendick's (Dong et al., 1994) findings. A large percentage of Australian and American children reported fears of burglars breaking into their homes and of getting lost in strange places, while high percentages of Chinese and Nigerian respondents expressed fears of electricity and potentially dangerous animals (e.g. bears in China and snakes in Africa).

So, differences across the cultures were found with the Nigerian and Chinese children as expected. They reported more social-evaluative and safety-related fears than children from Western countries. The most common fears were primarily death and danger-related, but some fears were specific to the country (e.g. ghost in China, looking foolish in America, the ocean in Nigeria, and guns in Australia).

There are many *cross-cultural* studies, mainly with the use of FSSC-R (or its modifications) method, including for example, samples of school-aged children from Australia (King et al., 1989), Great Britain (Ollendick et al., 1990, 1991), China (Dong et al., 1994), Nigeria (Ollendick et al., 1996), United States (Burnham & Gullone, 1997; Ollendick, 1983; Ollendick et al., 1985, 1989), Japan and Germany (Essau et al., 2004 – used SCAS – Spence Children's Anxiety Scale), Greece (Mellon et al., 2004), Spain (Owen, 1998), Africa (Ingman et al., 1999), Turkey (Erol & Sahin, 1995), Israel (Elbedour et al., 1997; Klingman & Wiesner, 1983), Nepal (Mahat & Scoloveno, 2003 – used CMFS and SCS – Child Medical Fear Scale and Schoolagers' Coping Strategies Inventory).

Although many similarities were found (particularly for the Australian, American and British samples), some differences were reported for Chinese, Nigerian and Kenyan children compared with more typical “western” countries (see Dong et al., 1994; Ingman et al., 1999). Elbedour, Shulman and Kedem

(Elbedour et al., 1997) investigated Israeli Jewish and Bedouin children and also found great differences in their reported level of fearfulness and in most common fears; for example, Bedouin children reported a higher level of fear than Jewish children. Only three out of the top ten fears were the same for both respondents' groups. Authors discussed one possible explanation of these differences to be culture and other parental educational practices. While Jewish children grow up in a society that emphasizes individuality, Bedouin children grow up in an environment where collectivism and the supremacy of elders are central.

It is also interesting that Lapouse & Monk (1959, 809) have found that *race* has an influence on children's fears and worries according to their mothers' reports: Negro children having higher level than white children, Negro children have more frequently than white children the fears of using other people's glasses, dishes or towels (68%/46%), snakes (59/41), thunder and lightning (60/35), going to the doctor or dentist (49/32), germs (43/23), dirt (31/129), animals (32/8), going into the water (25/5) and people like postman, policemen, teachers, tradesmen (13/1).

Neal, Lilly and Zakis (1993) found a five-factor solution for white (Caucasian) children and only a three-factor solution for African-American children. It is interesting that the school-fears factor was absent in the sample of African-American children, and also their fears appeared to be less stable than the fears of white children. However, the content of fears was quite similar – eight of the 11 most common fears were the same for both groups of children. The higher stability of black children's fears (total fear score) compared with white children is also supported by Neal and Knisley (1995) study.

Davidson, White, Smith and Poppen (1990) in their study have found also differences between *rural and urban children's* fearfulness. Rural children were more fearful than urban children. Authors discussed that rural children may be more dependent on and protected by their parents; their experiential basis for the testing of fears reality may be more restricted and insular. On the contrary, King and his colleagues (King et al., 1989) have found that urban children report more fears than rural children.

Children from different cultures may perceive fears differently. Culturally mediated beliefs, values and traditions play a role in this (Mahat et al., 2004). Fears may be influenced also by parents' beliefs and attitudes, which exist in a particular culture. These are conveyed to children by their parents by means of specific child-rearing and socialization practices (Essau et al., 2004; Shore & Rapport, 1998). Cultures that purportedly stress inhibition, emotional restraint, and obedience were hypothesized to increase levels of fearfulness in children (Ollendick et al., 1996; Shore & Rapport, 1998, 457). It has been suggested that, for example, China and Nigeria stress more obedience, self-control, emotional restraint and compliance to social rules, also Chinese child-rearing and educational practices are generally restrictive, overprotective and emotionally unexpressive, placing considerable emphasis on other people's opinions and

high achievement in school, which all may account for the elevated social-evaluative and safety fears (Dong et al., 1994; Ollendick et al., 1996).

Among Turkish children, fears related to death and separation, as well as religious fears (e.g. going to hell) were highly prevalent in children (see Erol & Sahin, 1995). To achieve control and discipline over their children's behaviour, parents often utilize the threat of religious punishment; another method to foster dependency and obedience to authority figures is to talk of the dangerous world outside the family (Essau et al., 2004). Also Israeli children show significant effect of religion on the expression of fears: several items show significantly higher scores for those children from religious schools (Klingman & Wiesner, 1983).

Australian and American children's comparison revealed a considerable degree of congruity except with respect to the factor Medical Fears. Australian children were more concerned about getting an illness, whereas American children were more concerned about getting poor grades, being sent to the principal and getting lost in a strange place (Ollendick et al., 1989). In Hawaiian sample Shore and Rapport (1998) found more emphasis on social fears (factors "Anticipatory Social Fears", "Aversive Social Fears" and "Social Conformity Fears").

Nigerian children (Ollendick et al., 1996), Kenyan children (Ingman et al., 1999), Nepalese children (Mahat et al., 2004) and also Hellenic children (Mellon et al., 2004) reported greater average fear *intensities* and higher *frequencies* of fears than their American, Australian, British and Chinese peers (Ollendick et al., 1989, 1991, 1996). In another study, the average number of rated unrealistic fears per child for a Navajo sample was 22.1, but for the Anglo sample only 3.7 (Tikalsky & Wallace, 1988, 487)

Robinson III, Robinson and Whetsell (1988) have also found cultural differences in children's fears. For example, South American children were more likely to be afraid of teachers, while being alone was reported most frequently by United States, Bolivian and Columbian children. Of course there were many similarities also, for example, the fear of the dark and fears related to strange and potentially bad people.

Sorin (2004) has investigated Australian and Canadian preschool children and used caregivers (in day-care) as informants. She found that young children in both countries experience a number of similar fears, but there are variations in the extent to which they experience them. Interestingly, Australian children's caregivers reported more fears related to social relationships, e.g. fear of preschool, teasing by peers and punishment, while Canadian children were more afraid of loud noises, animals (e.g. dogs) and imagined creatures (e.g. monsters). The fears of strangers, new experiences and separation from primary caregiver were reported almost equally by caregivers of both countries.

Additionally, age does not have such an impact on Nigerian (Ollendick et al., 1996) and Chinese children's (Dong et al., 1994) fears as it seems to have on the majority of other children's. The studies with samples of Western countries

have found similar levels and patterns of fears. But based on cultural differences it has been proposed that children and adolescents in non-Western countries should report more fears and higher levels of fear than their Western peers (e.g. Dong et al., 1994; Ollendick et al., 1996). Dong, Yang and Ollendick (Dong et al., 1994) found that in the sample of Chinese children the decrease of fears with age does not appear. Among three age groups (7–10, 11–14 and 14–18 years) the middle age group, including 11–14 year old children, reported a higher fear level than the youngest and oldest groups who did not differ from one another. If compared with Western samples researchers found that the youngest children group reported less fear than American and Australian children, the middle group reported more fears and the oldest group did not differ.

At the same time several authors have found that the *content* of fears (usually ten most common fears) is quite similar across different cultures: six of the 10 items rated “most fearful” by Hellenic children (Mellon et al., 2004) appeared in the “top 10” fears of a Chinese sample (Dong et al., 1994); seven in the “top 10” fear of an Australian/American sample (Ollendick et al., 1989); and eight in the “top 10” fears of three samples – African-American (Neal et al., 1993), British (Ollendick et al., 1991) and Dutch (Muris et al., 1997b). It is interesting that the content of children’s fears does not differ to great extent across different cultures and countries (e.g. Davidson et al., 1990; Ollendick et al., 1996). Rather the *intensity and prevalence* (frequency) of fears varies significantly.

The “10 most common fears” is a frequently analyzed topic in fear studies using FSSC-R method. It is remarkable that many studies have found the top ten most common fears to be very similar across countries and different samples (mainly in schoolchildren’s samples). For example, Ollendick and his colleagues (1996) in their study with American, Australian, Chinese and Nigerian sample found that from 10 most common fears across the four countries there was seven of the same fears for American and Chinese, eight for Australian and six fears for Nigerian sample.

The majority of 10 most common fears belong to the death and danger factor. In several studies the top 10 fears have been fairly consistent across gender, age and country (see e.g. Ollendick et al., 1989). Listed below are some of the fear stimuli from 80 items of FSSC, which are the most frequently represented among the ten most common fears of school-aged children (according to Elbedour et al., 1997; Gullone & King, 1997; King et al., 1989; Ollendick et al., 1985, 1991, 1996; Spence & McCathie, 1993): being hit by car or truck, not being able to breath, bombing attacks/being invaded, earthquakes, fire/getting burned, falling from high place, failing a test, getting poor grades, having my parents argue, germs or getting a serious illness, burglars breaking into house, death/dead people, snakes, nuclear war.

Thus, we can conclude that fears reported by children transcend race. In sum, apart from some specific differences, there appears to be strong cross-

cultural consistency in developmental patterns of fear, gender differences, the most common fears, as well as the stability and structure of fear (Gullone, 1996).

5.5. Societal changes

Social changes like other cultural factors influence children's well-being. This happens both through daily interaction with the child's significant others as well as outside these relationships, for example, through media (Lahikainen et al., 2006). The speed of the changes in society is itself a source of the insecurity for the child (Lahikainen & Kraav, 1996, 118). It is reasonable to expect that as society changes, the content of children's fears will change (Owen, 1998; Robinson et al., 1988). In the 1940s, children were afraid of Hitler, in 1950s communism, in 1960s and 1970s nuclear war, in 1990s becoming homeless and being a victim of crime. Changes in our society and in the the world also influence the fears of the next generation – children (Harris, 1993). Actually, controversial findings claim that there have been no significant changes in children's fears during a period of nearly 20 years from 1968–1985 (Ollendick et al., 1985).

In 1993 Gullone and King provided new normative data based on updated fear items (for FSSC-R), which included such items as nuclear war and AIDS (Owen, 1998). Mellon and his colleagues (2004) suggested adding some culturally specific fear items (e.g. sharks), drugs/drug users and war/terrorism. According to the study of Slee and Cross (1989), as much as 50% of children aged 4–7 years expressed the fear of nuclear war, and also 77% of children between 8–19 years.

Common sources of fear among children in large, complex societies are punishments by adults for failure at some task and humiliation by peers. In smaller societies such fears are often minimized or absent (Tuan, 1979, 23).

Widespread media coverage of violent events and constant social and cultural changes appear to have a profound effect on what children fear (Robinson et al., 1988; Tarifa & Kloep, 1996). Looking at children's fears in different countries, it was found not only that children across societies have a common fear of war but also that fears are shaped by local events (Tarifa & Kloep, 1996).

Interestingly, in study of Tarifa and Kloep (1996) where Swedish and Albanian children's fears were compared to investigate how much children worry about events occurring in the adult world and their own countries, researchers found that Albanian and Swedish children fears were considerably different. Surprisingly, in spite of their nation's difficult situation, none of the real threats to the country (war, unemployment, famine, riots) appeared among the main fears of Albanian children. Only one, the most frequently mentioned

fear – fear of criminals and hooligans – reflected the daily experience of Albanian children living in a rapidly changing society in which crime is increasing, but the other reported fears were childish – e.g. animals, darkness, ghosts. At the same time Swedish children, living in peace and security mentioned more frequently such global fears as war, poverty of the country, unemployment, etc. Tarifa and Kloep find it intriguing that children who daily have to face the consequences of an economic crisis and are constantly confronted, at least in the news by media with war, are not afraid either of poverty or war. At the same time children in other countries who live in peace and security report as their highest concern a possibility of war. One possible explanation is the role that the *family* plays in the political socialization of children which in traditional and patriarchal cultures such as Albania starts much later than in other countries. Also parental overprotection, low level of autonomy, low allowed contact with outside environment and adult world for children, and numerous tales, legends and fables may play a role in these surprising differences (Tarifa & Kloep, 1996). Maybe another possible explanation is that when children are actually living in such conditions (e.g. war, poverty, crime area, etc.) they know first-hand what the situation is really like, what is truly an imminent danger. Whereas if other children are “outside looking in”, they must rely only on the information someone else gives them, e.g. the media, which also usually only shows the worst, and then they get a distorted picture and their imagination fills in the rest.

In 1973 Croake and Knox have found that the most frequently reported fears among 3rd – 6th grade children from USA were political fears (e.g. war, communists) followed by school related fears. It is possible that the mass media, especially television is the stimulus for making political fears prominent (Croake & Knox, 1973). As early as 1985 Draper and James (p 153) have said that perhaps increased stresses, such as those due to mobility, high achievement expectations, media violence and family dissolution are working to increase certain types of fears in young children. This all is very similar to tendencies and influences in our society now.

From the viewpoint of societal change we can say that there are at least two types of children’s fears. The first are fears that we can name as “contextual” – these are influenced by changes in children’s environment and society. The second group are fears that children experience from time to time (e.g. darkness, separation) and which are not so easily influenced by the changes in society. These fears have existed in the past, exist today and probably will exist in future, too. We know that family contributes to the impact of society upon children: when society changes, families and children’s sources of security and insecurity change (Lahikainen et al., 2007).

Ollendick and his colleagues (Ollendick et al., 1985, 1989) findings are noteworthy in the sense that the results of their studies are very similar to findings reported by Scherer and Nakamura (1968) nearly 20 years before. They reported a similar number of fears, a similar intensity of fears and a similar set

of 10 most common fears. Also Draper and James (1985) have found that the types of fears reported by preschoolers' parents were very similar to those reported by Jersild and Holmes in 1930ties. But the results of their study also showed increase in preschool children's fears of the dark, being alone and strange sights over 15 years.

So, can we conclude that children's fears do not change easily? Author thinks, it is possible that the child's fears today can change more rapidly than they did some decades ago because of the greater influence of media, rapid changes in many societies, very high tempo of life. It is logical to presume that these changes are greater and more frequent in transitory societies, for example, similar to Estonia, than in more stable countries. So it is necessary to investigate children's fears in such countries. We do not know very much yet about how small children feel in a changing society and values, both of which have an impact on parents' educational practices.

Murphy (1985, 175) has discussed that the nearly universal presence of television and the increasing popularity of day-care centers and nursery schools have provided opportunities for very young children to experience ideas and events that were not readily available to them several decades ago. She asks a question: has exposure to people and events outside of the home made children fearful of more and different things? Although she posed this issue about 20 years ago, these thoughts are still very relevant today.

It may seem as if there are already enough studies about children's fears. But it is likely that fears will continue to change along with society's fast-paced development. Our continually changing and developing environment reveals the need to continue to study the area of fear in children (Jones & Borgers, 1988). While earlier studies indicate that real-life fears (e.g. fears of real world violence as drive-by shootings, drugs, gangs, nuclear war) do not begin to emerge until early adolescence, more recent evidence (e.g. Owen, 1998) suggest that these fears are occurring at earlier ages, in the elementary school years. Taking into account the many social pressures facing children in the 1990s and our increasingly more violent society, it may be that young children are prematurely encountering an array of fears for which they may be neither cognitively nor emotionally prepared (Owen, 1998). Thus, it is possible that young children today need more frequently the help of their parents and /or professionals to cope with their fears.

On the basis of previous findings the following hypothesis was generated:

1. Hypothesis: It is probable that children's fears are influenced by societal change. Author presumes that children's fears are significantly different if to compare two studies over the ten year.

The processes of globalisation and the diffusion of electronic information technology, in the process of mutually reinforcing each other, profoundly reshape the conditions of social life. The social lifetime of almost everything –

of technologies, production methods, political systems, ideals, family patterns, sex roles, parenting and childhood – and also of the scientific “truths” about these things – become shorter and shorter. Change becomes the natural order of things.

Rather than being a person who *knows* her place, the post-modern child needs to be someone that is able to *find* her own place. This occurs both because of the presence of multitudes of simultaneous alternatives and because the conditions of one’s actions are constantly changing. There is an increasing need to be oriented towards continuously reorienting him or herself (Dencik, 2002). The situation where anything may be uncertain and continuously changing may cause insecurity for children also.

What does it mean for our children growing up today – and their parents – having to live in an era of rapid and continuous transformations? We cannot any longer trust that our own experiences will guide us adequately in preparing our children to handle their future life conditions because we cannot even grasp the contours of these conditions. When looking to the future of our children, the only thing we can be sure of is that we cannot be sure of anything (Dencik, 2002). Maybe parents feel insecurity and fear of the future even more than their children – present children’s environment has always been so changable and unstable, and children are very flexible, but parents find themselves living and rearing their children in an environment which is very much different from their own childhood experience. So, it may be possible that this rapidly transforming society induces more insecurity for adults, parents, not for their children.

For the individual the *family* becomes just one arena among several between which she/he moves. Each individual has an increasing numbers of contacts, more experiences and more social interactions outside the family. An increasing number of families are composed of partners who have a child living with them that is not the biological child of the partner they live with (“*blended families*”). Dencik also tells about “*the child’s family career*” when the family changes (e.g. parents divorce, then single parent family, then family with parent’s new partner, etc.). Family becomes an arena with increasing interrelational alienation between its current members. Establishing family is accordingly viewed increasingly as a project that the individual may govern and interrupt if other options turn out more attractive (Dencik, 2002). But author thinks maybe in the continuously and rapidly changing society where everything is unstable, the family should be just the sanctuary for intimacy and “fortress” of security, something certain in the changing network of relationships, a group where family members can behave just as they are, which has to be more stable and can provide the child the most close and intimate relationships and the sense of security and safety.

Thus, on the one hand, individuals have more and more challenges and social interactions outside family, but on the other hand family becomes more and more necessary as the unique place that provides stability, relaxation, close relationships, togetherness and security.

“Modernisation” concept is used to summarise those processes in society that produce continuous changes in peoples’, and therefore children’s, life-conditions; it perceived as a continuous challenge for adults and children (Dencik, 1998). According to Dencik (1998, 2002) modernisation is conceived as three intertwining processes in society, which produce continuous change in children’s life-conditions:

- *rationalisation* – such as the institutionalisation of public day care for children while their parents are at work
- *secularisation* – by questioning, for example, the traditional values that have guided family life. From having been the object of authoritarian subordination, the child has now become a project for professionalized care and educational development. Child’s own will and integrity are taken into consideration – so called “humanisation of childhood”
- *individuation* – individual becomes “disembedded”

The fact that both parents are gainfully employed outside the home, that children spend their days in public day care centres, that individualism and “self-realisation” have become prominent values, and that the idea of gender equality has become widely accepted in Western societies are among the factors that contribute to shape the mode of life within the families today (Dencik, 2002).

Dencik (2002) argues that parents gradually become weakened in their position as role models for their children. Most of the children will not become what their parents are; other group (e.g. peer group) affiliations will exert a strengthened influence on children. Children are dual-socialized from the very early age of life (e.g. two differently socializing *sociotopes* – family and day care). All these changes in society and family, which on the one hand offer a large variety of opportunities, on the other hand may cause insecurity and fears for both parents and children.

The main characteristics of changes in family environment in Europe, which may have an impact on children also, are the following according to Dencik (2002):

1. Average age when people become parents has been steadily increasing, and birth rate is considerably lower (see also subchapter 2.1. page 28 about Estonian changes). In Estonia now the decreasing tendency of birth rate has stopped. Approximately 90% of a given cohort of women eventually become mothers, but to only one or perhaps two children.
2. Studies show that fathers much more than before take part in and share, if not always on an equal basis, the tasks of caring for their young children.
3. Children are more “planned” (“*wanted children*”) today, and parents choose when to have them. But the amount of children born out of legal wedlock has increased significantly (see also subchapter 2.1. page 28 Estonian changes).

4. Children may experience serial separations; even close relationships may not be stable and long lasting today.
5. Increasing child-centeredness; parents devote most of their spare time with their children and for their children.
6. Most parents appear to experience time-related concerns; they experience difficulties in finding enough time to achieve the goal “being together” (Dencik, 2002).

All these changes are very characteristic for Estonian society and family also. Dencik (2002) suggests that the family as an institution will probably become both more frustrating as an institution to live in, but at the same time also more attractive to individuals. Today the family as an institution in the Western societies is both more challenged and more vulnerable than ever, but also more indispensable for the socio-psychological well-being of the individuals than ever before.

5.6. Impact of media and television

“There is a guest in today’s family who has much more freedom and liberty than any other stranger who ever enters the home. Third parent, second teacher, entertainer, informer, wasteland, babysitter, drug – these and a variety of other terms have been used to describe this house guest” (Palmer, Hockett and Dean, 1983, 279).

Children respond strongly to world events (Tarifa & Kloep, 1996). The television and other media is the strongest and most effective way to forward world events to children. So it is common today that in a very early age, children already know about global and local events, which may cause fears and sense of insecurity. Draper and James in 1985 supposed that children attending to the media reports of several crimes may have expressed increased fears. Murphy (1985) has argued about the impact of television also.

Television programs have cumulative and immediate dimensions of influence (Palmer et al., 1983). Although a few psychoanalytically oriented observers feel that frightening presentations can serve a *positive function* in children’s emotional development (e.g. Bettelheim, Smetak), it seems that the majority of investigators of frightening fare are concerned about potential *negative effects* on children (Cantor & Wilson, 1988).

In addition to causing fears or aggressiveness in children we should consider the “stagnant eye” problem also. Less is known and spoken about the “hidden violence” against children, which is difficult to recognize. If adults allow children to watch television without limitations of viewing time, they harm children’s physical, mental and emotional development deeply, so that it will be

impossible to compensate later. Many behavioural disturbances, educational and learning difficulties are the result of children's excessive television consumption without limitations and rules (Patzlaff, 2003).

Research on fright reactions to mass media goes back long before the advent of television. Several investigations in the 1930–1940s focused on fear reactions to mass media. Interestingly, studies of such kind were ignored in the 1960–1970s. Then from the 1980s on, researchers again became interested in the impact of mass media on children's emotions and fears. Maybe one reason for this is that mass media content has become increasingly graphic and horror filled (Cantor, 1996). Also television-viewing time increases steadily beginning from preschool years, during the elementary school years, and peaking at around age 12. For example, 31% of 7–12-year-old children reported having been frightened by television during the preceding year (Palmer et al., 1983). According to my master thesis (Taimalu, 1997) this percentage was 48, but the sample consisted of 5–6-year-old children (in 1993 in Estonia). Among the same old preschoolers in Finland in 1993 the number was significantly higher – 77% (Lahikainen et al., 2003, 92). Thus, it is logical to expect that the impact of television on children's fears and the frequency of television related fears have increased.

Informationalization and globalization have had a strong impact on the everyday life of all parents and children. The role of the media in children's lives has dramatically increased because of the increase of the number of TV sets in the households, the number of channels and broadcasting time (Taimalu et al., 2004b). The average viewing time of young children in Western countries (USA, Canada and the European countries) is about 2 hours per day (Owens et al., 1999; Wright et al., 2001). In addition to active viewing, passive TV exposure also exposes children to the threats of the media (Paavonen et al., 2006 by Lahikainen et al., 2007). Paradoxically, the media bring anxiety-provoking events close. These, however, do not necessarily affect the children's own everyday lives. Many children have to encounter too scary and too difficult things too early. These are not beneficial for their well-being (e.g. Cantor, 2002; Lahikainen et al., 2004). While watching scary media, children often experience anxiety and distress. Media-induced fears interfere with children's sleep. Retrospective reports also suggest that the negative effects of scary media may persist for years (Cantor, 2002).

The innovations in society will be transmitted without the interpretation of the parents. The electronic media transmit to the child messages that compete with those from parents and caretakers. Today many norms and values have lost their meaning, so it is very difficult for the children to distinguish between what is good and what is evil, right or wrong (Lahikainen & Kraav, 1996, 119).

Media fears are very common among children today and it is not rare that media induced fears persist for a remarkably longer time than the time of exposure (even several years!), and give the content to children's nightmares and other fears (e.g. fear of imagined creatures, animals, strange people or war,

etc.), sleep disturbances, fearful thoughts and fantasies, avoidance behaviours and may disturb children's everyday life (Cantor, 1996, 1994; Cantor & Wilson, 1988; Harrison & Cantor, 1999; Sparks, 1986). Also television may have a strong impact on the development of aggressive behaviour according to observational learning (Ridley-Johnson et al., 1991). Even young children are often watching television late in the evenings, even during the time meant for sleeping. That's why it is necessary to investigate children's fears of mass media and provide suitable coping ways. This topic is especially important for parents to understand because television is viewed and fears arise mostly at home.

Parents typically underestimate their children's fright reactions to media. These differences are difficult to interpret because these may reflect either the parent's ignorance of what the child has seen or a difference between the parent's and the child's expectations of what would be frightening to a child. Also many children are widely exposed to televised stimuli that are originally intended for adults (Cantor, 1994, 1996).

It seems easy to say that children's television viewing needs more restrictions by parents to prevent fright reactions. But it is very hard to achieve or even impossible for several reasons:

- Children's affective reactions to frightening television programs (and to fears in a more general way) are not always easy to predict from an adult's perspective (Cantor, 1996; Cantor & Wilson, 1988), so parents often cannot predict accurately what would be scary for their children.
- It is often difficult to predict the content of a program or film from its title or genre (Cantor, 1996).
- Several studies have found that children also *like* and enjoy scary programs, despite the negative emotions and fear that may occur also (e.g. Palmer et al., 1983 – 40% of younger and 65% of older children; Sparks, 1986 – over 40% of elementary school children; Wilson et al., 1987 – over 60%). Excitement and novelty were mentioned most frequently as reasons for liking frightening programs, and induced nightmares and bad dreams were mentioned as reasons for not liking. The boundary between enjoyable feelings of excitement and unpleasant feelings of fear was often obscure (Palmer et al., 1983; Sparks, 1986; Wilson et al., 1987).
- Parents watch television frequently at home and so it is impossible to avoid children being exposed to such programs.
- Children are allowed to view large amounts of television. For example, Valkenburg et al. (2000) compare USA children who spend an average of 3–4-hours per day watching television with Dutch children who spend up to 2 hours per day. But surprising is the finding of the study of Smith and Wilson (2002) who found that children (age 5.5–10 years) seemed to be watching roughly the same amount of television news now as they did in the late 1970s.

- The role of parents in the viewing regulatory picture appears to be very small (Cantor, 1996; Cantor & Wilson, 1988; Kraav, 2005). According to the study of Palmer, Hockett and Dean (1983) 52% of parents of younger children and 44% of older children *never* regulated the child’s television viewing. On the one hand it may be because of high parental employment and families’ hurrying life-style, but on the other hand because of opinion that the child has the right to choose his/her activities and parents don’t want to set strict limits for them (Kraav, 2005). At the same time parents tend to forget that children also have the right for the protection from strong, upsetting, violent non age-appropriate information and influences what he/she is not able to understand. It is also necessary to know what kind of values these heroes from television forward to our children (Kraav, 2005). The influence of the media on children, however, is dependent on the limits imposed by parents to their children’s TV-viewing.
- Children are allowed to view large amounts of television *alone and unsupervised*. In the study of Palmer, Hockett and Dean (1983) 12% of second-grade children and 22% of the sixth-grade children said that they never or rarely had a shared viewing experience with their parents. The growing number of children with a TV in their own bedrooms moreover makes it difficult for the parents to exercise control (Owens, 1999).
- Children are allowed to watch many programs that have been produced for adults (Cantor, 1996). Young children cannot understand these programs well and may feel frightened. Many children, for example, watch television *news* that presents the events (mostly negative – e.g. violence, crime and suffering, catastrophes, etc.), which have happened in reality. Smith and Wilson (2002) have investigated how children comprehend news and how much news causes fear in children. They found that older children are more likely to understand, as well as be frightened by television news than are younger children.
- Children’s programs also contain remarkable amount of violence and frightening situations.

It would be necessary to use the movie and TV programs rating system or categories (e.g. horror), which show the general suggestion about suitable viewers group. Of course, it cannot always be helpful, for example, “safe” Disney film as *Sleeping Beauty* or classic “family” musical *The Wizard of Oz* have been found to cause fears for preschool children because of the visually grotesque aspects of some of their characters (Cantor, 1996).

As Fabiansson (2005) has said, in developing child protection in general, it may no longer be enough to guarantee the child’s safety in everyday local surroundings and networks, because threats to security may find the child at home through modern technological equipment.

There have been several methods used to investigate children's television fears. Interestingly, one can find several *experimental* studies about children's fright reactions to television programs and coping ways with media fears (e.g. Cantor, 1994; Cantor & Hoffner, 1990; Cantor & Wilson, 1988; Wilson, 1989), also studies which have used questionnaires and one informant group, children or parents (e.g. Cantor & Sparks, 1984 – parents; Ridley-Johnson et al., 1991 – parents; Palmer et al., 1983 – children), retrospective studies (e.g. Harrison & Cantor, 1999) and interviews with children (e.g. Sparks, 1986; Valkenburg et al., 2000 – telephone interviews; Smith & Wilson, 2002; Wilson et al., 1987).

The child's own *self-report* of emotion is considered the most important measure (contains both open-form and forced-choice questions), but it's been suggested to use supplementary measures also (e.g. children's facial expressions while viewing a frightening program, physiological arousal – heart rate or skin temperature, behavioural measure of fear). This reduces the possibility that the results are due to the tendency to respond the way the child thinks the experimenter expects, or the tendency to report the most socially acceptable response. Also measures other than verbal reports reduce problems associated with younger children's deficiencies in language comprehension or usage (Cantor & Wilson, 1988). Also Wilson, Hoffner and Cantor (1987) have conducted research in which children were asked about their *perceptions* of the effectiveness of various coping strategies. Perceptions of effectiveness are considered important in themselves because they are likely to be related to a child's tendency to adopt a particular strategy spontaneously (Cantor & Wilson, 1988) and the perceptions of control are important in determining the success of a given technique (Wilson, 1989).

Higher levels of fear were reported by children who believed that the threat existed locally than by those who did not (Cantor & Hoffner, 1990) – experimental study with 5–8-year-old children who heard one of four introductions designed to manipulate the perceived likelihood of the events (“impossible, unlikely, likely”, and no information – control group). The critical element in children's fright was whether or not the child could self-identify with the situation being portrayed (Palmer et al., 1983).

Valkenburg, Cantor and Peeters (2000) have determined a *four factor* structure for television-induced fears: *interpersonal violence* (e.g. shooting, killing), *war and suffering* (e.g. wars, children and animals get hurt, etc.), *fires and accidents* (e.g. car accidents, house fires, etc.), *fantasy characters* (e.g. monsters, dragons, witches)

Age differences were also found to exist in media fears similarly as in other common fears of children. The age or developmental level has been identified as the most important viewer attribute to predict fright reactions to media (Cantor, 1996). Children's emotional reactions to mass media should be highly dependent on their perceptions, comprehension, and interpretation of those media (Cantor & Sparks, 1984). On the contrary, some of the studies of media fears have found that older children report television fears significantly more

frequently than younger children (e.g. Smith & Wilson, 2002; Wilson et al., 1987).

Relative importance of the immediately perceptible components of a fear-inducing media stimulus decreases as a child's age increases. Young children react to stimuli predominantly in terms of their *perceptible* characteristics and with increasing maturity they respond more and more to the *conceptual* aspects of stimuli. So, preschool children are more likely to be frightened by something that *looks* scary (e.g. frightening appearance – ugly, grotesque) but is actually harmless, than by something that looks attractive but is actually harmful, which for older children is the opposite. For older children the character's looks become less important and her/his *behaviour* carries increasing weight and something that *could* happen seems to be more frightening (Cantor, 1996, 1994; Cantor & Sparks, 1984; Cantor & Wilson, 1988; Smith & Wilson, 2002; Sparks, 1986; Sparks & Cantor, 1986). For example, elementary school children tend to be more frightened than younger children by media events that are realistic or could happen in the real world than by events that are clearly impossible or fantastic (Cantor & Sparks, 1984; Sparks, 1986).

For example, in the study of Cantor and Sparks (1984) the most frightening for preschool children were quite mild programs "The Incredible Hulk" (40%) and "The Wizard of Oz" (30%). In the study about the influence of television news Smith and Wilson (2002) found that younger children (about 5–7-year olds) recalled significantly more stories about natural disasters and accidents than did older children, while older children (about 8–10-years old) recalled more frequently scary stories about crime and violence. The explanation is that younger children attend and react to striking visual cues in a program, while older children are more likely to focus on conceptual information in news stories, such as whether the danger could possibly result in some real-world harm.

With increasing age children become frightened by media depictions involving increasingly abstract concepts. It is consistent with the general sources of children's fears and also with theories of cognitive development (e.g. Piaget) (Cantor, 1996, 1994).

It is also possible that older children report lower level of fears to certain kinds of programs because of the desensitisation effect – they have watched more of this kind of program and have become desensitised to the material that might induce an emotional reaction (Sparks, 1986).

Harrison and Cantor (1999) found that the younger participants were at exposure, the longer lasting the effects were. In their study children under 7 years old have experienced the most frequently fears of animals (38%) and sounds/images (88%); ages between 8–12 years sounds/images (77%) and blood/injection/injury fears (71%), and children aged 13 and over experienced most often blood/injection/injury fears (67%), sounds/images (47%) and situational fears (41%). Animal and disturbing sounds/distorted images stimulus

types were most frequently reported by younger participants and were less reported by those older at exposure.

In spite of developmental differences children of all ages, as well as adults, seem to respond emotionally to violent depictions contained in media presentations (Cantor & Wilson, 1988). Knowledge of the unreality of a frightening media stimulus should reduce viewers' fear responses, but of course, it is appropriate primarily for fantasy presentations (Cantor & Hoffner, 1990).

Preschool children have several characteristics which can support the growth or development of television related fears:

- Understanding of the distinction between reality and fantasy – preschool children often cannot distinguish between these two things (Cantor, 1996, Cantor & Sparks, 1984, Smith & Wilson, 2002).
- Poor comprehension, limitations in memory and inadequate storage and retrieval of the information presented (Cantor, 1996).
- Limits in verbal understanding, inadequate language development, for example, many young children do not grasp fully the differences between important relative quantifiers, such as "some" and "most", and probabilistic terms, such as "possibly", "probably" and "definitely" (Cantor, 1996, Smith & Wilson, 2002).
- Young children have few effective coping ways and parents tend not to teach how to gain control over frightening situations (e.g. explain that the "blood" is only ketchup, or that he/she can simply turn off the TV set if there is something frightening).
- Younger children do not usually succeed in use of cognitive coping ways (e.g. verbal explanations) because this needs metacognitive skills, which begin to develop in middle childhood (Cantor & Wilson, 1988).
- Egocentric thinking – the child feels all things are related with her/his environment and may happen with him/her.
- The child doesn't understand that the horror and violence presented in television is not happening so frequently in real everyday life. So the child may have picture of the world as cruel, violent and frightening place.
- According to Piagetian theory preoperational thought is characterized by the attributes of centration (the tendency to fix attention on a single, striking feature of an object) and concreteness (the tendency to react to things as they appear in immediate, egocentric perception)(Cantor & Sparks, 1984).
- Failure to comprehend transformations, they tend to focus on the two static end states rather than on the process of change (Cantor & Sparks, 1984, Sparks, 1986)
- Low ability to distinguish events presented in television which may happen here and which are not really possible to happen in the child's close environment or in our society/state.
- High development of imagination.

On the basis of previous studies the following hypothesis can be generated:

2. Hypothesis: Television has had a significant impact on young children's fears and children have more television-related fears in 2002 than ten years earlier.

Coping with television-related fears

Because it seems virtually impossible to insulate children from programming that might frighten them, the development of effective *coping strategies* provides one useful solution to the problem (Cantor & Wilson, 1988). One very important thing is the sense of personal efficacy – child's perceived ability to cope with one's environment. Viewers with a greater sense of personal efficacy may feel that they can cope with the threat (Cantor & Hoffner, 1990). Valkenburg, Cantor and Peeters (2000) have found four general coping ways (factors): *physical intervention* (e.g. close eyes), *cognitive reassurance* (e.g. tell yourself that the program will end alright), *social support* (e.g. ask somebody to watch with you) and *escape* (turning the TV off).

It is also important to consider the child's *age* or developmental level to choose the most appropriate coping ways. The effectiveness of strategies to prevent or reduce media-induced fears is consistent with developmental differences in children's information-processing abilities (Cantor & Wilson, 1988). Generally, preschool children benefit more from noncognitive than from cognitive strategies, and both *cognitive* and *noncognitive* (or *behavioural* – e.g. Harrison & Cantor, 1999) strategies can be effective for older elementary school children, although they tend to prefer cognitive strategies (Cantor, 1996, 1994; Cantor & Wilson, 1988; Harrison & Cantor, 1999; Valkenburg et al., 2000; Wilson et al., 1987). Interestingly, Valkenburg et al. (2000) have found gender differences in use of coping ways; girls reported using more noncognitive coping strategies than boys.

Noncognitive strategies do not involve the processing of verbal information and appear to be relatively automatic. *Cognitive strategies* involve verbal explanations or instructions that encourage the child to think about the fear stimulus in a way that casts the threat in a different light (Cantor, 1996). It is important to help children cope with their fears in age-appropriate ways. As follows are presented some coping ways which are age-appropriate to use with preschool children:

- Teaching (providing) of concrete *noncognitive* control strategies for children, which are especially effective for younger children – visual desensitisation (gradual visual exposure to threatening stimulus – for example, presenting before the program how the frightening person gradually got his threatening make-up), physical activities (e.g. clinging to an attachment object or toy or having something to eat or drink or playing, which can offer comfort and reduce the sense of fear or distract the child from thinking about the frightening program), covering eyes during frightening presentation, etc. (Cantor, 1996, 1994, Cantor &

Wilson, 1988; Wilson, 1989). It is argued that the more children watch programs of a certain type, the more they learn to handle their feelings and to keep their fright reactions in check (so called desensitisation, Cantor & Sparks, 1984). Interestingly such coping ways as turning off the television have been found to be ineffective (see Wilson et al., 1987).

- *Proximity to others* – presence of others should reduce the fear-evoking impact of media presentations. Desensitisation and presence of others have been found to be effective by all age groups, younger and older children (Cantor & Wilson, 1988; Wilson et al., 1987). Children need this way of social support very much. Valkenburg et al. (2000) have found that this coping style decreased significantly with age. Wilson et al. (1987) suggest that parents can help prevent or reduce fear simply by being present and sitting close to the child during the program.
- Teaching (providing) *cognitive* strategies for children, especially effective for older children – provide an explanation focusing on the unreality of the stimulus (e.g. Wilson et al., 1987), reality explanations, explanations that minimizes the perceived severity or likelihood of the depicted danger (Cantor, 1996, 1994; Cantor & Hoffner, 1990), thinking about the expected happy outcome (Cantor, 1994). Younger children need simplified explanations or verbal explanations with rehearsal or with illustrations (Cantor & Wilson, 1988).
- Discuss the programs with the child after viewing. The prevalence of this way has found to increase with the age of the child (Cantor, 1994; Smith & Wilson, 2002; Wilson et al., 1987).
- To help the child to become a critical viewer, teach the child how to choose programs, develop selection criteria and to not let the TV set be switched on all the time or just to watch whatever is on, and so limit the amount of time their children watch television and monitor the television they watch (Cantor, 1996)
- Because television is one of children's major sources of information about the world, we need to be able to make reasoned decisions about what types of content to exposure our children and when (Cantor, 1996). Not to allow watch the child programmes which are not suitable for their ages (e.g. horror films, some police news)
- Choose the suitable time for children's television viewing, restrict late night viewing in the evenings or just before sleeping time. This may result in nightmares and other night fears.
- In general, it is important to recognize that some level of fear is appropriate and indeed may be important to survival in certain situations (e.g. children must learn to engage in self-protective behaviours to avoid child abuse or kidnapping, without becoming socially withdrawn)
- Prevention of exposure to highly disturbing fare, where possible, seems preferable for children who have shown themselves to be susceptible to long-term distress reactions (Wilson et al., 1987).

Effective coping strategy gives the sense of control over the situation and helps to prevent or reduce fears. So, it is necessary to teach children coping strategies, but is important to consider the child's age or the level of cognitive development to decide which coping strategies are more suitable to teach them. Cognitive techniques that involve mental preconceptualisations of the fear stimulus are likely to be less effective with preschool children than with older children (Wilson et al., 1987). And why not try including the teaching of coping techniques into the classroom (kindergarten) curriculum?

What Palmer, Hockett and Dean said nearly 25 years ago in 1983 is still very suitable for us today: *"Parents can no longer comfortably assume that program-based childhood fears are a developmental phase children will "grow out of" without any lasting residue. ...Concern for children's fright reactions was far greater two and three decades ago, when media presentations were substantially milder. Parental concern and meaningful involvement in discriminating viewing have never been more warranted or more critically needed than they are today"* (p290).

5.7. The role of family and parents

The child's significant people are the mediators of the effects of society on the child (Bronfenbrenner, 1979; Elder et al., 1993). One of the most important tasks of parenthood is to act as a protective filter between the child and the external world and to shield the child from dangers. The responsible co-presence of the parents and their intense involvement with their child's life can make this possible. The quality of child protection in society, managed by the parents and the authorities is in general reflected in the fears of children (see Lahikainen et al., 2007). According to Gullone (1996), such factors as parenting practices, attachment styles, and family environment have an impact on children's fears.

As Tuan (1979, 25) says, children have reasons to fear adults, even those closest to them. Throughout history and in widely different parts of the world, infants and young children have often been treated as of small account and with extraordinary cruelty. Killing the newborn child was an accepted practice in many societies. Until the fourth century A.D. neither law nor public opinion found infanticide wrong in Greece or Rome. From the medieval period to at least the seventeenth century, it was a common practice among all classes to apprentice their offspring at about the age of seven to other families. In the midst of strangers and in a strange setting the children worked as servants; they also learned manners, a trade and a little Latin. The parents were following custom and probably meant well when they place their seven-year-olds in strange surroundings, but to the children – especially the more delicate and sensitive ones – this can feel like abandonment, which is a major cause of fear.

The societal changes can create general uncertainty and confusion in parents, which may have a direct effect on their child-rearing beliefs and practices. It needs time to internalize societal changes. The general uncertainty has an effect on the child through adult's physical and psychological absence. The increased demands of working life may take too much time away from the family life. The increased variability of who are the (primary) caregivers of children and the parents' longer working days are risk factors for the development of insecurity in the children (Lahikainen et al., 2004).

5.7.1. The influence of different child-rearing practices

Does a proneness to fear arise from particular temperamental characteristics and/or family interactions promoting fear? In every home the parents have to instill certain fears in their children in order that they may avoid injury, and it is never too early to strike the right balance between overprotection and the encouragement of reckless behaviour (Chazan, 1989). Surely parents' educational choices are influenced by macrosystem (according to Bronfenbrenner's theory), which includes widespread beliefs, values and norms.

Research has consistently demonstrated significant relationships between self-reported psychological well-being and contextual factors such as family environment and parenting styles (e.g. de Ross et al., 1999; Gullone, 1996; Rapee, 1997). It is increasingly recognized that family relationships have a significant impact on individual competence, resilience and well-being. In particular, two aspects of parenting have been identified as important for children's emotional development – *warmth-nurturance-acceptance* and *control-structure*. The second aspect has been differentiated in terms of effective, empathic and developmentally appropriate management versus manipulative and punitive caregiving, especially involving power assertion. Research has also shown that specific family environment characteristics are important – these include levels of family conflict and cohesion (Gullone et al., 2001).

Rapee in his review (1997) concluded that the two largest factors of parental practices, *rejection and control* might be positively related to later anxiety and depression, rejection more strongly with depression and control more specifically with anxiety. According to Siqueland and colleagues higher level of parental control has been also linked with greater anxiety and fearfulness in children (Siqueland et al., 1996). Sidana and Sinha (1973) have found that rejection by parents was associated with a larger number of fears and acceptance with a smaller number, interestingly more influence of such factors appeared with older children's than younger ones. Allowing independence by parents was correlated with smaller number of fears, but the dependence dimension appeared not to have a significant effect on children's fears. Also 6–8-year old children's fears were affected by parental reward, and more frequent punishment was correlated with higher number of children's fears. Parental

control coupled with continued traditions emphasizing social conformity are reasonable explanations for the higher levels of fearfulness or worries in general, and the identification of social conformity fears in particular (Shore & Rapport, 1998, 458).

Brar and Brar (1990) have found that mothers of those children who revealed more separation anxiety scored high on dimensions of child-rearing attitudes such as fostering dependency, encouraging verbalization, marital conflicts, irritability, exclusion of outside influences, approval of activity and acceleration of development and intelligence of children. Graziano and his colleagues (1979, 806) suggest that fears are learned and one way for that is operant models, reinforcement rather than anxiety, and that primarily social reinforcement such as parental attention, is the central aspect of fearful behaviour. Children are presumably taught to be afraid by parents and other significant persons who selectively attend to and reward fearful behaviour.

Mahat et al. (2004) found that Nepalese children who live in a closeness-intrusive family environment, where independence is not fostered, had greater fears than American children who lived in a more supportive environment. On the contrary, Muris et al. (1996a) have found no relationship between parental rearing behaviours and children's fearfulness and emotional problems.

Additionally parents can support or increase their children's fears with the *socialization of fear* using humanistic or normative ideology. *Humanistic* or left-wing socialization of fear is characterized by the following behaviours of parents:

- The experience of fear is minimized – parents don't terrorize the child and they believe and communicate to the child that fear is noxious and not to be invoked except under emergency conditions;
- There is a verbalized ideology exaggerating the noxiousness of fear;
- Tolerance for fear per se is taught (i.e. children are taught to tolerate a certain level of fear);
- Counteraction against the source of fear is taught;
- There is concern that the child not becomes chronically fearful (Izard, 1977, 370).

In such conditions the child feels parental support and security.

In the case of *normative* or right-wing socialization of fear parents don't try to avoid or minimize children's fears, conversely:

- The experience of fear is not minimized. Terror may be used to guarantee norm compliance;
- There is a verbalized ideology minimizing the noxiousness of fear;
- There is no restitution for the use of fear;
- Tolerance for fear is not taught;
- Counteraction against the source of fear is not taught;
- There is no concern about fearfulness in the child (Izard, 1977, 371).

Actually parental techniques of socialization vary widely and often include right- and left-wing elements.

In previous research of different educational styles, the Estonian parents turned out to be more authoritarian in their educational practices emphasizing punishment more than the Finnish parents. Also compliance is higher in parental hierarchy of educational values in Estonia than in Finland, whereas the Finnish parents appreciate more self-realization and liberty (Hämäläinen et al., 1994). So it is quite possible that Estonian parents are demanding and can also use fear as an educational tool in child-rearing activities.

Krohne and Hock (1991 by Craske, 1997) showed that children's high level of anxiety is significantly related to frequent negative feedback by parents and parental restrictions. Rapee and his colleagues (1996 by Craske, 1997) found that parents of children with a high level of social anxiety expected from their children the use of avoidance as coping way for dealing with socially threatening situations, and parents of children with specific phobias expected more the use of avoidance as coping way in physically threatening situations.

Maurer says that the intensity of the child's fear depends for the most part upon the *family relationships* (Maurer, 1965, 276). In society, fear can be used as a form of social control, particularly in child-rearing, where it is a means of controlling and limiting behaviour (Sorin, 2004). Problems in family relationships are often evident for anxious and phobic children. In retrospective investigations of family relationships adults with anxiety disorders frequently depict their parents as "overprotecting", "ambivalent", "rejecting", "hostile". In the case of coping, anxious parents are more likely to model avoidant behaviours than positive coping strategies (King et al., 1997b). Campbell (1995) says that young children with behaviour problems (including high level of fearfulness) are more likely to be growing up in families that continue to experience adversity. Parenting styles and the wider family context in which parenting occurs, e.g. marital distress, divorce, poverty influence the child's behaviour and problems. Also parents' marital quality and family adaptability have been found inversely related to specific children's fears (Peleg-Popko & Dar, 2001).

Parenting practices during early development create an emotional climate that can have long-term effects on emotional development. Such factors can determine whether the child perceives a given content as threatening or rewarding and whether the child expresses negative or positive emotions in a particular context (Gullone, 1996).

Childhood is considered to be shorter nowadays than earlier. That may be true – the majority of children don't spend their early years at home with parents but attend day care at a very early age where they have to enter into the never-ending competition with peers (e.g. who is better, faster, who gains the attentions of teacher, etc.). Unfortunately they don't have enough opportunities to play but instead are focused on being prepared for school. There are more demands for children outside the home than in the family, and the child has to cope alone. Such conditions may support the development of several (new)

fears (e.g. fear of not being the best one, fear not to deal with demands). Unfortunately, in the situation where children probably need more parental support than before adults can't evaluate children's fears adequately. Misunderstanding and underestimation may result from the fact that adults and children understand fear differently.

Most adults know that the fear will pass despite the immediate discomfort. Children, however, are not so sure. Although fears are a normal part of development, children deal with them differently (Goodman & Gurian, 2001a). Adults can adequately evaluate the possible dangers and analyse their own fears, but children are just the objects for their fears; they don't know how long the fear lasts and what may happen (Riemann, 1995).

Some sources of children's fears may be unrecognized by adults or children's perceptions of fears may differ from their parent's perceptions of their children's fears (Mahat & Scoloveno, 2003). Unfortunately, adults tend to underestimate the degree to which children experience adult-like fears. Jones and Borgers (1988) found that children reported more fears than those predicted by parents, and the greatest disparities occurred with fears of accidents and being hurt, nuclear war and death of a loved one.

5.7.2. Children's experiences in family environment

In the study of Finnish children's fears Kirmanen and Lahikainen (1997) found that problems in family relations have a significant effect on the fears of the behaviour of significant adults (e.g. punishments), animals, separation and conflicts between parents. They concluded that difficult experiences in family relations increase children's fears concerning these relations and of separation. Interestingly, children with none or few difficult experiences were more afraid of animals than children who had these experiences. *Illness and death experiences* in family showed a significant effect on fears of minor injuries and getting lost in a strange place or in a crowd. But of course, it cannot be concluded from these results that difficult experiences would increase children's fearfulness as a whole. Kirmanen and Lahikainen (1997) conclude that difficult experiences in close human relationships do not necessarily increase children's general fearfulness, or, in other words, secure relations do not necessarily protect children from experiencing fears.

For example, *interparental violence* is one of the possible causes why children's fears may arise in family context. Interparental violence experienced by children can bring four main results: 1) the child living in a secret (nobody discusses these events in the family), 2) living in a conflict of loyalties (the child may feel contradictory emotions toward both parents), 3) living in terror and fear (the child may feel that the world is a very dangerous place and he/she may become a victim of violence) and 4) living in an aggressive and dominance-oriented context (the child feels as if life is a case of "eat or be eaten")

(Eisikovits et al., 1998). Even seeing or hearing the violence between significant adults can be harmful for children. Additionally the child's developmental and emotional needs remain unsatisfied because of parental inability to care for their children correctly because of their own problems and conflicts. These problems in family relationships are considered to have a more significant impact on children's development than television or media could ever have. Also the child's behaviour can become more troublesome, which increases the child's own risk to become the target of parental violence. Additionally children can model their parents' violent behaviour. Some children externalize their behaviour and change to aggressive, cruel and destructive; others internalize their behaviour into sadness, introversion, fearfulness and anxiety (Ricci, 2000).

Although children with a lot of difficult experiences in close relations had more fears related to such relationships, they also sometimes had more effective coping strategies especially for fears concerning social relationships. So, it cannot be argued from these results that difficult experiences in close relations would necessarily increase children's insecurity or helplessness. Author thinks that the impact of children's experiences and family relationships on children's fears is an area worthy of further investigation. As Ferrari (1986, 75) said: "A child having seen a horror movie, experienced a tragic event, or having been in an accident might be expected to show an escalated level of fear responses or a particular pattern of fear".

5.7.3. Parents as fear models

The fears of parents and children are often related. Firstly, children observe their parents and take over their fears. Secondly, this relation can develop because of the teaching, transformation of negative information by parents (e.g. frightening). Thus, the rise of many childhood fears can be supported and/or caused by parents either consciously or unconsciously. Parents can transmit their own fearful models of behaviour to children or by being overprotective give children the belief that the world (environment) is a dangerous place. Interestingly, Lapouse & Monk (1959) found no significant relationship between children's fears and worries (according to mothers' interviews) and mothers' own worries.

When parents describe their own fears in comparison with their children's fears some researchers have debated the role of parents in the etiology of their children's fears. For example, Solyom with his colleagues found that 30% of phobic patients have phobic mothers as well and 3% of those patients have also phobic fathers. Bandura and Menlove have found that 35% of children with dog phobia had also parents with dog phobia (Bondy et al., 1985). Muris et al. (1996c) found that children's fearfulness is related to their mothers' fearfulness (but not with fathers') – children whose mothers tended to express their fears

frequently had higher scores on the fear survey schedule used in this study (see also subchapter 3.4.1. about modeling in the acquisition of fears page 59).

Bondy, Sheslow and Garcia (1985) contended that mothers can recognize exactly their children's fears, but this is valid only for girls not for boys. Interestingly, mothers tended to overestimate their sons' fears. In the case of daughters mothers evaluated correctly the general fearfulness, but in the case of sons only their most intensive fears.

A similar study about the agreement between parents (mostly mothers) and children in Estonia (1993) showed contrary results – parents of preschool age children tended to underestimate children's, especially boys' fears (Taimalu, 1997). Mahat and Scoloveno (2003) investigated school-aged children's self-reported fears and coping strategies and compared them with parents' reports. They found significant differences between level of fears reported by children and their parents.

Several other authors have found low agreement between assessments of parents and children (see also subchapter 4.2.2. and 4.3.). Thus, although parents can offer additional information about children's fears and other problems, children themselves must be considered as primary informants of their worries and fears and other problems (Muris et al., 2001).

5.7.4. Fear as disciplining method used by parents

From time to time children have been threatened with several ghosts and monsters. As the level of education rises, dependence on supernatural horrors in the enforcement of discipline declines. However, parents can and still do terrorize their children with the threat of abandonment (Tuan, 1979, 32). Ghosts and ogres are specific terrors. The threat of abandonment, by contrast, induces a pervasive sense of anxiety (Tuan, 1979, 33). John Bowlby (1973) notes that the threat of this kind can be expressed in a number of ways: if the child is not good then...

- He/she will be sent to a reformatory, or be taken off by that secular ogre of the modern world, the policeman;
- Mother or father will go away and leave him/her;
- His parent will fall ill, or even die;
- Parent will commit suicide.

Draper and James (1985) supposed that the reason for children's increased fear of being alone as reported by parents may be that the parents have become more concerned about leaving their children alone. These parents may have projected their own fears onto their children when answering the questionnaire.

The proportion of parents who use such threats varies widely with their social status. One English study in 1968 found that among the professional and

managerial class 10% of the parents interviewed admitted to using threats of abandonment as a disciplinary technique, and the proportion rose to 30% for parents of the lower-middle and working classes. In reality the frequency is probably higher (Tuan, 1979, 33). So we can say that fears are an important educational mean. We found evidence for that also from old proverbs where often national pedagogy is stored up (e.g. the hand of child who hits her/his mother will grow up from the coffin) and passed on from generation to generation. Sometimes parents tend to use stories (fairy tales) that also can support the development of fear (e.g. story about the young hare who didn't want to sleep – then the mother told him that if you don't sleep then the fox/wolf/bear will come and...). We have also questioned Estonian parents about the use of fear in the socialization of their children.

Also the cruel *punishments* by parents, for example, corporal punishment can evoke feelings of fear, anxiety and anger in children; if these emotions are generalized to the parent, they can interfere with a positive parent– child relationship by inciting children to be fearful of and to avoid the parent (Gershoff, 2002). What are the reasons for the harsh and often cruel treatment of children? Tuan (1979, 34) thought that in extreme cases, the hostility toward children appears to be a displacement of the parent's angry feelings toward his/her own parents. More generally, young parents may see the child as posing a threat to the tenuous security and peace of their own lives. They fear chaos, and the child seems to be a force for chaos. Related to this idea is the view that the child is like an animal that needs to be tamed, using harsh means when required. The child must learn obedience in order to become a respectable member of adult society. And finally, many adults themselves live in a world of fear. They half-believe in the monsters, witches, and ghosts they conjure up to frighten their children. They sense hostility in both the physical and the human environment and feel that an education in fear prepares the children to submit, adapt, and live (Tuan, 1979, 34).

It is surprising that sometimes *fairy tales* may support or cause small children's fear because of adults' modifications. For example, there are quite cruel and violent original versions of many fairy tales (bad characters are killed for punishment in the happy ending), which have been modified by adults to make the story *less* frightening for children (e.g. "The Three Little Pigs" where in original version the first two pigs were eaten by the wolf and then the wolf is killed and eaten also in the end). For the children fairy tales are the battle between danger/"bad" and "good" where the "bad" must get its punishment. But the softer, rewritten versions where the villain is not punished enough appears to cause fears for small children and to be *more* frightening than the original version (e.g. the big bad wolf was not killed and eaten but scurried back up the chimney and escaped back into the woods, and the child asked "Does the Big Bad Wolf come to *your* house?" and her mother told that the child had several nightmares with the same wolf). The child is afraid that the "bad" can come back, and even into their world (see Trousdale, 1989). As Trousdale (1989, 77)

says: "...young children do not easily discern the boundaries between reality and fantasy, between the fictional and the real. And when those evil forces take an uncanny or supernatural dimension, and when they are not conquered in the end of a story, their ability to arouse fear can be overwhelming". So, the value of attempting to soften the fairy tales should be questioned. As long as the story provides the "consolation of the happy ending", the children seem to be able to find ways to cope with the fearful elements and within the framework of such a tale they may discover ways of dealing with their own fears.

Thus, many different factors can have an impact on children's fears. It is understandable why children's individual fears are different and at the same time surprising that some fears are quite similar (e.g. across different cultures, different countries and times). Due to so many potentially influencing factors it is very complicated to study children's fears and find out the causes and influencers of their fears. All levels of children's environment are involved in these fear processes – child's immediate environment (*microsystem*, e.g. family) has an impact on children's fears, as well as changes on *mesosystemic* level (societal changes). The further environment, *macrosystem* (e.g. values, beliefs, norms) plays a significant role also, primarily by parental choices in their educational practices.

On the basis of previous findings described above the following hypothesis can be generated:

6. Hypothesis: Parents tend to use fear as socialization mean or child-rearing method, which can promote children's fears.

6. COPING WITH FEARS

Already over 100 years ago, in 1897 G. Stanley Hall, one of the founders of the child study movement, has said that it is very important to help children learn to cope with fears, not to eliminate fears at all. "... Not only does everyone fear, but all should fear. The pedagogic problem is not to eliminate fear, but to gauge it to the power of proper reaction" (Hall, 1897, 242 by Robinson et al., 1991, 187). Limited information is available on determining how children cope with fears. Therefore this aspect needs further research attention.

There are a very limited number of studies examining children's coping (e.g. Mahat & Scoloveno, 2003 in Nepalese sample using SCSII – Schoolagers' Coping Strategies Inventory), and only a few studies have examined children's own perceptions of their coping strategies (e.g. Broome et al, 1994 and Ryan-Wenger & Walsh, 1994 by Mahat & Scoloveno, 2003 – children's coping with medical fears, Mooney et al., 1985 and Muris et al., 2001 – nighttime fears and coping, Kirmanen & Lahikainen, 1997). These investigations show that children report a variety of coping strategies in response to their fears.

There is very little research about the coping ways of preschool age children (Kirmanen & Lahikainen, 1997, Kirmanen, 2000). It is a quite complicated task for the child to express his/her coping ways because it is cognitively difficult to express what he/she has done or would do in the frightening situation. But it is very important to investigate not only the fears but also how children try to cope with them. This better characterizes children's well-being and security – all children have some kind of fears but it is more important if and how they can or cannot cope with these fears. So, author gives in the empirical part of this dissertation an overview about young children's self-reported coping ways.

6.1. Definition of coping

According to Lazarus and Folkman *coping* is defined as a process of constantly changing cognitive or behavioural efforts to manage specific internal and/or external demands (Mahat & Scoloveno, 2003). Kirmanen and Lahikainen (1997) explain coping as the reaction to stressful or fearful situation or stimulus. Coping involves efforts directed at changing the condition, thereby eliminating the threat (*problem-focused*) or interpreting the conditions so that it is not perceived as a threat (*emotion-focused*) (Mahat & Scoloveno, 2003). According to Lazarus and Folkman if an individual appraises an event as stressful or potentially stressful, he/she further identifies it as harm or loss, a threat or a challenge. It is this appraisal that helps to determine the actual effect of the stressor on the individual (Mahat et al., 2004). If the child appraises a certain situation or object as threatening it may elicit fear in the child and he/she decides which coping method to choose.

However, neither fear nor coping with the fear are simply blank reactions to environmental conditions or inner stimulus. Emotion (like fear) and coping with it are in unity; they form a dynamic system and they are in persistent process with each other. Thus, emotion and coping can't be separated; they necessitate each other. In the case of coping with fears both individual factors (sense of autonomy, personal traits, e.g. temperament) and situational factors (environment) must be considered. Children use very different coping strategies in different situations (Crosser, 2002b; Goodman & Gurian, 2001a; Kirmanen, 2000; Kirmanen & Lahikainen, 1997). Also with increasing age there is an increasing repertoire of suitable coping behaviours, so the importance of presence of attachment figures decreases (Maccoby, 1983).

The goal is not the elimination of fear but rather the development of appropriate coping strategies that allow children a sense of control over life events with respect for threatening situations. Children's counsellors (e.g. in schools) must develop a sense of the developmental aspects of children's fears, strategies that help children learn effective ways of coping with normal developmental fears, and strategies to assist those children who experience some difficulties related to fear (Robinson et al., 1991, 188). Coping is very necessary – as children learn how to master fears, they become more competent in dealing with other life challenges and new situations. There is an optimal level of anxiety. We don't learn anything new without anxiety, but too much anxiety is not good either, because we are depressed and the brain doesn't function as it should.

The child's ability to cope with fears is based on his/her experiences, the family environment and culture (Mahat et al., 2004). For example, the experience of difficult life events (e.g. family problems, serious illness or death of close people) in close relationships seems to impact children's fear-coping mechanisms. Children who have experienced such kind of events sometimes have more effective coping strategies with these fears related to close relationships (e.g. those children used avoidant or escaping behaviour less frequently and more frequently used constructive control strategies with the fear caused by parental quarrels). Thus, it cannot be claimed that experienced difficulties should necessarily increase children's insecurity and helplessness (Kirmanen & Lahikainen, 1997).

The three fear acquisition ways according to Rachman's theory have been used as a base for the selection of fear treatment strategies. For example, for the treatment of directly conditioned fears suitable strategies are desensitisation, flooding and others such strategies. But fears acquired by indirect conditioning (modeling or negative information) are more suitable to treat with modeling and cognitive strategies (King et al., 1998; Menzies & Clarke, 1995). Virtually all of the behavioural interventions employed with children have involved some form of desensitisation to the feared stimulus, most typically though a gradual exposure to the stimulus, often paired with reciprocal inhibition of the fear response, reinforced practice in coping with the stimulus, and/ or modeling (Murphy, 1985). It appears that children may need assistance in thinking of realistic

strategies they could employ independently to reduce or eliminate their fearful feelings (Crosser, 2002b).

6.2. Classification of coping

According to Smith, Davidson, White and Poppen (1990, see also Figure 4 page 33), knowledge of four basic variables associated with fear (i.e. latency, intensity, duration, and situational context) leads to a better understanding of how children cope with fear. When faced with fear, children will engage in *overt* (child's attempt directly to alter fear-evoking conditions, e.g. clinging, withdrawal, distraction and direct confrontation) or *covert* (attempts to change his/her appraisal of the fear stimuli, e.g. cognitive attempts to reappraise the fear-provoking situation, problem solve) strategies based on a combination of internal and external resources. The choice of these strategies depends on children's perceptions of their internal and external resources. External resources include potential allies such as family members, peers, teachers, other adults, or even inanimate objects (e.g., stuffed animals, security blankets). Internal resources refer to a positive self-concept, a feeling of independence, the ability to problem solve, and a sense of control over some aspect of the fear (Smith et al., 1990). The younger the child, the greater is the importance of environmental structure and support in reducing the child's vulnerability under stressful conditions (Maccoby, 1983).

Preceding conditions, which lead to coping responses, will affect the types of adaptation. The availability and productive use of resources promote positive adaptation; ineffective use of resources promotes maladaptation. Consequently, the child may achieve a higher level of organizational status, a disorganizational status, or a return to the prior equilibrium state (Smith et al., 1990, 156).

Personal resources refer to the child's capabilities for dealing with fear-provoking stimuli. Effective personal coping resources appear to include having control over some aspect of fear, being able to engage in problem-solving activities, a positive self-concept and independence (in unpublished doctoral dissertations Davidson 1985; Smith 1985 by Smith et al., 1990, 155). Support from family, peers or community are other possible resources. Most research has focused on parents as a social resource (Smith et al., 1990, 156). Thus, personal and social resources have impact on strategies that children use.

Children who have confidence in their ability to master and control events and challenges in their lives are less vulnerable to fear. These children have a sense of *personal power*. The level of personal power determines children's general reactions to fear objects or situations (Robinson et al., 1991).

In the dissertation author has used the classification of coping used by Tiina Kirmanen and developed by Finnish and Estonian experts A. R. Lahikainen, I. Kraav and T. Kirmanen (Kirmanen, 2000) to analyse children's coping strate-

gies on two dimensions: *cognitive vs. behavioural (non-cognitive)* coping ways and *primary vs. secondary control* coping ways. The aim of *secondary control* coping strategies is to influence the *feelings* of fear engendered by a fearful event, but the *primary control* coping refers to behaviour involving efforts to modify or influence the *fearful events*, circumstances, objects or other people.

Behavioural concrete coping strategies are very common for younger children; they do something for the purpose of influencing fearful events/objects or feelings. For example, they hide behind the sofa when they are afraid of television programs or start playing when afraid of somebody breaking into the house. *Cognitive* coping ways are not yet very characteristic for preschool children (Cantor, 1994, 1996; Harrison & Cantor, 1999; Kirmanen, 2000; Kirmanen & Lahikainen, 1997; Valkenburg et al., 2000; Wilson et al., 1987). However, some preschool children mention also such kinds of coping ways, for example, when he is afraid of going to a doctor he will think that it is useful to go there because the doctor will help him to stay (or become) healthy.

On the basis of previous research the following hypothesis can be generated:

5. Hypothesis: Preschool children tend mostly to use non-cognitive (behavioural) coping strategies, cognitive coping ways are not very characteristic for them

6.3. Previous coping research

Among Finnish preschool children (Kirmanen & Lahikainen, 1997) the most typical coping way with fears were *escaping or avoiding* activities (about 70% in both parts of interview – semi-structured and picture-aided), or *doing something else* in fearful situation (e.g. start playing; 30/50%). Children reported few *cognitive coping strategies* (11% in semi-structured interview and 6% in picture-aided interview) (Kirmanen, 2000, 127). One very important way for coping was *seeking support from other people* (adults) (about 50%). Often only the presence of a close adult seems enough for coping with or decreasing the fears. Children also talk about their fears with other people. Thus, attachment has a very important role in the regulation of children's sense of security. Sometimes young children appeal to other children (e.g. friends or siblings) when they are afraid of something.

An interesting coping way is also the *expression of emotions* (crying) – mentioned very differently in the semi-structured interview (only 6%) from the picture-aided interview (65%). Children also mentioned primary control strategies where they try to make the situation less frightening (e.g. switch on lights when is afraid of the dark) – 32% in semi-structured and 92% in picture-aided interview. Also *aggressive coping* ways were used (e.g. kill the spider or hit back the child who is teasing; 11% in semi-structured and 41% in picture-aided

interview). *Fantasy* is also very important for preschool children and about 10% of children reported the use of fantasy as coping way with her/his fears (e.g. if a big monster comes to the room, I take the gun and shoot it). It is not surprising that a big percentage of children (about 30% in semi-structured and 60% in picture-aided interview) *don't know what to do* in frightening situation or endorse the notion that they can't do anything (Kirmanen & Lahikainen, 1997).

It is interesting that the same coping strategy can serve different kinds of functions in different situations. For example, expression of negative emotions (mainly crying) may often be simply the expression of emotions (secondary control coping), but can also be a way to control the fear provoking situation or people (primary control) (e.g. the child tells herself start crying when she is afraid of her parents' quarrel because then the parents stop yelling, when she starts to cry) (Kirmanen & Lahikainen, 1997). Kirmanen and Lahikainen (1997) also say that coping is very much a situation-specific process, so it must always be considered in relation to the emotion or situation, with which one is coping.

Smith in 1985 asked preschool children what they do when they are afraid. Children reported that they took aggressive actions (39%), sought comfort from an adult (16%) and made non-verbal responses (14%). Mothers and teachers perceived that the children most often sought out adult comfort (33%), but fathers considered non-verbal coping strategies (35%) (Crosser, 2002b) to be more utilized. Some gender differences in the use of coping ways (see subchapter 5.2. page 90) have also been found.

Research by Mooney, Graziano and Katz (1985) and Mooney (1985) has indicated that children report a variety of coping strategies in response to their *nighttime fears*. They presented five categories: internal self-control (e.g. think to self that there is really nothing to be afraid of), social support (e.g. call mom or dad into room and ask them to sit close by), inanimate objects (e.g. hug pillow), prayer (e.g. pray) and avoidance/escape (e.g. try to stay up later). The most commonly used strategies were found to be self-control and avoidance/escape.

Also Muris and his colleagues (2001) investigated children's nighttime fears and coping ways. Children mentioned most frequently the following ways: seeking support from parents (44%), avoidance (30%, e.g. I try to stay up later), distraction of attention (27%, e.g. start reading a book), try to sleep (24%), active control (12%, e.g. I check my room to see whether someone is there), clinging to stuffed animals (5%). Girls mentioned more frequently than boys seeking support from parents ($p < 0.005$). Quite a big number of parents didn't know how their children cope with nighttime fears. Children evaluated these coping ways as effective for decreasing anxiety. Interestingly, an avoidance coping strategy was reported to be less effective in dealing with fear, whereas an active control strategy appeared to be more effective.

Sorin (2004) investigated Canadian and Australian preschool children's fears and used day-care caregivers as informants. She found that mostly children exhibit their fears by crying (about 70% in both countries), but also by

verbalizing and body language (more frequently in Canada, about 50%), also by withdrawal and hiding, getting close or clinging to adult and screaming (more frequently in Australia).

Children have to learn cope with their fears and they need close adults' (parents') help and support for that. How can close people help children to cope with fears? The best way is to offer emotional support for children while the child is learning to gain the control over his/her environment. Some most effective solutions are also the simplest (e.g. leaving lights on in night, coming with the child if he/she is afraid of something) (Harris, 1993).

Sometimes parents try to redirect fearful children to other activities, but it is not a good thing to do – unresolved emotions in early childhood are a source of anxiety and conflict later in life (Sorin, 2000). As playing is the main activity of preschool children it has been found very helpful also in coping with fears (Lyness-Richard, 1997). Research has shown that so-called *educational play* decreased the fear of common medical procedures (e.g. getting injection), which frequently causes fear for children (Henkens-Matzke & Abbott, 1990). Also specially developed computer games are found to be good preparation tools for some kinds of potentially frightening events (e.g. surgery) and can prevent or reduce the fear (see Rassin et al., 2004).

Some authors suggest *bibliotherapy* – using children's literature to teach children suitable coping ways with fears. Nicholson and Pearson (2003) in their paper suggest that bibliotherapy can be a powerful tool for helping children identify internal and external resources as well as develop subsequent coping strategies. This process includes first identifying with the main character's needs, wishes and frustrations, followed by experiencing an emotional release through abreaction and catharsis, and finally gaining insight into solutions to their own problems by identifying the characters' coping strategies (Pardeck & Pardeck, 1984). Rather than frightening children, scary books capture their attention and seem to provide vicarious opportunities for exploring and mastering their fears (Richards et al., 1999). Thus, scary stories that provide solutions to the threat instill confidence rather than fear. Stories must be carefully chosen. Stories that contain animal characters can likewise be particularly effective with younger children because they eliminate such factors as age, gender and race, and allow for a diverse range of identification among children. Similarly, inanimate objects as story characters offer these advantages for younger children, while older children and adolescents prefer human characters similar to themselves (Pardeck & Markward, 1995). Children's books are rich with characters that confront many of the same dilemmas faced by the children in our society. When combined with creative activities designed to elicit personal connections between the listener and those characters, children's literature becomes a powerful tool for helping youngsters develop strategies for coping with their own struggles (Nicholson & Pearson, 2003). Nicholson and Pearson (2003) concluded that additional factors need to be considered when using bibliotherapy for fear reduction. First, story content and characters need to

portray fears with which children can identify. Second, fears must be successfully resolved or addressed in the story. Finally, covert or overt coping skills as well as internal or external resources must be readily identifiable so that children can relate these strategies to their own fears.

Jeffrey Brown, Clinical Associate Professor of Pediatrics (Ellin, 1996) advises to employ something that children already have plenty of – imagination. Dr. Brown has developed *Imagination Training (IT)* – a technique that uses the power of suggestion and children’s imaginations to help them overcome their fears, phobias, anxieties and pain. The idea behind IT is to get children to focus their attention on an imaginary thought, idea or object. Adult suggests something to a child and the child embellishes on it with his/her own imagination, the adult distracts him/her and gets him/her to focus on something besides the fear (or pain). Research shows that distraction does relieve pain and with this the fear of painful medical procedures, doctor. For example, in one study some of the children who were afraid of getting an injection were asked to play with a glitter-filled kaleidoscope, but some of them (acting as a control group) were not offered this. Not surprisingly, children who were distracted by the kaleidoscope said the shot hurt them less than those who hadn’t been playing with the toy. Experts agree that the mind’s power isn’t something to underestimate. Techniques of such kind are effective and powerful for children because they are so good at using their imaginations. Children can use their minds to help themselves master some kind of feared situation or thought, or they can visualize being somewhere calm when they are feeling afraid. What kind of strategy precisely to choose depends on the child’s personality characteristics and also on age (Ellin, 1996).

Murphy (1985, 186) has suggested to use modeling films or videotapes that systematically portray young children coping with typically fearsome events or objects should be developed, and stored in a central location for periodic showing by local community organizations. An instructional unit on a potentially fearsome object or event, either real or imaginary, might be developed, beginning with humorous stories and rhymes about the stimulus and proceeding over time with arts and crafts activities, group discussions, and simple role-playing. If the selected stimulus is real, the unit might eventually include real-life photographs and a field trip to observe suitable examples. Providing opportunities for early desensitisation to potentially fearsome situations and for learning specific coping and approach behaviours appropriate to those situations may result in fewer and less painful fears among preschool-age children. Thus, why not develop such materials (e.g. videotapes, television programmes) and treatment plans for the prevention and/or reduction of children’s fears?

Children should be encouraged to acknowledge and experience a wide spectrum of emotions, including those considered positive and also those considered negative (Sorin, 2004). They feel more secure if they know that not just positive but also negative emotions (e.g. anger, fear, disgust) are allowed to be experienced and expressed openly. Adults only have to teach children the

suitable and accepted ways to express those emotions and how to cope with them securely.

HYPOTHESES OF THE DISSERTATION

The hypotheses of the dissertation are summarized here as follows:

1. Children's fears are influenced by societal change (Gullone & King, 1993; Owen, 1998). Changes in children's close environment (micro- and mesosystem according to Bronfenbrenner's theory) may support the increase of children's insecurity level and fears (according to Bronfenbrenner, 1979). We can suppose that children's fears are significantly different if to compare studies over the ten years.
2. Television has had a significant impact on young children's fears and children have more television-related fears in 2002 than ten years earlier (according to Cantor, 1996; Cantor & Wilson, 1988; Jersild & Holmes, 1933; Draper & James, 1985; Lahikainen et al., 2006, 2007; Taimalu, 1997; Tarifa & Kloep, 1996).
3. The agreement between different informants, parents and children is quite low (Lahikainen et al., 2006; Lapouse & Monk, 1959; Muris et al., 2001).
4. There are many studies that confirm the significant impact of children's gender on their fears (girls are found to express more fears than boys). But the samples of the majority of these studies have been school-aged children. Studies with younger children have not found any clear direction of the influence of gender. We can suppose that there are no significant differences in fears of preschool children according to children's gender (Bauer, 1976; Draper & James, 1985; Gullone, 1996; Kirmanen & Lahikainen, 1997; Lentz, 1985a, 1985b; Maurer, 1965; Taimalu, 1997).
5. Preschool children tend mostly to use non-cognitive (behavioural) coping strategies, cognitive coping ways are not very characteristic for them (according to Cantor & Wilson, 1988; Harrison & Cantor, 1999; Kirmanen & Lahikainen, 1997; Wilson et al., 1987).
6. Parents use fear as socialization mean or child-rearing method, which can promote children's fears (according to Bronfenbrenner, 1979; Chazan, 1989; Izard, 1977; Tuan, 1979).

7. METHODOLOGY AND SAMPLE

7.1. Sample

Two random samples of Estonian-speaking children aged 5 to 6 (and their parents) living in the Tartu district were gathered during 1993 (N=115) and 2002 (N=91). In 1993 the names and the addresses of 5–6 year old citizens were randomly picked up from the populations register. Each 10th child from the list was selected for study. In 1993 non-contacted (e.g. moved) participants were replaced with the another child from the population register (same gender and born on the same day if possible).

As the first step a letter was sent to inform the parents about the research project. Thereafter they were contacted by phone (if it was possible) to make sure they were willing to take part and agreed to the child's interview. Also the place and time of child's interview was decided by phone. If the contact by phone was not possible the interviewer visited the child's home given in population register. Sometimes the contact was not possible even after several visits and then the second ("reminder") letter was sent where the parent was asked to make contact with interviewer and to inform about her/his decision.

The security measures of personal data had become much stricter in 2002 and because of that it was not possible to get the whole list of names and addresses from the populations register. Only the data about children's addresses, age and gender was given to the interviewer from AS Andmevara (after getting permission from Ministry of Internal Affairs), but no names. This same institution also handled the random selection from the population of 5–6-year-old children in Tartu. AS Andmevara was asked to select 200 potential Estonian-speaking participants. Because of the described security measures there were no possibilities in 2002 to make contact with parents by phone if they didn't answer the letters. Visiting homes and sending the second, reminder letter gave little effect. So contact with almost 50 percent of potential participants (89 from 200 to whom the letters were sent out) was not possible. Therefore a large number of parents who were unaware of the study were not available in 2002 (see also Table 5 about non-response, page 131). There were several reasons for non-response (see Table 5).

Among the reasons quoted for refusal to participate, reference was made most frequently to lack of time, need to maintain privacy, excessive stress in family and the child's serious disability. In 1993 four parents and one child refused to participate, in 2002 13 of contacted parents and two children refused to participate. In 2002 replacing the unavailable children of the same kind as in 1993 was not possible because of small list of potential participants author received from AS Andmevara.

Thus, the final number of parents was 115 and the number of children 115 in 1993, and 90 / 91 in 2002, respectively. There were 53.0 percent of girls and

47.0 of boys in 1993 and 49.5 and 50.5 in 2002, respectively (frequencies 61/54 and 45/46). These sample were equal by gender, χ^2 -test revealed no significant differences (Pearson Chi-Square = 0.263, $p=0.608$ (asymp.sig, 2-sided). Mean age was 5.49 (SD=0.503) in 2002 and 5.53 (SD=0.501) in 1993. T-test revealed no significant differences by age between two studies ($t=0.51$, $p<0.61$). So, author can say that interviewed children in both years were similar by two main background factors, age and gender.

Table 5. Analysis of non-response

	Estonia 1993	Estonia 2002
Letters sent out		200
Parents who did not answer and were not available		89 (from 200)
Contacted parents	120	111
Interviewed children	115	91
Parents filled questionnaire	115	90
Moved	–	5
Refusals:	5	15
– Lack of time	2	4
– Child’s serious disability	–	2
– Excessive stress in family	2	2
– Child’s refusal to talk	1	2
– Parents didn’t like such studies (need to maintain privacy)	–	5

7.1.1. Some background information about participants

It is important for the validity of the study that general background data of respondents are similar. It was seen above that children’s samples of both studies were similar by age and gender. Next some parental background data, which may also have some impact of children’s fears, will be analysed – age, marital status, educational level and some living conditions (type of house, income, economic management). Of course, we have to remember that changes in the background of our sample are connected with the demographic changes in Estonia.

Age of parents

Mean age of parents is very similar in both studies (see Table 6 page 132). There is a little difference in maximum and minimum ages between the two studies: in 1993 the youngest mothers and fathers were both two years younger than 2002, the oldest father was 10 years older in 1993 than in 2002 and the oldest mother was two years older in 2002 than in 1993. Parents’ ages were not

significantly different between the two studies (mothers' age: $t= 1.69$, $p=0.093$; fathers' age: $t=1.86$, $p=0.064$)

Table 6. Parents' age information: mean age, standard deviations (in parentheses), maximum and minimum age

	Mother 2002	Father 2002	Mother 1993	Father 1993
Mean (st. dev)	32.15 (5.37)	33.69 (4.63)	32.17 (6.07)	33.84 (6.55)
Maximum	52	45	50	55
Minimum	24	26	22	24
N	88	85	114	111

Marital status

There was significant difference between the two studies ($\chi^2=8.90$, $p<0.05$). In 1993 there were more married parents than 2002 and in 2002 there were more parents than 1993 living in unmarried cohabitation (see Table 7). But author can't claim that living with parents who are legally married or unmarried cohabitation causes a big difference for children's security. Thus, almost the same amount of parents in both studies lived together as a couple (about 75% in 2002 and 80% in 1993). It is good to point out that there is not a big difference between the two studies in the amount of children whose parents are divorced or living separately, and children whose one parent is dead.

Table 7. Marital status of parents in 1993 and 2002 (%)

	2002	1993	χ^2	p
Married	57.1	72.2		
Unmarried cohabitation	18.7	7.8		
Divorced	23.1	17.4		
Widow	0	1.7		
			8.90	0.031

Educational level of parents

As we can see in Table 8 (page 133) the educational level of parents is very similar in both studies. There are a little more fathers than mothers with the lowest educational level (only basic school), almost the same amount of parents (a little over 50%) has secondary education and about 40% of parents have high education. There were no significant differences of parents' educational levels between these two studies (mothers' education: $\chi^2=0.187$, $p=0.911$; fathers' education: $\chi^2=1.28$, $p=0.735$).

Table 8. Educational level of parents in 1993 and 2002 (%)

Educational level	Mother 2002	Father 2002	Mother 1993	Father 1993
Basic education	7.8	11.6	6.1	10.4
Secondary	52.2	51.2	54.1	51.4
High	39.6	35.2	39.6	37.4

The type of house

In 2002 respondents' answers showed that 38% of them lived in big stone houses with five or more floors and 30% have their own individual house. In 1993 64% of families lived in big stone houses and 15% had their own individual houses. There were 21% of families in 1993 and 31% in 2002 who lived in two-story houses. Significant difference was found between the two studies in the distribution according to the type of living houses ($\chi^2= 13.6$, $p<.01$) – in 2002 more families lived in own individual houses and the amount of families living in big houses with many flats has decreased.

Family's income and economical management

How did respondents assess their economic well-being? 14% of families reported that they could manage with their income only poorly and 9% well in 2002. The majority of parents (77%) said that they could manage averagely. These are only subjective assessments of parents. 46% of parents claimed that they can manage poorly, 51% averagely and about 3% well in 1993. Although the stratification of people is greater and cost of living is higher now than 1993 it is interesting to point out that in 2002 families felt that they can manage better economically than in 1993.

There were also significant differences between the two studies: in 1993 there were more families who could manage poorly and in 2002, respondents assessed that they can manage medially ($\chi^2=25.35$, $p<.01$). The average income (net income) monthly was 8186.54 (sd=4570.79) Estonian crowns in 2002 and 1251–1500 crowns in 1993. The income of families between the two studies is not comparable directly.

So, author can say that the respondents of the two studies were similar enough by their background factors – children were similar by their age and gender, and parents were similar by their age, educational level and marital status. Some differences were found in the living conditions (type of house and economic subsistence by parents' assessments).

While socio-economic status has been found to have an impact on children's fears according to some previous studies, in our society these levels (high, middle and low SES) are not yet so clearly defined or apparent that we could divide respondents between those levels and investigate the influence of SES on children's fears. It is evident that only material welfare doesn't insure children's well-being.

7.2. Methodology

One of the aims of the dissertation is to present and test a methodology for investigation of young children's fears, worries and other problems. Because of that author will introduce the research method carefully, in a detailed way. Three papers have been published by our project group on the basis of Finnish and Estonian data (Lahikainen et al., 2003, 2006, 2007) where the methodology has been described also.

The methodology of compilation of data was developed in our project by Professor A.R. Lahikainen (Finland), Associate Professor I. Kraav (Estonia) and T. Kirmanen (Finland) (see also introduction). Author of the dissertation joined with the project in the phase of translation and adaptation of the methodology for the Estonian sample.

Methodology is the key point in children's research. While fairly similar self-report scales (several modifications of FSSC), which are easily comparable with each other, have been commonly used with school-aged children there is no similarly widespread accepted methodology for younger children. The only standardized method available for studying fears in young children is based on The Fear Survey Schedule for Children-II (FSSC-II) (Gullone & King, 1992), which has been modified for parents by Bouldin and Pratt (1998). Different methods and informants have been used and because of that quite different results have been obtained (see chapters 4.2.1. and 4.2.2.). Fears are very common at an early age and therefore certainly deserve closer empirical and theoretical investigation (Elbedour et al., 1997). Of course it is easier to study schoolchildren or parents. It is quite difficult to get adequate answers from young children, but it is important to collect more information about this agegroup also. Thus, preschool-aged children should be investigated more and researchers need to make more concerted efforts to find suitable methods.

We can find studies where *parents' interview or questionnaire* is used for studying young children's fears (e.g. Bouldin & Pratt, 1998). We can also find several studies where the *children's interview* is used (e.g. Lenz, 1985a; Muris & Merckelbach, 2000; Stevenson-Hinde & Shouldice, 1995). We can find *different methods* used in children's interviews – semi-structured interview with open-form question (What are you afraid of?)(e.g. Muris et al., 1997a, 1997b); picture aided interview (e.g. Dominic-R questionnaire with pictures of situations with the boy named Dominic, see Valla et al., 2000; Koala Fear Questionnaire, the pictorial scale which consists of 31 potentially fear-provoking stimuli and situations, and was specially developed for investigation of fears of children under 7 years old, see Muris et al., 2003b) or other methods (e.g. doll-play situation – Lenz, 1985a, 1985b). But we could not find any research yet which has used both informants – parents and children – and all these methods together: parents' questionnaire, semi-structured and picture-aided parts in children's interview. As several researchers (e.g. Muris et al.,

2000a) have claimed, the results of study depend on the used methodology significantly.

There are *several scales* developed for use with school-aged children research (e.g. Louisville Fear-Survey – Miller et al., 1972, Anxiety Disorders Interview Schedule for Children, Fears Survey Schedule for Children-Revised (with its modifications) – Ollendick, 1983, etc.), but there is a lack of methodology suitable for and widely accepted for the investigation of young children's fears (and other similar problems). Self-report questionnaires such as the FSSC-R can be reliably used in children aged 7 and above, but for younger children this type of instrument does not seem suitable because the questionnaire items and response format are too abstract (Muris et al., 2003b). For this reason, the assessment of fears in pre-school children has been confined to interviews in which children are simply asked to report the stimuli and situations they fear (e.g. Lentz, 1985a; Muris & Merckelbach, 2000; Stevenson-Hinde & Shouldice, 1995).

The main reasons for choosing *interview* as the research method were the following:

- Small children are a different research subject compared with older schoolchildren and adults (Lahikainen et al., 1995). Their motivation for a longer effort is difficult; they are easily influenced by moods and outside factors. Their age-specific cognitive and language characteristics makes it difficult for them to understand and use abstract concepts and may cause communication problems (Crosser, 2002a; Kleinknecht, 2002; Lahikainen et al., 2003);
- The necessity to compare results with other agegroups, security-research and other studies about child forced us to use methods, which make such comparison quite easy.

The interview method has been argued to be the most efficient means of learning about an individual's experiences (Gullone, 2000). However, the open-form or semi-structured interview situation also has its limitations. Unfortunately none of the interview studies reviewed have provided data demonstrating the reliability of their reports (Gullone, 2000).

Why didn't we use the structured interview with self-report fear list similar to FSSC-R but instead the semi-structured interview with open-form and picture-aided questions? Because several researchers have argued that with any structured fear survey, it is unknown to what degree one is measuring veridical differences in fear parameters or a willingness to endorse fear stimuli provided by an adult examiner (see e.g. Shore & Rapport, 1998, 458).

7.2.1. Children's interview

Many child researchers maintain that children themselves are the best, but not the only informants in studies concerning children and their experiences. Several studies show that the agreement in questionnaires between parents' and children's answers is low. Although parents, peers and teachers offer important information, children themselves must be considered primary informants about their fears and worries (Muris et al., 2001). The individual *face-to-face interviews* with children were used to study children's fears. Different forms of preliminary interviews were conducted with 5- and 6-year-old children during the planning and designing stage of the interview (main leaders of this process were professor A. R. Lahikainen from Finland, University of Kuopio (in University of Tampere now) and associate professor I. Kraav from University of Tartu). The informants were responsive and spoke about their fears in both group settings and also over the phone. Telephone interviews, however, involve a greater risk of losing contact than do face-to-face interviews, which allow for interruptions and sudden loss of interest on the part of the child and a wider variety of means for expressing encouragement and empathy on the part of the interviewer. The major drawback of the group interview is that other children have a great impact on individual responses; the group view and individual views are intermingled. On the basis of these experiments, which also included different ways of wording questions, the decision was made to use individual face-to-face interviews. This was considered the most reliable and least vulnerable method (Lahikainen et al., 2003, 86).

The interview used to measure children's assessments consisted of three main parts:

1. social network interview in the form of target diagram,
2. fears investigation in the form of semi-structured and ...
3. ...picture-aided interview (see children's interview form in Appendix 1).

All these parts and questions of child's interview, and also parents' questionnaire were translated into Estonian. These main questions in interview and parents' questionnaire in Finland and Estonia were identical.

Because of the sensitivity of the topic, the interviews were both initiated and finished with *positive things* in the children's lives. To begin with, the child constructed the network of his/her significant people in the form of a target diagram using faces representing different persons. It was thought that reminding the child about significant persons on his/her everyday life would help to reduce the feelings of anxiety and insecurity that might arise in the company of a strange adult. The diagram also helped the interviewer to orient to the child's social relationships (Lahikainen et al., 2003, 86). Interview was finished also with positive things. Interviewer asked the child to tell about things that makes them feel happy and glad. All children also got a small

present (e.g. stickers, pencils) as thanks for being efficient and cooperative during the interview.

Then, two complementary methods were deployed in children's interviews to investigate children's *fears*. The interviewer talked with the child about his/her fears. This discussion was started with **semi-structured interview part** in the form of **open-form question** as follows: "All people, even adults are sometimes afraid of something, although they may be afraid of different things than children. I would now like to know what kinds of things are you afraid of?". The children were allowed to speak about their fears for as long as they had something to say about the subject.

Additional questions were allowed where necessary. For each fear the whole fear process (in connection with each fear the intensity of fear and the coping process were analysed by asking: "What do you do when you are afraid of that?") was documented until the subject was exhausted. If the child had difficulties getting started, the interviewer was allowed to ask whether the child was afraid of animals, television programs or nightmares. These three topics were selected as examples of common and uncommon fears, and they were incorporated in the interview scheme and asked systematically if they were not mentioned by the child (Lahikainen et al., 2003, 86).

The fears expressed by the children in this part of the interview were classified into 19 categories on the basis of a qualitative analysis (Kirmanen, 2000; Lahikainen et al., 2003: 90, see also the manual for partition into categories in Appendix 4). The fear categories were jointly constructed by the Finnish and Estonian *researchers* using data from both countries. The criteria used in constructing the categories were as follows: the system should be illuminating, i.e. broad enough to include all items of fear mentioned by the children, and it should condense the information given by the children. Each cluster of fears should represent the child's behavioural or cognitive level. If the child said that he/she is afraid of a ghost that might appear in the dark, for example, then both fear of darkness and fear of imaginary creatures were documented. We have divided animals according to the probability of children having contact with them. For example, wolves and bears, which are the most frequently mentioned animals by children, are placed among unfamiliar animals. Although they live in our forests, it is unlikely that children can meet them, and from a young child's point of view they are just as "imaginary" as dragon or dinosaur. Children only know them through stories, books and television. It is surprising that children quite often mentioned the zoo as the origin of the fear of unfamiliar animals – they have seen the bear in the zoo and the fear rose because they thought in the following way: "If this animal is in the cage it is dangerous. The cage may break and the animal may get out." In these cases it is truly a "real" fear object for the child.

The presence of fear in each category was independently coded by the two researchers which showed a high level of agreement in their assessments (see Table 9 page 138).

Table 9. Fear categories and consistency of ratings between two independent coders (measured by kappa coefficient) in 1993

Fear of...	kappa
Behaviour of significant adults	1.00
Behaviour of peers	0.95
Traffic accidents	1.00
Thunderstorms, etc.	1.00
Minor injuries	0.91
Animals	1.00
Losing a loved one/separation	0.96
Strange people	0.95
New things and situations	0.88
Imaginary creatures	1.00
Nightmares	1.00
Darkness	0.93
Television programs	1.00
Going to sleep in the dark	0.85
Accidents and death	0.94
War, guns and violence	1.00
Unfamiliar animals	1.00
Being alone or getting lost	1.00
Medical fears	0.70

(Source: Lahikainen et al., 2003, 90)

The interrater reliability measured by coefficient of consistency for two independent coders varied from 0.70 to 1.00. The categories were also quite inclusive: only 0.3 percent of the fears mentioned by the children could not be slotted into any of the categories (Lahikainen et al., 2003, 90). Reliability (Cronbach's alpha) of general fearfulness scale of 19 fear categories was 0.7 both in 1993 and in 2002 study.

Quite the same, but fewer categories were used, for example, in Lentz's (1985a, 1985b) study where she used the semi-projective, contextual play technique: bodily injury; monsters and ghosts; animals, insects and birds; bedtime fears, dark and frightening dreams; fear of specific person; separation, abandonment; school-related fears; fights, yelling; punishment.

Most of the children talked openly about their fears. Only three children in 1993 refused to name any frightening situation or object. In 2002 there weren't any such children in Estonian sample. The scale for assessment of fear intensity was practically the same scale as used in FSSC-R, but a more suitable and concrete method for young children was chosen (see subchapter 7.2.1.1. below "Measuring the intensity of fear").

However, limits exist in the semi-structured interview method because of children's cognitive development. Young children are not able to express some kinds of fears (e.g. unconscious fears, social fears, fears related to significant people's behaviour, situational fears). Because of that, it is necessary to use

some other method additionally. In our research the semi-structured interview was followed by the **picture-aided section**.

As Gullone (2000) has written in her theoretical review paper of children's fear research, the most frequently used method for investigation of children's and youth's fears is the method of fear survey schedule (FSSC-R and its modifications), but this is not suitable for young (preschool aged) children because of its cognitive limitations (too abstract, based only on hearing because those children cannot read themselves).

We tried to develop and show one possibility of methodology, the results of which will be presented and analysed in this dissertation. We used the FSSC-R (Ollendick's) scale as the basis or source of potential fear objects and chose only some potentially fear provoking situations which we presented in the form more suitable for young children (pictorial form with short descriptive story, both seeing and hearing included). It was assumed that *pictorial representation* of fear-provoking situations makes fears more salient to children and in this way facilitates recollection. Pictorial format also helps by improving comprehension, stimulating the attention of children, and focusing their interest. In addition, the use of pictures avoids having to rely only on the vocabulary of the child (Valla et al., 2000, 85). Bauer (1976) observed that it is easier for children to relate to iconic representations than to abstract, verbal representational modes of expression.

In our study we selected eight items of fear from the FSSC-R (Ollendick, 1983) and presented them to the children in the form of a picture connected with a short story (Lahikainen et al., 2003, 87). After each story, the child was asked the following three questions: "How does Priit/Katrin feel?", depending on the interviewee's gender; "Is she/he afraid and how much? What does she/he do afterwards?" (see stories and pictures in Appendix 2).

The choice of picture-aided method was based on the experience that it is considered less threatening to answer questions for another (same-gender) child than it is to answer direct questions (see Stevenson-Hinde & Shouldice, 1995). It is also based on the idea that the child identifies himself/herself with the child in the picture and talks about his/her own fears and coping ways "through" the other child. Child gives her/his fear to the third person (here in pictures Priit or Katrin) and reacts accordingly what this situation means to her/him (Toim, 1983).

The pictures represented social situations which as such are quite neutral but which in the light of earlier studies may nonetheless evoke feelings of fear. Each of these pictures has a counterpart in Ollendick's list of fears (Ollendick, 1983), and represents different dimensions of children's fears. The fear items included in the picture-aided part of interview were as follows (with the corresponding factors of fear found by Ollendick, 1983 given in parentheses) (see pictures in Appendix 2):

1. Going to bed alone in the dark (fear of unknown)
2. Being teased by other children (fear of failure and criticism)
3. Parents are arguing (fear of failure and criticism)
4. Parents are criticising the child (fear of failure and criticism)
5. *Going to the doctor (medical fears)*¹
6. Getting lost in the forest (fear of danger and death)
7. Getting lost in town surrounded by strange people (fear of danger and death)
8. Parents are leaving for a long trip (fear of unknown)

Fears representing two other factors from FSSR-C, i.e. fears of minor injury and fears of small animals, were thought to be cognitively simple enough and neutral for children to be able to talk about them freely. Besides, it is very difficult to provide an inclusive description of fear of animals and minor injuries in just a few pictures (Lahikainen et al., 2003, 87). The pictures were as simple as possible, focusing only on the object necessary to concretize the topic concerned. Reliability of general fearfulness scale (Cronbach's alpha) consisting of eight fear of picture-aided interview was 0.7 in 1993 and 0.7 in 2002.

The **semi-structured interview** about children's fears (What things are you afraid of?) enables us to investigate the wide scale and variety of small children's fears. But of course in the open-form question children do not tell us about all of their fears, they don't remember them or don't want to tell about some fears – e.g. fears connected with significant others because of loyalty. The **picture-aided part** enables us to study some concrete fears more deeply, especially social fears, unconscious fears or fears which are caused by significant others. Of course it is not possible to show small children very many pictures, so it is necessary to think carefully which fears we want to investigate with this method.

Thus, the previous studies suggest that a complete assessment requires a *combination of methods* and possibly *multiple informants* (e.g. Lane & Gullone, 1999; Muris et al., 1997a, 1997b; Ollendick et al., 1996). We tried to do in our study both:

- (1) *Use a combination of methods*, which are suitable for younger children. In order to avoid the influence of the fear survey schedule, we used firstly the free option question (*What things are you afraid of?*) and after that the picture-aided interview, which was developed on FSSC-R;
- (2) *Use multiple informants*, i.e. children themselves and their parents, to investigate children's fears. If we want to obtain information about children's fears, then we have to ask the children directly, taking into account the limitations of young children's cognitive and verbal capacities. The information obtained from children themselves is unique and cannot be

¹ Picture 5 (going to a doctor) was left out from analysis later, because this fear was not clearly connected well with the other seven fears. Seven fears of picture-aided interview are more appropriate to analyse and gives us a better overview of these fears.

fully substituted by information from other sources (e.g. parents or teachers), even though it is partial and filtered in many respects (Lahikainen et al., 2003, 84).

The use of combined methods and more than one informant is not yet common in the studies of children's fears.

7.2.1.1. Measuring the intensity of fear

To measure the intensity of fears both in the semi-structured interviews and in the picture-aided part, we used the technique developed by Carpenter (1990) for assessing experiences of fear and pain in children (Children's Global Rating Scale, CGRS). This methodology was tried out to measure objectively and validly young children's perceptions of such constructs as fear and pain (see Carpenter, 1990, 239).

When the child was speaking about a particular fear, the interviewer showed the child a picture with three different lines: the upper line with sharp curves designated great, the middle line with moderate curves average, and the lower one with a straight line, minimal fear. The child showed how afraid he/she was in the case of each fear both in the first question of fear and in the picture-aided section. The technique proved to be well suited to its purpose, the children promptly understood what was expected of them and they willingly used the chart (see in Appendix 3). So, in our study we used a 4-point scale to assess the prevalence and intensity of the child's fears: 0 – the child is not afraid or does not name the fear (in semi-structured interview); 1 – Child is afraid a little; 2 – Child is afraid to some extent; 3 – Child is afraid a lot.

A similar idea for measuring the intensity of small children's fears was used by Peter Muris with his colleagues (see Muris et al., 2003b) in the study of young children's fears with the Koala Fear Questionnaire. There they used the so called "face-type" scale, the three Koala bear faces from very happy to very scared expressions, which the child can use to assess her/his fear's intensity.

7.2.1.2. Interview procedure

Selection and training of interviewers

As establishing contact and asking suitable questions of 5–6-year-old children depended heavily on the interviewer and the quality of data was significantly influenced by her/his responsibility, the selection of interviewers was a very important factor for successful study. The children were interviewed by students or post-graduate students (by 4 interviewers in 1993 and only by the author of dissertation in 2002) who were selected from the students or post-graduated

students of education. They were persons who were interested in this topic themselves and they had also the experience of working with children. The author of this dissertation participated as the interviewer in 1993 and in 2002 she was the only interviewer. In order to minimize the different influences which may come from using several interviewers, the author of this dissertation conducted one third of the interviews in 1993 and all interviews in 2002).

Special training was provided ahead of the interviews. Training consisted of lectures on child development and the interview technique as well as practical interview training first within the group and then with children. Preliminary interviews of each interviewer were recorded for analysis in the training sessions. Each interviewer also received individual tutoring. Originally prepared in Finnish, the training guide was translated into Estonian. The training was provided in both countries partly by the same person (Lahikainen et al., 2003, 88).

Arrangements before and duration of interview

After the acceptance to participate from parents was obtained the parents were asked to tell the child about the study in advance and to encourage the child to participate. They were also advised to arrange the meeting in a time of the day that best suited their child (e.g. when the child was not tired, sleepy or hungry, etc.). The mother, the father or both together were asked to complete the questionnaire for parents. The questionnaire was mailed to the parents, who returned it either in connection with the child interview or directly to the university or in the closed envelope to the child's kindergarten. Parents were quite positively (or very positively) disposed toward interview (about 60 percent in 1993 and 90 percent in 2002), about 13 percent were neutral in 1993 (10 percent in 2002) and only 3 percent related negatively in 1993 (in 2002 negatively disposed parents refused to participate at all). Sometimes parents needed further explanation about the project first and after that they agreed to participate.

Wherever possible the interviewer visited the child ahead of the interview in order to give the child a chance to get to know the interviewer. However, as it turned out this was possible with no more than 21% of the Estonian children in 1993 and 7% in 2002. Some children did get to meet the interviewer in advance at day care centers, when other children were being interviewed. The interviewers took their time to establish contact with the child, playing and talking informally with them before starting the interview. Given the high level of concentration required and the importance of adapting to the child's personal rhythm, no more than two interviews were conducted a day (Lahikainen et al., 2003, 89).

The interviewer had a complicated task to follow – gain the child's interest and attention for quite a long time. On average the interviews lasted about 34 minutes in 1993 and 36 minutes in 2002. The longest interviews lasted 60

minutes in 1993 (six cases) and 75 minutes in 2002 (two cases). The shortest interviews lasted 15 minutes in 1993 and 20 minutes in 2002. Majority of interviews lasted 25–30 minutes (32%) and 35–45 minutes (25%) in 1993 and 30–35 minutes (45%) and 40–45 minutes (33%) in 2002.

Generally it was recommended to talk with the child in private, but if the parent wanted to be next, or the child did not want to be alone with the strange interviewer, they were accompanied by their parents or siblings. 14 percent of parents in 1993 and 7 percent in 2002 were in the same room during the interview. Sometimes compromises were obtained (e.g. the door left open, mother in the next room). In the cases where children or parents didn't agree to participate without parent's presence, it was the only way to interview the child. The child felt him-/herself more secure and courageous. But of course there are some negative influences also when parent was in the same room (in the case of parent's will but not the child's) – it was possible that the child didn't answer completely honestly or freely about some kind of fears because of loyalty (e.g. parents- or family-related fears), and also it was impossible to follow the promise that the child's fears will not be told to anybody else. The parents were advised to contact the interviewer afterwards if they had any concerns or questions.

The interviews were recorded and later transcribed as soon as possible after the interview. Sometimes the fact of recording of interview was significant motivator for the child – she/he felt herself/himself very important person. At the end of the interview if the child wanted he/she was allowed to listen to the recorded interview. After the transcription of interview the answers were coded and inserted to program SPSS 11.0 for Windows. The fears found from the open form question in semi-structured interview were classified into 19 categories (see Table 9 page 138) by two independent raters.

Interview

Gaining of good contact and trust from the child was one of the main pre-conditions for successful interview. The interview began with the general introduction of the research project. The interviewer explained that adults did not know very much about what it is like to be a child, and that they wanted to know more about the child's feelings. It was also made clear that nothing the child said would be passed on to anyone else, either to parents or caretakers. Before the actual interview the child and interviewer spent some time together, playing and talking informally. If they wanted to the children were also allowed to get familiar with the tape recorder. All of the children were given a small present (e.g. stickers, etc.) at the end of the interview as a token of appreciation for their acceptance to take part (Lahikainen et al., 2003, 88). Also it was explained to the child that a book will be written in the future about her/his and other children's stories, that her/his opinions, thoughts and feelings are very interesting and important for researchers and this research, that there are no

right or wrong answers, and other reassurances. The interviewer also used replication if necessary, active listening, and neutral tone of voice while talking about fears.

Neutrality was considered the ethically correct attitude for interviewers to take towards the child in all circumstances. The interview would give the child a model for talking about even difficult and anxiety-raising things (Lahikainen et al., 2003, 89). When the child seemed tired or bored the interviewer promised him/her some break or played with the child. It was important that the child felt him/herself safe and comfortable.

The interviewers' guide included the following instructions:

- Create a calm, peaceful, unhurried and approving atmosphere;
- Make it clear both verbally and non-verbally that you are interested in what the child is saying, hold the eye-contact if the child's likes it;
- Talk slowly with careful articulation, don't use complex and abstract words;
- All interactions should happen directly at the child's level, with the child's and the interviewer's faces at the same level (e.g. when child is sitting on the floor or small chair the interviewer did it also);
- Favour positive feedback, repeat what the child's has said;
- Behave friendly, warmly, use nodding, smiling, and other encouraging and reassuring body language and facial expressions to show the child you are interested and understand what he/she is saying;
- Make sure you understand what the child is thinking, what lies behind the words;
- It is very important to follow child's answers carefully during the interview. Child is speaking and thinking more slowly than adult – sometimes the answer to the question may come later, e.g. with the next question;
- Try to find out as many fears, as possible (sometimes the child may firstly answer "I don't know" or mentions only one fear, then ask additional questions as long as necessary);
- Interruptions by the child because of tiredness, sudden competing interests, some physiological needs should be allowed (Lahikainen et al., 1995).

Setting of interview

As many studies are carried out in strange situations with strange adults we tried to avoid that and meet the child in as familiar an environment as possible – e.g. home, kindergarten. Decisions on the location and time of the interview were made upon the parents' recommendations. The main criterion of the choice of place for interview was the familiar environment for child. Where possible the interviews were arranged in a separate room.

The most common choice was a quiet room at home or at the day care centre, but in some cases the parent's workplace or grandparent's home. The

children were interviewed in their everyday settings as follows: day care or family day care 47 percent, home 49 percent, and other place 4 percent in 1993 and 68 / 30 / 2 respectively in 2002. In kindergartens children were more courageous, but also got more frequently tired and bored. Finding a private quiet room for the interview was sometimes a problem also in kindergartens. At homes children were more open and felt safe and secure, but sometimes they wanted their parent to be next to them and sometimes siblings tended to disturb the interview.

Regardless of the strange interviewer, and the uncommon and quite tiresome situation, the majority of interviewed children were open, interested, friendly, ready for contact and participation, and the interviews were successful.

7.2.2. Parents' questionnaire

Parents' questionnaire consists of four main parts:

- *Background information* – questions about child's and family members' age, gender, marital stage, education, work, living conditions, income, day-care arrangements, health, problems in family, the child's behaviour – to understand the social, material and cultural frame of everyday life (see questionnaire in Appendix 1, questions no. 1–35)
- *Child's relationships* – relationships with family members and friends (“significant other”) (questions no. 40, 41, 44–45)
- *Child's insecurity* – child's fears from the parent's viewpoint (question developed from the Ollendick's fears questionnaire FSSC-R), child's worries and negative experiences (questions no. 39, 42, 43)
- *Family, society and environment* – parents' opinions about their living conditions and environment, problems, educational methods, etc. (questions no. 46–54)

Some questions were added at the end of the 2002 questionnaire, (see questionnaire in appendix, questions no. 49–53). The aim of these questions was to get a more detailed picture about children's home environment and parents' attitudes in child upbringing.

Majority of questions are forced-choice (yes/no and multiple-choice) questions.

The parents assessed the child's fears on 25 selected items of the Ollendick Fear Survey Schedule (FSSC-R, Ollendick et al., 1989) with the following introduction: “Following are listed things that are known to cause fears in children. Do those things cause fears in your child?” Each fear item was to be ranked into one of the following four categories: none, a little, to some extent, a lot.

The original schedule of fears contained 79 items and concerned children of school age. It has been criticised by Bouldin and Pratt (1998) who argue it omits

items that are of relevance to preschool children. We decided to exclude items that were not suitable for younger children (e.g. school related fears, 15 items) as well as items that were deemed culturally or geographically irrelevant or strange (e.g. roller coaster/carnival rides, earthquakes, 12 items). The list of animals was also shortened (9 items), and the following items were combined: five items concerning medical fears were reduced to two, three items describing punishments were reduced to one (criticism by parents, punishment by father/mother), strange and new people were combined, as were the fear of elevators and closed places (Lahikainen et al., 1995; Ollendick et al., 1989). In addition, parents had the opportunity to mention fears that did not appear on the list, but they rarely took advantage of this. The reliability (Cronbach's alpha) for the total scale of child's general fearfulness in the current sample of parents was 0.8 in 1993 and 0.8 in 2002.

To resume author wants to bring out novelty of the research and methodology as following:

1. Used methods itself are not new (interview and questionnaire, open-form and picture-aided questions), but author haven't found such research where are used all these methods together – open-form and picture-aided questions in children's interviews, and additionally used two main informants – parents and children themselves.
2. There are numerous studies about children's fears, but not enough investigations about preschoolers' fears. Young children as the object of the study are a rarity. Information about the prevalence of fears in normal populations of young children remains quite scarce. Firstly, young children are not as easily accessible as schoolchildren, and secondly, studies with young children require special methods.
3. There have been one-time or longitudinal investigations (to study the development of fear), but there is a lack of repeated studies, which would allow us to analyse differences in same-age children's fears over the time. We have conducted the study twice with the methodology described above.
4. We included television-related fears into the general interview and analysed the differences of this kind of fears.

7.3. Data processing

The methodology of data processing was developed by author of the dissertation. The program SPSS 11.0 was used to insert and analyse data. Several methods of data processing were used – firstly, factor analysis for investigating the **structure** of fears. As the majority of studies of children's fears have used factor analysis in principal components analysis (e.g. Davey et al., 1998; Fisher et al., 2006; King et al., 1989; Mellon et al., 2004; Muris et al., 2003b; Shore & Rapport, 1998; Spence et al., 2001; Tikalsky & Wallace, 1988), and this gave the simplest factor structure with a sufficiently high percentage of the variance explained author has chosen the principal components method also (see also Garson, 2007).

In addition t-test and one-way ANOVA test were used for comparing means, Post Hoc Tukey Test to reveal significant differences between subgroups, χ^2 -test and t-statistic for comparison of percentages, correlations (Spearman's coefficient ρ), reliability analysis (internal consistency, Cronbach's alpha). Reliability and validity analysis is presented in discussion (based on Gall et al., 1996 and Luik, 2006).

8. RESULTS

The first and main question of the dissertation is: what differences can be found in children's fears over the ten years (1993 and 2002) after the period of rapid societal changes in Estonia.

8.1. Preschool children's fears and differences in fears over the ten years

In this section, author will analyse the differences of children's fears between two different studies (1993 and 2002) in the following way:

- a) Structure of fears as determined by factor analysis;
- b) Level of fear intensity (sum of intensity scores of the items contained on each of the factors, i.e. mean factor scores, and the average number of fears reported by each child in semi-structured interview);
- c) Content of fears, as depicted in the most common and intense fears endorsed by children of both studies (by the fear intensity level "is afraid a lot").

8.1.1. Structure of fears

Author has not found any previous study where the fear structure according to factor analysis was presented on the sample basis of pre-school children. All previous analysis of such kind has been done based on samples of school-aged children and a different methodology of data compilation.

Different methods of factor analysis (e.g. principal components, maximum likelihood, principal axis methods and also hierarchical factor analysis) and different number of factors (from 2 to 7) were tested on a total sample of 206 children and separately for sub-samples of 1993 and 2002 study in two ways: 1) on separate data sets of two interview parts (semi-structured and picture-aided interview) and 2) on the data set of two interview parts together. The purpose was to find out the simplest and clearest structure of children's fears. Hierarchical factor analysis was rejected because of bipolarity of received factors. Bipolarity of factors made interpretation and naming of the factors difficult and unclear. Maximum likelihood and principal axis methods were omitted mainly because of very low percent of variance explained. Finally, total sample of children (N=206), the principal components method, factor analysis on the basis of separate data sets of two interview parts and five factor solution for semi-structured and two factor solution for picture-aided interview were selected as the simplest and clearest structure with a sufficiently high percentage of the variance explained (rested on Garson, 2007).

Firstly, factor analysis was carried out on the fears expressed by the children in the **semi-structured interview**. Four categories (from 19) were excluded from the factor analysis because 5% or less of the children had mentioned fears from these categories. The fear categories that were omitted were fear of thunderstorms and other nature forces, fear of traffic accidents and vehicles, fear of going to sleep/ nighttime fears, and medical fears. The final factor analysis comprised 15 of the most common fears that the children had mentioned both in 1993 and 2002. Principal components method with varimax rotation yielded 5-factor model which was accepted on the basis of the eigenvalues. The model explained 54.3% of the variance (see Table 10 page 150).

1. *Fear of loss, danger and death* consists of fear of loss or rejection of a significant person, fears connected with strange adults and new things and situations, fear of serious accidents and death, fear of being alone and getting lost. This factor accounted for 16.0% of total variance. All these fears can cause insecurity for children because of strange and potentially dangerous things and situations or absence of significant others.
2. *Fear of imagination related things* consists of fear of nightmares, television programs and imaginary creatures (11.9%).
3. *Fear of animals* (fear of familiar and unfamiliar or exotic) animals (9.6%).
4. *Fear of behaviour of significant others* (adults and peers) (8.9%).
5. *Fear of violence, minor injuries and darkness* consists of fear of minor injuries and small accidents, fears connected with night and darkness, fear of war, guns, violence (7.9%). Author has to admit that this factor is not very clear and easy to interpret. Two of the three fears in this factor can belong also to other factors – fear of darkness into Factor 3 and fear of minor injuries and small accidents into Factor 4. A possible interpretation as to why these three fears can belong to same Factor is that war, guns, violence, but also small accidents may cause injuries for the child, and darkness can amplify the possibility to get hurt.

Secondly, the principal components factor analysis with varimax rotation was carried out on the seven fears of the **picture-aided interview**. This analysis yielded two factors (Table 11 page 151). These two factors explained 48.9% of the total variance.

Table 10. Rotated factor loadings and communalities for the 15 items of self reported fears of children in semi-structured interview (N=206)

Factor	1	2	3	4	5	Communalities
Factor 1 "Fear of loss, danger and death "						
Fear of loss or rejection of a significant person and the other fears of separation	.80	.02	-.09	.07	.14	.68
Fear of being alone and getting lost	.76	.09	-.32	.05	.08	.69
Fear of big accidents and death	.57	-.01	.17	.25	-.01	.42
Fears connected with new things and situations	.52	.03	.19	-.08	.14	.34
Fears connected with strange adults	.47	.19	.29	.14	-.22	.41
Factor 2 "Fear of imagination related things"						
Fear of nightmares	-.15	.75	-.15	.19	.13	.66
Fear of television programs	.08	.71	.23	-.05	.12	.58
Fear of imaginary creatures	.28	.66	.02	.03	-.03	.52
Factor 3 "Fear of animals"						
Fear of unfamiliar animals	-.09	.23	.67	-.11	.09	.53
Fear of familiar animals	.26	-.10	.57	.11	.07	.42
Factor 4 "Fear of behaviour of significant others"						
Fears connected with significant adults	.32	-.06	.09	.73	.01	.65
Fears connected with peers	-.12	.36	-.24	.65	-.01	.63
Factor 5 "Fear of violence, minor injuries and darkness"						
Fear of war, guns, violence	.05	.11	.07	-.08	.76	.60
Fears of minor injuries and small accidents	.13	-.02	.34	.44	.56	.63
Fear of darkness	.19	.14	-.38	.08	.40	.37
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	
Eigenvalue (E)	2.4	1.8	1.4	1.3	1.2	
Variance explained (%)	16.0	11.9	9.6	8.9	7.9	
Cumulative variance explained (%)	16.0	27.9	37.5	46.4	54.3	

Table 11. Rotated factor loadings and communalities for the seven items of the picture-aided fears of children (N=206)

Factor	1	2	Communalities
Factor 1 "Fears of failure and criticism"			
Going to sleep	.54	.24	.34
Being teased	.76	.02	.58
Having parents argue	.72	.21	.56
Parents are criticising	.64	.04	.41
Factor 2 "Fear of separation and getting lost"			
Getting lost in the forest	-.02	.77	.59
Getting lost in a big crowd	.14	.74	.57
Parents are leaving for a trip	.30	.53	.37
	Factor 1	Factor 2	
Eigenvalue (E)	1.9	1.5	
Variance explained (%)	27.3	21.6	
Cumulative variance explained (%)	27.3	48.9	

1. *Fear of failure and criticism* consists of fear of going to sleep, being teased by peers, having parents argue and fear of being criticised by parents. This factor accounted for 27.3% of total variance. A question may arise about the fear of going to sleep alone in this Factor. Author interprets the situation that the child has to fall asleep alone in dark, but he/she is afraid of something and fails in this task.
2. *Fear of separation and getting lost* includes fears of getting lost in the forest, of getting lost in a big crowd and parents leaving on a trip (21.6%).

8.1.2. Level of fear intensity

To analyse the intensity of fears Mean Factor Scores were calculated by summing up the intensity scores of fears belonging to each factor. To find out significant differences between the two studies (1993 and 2002) t-test was used on five factor scores in semi-structured interview and two factor scores in picture-aided interview.

The results revealed significant effects of year of study only for the factor "Fear of imagination related things" ($t=10.09$, $p<0.000$) in **semi-structured interview** (see Table 12 page 152). The factor scores are slightly higher in 1993 for fears belonging to the two factors: "Fear of loss, danger and death" and "Fear of animals". In 2002 there are higher factor scores for fears belonging to the three factors: "Fear of imagination related things", "Fear of behaviour of

significant others” and “Fear of violence, minor injuries and darkness” (see Table 12). The fears belonging to imagination-related factor have increased dramatically over the ten years.

Table 12. Mean factor scores (on the basis of summarized intensity scores) in 1993 and 2002 in semi-structured interview. Standard deviations in parentheses

Scales	2002	1993	t-value	p<
Fear of loss, danger and death (F1)	1.46 (2.59)	2.17 (3.22)	1.72	.09
Fear of imagination related things (F2)	5.53 (2.43)	2.24 (2.23)	10.09	.01
Fear of animals (F3)	3.07 (1.86)	3.54 (2.07)	1.71	.09
Fear of behaviour of significant others (F4)	0.79 (1.21)	0.49 (1.20)	1.80	.07
Fear of violence, minor injuries and darkness (F5)	1.36 (1.77)	1.09 (1.65)	1.15	.25
	N=91	N=115		

Despite the fact that there is not a statistically significant difference between the two studies in the fear of behaviour of significant others (Factor 4), it seems to me quite alarming that it has increased. This can lead to the conclusion that children more frequently have problems than earlier with their very close people – family members (parents and siblings, e.g. parental punishments or conflicts with siblings) and peers (friends, e.g. other children teasing and bullying in day care).

In **picture-aided part** of interview significant differences appeared between the two studies in both factors: fears of failure and criticism ($t=2.06$, $p<.05$) and fear of separation and getting lost ($t=3.48$, $p<.01$). Both fear factor scores are higher in 1993 than 2002 (see Table 13 page 152).

Table 13. Mean factor scores (on the basis of summarized intensity scores) in 1993 and 2002 in picture-aided question. Standard deviations in parentheses

Scales	2002	1993	t-value	p<
Fears of failure and criticism (F1)	6.35 (3.14)	7.17 (2.41)	2.06	0.05
Fear of separation and getting lost (F2)	5.70 (2.14)	6.66 (1.71)	3.48	0.01
	N=91	N=115		

The *number of fears* that children reported in their semi-structured interview is significantly different: in 1993 average number of mentioned fears per child was 5.13 (sd= 3.4) and in 2002 it was 6.60 (sd= 3.6) ($t=3.01$, $p<0.01$). Thus, the

frequency of children's fears has increased over the last decade. The more detailed table of the number of children's fears (see Appendix 7 Table 3) shows us that the *number of children's self-reported* fears has increased. The amount of children who reported no or only one fear has remained almost the same. In 1993 there were more children than 2002 who named 2–5 fears (62% versus 41%). But in 2002 there were more children than 1993 who mentioned 6–9 fears (38% versus 23%).

The detailed list of the large variety of fears reported by the children themselves in semi-structured interview is presented in Appendix 6. Totally there were reported 244 different kinds of fears 573 times in 2002 and 510 times in 1993 (see Appendix 6).

Thus, we can see quite an interesting situation: some fears have significantly increased (according to semi-structured interview) and some have decreased (according to picture-aided interview). It is good to emphasize that the fears connected with relationships with significant others (in picture-aided interview) show decreasing tendency. The opposite, increasing tendency is seen in the fears related to children's imagination and peers' behaviour. Also the number of self-reported fears has increased.

8.1.3. Content of fears

The comparison in content of extreme fears between the two studies was conducted in the following way: 10 most common fears (i.e. the 10 fears rated in the highest intensity level "is afraid a lot" with the greatest frequency) in the semi-structured interview per both studies together and separately were determined and compared (see Table 14 page 154). The whole table which shows results of both studies in all four intensity levels of fear is presented in Appendix 7 (Table 2). T-statistic for comparison of percentages is used to evaluate the difference between two studies.

We can see four fear factors among ten most common fears ("Fear of behaviour of significant others" is missing). We can find all fears of imagination related factor and fears belonging to factor "Fear of animals" on the top of most common fears followed by fears on the loss and death factor and minor injuries and darkness factor. The factors "Fear of imagination related things" and "Fear of animals" are the only fears which all figure among the ten most common fears. Comparing ten most common fears across both studies we see that in 2002 there are nine fears and in 1993 eight fears that are the same as in total sample's list.

Table 14. Percentages of the ten most frequent fears (according to fear level “is afraid a lot”) across the two studies and the percent of children endorsing them in 1993 and 2002 in semi-structured interview (place in the list in parentheses)

Fear object	Factor	Both studies together	2002	1993	t-statistic	p<
Exotic animals	3	44.7 (1.)	44.0 (2.)	45.2 (1.)	0.17	Ns
Television-related fear	2	35.0 (2.)	54.9 (1.)	19.1 (4.)	5.62	.01
Imagined creatures	2	29.6 (3.)	37.4 (3.)	23.5 (3.)	2.16	.05
Familiar animals	3	29.1 (4.)	27.5 (5.)	30.4 (2.)	0.46	ns
Nightmares	2	17.5 (5.)	36.3 (4.)	(2.6)	6.41	.01
Strange adults	1	13.6 (6.)	13.2 (6.)	13.9 (5.)	0.15	ns
Minor injuries	5	10.7 (7.)	11.0 (7.)	10.4 (6.)	0.14	ns
Big accidents and death	1	7.8 (8.)	6.6 (9–10.)	8.7 (8.)	0.57	ns
Separation fears	1	7.3 (9.)	(4.4)	9.6 (7.)	1.49	ns
Darkness	5	6.8 (10.)	9.9 (8.)	(4.3)	1.53	ns
Being alone, getting lost	1	(5.8)	6.6 (9–10.)	5.2 (10.)	0.42	ns
New things and situations	1	(5.8)	(3.3)	7.8 (9.)	1.44	ns
		N=206	N=91	N=115		

At the top of the list (both studies together) we can see the fear of exotic animals, followed by television-related fears, fears connected with imagined creatures, familiar animals and nightmares. We think that fear of exotic animals is connected with the child’s rich imagination, but sometimes this fear can seem real for the child.

Interviewer: What things are you afraid of?

Child: Cheetah, tiger, lion

I: How much do you fear them?

C: I am afraid of tiger very much, cheetah I fear so (shows the second line) and lion I am afraid of a little

I: Where has the fear of those animals begun?

C: In the zoo or somewhere...

I: Have you been in a zoo?

C: Yes

I: But why do those animals cause fear for you? They don’t live in our country and in the zoo they are in cages. Why are you afraid of them?

C: Because I fear that ... those cages have roof opened...and they may get out of their cages

I: Are you always afraid of them?

C: No. Only when I am in the zoo

(girl, 5, 2002)

Also one of the most common fears is strange people related fear. Most commonly children were afraid of people who behave somehow in a threatening or abnormal way, such as drunken people. Many children also mentioned that they were afraid of burglars and other “bad” or criminal people.

Interviewer: What things are you afraid of?

Child: If some strange man comes then I think that he is bad man

I: Why do you fear those strange people who you think maybe are bad man?

C: They can kill me!

I: From where have you heard such things?

C: I don't know...

(girl, 6, 2002)

If to compare separately the results of two studies we can find three significant differences ($p < 0.05$) in children's fears (see Table 14 page 154). The two most dramatic differences between the two studies are the following: firstly, the fear of *nightmares* has increased very much – from ~3% in 1993, for children who were “afraid a lot” of them to 36% in 2002 ($p < 0.01$). In 1993 this fear was even not among the ten most common fears of children. It is really amazing how well children remember their dreams and how thoroughly they describe these.

Interviewer: Have you seen dreams sometimes?

Child: Yes.

I: Have some of them been scary also, or nightmares?

C: Yes, I have seen many nightmares.

I: Do you remember any nightmare? What did you see then that scared you?

C: Mmmm.... I'll tell you about one Dad was short of cookies and he went to bring some cookies. And then scamps whispered that we will come when her father will go away. Then dad left and they came. Then dad came back quickly because he heard the scamps coming. Then they ran away. Then dad left for a long time and said, “you must sleep”. Then scamps came again and took us away.

(girl, 6, 2002)

These terrifying dreams may continue for a long time.

Child: and if I see scary dream one day then I will see it next day also, because I think about the nightmare and then I will have similar nightmare again....

(girl, 6, 2002)

Secondly, *television-related fears* have also increased remarkably ($p < 0.01$) – these were in the fourth place in 1993 (19% of respondents were afraid a lot), but in the first in 2002 (55%). The fears of *imagined creatures* were in the same place (3.) in both studies, but have increased significantly also (from 23% to 37%, $p < 0.05$). So, all these three fears are higher in 2002. All significant differences of children's intensive fears (is afraid “a lot”) show increase, not

decrease, and all three of these significantly different fears belong to the Factor 2 “Imagination related things”.

The increase of fear of nightmares is the most dramatic difference over the ten years. It may even lead us to question the quality of interviewing in 1993, but at the same time we can see that there are several fears which are not significantly different, so it can't be the reason. Maybe we can suppose that this is due more to the influence of television, about which author will write more below (chapter 8.1.5).

Majority of these most common fears (nine from 12) in the level “is afraid a lot” have remained the same: fears of exotic and familiar animals, strange people and minor injuries, big accidents and death, separation, darkness, being alone/ getting lost and new things and situations. So, we can say that children's fears have rather increased than decreased according to the highest intensity level.

In addition to the increase of these three fears presented above we can find more significant differences according to Table 2 (in Appendix 7): the fear of peers' behaviour has increased, at the same time three fears have decreased (fears of familiar animals, separation and new things and situations).

Let's see also the differences in results of the **picture-aided part** of the interview. The comparison is also done according to the highest fear intensity level (“is afraid a lot”) (see Table 15 page 157). The complete table showing the differences over the 10-year period at *all four intensity levels of fear* in picture-aided interview is presented in Appendix (see Appendix 7 Table 1). As the fear levels according to these seven situations were quite high in 1993 already, the results show that there is only one significant difference between 2002 and 1993: the situation when parents are leaving for a long trip is significantly less frightening for children in 2002 than in 1993 ($p < 0.01$). This difference was anticipated because traveling was much more common in 2002 than ten years before. So it is not so terrifying anymore (Table 15).

The two most intensive fears – getting lost in the forest and going to sleep alone in dark – remained in the same place, and also the last one – being teased by peers has retained its place. At the same time when the only significant difference shows the decrease of fear, we can see low opposite (increasing fear) tendency according to the five situations – getting lost in the forest, parents are criticising, getting lost in a big crowd, having parents argue and being teased by peers. All of these five situations cause fear for children a little more frequently in 2002 than in 1993. But at the same time in Table 1 (Appendix 7) we can see that five fears of seven have decreased over the ten years (only getting lost in a forest and going to sleep have remained the same) – there are less children who are afraid of these situations “a little” or “to some extent” in 2002 than in 1993.

Thus, though only slightly, we can see the same tendency here in the semi-structured interview as in the picture-aided interview. Both parts of interview show that children report intensive fears more frequently in 2002 than about ten years before.

Table 15. Percentages of the children who were afraid “a lot” in picture-aided interview in 1993 and 2002 (place in the list in parentheses)

Fear object	Factor	2002	1993	t-statistic	p<
Getting lost in the forest	2	60.4 (1.)	51.3 (1.)	1.31	Ns
Going to sleep	1	47.3 (2.)	46.1 (2.)	0.17	Ns
Parents are criticising	1	36.3 (3–4.)	31.3 (5.)	0.75	Ns
Getting lost in a big crowd	2	36.3 (3–4.)	33.9 (4.)	0.36	Ns
Parents leaving for a trip	2	24.2 (6–7.)	42.6 (3.)	2.86	.01
Having parents argue	1	24.2 (6–7.)	18.3 (7.)	1.02	Ns
Being teased	1	17.6 (8.)	12.2 (8.)	1.07	Ns
		N=91	N=115		

It is necessary to add that many children in our sample have shown direct connections between their answers to the situations of picture-aided interview and their own real fear and real experiences.

Example 1: Picture of the situation of being teased by peer

Interviewer: How does Priit feel?

Child: Bad...

I: Is he afraid of that?

C: Yes, he is afraid, (...the child points to the second line...), to some extent

I: What does he do then?

*C: so... he will hit back surely... I always hit back!
(boy, 6, 2002)*

Example 2: Picture of the situation of parents’ conflict

Interviewer: How does Piret feel?

Child: She is sad... cries...

I: Is she afraid of that?

C: yes, a little

I: How much is she afraid then?

C: A little, (... the child shows the first, straight line...)

I: What does she do then?

C: I don’t know exactly what she does, but I indeed start crying always...

I: Will parents stop their quarrel then?

C: No... I go to the other room sadly...

I: What helps you to reduce the fear then?

*C: Then I start playing in my room, and then I forget the fear
(girl, 5, 2002)*

In open-form questions (in semi-structured interview) children quite rarely report social fears (i.e. fears related to separation or close relationships), but according to picture-aided interview fears of these kinds are very common

among preschool children (see Table 15 above and Table 1 in Appendix 7). Many fears represented in the picture-aided interview are fears that are difficult to recognize and verbalize for children and also hard to express to a strange adult.

According to all these results presented above author can claim that hypothesis 1 – ... we can suppose that children's fears are significantly different over the ten years – has been confirmed.

8.1.4. Gender differences

The second important question and the 4th hypothesis in the dissertation are about the influence of children's gender on their fears.

Differences in fear according to gender

Author has composed an analysis on the basis of fear intensity scores of whole sample (N=206) and separately of samples of 1993 and 2002 study. Mean Factor Scores were calculated separately for boys and girls by summing up the intensity scores of fears belonging to each factor. To find out significant differences between the two studies (1993 and 2002) t-test was used on five factor scores in semi-structured interview and two factor scores in picture-aided interview.

According to the results of whole sample there were no significant differences due to gender (see Table 16 page 159). Although statistically significant differences were not found according to gender of whole sample we can see some interesting tendencies. Boys reported slightly higher level than girls of fears belonging to the factors of loss, danger and death (1.) and animals (3.). Girls endorsed higher level of fears belonging to the factors of violence, minor injuries and darkness (5.) and behaviour of significant others (4.). In the picture-aided interview boys reported higher level of fears of failure and criticism (1.), and girls of fears of getting lost and separation (2.). Thus, we can say that according to the **whole sample** no significant differences were found, boys and girls had practically the same general level of fears, and both boys and girls reported higher levels of three fear factors, although those factors were different for boys and girls.

The 1993 study found no significant differences according to gender, but there are some quite clearly expressed tendencies (see Table 17 page 159). Boys have endorsed higher fear level than girls practically in all fear factors (excepted 4. factor "Fear of behaviour of significant others" which is higher among girls). Thus, boys reported slightly higher fear levels than girls. **In the 2002 study** we can see that there were no significant differences according to gender. Significant differences were not found, but we can see a general tendency that

girls reported slightly higher level of fears (see Table 18 page 160). Boys show higher fear level only in the factor of fear of loss, danger and death (1.) in semi-structured interview.

Table 16. Mean Factor scores (on the basis of intensity scores) and standard deviations (in parenthesis) for the various sample groups according to gender in 1993 and 2002 together (N=206)

Group	Fac1*	Fac2	Fac3	Fac4	Fac5	Fac1P**	Fac2P
Girls	1.80 (3.10)	3.69 (2.82)	3.30 (1.95)	0.75 (1.34)	1.22 (1.78)	6.77 (2.74)	6.28 (1.79)
Boys	1.92 (2.83)	3.70 (2.86)	3.36 (2.03)	0.48 (1.05)	1.20 (1.63)	6.85 (2.83)	6.19 (2.15)
t value	.29	.03	.21	1.65	.71	.20	.34
P<	.78	.98	.83	.10	.94	.84	.74

*Fac1: Fear of loss, danger and death; Fac2: Fear of imagination related things; Fac3: Fear of animals;

Fac4: Fear of behaviour of significant others; Fac5: Fear of violence, minor injuries and darkness

**Fac1P: Fears of failure and criticism; Fac2P: Fear of separation and getting lost

Table 17. Mean Factor scores (on the basis of intensity scores) and standard deviations (in parenthesis) for the various groups of age and gender in 1993 (N=115)

Group	Fac1*	Fac2	Fac3	Fac4	Fac5	Fac1P**	Fac2P
Girls	2.11 (3.63)	2.20 (2.19)	3.38 (2.00)	0.59 (1.31)	0.97 (1.73)	7.10 (2.50)	6.51 (1.80)
Boys	2.24 (2.70)	2.30 (2.28)	3.72 (2.14)	0.37 (1.07)	1.22 (1.55)	7.26 (2.33)	6.83 (1.59)
t value	.21	.24	.89	.98	.83	.36	1.02
P<	.83	.81	.37	.33	.41	.72	.31

*Fac1: Fear of loss, danger and death; Fac2: Fear of imagination related things; Fac3: Fear of animals;

Fac4: Fear of behaviour of significant others; Fac5: Fear of violence, minor injuries and darkness

**Fac1P: Fears of failure and criticism; Fac2P: Fear of separation and getting lost

Table 18. Mean Factor scores (on the basis of intensity scores) and standard deviations (in parenthesis) for the various groups of age and gender in 2002 (N=91)

Group	Fac1*	Fac2	Fac3	Fac4	Fac5	Fac1P**	Fac2P
Girls	1.38 (2.16)	5.71 (2.27)	3.20 (1.90)	0.98 (1.36)	1.56 (1.80)	6.33 (3.02)	5.98 (1.74)
Boys	1.54 (2.98)	5.35 (2.59)	2.93 (1.82)	0.61 (1.02)	1.17 (1.74)	6.37 (3.28)	5.43 (2.46)
t value	.30	.71	.68	1.46	1.03	.06	1.22
P<	.76	.48	.50	.15	.31	.95	.23

*Fac1: Fear of loss, danger and death; Fac2: Fear of imagination related things; Fac3: Fear of animals;

Fac4: Fear of behaviour of significant others; Fac5: Fear of violence, minor injuries and darkness

**Fac1P: Fears of failure and criticism; Fac2P: Fear of separation and getting lost

Thus, we can see that there is a slight tendency in 2002 that girls reported higher levels of fears. Interestingly, these are opposite with the tendencies in 1993 analysis – in 1993 study boys reported slightly higher fear levels than girls.

There were also no significant differences found according to the children's gender in the *total number* of self-reported fears, but the general tendency is very interesting. In both studies boys have reported higher number of fears than girls in semi-structured interview. Mean number in 2002 for girls was 6.31 and for boys 6.89, in 1993 for girls 4.74 and for boys 5.57.

So author can claim on the basis of our two studies that boys and girls reported similar intensity levels of fears, and there is seen even a little tendency (but not statistically significant) that preschool-age boys tend to report higher *number* of fears than girls.

According to these results author can say that hypothesis 4 – ... we can suppose, that there are no significant differences in fears of preschool children according to children's gender – has been confirmed.

8.1.5. Television-related fears

The impact of media and especially television on our children's environment and lives is significantly increased. With the development of television children's fears also can change. As television seems to influence very much children's fears and television-related fears have increased (see above, e.g. Table 14 page 154) author will analyse these fears here in more thorough way.

It is quite obvious that compared with other societal influences and changes the impact of media, informationalization and the development of technology are very important influences for children's well-being, security and fears today. Thus, we can suppose that television with its programs and television fears can cause extensive insecurity.

Television-related fears are reported as the most frequent fear in 2002. In 1993 television-related fears were in the fourth place among the ten most common fears. Those fears have increased substantially over 10 years (see Table 14 page 154).

During the last 10–15 years in Estonia, television has increased significantly its impact on all people, especially on children. The more noticeable change is *quantitative* – there are more children’s programs and children spend more time watching television. The channels available have increased significantly, including cable/satellite TV: 7 in 1993 *versus* 38 in 2002. The quantitative change in television programs in Estonia from 1993 to 2002 is presented in Table 19. We can also suppose that there are more TV sets in homes today than ten years ago and quite often children can have their own TV set in their room.

Table 19. Television channels available and average broadcasting times of children’s programs (minutes per day averagely) in Estonia in 1993 and 2002, on main channels

	1993	2002
Television channels available	2 + (5 cable tv)	3+ (35 cable tv)
Children’s programs on weekdays	45	155
Children’s programs on weekends	105	407
National children’s programs (weekdays/weekends)	30/82	21/21
International children’s programs (weekdays/weekends)	0/60	134/386
Starting time for children’s programs (weekdays/weekends)	19.00/ 9.00	7.00/ 7.45

Source: Taimalu, Kraav & Lahikainen (2004, 70) according to television program journals from 1993 and 2002 (Televisioon, Nädal)

There are not only more television programs available but also significantly longer days full of television compared with 1993 (see Table 19). The number of main channels in 2002 was quite the same as in 1993 but many more cable-TV channels were available in 2002. We can see that both in workdays and weekends much more time is scheduled for children’s programs – in workdays about three times more and in weekends about four times more. Unfortunately, we can see that there were fewer original Estonian programs for children in 2002 than in 1993. It means that our children get their main influence from television by strange programs made for foreign children with different cultural background. Often main television programs that preschool children watch the most frequently and alone are quite violent cartoons in the early mornings (before going to the kindergarten).

But of course we must discuss the *qualitative* change also – the television programs (even for children) have become more and more violent, aggressive, viewers wish for more and more thrill, and excitement is satisfied by more

fantasy and horror films. Even children's programs are often full of violence and terrifying events. Also the television itself has improved in quality, which means larger and more colourful pictures (larger screens, bigger details, more colours, etc.). All this adds up to more possibilities for generating fears in young children (e.g. "better" picture about war episodes or more illustrated police news). It means that potentially frightening situations in television can have a stronger effect for small children than previously.

Which fears have increased in the most dramatic ways? We have seen already above that these are imaginary-related fears: television-related fears, fears of imaginary creatures and nightmares. Children endorse significantly higher level of television-related fears in 2002 than in 1993 (see Table 20 page 163). In analysing respondents' interviews in more detail (qualitatively), it is quite clear that the development of television has caused not only the increase of television-related fears, but has strong influence on the increase of fear of imagined creatures, nightmares and also both familiar and exotic animals, wars, guns, etc. All those fears, which are significantly different (television, nightmares and imagined creatures) have increased and there is seen influence of television.

Example 1:

Interviewer: Are you afraid of some animal?

Child: Yes, ...tiger...

I: Why?

C: It is bad, and even can eat peoples

I: Oh! Why do you think such things? Tiger does not eat people.

C: Yes, it can! I have seen one film in television where tigers ate people.

(boy, 5, 1993)

Example 2:

Child: I am afraid of that I can be killed by random shot.

Interviewer: Why? How do you have such thoughts?

C: I like to watch the TV serial "Wild Rose", and there Ricardo was killed by a random shot.

I: And now you think that it may happen with you also?

C: Yes.

(girl, 5, 1993)

Pictures from television stay in children's mind and can have impact on their fears later (e.g. nightmares, fear of vampires or dinosaurs, etc.).

Significant correlations have been found between television-related fears and some other fears reported by children in semi-structured part of interview. **In 1993** television-related fears correlated positively with the fear of separation ($\rho=.24$, $p<.05$), fear of imagined creatures ($\rho=.33$, $p<.01$) and fear of being alone/getting lost ($\rho=.20$, $p<.05$) and also with the number of fears reported by children ($\rho=.46$, $p<.01$). **In 2002** positive correlations were found between

television-related fears and fears related with the peers' behaviour ($\rho=.23$, $p<.05$), fears of minor injuries and small accidents ($\rho=.21$, $p<.05$), strange adults (e.g. burglars) ($\rho=.27$, $p<.05$), exotic animals ($\rho=.39$, $p<.01$) and also the number of fears ($\rho=.47$, $p<.01$). It must be pointed out that the expected correlations between nightmares and television-related fears were not found, but has been found between television and imagined creatures.

Table 20. Children's potentially television-related fears in 1993 and 2002 (percentages)

Fear	1993				2002				χ^2	P<
	No	Little	Middle	Great	No	Little	Middle	Great		
Television	52.2	6.1	22.6	19.1	17.6	13.2	14.3	54.9	39.8	.01
Exotic animals	30.4	0.9	23.5	45.2	35.2	6.6	14.3	44	8.3	.08
Nightmares	94.8	0.9	1.7	2.6	12.1	23.1	28.6	36.3	142.9	.01
Imagined creatures	59.1	1.7	15.7	23.5	35.2	9.9	17.6	37.4	15.8	.01
Minor injuries and accidents	76.5	2.6	10.4	10.4	69.2	11	8.8	11	6.18	.10
Big accidents and death	86.9	0.9	3.5	8.7	86.8	0	6.6	6.6	2.7	.61
War, guns violence	93	0	4.3	2.6	89	2.2	3.3	5.5	3.9	.28
Strange adults (e.g. burglars)	77.4	0.9	7.8	13.9	79.1	2.2	5.5	13.2	1.06	.79

Interviewer: Have you been afraid of something from television?

Child: Yes, many things. There was one woman, and man who quarreled. And this man has lunged with a knife into the hand of the women.

I: Was it a film?

C: Yes. I have seen it for a moment, when mom and dad were away from the room. Especially dad, because he doesn't allow me to watch any adults' film, even "Brave and beautiful".

I: Have you seen some children's programs which have been scary?

C: Yes! "Snow-White". There was a witch and I was so much afraid of it. Once I have watched this film with my friend Senni, she is 8, and when the witch was there, it was so scary that we were screamed.

I: How much were you afraid of that?

C: Number FOUR! (my comment: there were only THREE lines in the scale for fear intensity assessment, and children often used to say by numbers of those lines – one, two or three – when I asked how much he/she was afraid)

C: and once I watched Harry Potter film in a cinema and there was one evil man, and then I had very bad dream after that at night...

(girl, 6, 2002)

Children reported both frightening adult programs (like News, film “James Bond”) and frightening children’s programs (like cartoons, film “Snow-White”). In all, 14 different adult or youth programs and 20 children’s programs were identified by name. The majority of children mentioned TV programs in general, like “a program where homeless and starving children were” or “programs where people shoot or kill each other”. The interviews show that very young children are already watching quite a lot of this kind of programs. Especially alarming should be that children mentioned some programs, which were on screen very late in night or should be clearly identified by parents as unsuitable for small children (e.g. *Kriminaalne Venemaa (Criminal Russia)*, *Kuritöö ja karistus (Crime and punishment)*, which are about criminals and violent criminal actions like murders).

Children were afraid of children’s programs also. Although they understood that this was not the real world and real life, they still reported as frightening some cartoons and original children’s programs. It is alarming that quite often these programs give a beginning and content for a child’s other fears.

Interviewer: What things are you afraid of?

Child: Mmm... I have sometimes really scary dreams.

I: Are you afraid of them?

C: Yes, very much

I: What things are in your nightmares what you are afraid of?

C: Witch.

I: Why do you fear it? Do you think that witches really exist?

C: I don’t know..... (thinking).... No. But I have watched this Snow-White cartoon, and there was this creepy place where the witch gave the poisoned apple to Snow White

I: Were you afraid of that?

C: Yes, it was a very awful witch. And after this witch came into my dream also... (girl, 6, 2002)

Children don’t watch only programs for children but quite frequently the programs for adults also. These are not understandable for small children and can be especially the source of fears. Children often brought out that their fear began after watching something scary on TV or in a film, for example, their fear of dinosaurs started from the film about dinosaurs or they have nightmares about monsters after watching the mystery movie before going to sleep or even they are afraid of burglars because of the television program “Kriminaalne Venemaa”.

Example 1. (the boy who is very interested in dinosaurs and exotic animals and also likes very much to watch television programs and movies about them)

Interviewer: Have you seen nightmares sometimes?

Child: Yes.

I: What have you seen then?

C: I have seen dinosaurs and koalasukhus which ate me. And there was the second level also, where I was and koalasukhus also in some other place, and then koalasukhus became my friend.

I: Were you afraid of this nightmare with dinosaurs?

C: Yes. I have very many of such nightmares. Thousand. Some of them are good also. Look, I have one more dream.

I: So...

C: Bad dream was such where very many, very very very many animals were and there were lions also, so many lions, man-eaters.

I: Did this dream cause fear to you?

C: Yes. I was somewhere at home, in bathroom and came out, and then a carnivore lion came and man-eater, and then started to hound me. I locked the door quickly. But the window was opened, I didn't know that the lion will find this, and then he jumped out of this window and ate me.

(boy, 5, 2002)

Example 2.

Interviewer: What things are you afraid of?

Child: That burglars come from Russia and come to our home.

I: ...??? Why are you afraid of such thing? How have you got such idea?

C: I have watched the TV program "Kriminaalne Venemaa" (Criminal Russia) where they spoke about burglars and robbers.

I: And did you begin to fear burglars after viewing that program?

C: Yes.

(girl, 5, 2002)

Sometimes parents try to set limits for their children but it doesn't always work. So the result is that the child can also watch these programs (e.g. news which parents often cannot specify as scary).

Interviewer: What things are you afraid of?

Child: Pistols.

I: Why?

C: Dad watched one bad film, which we were not allowed to watch, but we wanted to play in mom's and dad's room with my sister, and then we pried. There were pistols and people were killed. After that, I closed my eyes and then again these pistols came.

I: Where did you close your eyes?

C: At night when I went to sleep

I: And where did you see these pistols then?

C: In the dream

(girl, 5, 2002)

Children were often fascinated by frightening programs and they could enjoy the excitement and fear aroused by them. It is quite difficult to identify the boundary between enjoyable feelings of excitement and unpleasant feelings of fear.

Interviewer: Do you watch TV also?

Child: Yes, very often.

I: Have you seen something from TV that scares you?

C: Yes.

I: What kind of programs are you afraid of?

C: Those where people are killed and guns are, and shooting

I: Are these children's or adults' programs?

C: Adult programs, of course

....

I: What are you doing then if you are afraid of scary television programs?

C: Nothing, I kept watching. I just like those scary things!

(boy, 6, 1993)

Often children named only generally that they were afraid of “one horror film” or “some cartoons about ghosts” but couldn’t remember exactly which program frightened her/him. But sometimes they remembered very clearly what program they were afraid of. **In 1993** children named six programs for adults: films “Danger Bay”, “Häire 911”, “Metsik Roos”, “James Bond”, “A-rühm” and program about “homeless and starving children”. They also named six programs for children: film “Nukitsamees”, cartoons “Viirastuste jahil”, “Kit”, “Huckleberry Finn”, “Smurf” and one program about “Kaval-Ants ja Vanapagan”. **In 2002** the list of programs was longer. Children mentioned nine programs for adults: films “Mask”, “Cobra”, “Star Wars”, “Suur sinine meri” (about sharks), and programs “112” (about rescue-team’s work), “A4” (information program), “Kriminaalne Venemaa”, “Kuritöö ja karistus”, and some police-programs. It makes me think seriously that some programs with the terrible or disturbing content (murders, blood, etc.) were also on screen very late at night. Children also mentioned 14 programs for children: cartoons “Digimon” (3 times), “Lumi-valgeke” (twice), “Tom Sawyer” (twice), “Pöial-Liisi”, “Mulan”, “Raudhiiglane”, “Tom and Jerry”, “Tondipüüdjad”, films “Pipi”, “Kapten Grant”, “Kapten Konks”, “101 dalmaatsia koera” and original Estonian programs for children “Nõiakivi” and “Vahva rätsep”.

According to the results, hypothesis 2 – television has had a significant impact on young children's fears and children have more television-related fears in 2002 than ten years earlier – has been confirmed.

8.2. Coping strategies with fears

After the primary question about the differences in children's fears, the other main question of the dissertation is what are the coping strategies with fears and what are the differences in these ways over the ten years. What are preschool children doing if they are afraid of something and what differences over this period can we find in how they cope?

Fears are very common among young children and in normal level do not necessarily cause serious insecurity for children. Provided that children find ways how to overcome and reduce fears and cope with them all is under control. So, it is very important to investigate not only children's fears but also coping ways – so we can get a more complete picture of such complicated phenomenon as children's security/insecurity.

In this study while children talked about their fears in interview we also asked them to tell about the coping ways they consider effective in frightening situations with each concrete fear. All coping ways reported at least once by children were notated. The frequency of reported same coping ways per child was not counted (i.e., children who reported the same coping way a number of times or only once in interview were not distinguished). Next author presents the results of both studies and analyse also the differences in coping ways over the ten years.

Children were asked for their coping ways with each fear both in semi-structured and in picture-aided interview. Children's answers were categorized by Finnish and Estonian experts (17 categories developed in 1993 by Kirmanen, Lahikainen and Kraav). Those categories and guide for categorization are presented in Appendix 5. The next table (Table 21 page 168) presents 15 of these categories (excluded are two categories of answers: the child doesn't know what to do and does nothing (can't do anything)), which are divided into four sections according to the *control* and *cognitive* level criterions (see Kirmanen, 2000, 126): *controlling* the environment or feelings and *non-cognitive (behavioural) or cognitive* behaviour level.

Table 21. Categories of children’s coping ways *

	Non-cognitive (behavioural) level	Cognitive level
Influencing (controlling) of environment => primary control	active constructive behaviour aggressive behaviour help of close people (significant adult) help of strange people	using fantasy
Influencing (controlling) of feelings => secondary control	escaping behaviour attachment and support of close people change of activity (escaping into other activity) help of peers show feelings security object	cognitive keep off (prevent) from mind (avoiding/denial) cognitive treatment (active) testing reality praying

* Composed on the basis of example in the dissertation of T. Kirmanen (Kirmanen, 2000, 127)

8.2.1. Coping strategies according to children’s semi-structured interview

Next author will analyse coping ways in 2002 and compare these with coping ways in 1993. Results of the semi-structured interview and picture-aided part are discussed separately. The coping ways mentioned in the semi-structured interview are all analysed together. The coping ways named in the picture-aided interview are discussed separately by each situation (picture).

Division of coping ways under categories was done by two persons in both studies: by author and her Estonian supervisor in 1993 and by author and one post-graduate student in 2002. There were very few differences between the two persons’ opinions in both years. Those differences were discussed and then we decided together which category to choose. Thus, author can claim that the reliability of coding of coping ways was sufficient.

Interestingly in 2002 children reported more coping ways than in 1993: 16 coping ways (divided into categories – see in Appendix 5) were found in 2002, but only 11 in 1993 (see Table 22 page 170). The only coping way, which was mentioned neither in 1993 nor in 2002, was *praying*. For each category the frequency of children who reported such coping ways at least once was counted.

The most frequent coping way in **semi-structured interview** was *escaping behaviour* (e.g. running away, avoiding fear object, hiding, closing eyes, etc.). This way was the most frequent both in 2002 and 1993 study (see Table 22 left side).

Interviewer: What do you do if you are afraid of darkness?

Child: I will go away from there immediately.

I: Where do you go then?

*C: Then I go to the kitchen ... or somewhere where it is not dark
(girl, 6, 2002)*

The second way by frequency in 2002 was child's *active constructive behaviour* to make the situation less frightening and in 1993 *attachment behaviour and seeking support* from close people.

Interviewer: What do you do then if you are afraid of such television program?

Child: Then I will switch off the TV set.

(girl, 5, 1993)

The third category by frequency in 2002 shows children's passive behaviour and inability to change situation – "*I do nothing, I can't do anything*". T. Kirmanen (2000) has not classified two categories "doesn't know what to do" and "does nothing (can't do anything)" under coping ways. Generally author agrees with her, but my opinion is that sometimes the passive behaviour (does nothing, can't do anything) can be included under coping ways – if the child understands in cognitive level that there is nothing to do in this situation but wait (e.g. going to doctor, or having nightmare in night). So author has added these two categories of children's answers into the analysis and coping way tables, but these are distinguished clearly from real coping ways.

Interviewer: What do you do if you have a nightmare and you are afraid of it?

Child: I wake up always.

I: But then? What do you do then?

*C: Nothing. There is nothing to do. I try to fall asleep again.
(girl, 6, 2002)*

In 1993 in the third place was active constructive behaviour. The rarest ways children reported were the use of help of strange people, security object and testing reality in 2002. In 1993 testing reality was also in the last place as also two other ways children didn't report at all (see Table 22).

It is interesting that while in 1993 children mentioned only 11 of 17 categories of coping ways, in 2002 more variable ways belonging to 16 categories of 17 were named. The only category (coping way) which children didn't mention either in 1993 or 2002 was *praying* in the frightening situation.

Table 22. Percentages of children who mentioned following coping ways at least once in the semi-structured (left side) and picture-aided interview (right side) (place in the list in parentheses) in 2002 and 1993

Coping way	2002 Semi-str.	1993 Semi-str.	t-statistic	p<	2002 picture	1993 picture	t-statistic	p<
<i>Noncognitive level:</i>								
Escaping behaviour	72.5 (1.)	68.5 (1.)	.56	Ns	36.3	29.9	.87	ns
Active constructive	52.7 (2.)	17.8 (3.)	5.07	.01	73.6	51.3	2.99	.01
Attachment and support of close people	36.3 (4.)	34.2 (2.)	.28	Ns	17.6	16.2	.24	ns
Change of activity	31.9 (5.)	16.4 (4-5.)	2.37	.05	14.3	23.1	1.43	ns
Help of close people (significant adult)	29.7 (6.)	9.6 (9.)	3.41	.01	42.9	21.4	3.04	.01
Aggressive behaviour	16.5 (8.)	12.3 (7.)	.77	Ns	27.5	28.2	.10	ns
Using fantasy	11 (10.)	16.4 (4-5.)	.99	Ns	8.8	3.4	1.48	ns
Show feelings	6.6 (12-13.)	2.7 (10.)	1.21	Ns	36.3	41.0	.61	ns
Help of peers	6.6 (12-13.)	0	2.54	.01	3.3	5.1	.56	ns
Security object	4.4 (15.)	0	2.05	.05	0	1.7	1.12	ns
Help of strange people	3.3 (16.)	0	1.76	Ns	12.1	10.3	.36	ns
<i>Cognitive level:</i>								
Cognitive keep off (prevent) from mind (avoiding/denial)	14.3 (9.)	0	3.90	.01	1.1	1.7	.32	ns
Cognitive treatment (active)	7.7 (11.)	0	2.76	.01	2.2	1.7	.23	ns
Testing reality	5.5 (14.)	1.4 (11.)	1.49	Ns	4.4	3.4	.33	ns
Praying	0 (17.)	0		Ns	0	0		ns
Nothing/doesn't know:								
Nothing, can't do anything	51.6 (3.)	14.3 (6.)	5.61	.01	41.8	9.9	1.60	ns
Doesn't know what to do	25.3 (7.)	10.4 (8.)	2.57	.01	24.2	41.0	2.30	.05

T-statistic for assessment of differences between percentages revealed nine significant differences between 2002 and 1993. It is interesting to point out that in cases of all these differences children mentioned coping ways significantly more frequently in 2002 than 1993. Can we conclude from this fact that children have become more successful and resourceful in finding coping ways with their fears?

All coping ways (except using fantasy) were reported more frequently in 2002 than in 1993 study. In 2002 children mentioned significantly more frequently than in 1993 the following seven coping ways and also passive ways “doing nothing” and “ doesn’t know what to do”:

1. Active constructive behaviour ($p < .01$),
2. Change of activity, selecting another activity ($p < .05$),
3. Using help of close significant adults ($p < .01$),
4. Cognitive keeping off from mind ($p < .01$),
5. Cognitive treatment of fear (e.g. searching positive aspect from situation) ($p < .01$),
6. Using peers’ help ($p < .01$)
7. Using the security object (e.g. pet while being home alone)($p < .05$),
8. “Doing nothing” ($p < .01$),
9. Doesn’t know what to do ($p < .01$).

It is important to bring out that quite often *pets* are important “persons” for children and can play the role of friend and security object also. Sometimes the pet was the first (!) family member who the child remembered and named as significant “person”. Quite often children pointed out that their pets help them to cope with the feeling of fear.

Child: I am afraid of being alone at home.

Interviewer: What are you doing when you are afraid of being home alone?

Child: I take my guinea-pig on my knees and then we are two together. Then I don’t fear anymore.

(girl, 6, 2002)

It is typical for preschool children to use *non-cognitive coping ways* in frightening situations. But it is very interesting that in 2002 preschool children indicated significantly more *cognitive coping ways*, which are considered to be more common for older children. In 1993 children of the same age didn’t report any cognitive coping way in the semi-structured interview. Later, in the 2002 study 14% of children actively tried in a cognitive way to keep the fear object or feeling off their minds (e.g. doesn’t think about this thing anymore, begins to think about good things, etc.) and about 8% of respondents try to treat frightening situation cognitively, and find in it something positive and useful.

Example 1 (cognitive keeping off from mind):

Interviewer: What do you do if you are afraid of ice-bear?

Child: I don't think about it. I try to think about nice things, then the fear will disappear.

(boy, 6, 2002)

Example 2 (cognitive treatment of fear):

Interviewer: What do you do if you are afraid of going to a doctor?

Child: There is nothing for me to do. I just think that it is useful to go there because the doctor will cure me and make me healthy...

I: Does it help to reduce your fear?

C: Mmm... Not very much... I think that it helps a little...

(boy, 6, 1993)

Thus, we can see here some quite interesting and somewhat controversial results: on the one hand it seems that children in 2002 are more successful in coping with fears – they reported more categories than in 1993 and they endorsed overall more coping ways which are significantly different, including significantly more cognitive coping strategies. But on the other hand in 2002 are also more children who reported two ways which cannot be classified clearly as coping – passive behaviour (“doing nothing”) and no coping (“does not know what to do”). Thus, this result shows that coping has somewhat decreased.

Generally, author as the only interviewer in 2002, can claim that those children who used answer “I don't know what to do” tended to use this answer quite frequently throughout the whole interview.

8.2.2. Coping strategies in children's picture-aided interview

According to the **picture-aided interview** (all pictures together, see Table 22 right side, page 170) children also reported some coping ways more often than in 1993: significant differences were in active constructive behaviour for changing the circumstances to be less scary ($p < .01$) and using the help of close adult (usually parents) ($p < .01$). Surprisingly in 2002 there were significantly, almost twice as few as 1993 ($p < .05$) children who said that they don't know what to do in the case of fear. The percentage of those children was at the similar level according to both parts of interview (see Table 22).

As the situations of picture-aided interview were quite different author will discuss coping ways separately for each situation (picture) (see Table 23 pages 173–174). The fifth picture “going to the doctor”, which was excluded from factor analysis is included in the following analysis also.

Table 23. Percentages of children who mentioned following coping ways in the picture-aided interview in 2002 and 1993.

Coping way	Going to sleep			Being teased			Parents argue			Parents criticizing				
	2002	1993	p	2002	1993	p	2002	1993	t	p	2002	1993	t	p
active constructive	16.5	6	.05	8.8	7.7	ns	44	27.4	2.49	.05	30.8	20.5	1.68	ns
help of close people (significant adult)	5.5	3.4	Ns	42.9	21.4	.01	2.2	0	1.43	Ns	1.1	0	1.01	ns
help of strange people	0	0	Ns	0	0	ns	0	0		Ns	0	0		ns
aggressive behaviour	0	.9	Ns	27.5	28.2	.11	1.1	7.7	2.43	.05	0	.9	1.02	ns
attachment and support of close people	17.6	13.7	Ns	0	16.2	.01	0	0	4.72	.01	1.1	0	1.01	ns
help of peers	0	0	Ns	1.1	0	ns	0	0	1.01	ns	0	0		Ns
security object	0	1.7	Ns	0	0	ns	0	0		Ns	0	0		ns
escaping behaviour	36.3	29.1	Ns	15.4	17.9	.48	14.3	19.7	1.04	ns	26.4	29.9	.56	ns
change of activity	5.5	3.4	Ns	1.1	6	1.98	3.3	12.8	2.61	.01	9.9	7.7	.55	ns
show feelings	2.2	6	Ns	9.9	27.4	.01	5.5	6.8	.39	ns	18.7	36.8	2.98	.01
cognitive keep off (prevent) from mind	1.1	0	Ns	0	0	Ns	0	.9	1.02	Ns	0	.9	1.02	ns
cognitive treatment	1.1	0	Ns	0	0	Ns	0	0		Ns	1.1	0	1.01	ns
praying	0	0	Ns	0	0	Ns	0	0		Ns	0	0		ns
testing reality	1.1	3.4	Ns	0	0	Ns	4.4	3.4	.37	ns	0	0		ns
using fantasy	0	1.7	Ns	0	0	ns	0	.9	1.02	ns	0	0.9	1.02	ns
<i>nothing, can't do nothing</i>	24.2	29.9	Ns	7.7	0	.01	5.5	0	2.30	.05	12.1	3.4	2.28	.05
<i>doesn't know what to do</i>	9.9	2.6	.05	6.6	5.1	.45	24.2	17.9	1.10	ns	11	12.8	.40	ns

Table 23. (continued)

	Going to doctor			Getting lost in forest			Getting lost in crowd			Parents leaving for trip						
	2002	1993	t	p	2002	1993	t	p	2002	1993	t	p	2002	1993	t	p
active constructive	8.8	5.1	1.03	ns	54.9	43.6	1.62	ns	73.6	51.3	3.40	.01	27.5	15.4	2.10	.05
help of close people (significant adult)	2.2	0	1.43	ns	3.3	0	1.76	ns	1.1	0	1.01	ns	6.6	2.6	1.34	ns
help of strange people	0	0		ns	4.4	6	.52	ns	12.1	10.3	.41	ns	1.1	2.6	.81	ns
aggressive behaviour	0	2.6	1.75	ns	0	0		ns	0	.9	1.02	ns	0	0		ns
attachment and support of close people	3.3	11.1	2.24	.05	0	1.7	1.41	ns	0	1.7	1.41	ns	15.4	12.8	.53	ns
help of peers	0	0		ns	0	0		ns	0	0		ns	3.3	5.1	.65	ns
security object	0	0		ns	0	0		ns	0	0		ns	0	.9	1.02	ns
escaping behaviour	9.9	6	1.02	ns	4.4	6.8	.75	ns	0	3.4	2.01	.05	1.1	2.6	.81	ns
change of activity	1.1	0	1.01	ns	0	2.6	1.75	ns	0	0		ns	14.3	23.1	1.64	ns
show feelings	17.6	25.6	1.40	ns	36.3	41	.69	ns	14.3	20.5	1.18	ns	13.2	20.5	1.41	ns
cognitive keep off (prevent) from mind	1.1	1.7	.37	ns	0	.9	1.02	ns	0	0		ns	0	1.7	1.41	ns
cognitive treatment	0	.9	1.02	ns	0	0		ns	0	0		ns	2.2	1.7	.26	ns
praying	0	0		ns	0	0		ns	0	0		ns	0	0		ns
testing reality	0	0		ns	0	0		ns	0	1.7	1.41	ns	0	0		ns
using fantasy	0	0		ns	8.8	3.4	1.58	ns	0	1.7	1.41	ns	3.3	2.6	.29	ns
nothing, can't do nothing	41.8	5.1	6.60	.01	5.5	2.6	1.03	ns	4.4	8.5	1.22	ns	20.9	12.8	1.53	ns
doesn't know what to do	22	41	3.01	.01	13.2	5.1	1.98	.05	8.8	6	.76	ns	20.9	6.8	2.90	.01

In the first situation – **going to sleep alone in the dark** – children mentioned a similar amount of coping ways in 2002 (11 ways) and 1993 (12 ways). The most frequent ways are escaping behaviour (e.g. put her/his head under the blanket), passive “doing nothing” (e.g. child is waiting for the dream and falls asleep), attachment behaviour (e.g. child runs to parent’s sleeping room and falls asleep in their bed) and also active constructive behaviour to change the situation (e.g. switch on lights). Sometimes children reported more than one possibility for coping in the situation.

Interviewer: What is Katrin doing when she is afraid of sleeping alone in the dark room?

Child: I think she calls her mom.

I: Why? What will mom do?

C: Katrin can ask mom to stay in her room until she is sleeping. But maybe Katrin asks mom to turn on the lights...

I: Does these things help to reduce her fear?

C: Yes, surely!

(girl, 6, 2002)

We can see only two significant differences in this situation: in 2002 children more often offered active constructive behaviour and didn’t know what to do ($p < .05$) as their coping ways.

In the situation “**being teased by peer**” children named nine coping ways in 2002 and eight of them in 1993. The most frequently mentioned were asking help from close adults (mainly parents, e.g. complaining to mother, then she comes to reprove the peer), aggressive behaviour toward the other child who is teasing (e.g. hit back), escaping behaviour (e.g. running to home) and also showing feelings (usually crying). T-statistic revealed five significant differences between 2002 and 1993: more frequently in 2002 children reported asking for help from close people and doing nothing (e.g. waiting passively her/his turn) ($p < .01$), in 1993 children more frequently reported attachment behaviour and seeking support from close people ($p < .01$), changing activity (e.g. goes to play to another place) ($p < .05$) and showing feelings ($p < .01$). There were a large number of answers such as the following:

Interviewer: What is Priit doing when Karl pushed him and doesn’t allow him to use the swing?

Child: Then I run quickly home and call my mom.

I: Why?

C: Then mom will reprove him and says that he must not push other children!

I: Does your fear decline then?

C: Yes, I’m not afraid then anymore

(girl, 6, 2002)

In the “**Having parents argue**” situation, children brought out nine coping ways both in 2002 and in 1993. The most frequently mentioned ways are active constructive behaviour (e.g. saying “Don’t quarrel more, stop please”), also not knowing what to do, escaping behaviour (e.g. running to my own room) and changing activity (e.g. starting to play). Change of activity can also be seen as one form of escaping behaviour – escaping to another activity (e.g. playing), which helps to forget the fear.

There are four significant differences between 2002 and 1993 study: in 2002 children named more frequently active constructive behaviour and “doing nothing, there is no possibility to do something” ($p < .05$), in 1993 respondents mentioned more aggressive behaviour (e.g. hitting parents) ($p < .05$) and change of activity ($p < .01$).

Interviewer: What will Katrin do when she is afraid of parents’ quarrel?

Child: There is nothing to do...

I: But how can she reduce her fear?

*C: I think she will go out of the room sadly and start to play with her toys.
(girl, 5, 1993)*

In the situation “**parents criticism of the child**” children named nine coping ways in both studies. The most frequent ways are active constructive behaviour (e.g. saying “I haven’t done this” or apologising), escaping behaviour (e.g. running away), showing feelings (usually crying) and doing nothing, passively staying and listening. Only two significant differences were found between 2002 and 1993: in 1993 children more frequently mentioned showing feelings ($p < .01$) and in 2002 passive behaviour (doing nothing, $p < .05$).

In situation “**going to the doctor**” respondents also brought out nine coping ways in both studies. As this is a quite complicated situation for the selection of coping ways, the majority of children answered that the child in picture “does nothing” because there is no possibility to do anything or the child doesn’t know what to do.

Interviewer: What will Priit do when he is afraid of a doctor?

Child: I don’t know...

I: But what do you think that he can do when he is afraid there?

C: I think there is nothing to do. He must stay calm and be patient, and let the doctor do what is needed to do...

(boy, 6, 2002)

Quite frequent was also showing feelings (usually crying) and attachment behaviour toward father (child is sitting on the knees of her/his father in the picture). Three significant differences between 2002 and 1993 can be pointed out: in 1993 children mentioned more frequently attachment behaviour and

seeking support from close adult ($p < .05$), passive behaviour (doing nothing, $p < .01$) and not knowing what to do ($p < .01$).

In the “**getting lost in forest**” situation respondents mentioned eight coping ways in 2002 and ten in 1993. But of these eight, the majority of children chose active constructive behaviour (e.g. child is starting to seek the way home) and showing feelings (usually crying). Also some children tend to use fantasy that is very rare in other situations (e.g. asking the owl how to go home).

Interviewer: What will Katrin do when she is afraid of getting lost in a forest?

Child: (cheerfully) Then the ladybird will fly there and Katrin can ask her to show her the way home.

I: Do you think that the ladybird can help?

C: Yes, Katrin asks the ladybird to fly to her home and say to her mom and dad that their child has gotten lost in the forest. Then mom and dad will come after her. (girl, 5, 2002)

Only one significant difference appeared between 2002 and 1993: in 2002 children mentioned more frequently that in this situation the child (in the picture) doesn't know what to do ($p < .05$).

Author can suppose that the situation where children “**get lost in the big crowd**” was quite common for respondents. They mentioned only six coping ways in 2002 and ten in 1993. The majority of children suggested active constructive behaviour (e.g. child is looking for her/his parents) and also showing feelings (crying), which is also the usual behaviour in situations like that. In this situation more than in other situations children mentioned also asking help of other (strange) people (e.g. asking for some people to help search for his/her parents, or asking help from policeman). Two significant differences appeared between 2002 and 1993: in 2002 children brought out more frequently active constructive behaviour ($p < .01$) and in 1993 more children mentioned escaping behaviour ($p < .05$).

Interviewer: What will Priit do when he is afraid of getting lost in a big crowd?

Child: I know! He must stay where he is and then his mother and father come and find him.

(boy, 6, 2002)

In the last situation, when “**parents are leaving for a long trip**” without the child, children reported the highest number of several coping ways – 12 in 2002 and 14 in 1993. In this situation it was often quite difficult for the child to understand why he/she can't go with parents. The most frequently mentioned coping ways were active constructive behaviour (e.g. running to the train, asking parents to take him/her with them), showing feelings (crying) and changing activity (e.g. going home and playing or watching TV all the time), plus attachment behaviour and seeking support from close people (e.g.

grandparents) was mentioned quite often. As usual for young children, about 1/5 of respondents also brought out answers such as “doing nothing” and “don’t know what to do”. Two significant differences were found between 2002 and 1993: in 2002 children mentioned more often both active constructive behaviour ($p < .05$) and not knowing what to do ($p < .01$).

It is an interesting finding that in 2002 during the picture-aided interview children brought out less frequently the coping way “showing feelings”. But at the same time they more frequently suggested using active constructive behaviour for changing the situation to be less frightening and asking help from significant adults (mainly parents). These two coping ways were significantly higher also in the semi-structured interview.

Table 24. Coping ways according to picture-aided interview: coping ways and numbers of pictures where children reported the use of certain coping strategies

Coping way	2002	1993
<u>Non-cognitive level</u>		
active constructive	All pictures	All pictures
help of close people (significant adult)	All pictures	1, 2, 8 *
help of strange people	6, 7, 8	6, 7, 8
aggressive behaviour	2, 3	1, 2, 3, 4, 5, 7
attachment and support of close people	1, 4, 5, 8	1, 2, 5, 6, 7, 8
help of peers	2, 8	8
security object	–	1, 8
escaping behaviour	All, except 7.	All pictures
change of activity	1, 2, 3, 4, 6, 8	1, 2, 3, 4, 5, 8
show feelings	All pictures	All pictures
using fantasy	6, 8	1, 3, 4, 6, 7, 8
<u>Cognitive level</u>		
cognitive keep off (prevent) from mind	1, 5	3, 4, 5, 6, 8
cognitive treatment	1, 4, 8	5, 8
praying	–	–
testing reality	1, 3	1, 3, 7
<u>Passive or don't know:</u>		
nothing, can't do nothing	All pictures	1, 4, 5, 6, 7, 8
doesn't know what to do	All pictures	All pictures

* *Picture numbers: 1 – going to sleep; 2 – being teased; 3 – parents argue; 4 – parents criticising; 5 – going to doctor; 6 – getting lost in forest; 7 – getting lost in a big crowd; 8 – parents leaving for a trip*

From the Table 24 (page 178) and Table 22 (page 170 right side) we can see that generally the most frequent coping ways in picture-aided interview were active constructive behaviour, showing feelings (crying), escaping behaviour,

also “doesn’t know what to do” and passive behaviour (doing nothing). In 2002 children also mentioned in all situations asking help from the close people (significant adult).

The most frequent coping ways are quite similar in the semi-structured and picture-aided parts of the interview. Only “showing feelings” is reported more rarely in the semi-structured than in the picture-aided interview. Thus, preschool children tend to use non-cognitive (behavioural) strategies (e.g. real activity to make the situation less scary) rather than cognitive ways (e.g. thinking differently about the fear situation or object, influencing feelings).

Thus, according to the results presented in the chapter 8.2. we can see that hypothesis 5-preschool children tend mostly to use non-cognitive (behavioural) coping ways, and cognitive coping ways are not very characteristic for them – has been confirmed.

8.2.3. Differences in coping strategies according to children’s gender

T-statistic revealed some significant differences in coping ways according to children’s gender. **In 2002** according to gender four significant differences were found (see Table 25 page 180). In the *semi-structured* interview there are three differences: girls reported that they use more frequently attachment behaviour and seeking support from significant adults ($p<.01$) and escaping behaviour from frightening situation (e.g. running away, avoiding fear object or hiding themselves)($p<.05$). Boys use more frequently in frightening situations fantasy, fantastical (unreal) explanation of coping way ($p<.05$). In the *picture-aided* part of interview there was only one difference according to gender. In the situation of “being bullied by peer” boys tend to use more frequently than girls aggressive coping way (e.g. hitting the other child)(17.8% of girls and 36.9% of boys, $t=2.10$, $p<.05$).

The 1993 study also found some differences. *In semi-structured interview* boys more often reported the use of fantasy (3.3% of girls, 16.1% of boys, $t=3.4$, $p<.01$) and girls more frequently showing feelings (crying) (4.9% girls and no boys, $t=2.4$, $p<.05$).

Table 25. Coping ways according to gender (in percentages) in coping ways in 2002 in semi-structured interview

Coping way	Boy 2002	Girl 2002	t-statistic	p	Boy 1993	Girl 1993	t-statistic	p
<u>Non-cognitive level</u>								
Escaping behaviour	63.0	82.2	2.1	.05	37.5	44.3	1.1	Ns
Active constructive	45.7	60.0	1.4	Ns	12.5	6.6	1.5	Ns
Change of activity	23.9	40.0	1.7	Ns	14.3	13.1	.3	Ns
Attachment behaviour	21.7	51.1	3.1	.01	16.1	19.7	.7	Ns
Help of close people	21.7	37.8	1.7	Ns	3.6	9.8	1.9	Ns
Aggressive behaviour	21.7	11.1	1.4	Ns	8.9	9.8	.2	Ns
Fantasy	17.4	4.4	2.0	.05	16.1	3.3	3.4	.01
Feelings	6.5	6.7	.04	Ns	0	4.9	2.4	.05
Help of peers	6.5	6.7	.04	Ns	0	0		Ns
Help of strange people	4.3	2.2	.6	Ns	0	0		Ns
Security object	2.2	6.7	1.0	Ns	0	0		Ns
<u>Cognitive level</u>								
Cognitive avoiding from mind	13.0	15.6	.4	Ns	0	0		Ns
Cognitive treatment	4.3	11.1	1.2	Ns	0	0		Ns
Testing reality	6.5	4.4	.4	Ns	1.8	1.6	.1	Ns
Praying	0	0		Ns	0	0		Ns
<u>Passive or doesn't know</u>								
Nothing	56.5	46.7	.9	Ns				
Don't know	19.6	31.1	1.3	Ns	12.5	14.8	.5	Ns
N	46	45			54	61		

In picture-aided interview there were more differences in 1993 than in 2002 according to children's gender – seven differences in five situations (full table available in author's master thesis, Taimalu, 1997, 68–69). In the teasing situation boys reported significantly more the use of active constructive behaviour (1.6% of girls, 14.3% of boys, $t=2.6$, $p<.01$) and aggressive behaviour (19.7% of girls and 37.5% of boys, $t=2.2$, $p<.05$).

In three situations girls endorsed significantly more the expression of feelings (crying): in the situation where parents criticise the child (45.9% of girls, 26.8% of boys, $t=2.2$, $p<.05$), getting lost in town in a crowd (29.5% of girls, 10.7% of boys, $t=2.6$, $p<.01$) and when the parents leave for a long trip (27.9% of girls, 12.5% of boys, $t=2.1$, $p<.05$). Also in the situation of getting lost in a forest boys reported more frequently active constructive behaviour (e.g. seeking a way out of the forest) (31.1% of girls, 57.1% of boys, $t=2.9$, $p<.01$)

and in the situation of getting lost in town in a crowd boys endorsed more the asking help from strange people (e.g. policeman) (3.3% of girls, 17.9% of boys, $t=2.6$, $p<.01$). So, author can say that girls tend to use more attachment behaviour and seeking support from close people, escaping behaviour and also expressing feelings, while boys tend to use more fantasy, aggressive behaviour and active constructive actions.

For a brief summary of coping ways author can say that about the half of children reported active constructive behaviour, about one third attachment behaviour and seeking support or direct help from close adults and about two thirds escaping behaviour as coping strategies. It is remarkable that the frequency of two of these ways – active constructive behaviour and seeking help – have increased significantly over ten years, while escaping has remained almost the same. It is interesting also that children in 2002 reported significantly more than in 1993 cognitive coping ways which are usually more common among school age children. At the same time the frequency of children who say they do nothing when they are afraid of something has increased also.

8.3. Agreement between children and parents

The fourth aim of the dissertation is to analyse agreement between two informants, parents and children. Children's fears and other problems are usually studied using only one group of informants – e.g. children or their parents. But several studies have proved that parents and children give quite different answers and agreement between different informants is low. Usually researchers have found that children tend to report more fears than their parents. So, parents tend to underestimate children's fears. All in all, the research evidence concerning the level of agreement between different informants on children's fears remains sporadic. It also deals most often with school-aged children and excludes younger children.

Therefore, author is interested in how high is the agreement between two informants in our sample and if the level of agreement is different over the ten years between the two studies. Next author separately refers to the data collected from parents and then from children in studies 2002 and 1993, which are then compared. Then author proceeds to explore differences observed between different fear items as raised by both groups of informants. The aim is to find out how far children and parents agree in their assessments of the presence of fears and how parents perceive children's fears in normal children populations.

8.3.1. Structure of children's fears according to parental assessments

Principal components factorial analysis with varimax rotation was conducted on the whole sample of parents (N=201). On the basis of the Eigenvalues a six-factor solution was chosen. This was thought to provide the most sensitive description of fears in both studies, and it came closest to those factor patterns that were separately conducted in separate samples of 2002 and 1993 study. These factors together explained 49.97% of the total variance (see Table 26 page 183-184).

1. *Fear of minor injuries and small animals* consists of fears like those of worms, bees or snakes, strange dogs, the sight of blood, fire and high places, thunderstorms (10.29%).
2. *Fear of danger and parents' behaviour* includes parental arguments, getting punished by parents, a burglar breaking into the house, closed places and being hit by a car or truck (9.85%).
3. *Fear of unknown and death* (ghosts, nightmares, darkness/going to bed in the dark, death) (8.18%)
4. *Fear of being alone/separation and television* (being alone, mystery movies, getting lost in a strange place, being left at home with a strange sitter) (8.13%).
5. *Medical fears* (going to the dentist/doctor, having to go to hospital and going to the kindergarten) (6.98%).
6. *Fear of failure and criticism* (being teased, meeting someone for the first time, having to eat some food one does not like, doing something new) (6.54%).

Compared with our previous paper (Lahikainen et al., 2006 – on the basis of Finnish-Estonian sample in 1993 study) factor patterns are quite similar: only four differences were found. Factor “fear of minor injuries and small animals” consists of the same fears. Fear of death is included here into Factor 3, fear of unknown, but in our paper it belongs to Factor “fear of danger and death”. Fear of death shows here also low connection with the Factor 1 where also dangerous things are presented. Fear of getting lost in a strange place and mystery movies belong here to Factor 4 “fear of being alone and television”, but in our previous paper mystery movies are in Factor “fear of unknown”, and fear of getting lost belong to Factor “fear of danger and death”. Also the fear of getting lost in a strange place shows connection with Factor 2 here. Fear of punishment belongs here to Factor 2, fear of danger, but in our previous paper it loads onto the Factor “fear of failure and criticism”. Fear of being teased by other children shows relations with Factor 2. Thus, there are three disputable fears which do not belong clearly into only one Factor. The reliability (Cronbach's alpha) for the total scale about children's fearfulness in the current sample of parents was 0.79 in 1993 and 0.83 in 2002.

Table 26. Rotated factor loadings and communalities for the 25 items of the fear survey schedule presented for parents in 2002 and 1993 (N=201)

Factor	1	2	3	4	5	6	Communalities
Factor 1 "Fear of minor injuries and small animals"							
Strange dogs	.70	-.07	-.03	.12	-.12	.04	.53
High places	.67	.00	.02	.02	.17	.31	.58
Fire	.61	.37	.05	.22	-.01	.02	.57
Worms or snails	.52	.37	.07	-.05	.01	.14	.43
The sight of blood	.52	.15	.18	-.02	.25	-.16	.41
Thunderstorms	.43	.04	.18	.29	.11	.05	.32
Factor 2 "Fear of danger and parents' behaviour"							
Closed places	.25	.60	.07	.10	.10	.06	.45
Being hit by a car or truck	.43	.60	-.09	-.00	-.08	-.07	.56
<i>Getting punished by parents</i>	-.07	.57	.07	.08	-.15	.22	.41
Burglar breaking into house	.18	.57	-.03	.42	.17	-.11	.58
Parental arguments	-.01	.54	.25	-.11	.15	-.07	.40
Factor 3 "Fear of unknown and death"							
Nightmares	.07	.19	.76	.10	.17	.02	.65
Ghosts/ imaginary creatures	.06	.08	.69	.29	-.16	.10	.60
Darkness/ going to bed in the dark	.06	-.07	.66	.15	.15	.30	.58
<i>Death</i>	.34	.23	.43	.15	.21	-.07	.42
Factor 4 "Fear of being alone/separation and television"							
Being alone	.03	.05	.08	.67	.20	.19	.54
<i>Mystery movies</i>	.12	.02	.27	.55	-.10	.00	.40
<i>Getting lost in a strange place</i>	.22	.46	-.02	.53	.07	-.02	.54
Being left at home with a strange sitter	.05	.01	.20	.61	.16	.16	.47

Table 26 (continued)

Factor	1	2	3	4	5	6	Communalities
Factor 5 "Medical fears"							
Going to dentist/ doctor	.08	-.05	.03	.09	.70	.05	.51
Having to go to hospital	.27	.26	-.11	.20	.63	.09	.60
Going to the kindergarten	-.07	.02	.24	.05	.62	.09	.46
Factor 6 "Fear of failure and criticism"							
Doing something new	.21	-.01	-.06	-.03	.22	.74	.64
Meeting someone for the first time (meeting a strange people)	.12	-.07	.20	.31	.02	.59	.50
Having to eat some food, which she/he does not like	-.06	.25	.19	.27	-.13	.50	.45
Being teased by other children	-.08	.38	.20	-.04	.27	.40	.43
Eigenvalue (E)	2.7	2.6	2.1	2.1	1.8	1.7	
Variance explained	10.29	9.85	8.18	8.13	6.98	6.54	
Cumulative variance explained	10.29	20.14	28.32	36.46	43.43	49.97	

8.3.2. Comparison of parents' and children's assessments

To get an overall picture of children's fears in both groups of informants, the means of the factor scores on the basis of summarized intensity scores were counted separately for both study samples. T-test for two-tailed significance was used to find out differences between two studies.

Table 27. Means factor scores in children based on parent-survey and child interview 1993 and 2002.

	2002	1993	t-value	p<
Parents as informants:				
Fear factors				
Injuries and animals	14.03	14.04	.01	1.00
Danger	10.09	10.86	1.66	.10
Unknown	9.39	9.15	.52	.60
Being alone/separation	9.33	9.13	.52	.60
Medical fears	5.56	6.03	1.53	.13
Failure and criticism	7.68	7.19	1.41	.16
Children as informants:				
Fear factors (semi-structured)				
Loss, danger and death	1.46	2.17	1.72	.09
Imagination	5.53	2.24	10.90	.01
Animals	3.07	3.54	1.71	.09
Behaviour of significant others	.79	.49	1.80	.07
Violence, minor injuries and darkness	1.36	1.09	1.15	.25
Fear factors (picture-aided)				
Separation and getting lost	5.70	6.66	3.48	.01
Failure and criticism	6.35	7.17	2.06	.05

It is interesting to point out that according to the *parents*, there were no significant differences between two studies in 2002 and 1993 (see Table 27). In comparison of separate fears (not as Factors) some significant differences were found between parents' assessments in 2002 and 1993: in 2002 parents have given higher assessment than in 1993 for the fear of meeting a strange person (means 1.96 and 1.64, $t=2.43$, $p<.05$) and mystery movies (means 2.24 and 1.95, $t=2.11$, $p<.05$). In 1993 parents' assessments were higher than in 2002 for fear of punishments by parents (means 2.31 and 2.58, $t=2.13$, $p<.05$) and for fear of fire (means 2.39 and 2.72, $t=2.20$, $p<.05$). Parents assessed 26 different fear objects and only four significant differences were found, this means that parents' assessments are almost at the same level in both studies. There were no significant differences between parents' assessments according to the *gender* of children.

The *children* themselves said more often in 2002 than in 1993 that they were afraid of imagination related fears (see Table 27 page 185). No significant differences were found between the two studies in fears of loss, danger and death, animals, others' behaviour, fear of violence, minor injuries and darkness (see also chapter 8.1. "Fears"). Furthermore, the picture-aided interview revealed greater fear of failure and criticism and separation in 1993 than in 2002. Thus, it seems that according to parents' assessments, the differences in children's fears do not appear clearly and/or parents do not perceive differences in their children's fears.

Distribution of fears according to parents and the children

Next author will discuss the distribution and intensity of fears in both studies. The frequency distributions of different fears as assessed by the child and by the parents on the respective items are shown in Tables 4 and 5 (in Appendix 7). As the children's interview consisted of two different parts – semi-structured and picture-aided part, these results will be compared with parents' assessments separately.

According to the comparison with children's *semi-structured interview*, parents reported almost all fear items more frequently than children did in both studies (see Table 4 in Appendix 7). Fears of nightmares and television programs were the only exceptions in 2002 – children themselves reported these more frequently. But it is interesting that while parents supposed the *majority* of fears occurred more frequently than their children reported, they believed that the *intensity* of children's fear is in the middle level ("to some extent") whereas the children actually showed more often the higher level of intensity ("is afraid a lot") (see the column "fears a lot" Table 4 Appendix 7). Parents overestimated the fears of traffic accidents, thunderstorms, death and being alone/getting lost in both studies. In 1993 study also imagined creatures and nightmares were assessed by parents to be more frequent and intensive than by children.

Thus, author can say that according to the results of children's semi-structured interview parents generally tend to overestimate the *frequency* of children's fears: children tend to name a lower frequency of fears than parents think their children have. But if to analyse fear *intensity* level we can see that sometimes parents underestimate the intensity of children's fear. According to the highest level of fear intensity the following fears were underestimated by parents: familiar animals, strange adults, imagined creatures, nightmares and television programs in 2002 and familiar animals, strange adults, new situations and television programs in 1993.

According to the *picture-aided part of interview* we can see a different picture (see Table 5 in Appendix 7). In both studies children reported more frequent and more intensive fears than did their parents on all dimensions – in the first column (fears none/little) we can see that in four situations (going to sleep, punishment, going to doctor and trip) in 2002 and three situations (going

to sleep, doctor and trip) in 1993 parents give more frequent answers. But in the level “fears a lot” children gave more frequent answers in all situations. The hardest to assess correctly seems to be the fear of parents leaving for a long trip: in both studies parents underestimated this fear in all levels of intensity. Thus, it seems that parents often can recognize the presence of their children’s fears, but tend to underestimate the intensity. Parents and children as informants perceive and express children’s fears differently.

Kappa coefficients were counted for comparable items of fear (14 items) in the child interview and in the parent survey. Only two significant kappa-values were found in 2002 study (parental arguments and going to the doctor) and only one (parental punishments) in 1993 (see Table 28).

Table 28. Kappa coefficients on parent-child ratings of fears in 2002 and 1993

Fear	2002		1993	
	K-coeff	Approx signif	K-coeff	Approx signif
Teasing by other children	-.00	Ns	.01	Ns
Parental arguments	.17	.01	.00	Ns
Parental punishment	-.00	Ns	-.12	.05
Going to bed in the dark	.09	Ns	-.09	Ns
Getting lost in the forest	-.13	Ns	-.06	Ns
Getting lost surrounded by strange people	.08	Ns	-.12	Ns
Going to the doctor	.12	.05	.03	Ns
Staying alone without parents	-.02	Ns	-.01	Ns
Strange people (e.g. burglars)	.03	Ns	.04	Ns
Imagined creatures	.00	Ns	.03	Ns
Nightmares	.07	Ns	.03	Ns
Being alone/getting lost	.02	Ns	-.01	Ns
Darkness	.03	Ns	.05	Ns
Big accidents and death (parents: death)	-.01	Ns	.08	Ns
Familiar animals (parents: strange dogs)	.03	Ns	.03	Ns
Mystery movies (television fears)	.02	Ns	.07	Ns

Unrecognized fears by parents

Next the percentages of parents who *do not recognize* their child’s fear (parental recognition is absent (0 – according to parent’s assessment the child is afraid of “not at all”) when the child's self-report is positive – 1–3, the child is afraid at least “a little”) are presented in Table 29 page 188) Selected fear items are rank

ordered according to the results of 2002 study. T-statistic for comparison of percentages was used to evaluate the differences between the two studies.

The most interesting result is that the amount of fears unrecognized by parents' is lower in almost all fear categories in the 2002 study than in 1993 (except getting lost in the forest and getting lost in town surrounded by strange people)(see Table 29). T-statistic revealed also four statistically significant differences between two studies according to the *picture-aided interview* of children: staying without parents, fear of parental arguments, fear of teasing by peers and fear of going to the doctor were unrecognized by parents significantly more frequently in 1993 than in 2002 study. According to *semi-structured interview* there were also four significant differences: a significantly higher amount of parents in 1993 than in 2002 did not recognize their children's fears of strange people, mystery movies, strange dogs and being alone.

Table 29. The ranking order of the fears unrecognized by the parents, reported by the child (percentages ¹)

Fears present in picture-aided interview of the child

	2002	1993	t-statistic	p<
Staying without parents (trip)	45	59	2.01	.05
Parental arguments	30	58	4.20	.01
Going to sleep alone in the dark	27	37	1.54	Ns
Other children are teasing	26	49	3.50	.01
Going to the doctor	16	47	5.12	.01
Parents are punishing	15	18	.58	Ns
Getting lost surrounded by strange people	14	14	.00	Ns
Getting lost in the forest	14	14	.00	Ns

Fears present in the semi-structured interview of the child

Strange people	32	56	3.55	.01
Imaginary creatures	29	37	1.22	Ns
Nightmares	23	25	.33	.Ns
Mystery movies	23	50	4.20	.01
Strange dogs	17	33	2.71	.01
Being alone	17	34	2.87	.01
Worms, snakes, bees	8	10	.50	Ns

¹ percentages of cases where parental recognition of fear is absent when the child's report is positive

The most prominent feature **in 1993** is the general omission of many fears by parents (see Table 29). The exception to this tendency is observed for the fears of getting lost, parental punishments and fear of worms, snakes, bees. Fears of being left without parents, going to sleep alone in the dark, fear of doctor, fear

of teasing by peers and of parental arguments, but also fear of strange people, imagined creatures, and mystery movies are the fears that are hardest for parents to recognize – over 40% of parents did not recognize these fears, which were named by their children. **In 2002** parents recognized much more their children's fears than in 1993. The hardest to recognize was fear of being left without parents (45% of parents), but also fears of parental arguments, of strange people and imaginary creatures, going to sleep alone in the dark and teasing by other children (~30% of parents). Thus, parents in our sample tended to overlook more often their children's fears in 1993 than in 2002.

The results from the two different groups of informants are differently biased. Some fears are easy for both to express, such as the fear of getting lost or fear of worms, snakes, bees. On the other hand, it seems to be particularly difficult for parents to recognize such fears in which they are involved directly or indirectly (e.g. the fear of going to bed at night, parental arguments or being left alone without one's parents).

Thus, hypothesis 3 – The agreement between different informants, parents and children is quite low – has been confirmed.

8.4. Some background factors and parents' role in children's fears

The last aim of the dissertation was to analyse the impact of some background factors and parental role in promoting of children's fears. As the microsystem (according to Bronfenbrenner) is the nearest for children (e.g. family, day care), author has chosen some factors from preschool children's two environments – family (parents) and day care – which have the main impact on their security. Author thinks that those background factors and experiences in the proximate environment have influence on children's well-being and security. Thus, next author will analyse the relations between some background factors (parents' marital status, educational level, breast-feeding time, some factors related to children's day-care) and children's fears, and also the role of parents in the contribution to children's fears.

8.4.1. Family background and day care related factors

8.4.1.1. Family factors

Marital status of parents

It is well known that good spousal relationship is one of the most important bases for a good and secure family environment and is badly needed as a good foundation for children's development. Marital status and spouses' relationship are the most important designers of preschool children's immediate environment and security (in *microsystem* level according to Bronfenbrenner) (Belsky, 1981; Shaffer, 1985). Living with two parents or with only one of them or with stepparent can have influence on children's fears also. The preliminary results of marital status of parents are presented in chapter 7.1.1. (page 131). There is a tendency to divorce and unmarried cohabitation stronger in 2002 than in 1993.

Statistic ANOVA was used to find out relations between parents' marital status and children's fears. In 2002 according to semi-structured interview there was a relationship between parents' marital status and fear of familiar animals ($F=5.07$, $p<.01$) and nearly significant with fear of small accidents/minor injuries ($F=3.04$, $p=.053$) – children whose parents lived in unmarried cohabitation have higher level of both those fears than children with divorced parents. Television-related fears showed relation with parents' marital status also ($F=3.73$, $p<.05$), where children with married parents reported higher level of those fears than children with divorced parents. In 1993 parents' marital status correlated with the fear of strange adults ($F=3.98$, $p<.05$) – children of divorced and living in unmarried cohabitation parents have a lower level of this fear than those children whose one parent was dead.

Educational level of parents

The educational level of parents is a frequently used background factor, which has impact on all levels of children's developmental environment (from *micro-* to *macrosystem* according to Bronfenbrenner). This factor can influence children's security and fears, for example, through general knowledge about children's development and needs, and more specifically by educational methods which parents decide to use. Of course, there is not clear connection between parents' educational level and better education. It is also probable that parents with higher education are more engaged with their work duties and can't find enough time for their children. The preliminary results of educational level of parents are presented in chapter 7.1.1. (page 131). In our study correlation was found between parents' educational level and use of corporal punishment (see below, chapter 8.4.2.).

Only a few fears were found to relate with parents' educational level. There were no relations between *father's education* and children's fears in 2002. In

1993 father's educational level was in relation with the children's fear of getting lost in the forest ($F=2.91$, $p<.05$) and almost with fear of imagined creatures ($F=2.45$, $p=.06$). One relation was found also between *mother's education* and children's fears: with fear of small accidents/minor injuries ($F=2.55$, $p=.06$). The higher was the mother's educational level, the higher was the level of fear of small accidents reported by the children.

The length of breast-feeding period

It is well known that breast-feeding is very useful for the child and supports the development of attachment between mother and child. The secure attachment in turn supports the security and well-being of children. So we can say that breast-feeding may be one part of the foundation of child's general sense of security in future life.

Average mothers breast-fed their children 8.56 months ($sd=8.09$) in 2002 and 4.06 months ($sd=3.86$) in 1993. There is a significant difference between our two studies. In 2002 mothers in our study breast-fed their children longer than mothers in 1993 ($t=5.15$, $p<.01$). This change must be considered very positive.

The only correlation found in 2002 was between the length of breast-feeding period and children's fear of nightmares according to semi-structured interview ($-.23$, $p<.05$): children who had breast-fed for a longer period endorsed lower level of those fears. According to 1993 study children who were breast-fed longer period expressed lower level of fear of parental criticism and punishments ($-.23$, $p<.05$).

In total data (both studies together) the length of breast-feeding period was correlated with two fear Factors in semi-structured interview: negatively with the fears belonging to the Factor of loss and death ($\rho= -.16$, $p<.05$), and positively with fears belonging to the Factor of imagination related things ($\rho= .21$, $p<.01$). Maybe those children have richer imagination (which cause the imagination related fears) and higher level of self-confidence not to be afraid of separation, being alone, new situations and strange people. We can also assume that those children who have been breast-fed for a longer time have the stronger sense of basic trust (secure attachment) and because of that the level of fears of losing a loved one and other separation fears or getting lost is lower.

It is interesting that the length of *breast-feeding period* has relation with parents' educational levels in 2002, both mother's ($F=2.96$, $p<.05$) and father's ($F=3.71$, $p<.05$) – the higher was parents' educational level the longer was breastfeeding period.

8.4.1.2. Day care related factors

Family is the first and most important part of children's *microsystem*. With the attendance to day care institution, children extend their space and enter into the second most important environment, which influences the development and security of many preschool children for several years. In the *mesosystem*'s level the cooperation and relationships between family and day care staff are extremely important for the formation of a secure and complete environment, which supports children's development and well-being in the best way.

Day care environment is usually the first place outside family where children have to join. This may cause or encourage the rise of fears. The majority of children who reported peers' behaviour related fears endorsed exactly the fears connected with the behaviour of group mates in day care. As we saw before (see Appendix 7 Table 2) such fears have increased significantly over the ten years.

Interviewer: What things are you afraid of?

Child: If they want to throw stones at me

I: Who wants?

C: Sometimes Ingmar wants. And Siim and Ott and...

I: But you have said they are your friends?

C: Yes. Siim has his own moped. Sometimes he drives me. But he has such big pistol he shoots.

I: Are you afraid of that?

C: Yes. There are such small round bullets

I: Do you get hurt when he shoots?

C: Yes. But I don't cry.

(girl, 6, 2002)

Age of attendance to day care

Children spent an average of about 2.48 years (sd=1.12) in 2002 and 2.87 years (sd=1.21) in 1993 at home with mother or other primary caretaker. This is significantly different between two studies ($t=2.37$, $p<.05$). Averagely children started going to day-care (i.e. at an institution out of the home) at the age of 2.68 (sd=1.11) in 2002 and at age of 2.89 (sd=1.24) in 1993 ($t=1.26$, $p<0.2$, ns). It is worth pointing out that there were some months between the mother leaving to work and children entering day-care. It may be the time when grandparents, other close people or nurse looked after the child, or parents searched for the nanny.

Children from the sample of 2002 study started earlier to go to day-care than 1993 study (see also Table 30 page 193). Although significant difference was not found ($\chi^2= 7.53$, $p=0.28$, ns) we can see tendency that there were slightly more children in 2002 than in 1993 who attended day-care at the age two, and more children in 1993 than in 2002 who attended day-care at the age of four. It

is a quite logical and well-known tendency currently in Estonia if compared with about 10–15 years ago – mothers start working again sooner now and children start to go to day-care at a younger age than earlier. Although the birth rate has decreased continually from 1990 onwards, the number of very young, one- or two-year-old children in baby nurseries has increased continually (Eesti Statistikaamet, 2001).

Table 30. The age of children (in percentages) at entrance to day-care

age	Entering to day-care out of home 2002	Entering to day-care out of home 1993
To 1	1.1	0
1	12.5	14.1
2	32.9	24.2
3	37.5	33.3
4	9.1	18.2
5	3.4	8.1
6	3.4	2.0
N	88	113

If to correlate the data of both studies together we can see that children who attended day-care in their earlier age reported more fears belonging to the Factor of fears of loss and death ($\rho = -.19, p < .05$) and less fears belonging to the Factor of imagination related things ($\rho = .17, p < .05$). All these fears – separation, being alone, strange adults and new thing and situations belong to the Factor of loss and death, and can then be higher for children who had to attend day-care at a very early age. Children who started at an earlier age also endorsed lower level of fears of going to a doctor (.21, $p < .05$) and teasing by peers (.25, $p < .05$) according to picture-aided interview and fear of being alone/getting lost according to semi-structured interview (.21, $p < .05$).

In 2002 children who had started going to day-care in earlier age tended more frequently to use attachment behaviour and seeking support from close people as their coping way with fears ($-.21, p < .05$). Maybe they don't feel as self-confident as children who could stay at home with mother for a longer time, and so they need to seek support from their attachment figures more often. **In 1993** the age at which children first entered day-care logically correlated with change of day-care place ($-.25, p < .05$): children who started attending day-care at a younger age have changed day-care place more times.

Change of the day-care place

Once children start to go to day-care, insecurity and fears may be caused by the change of day-care places and exchange of teachers. It is good to say that according to the results of our two studies the majority of children haven't changed the place of day-care – 64.4% of children in 2002 study and 73.5% of

children in 1993 study. Although there is no significant difference between 2002 and 1993, the tendency is seen that there were slightly more children in 2002 than 1993 who have changed day-care place two or three times – 10% of children have changed both two and three times in 2002 and 6.2% have changed two and 3.5% three times in 1993. Averagely children have experienced 0.40 (sd=0.76) day-care place change in 1993 and 0.66 (sd=1.02) in 2002. There is significant difference between the two studies according to the average time of changes ($t=2.08$, $p<.05$).

In correlation of both studies together it is logical that the children's age of attendance to day-care and changes of day care place are correlated negatively ($\rho = -.19$, $p<.01$): children who attended in their earlier age have changed day-care place more times. Children who had changed day-care more times endorsed lower level of fears belonging to the fear Factor of violence, minor injuries and darkness ($\rho = -.14$, $p<.05$).

In 2002 children who had experienced more frequently the change of day-care place tended to use aggressive behaviour as coping way with fears (.21, $p<.05$). Maybe it can be explained that those children have been forced to be assertive in several environments from an early age already, and they have found the aggressive coping way to be successful. **In 1993** the change of day-care place correlated positively with the fears of getting lost in the forest (.29, $p<.01$) and parental criticism of the child (.19, $p<.05$) in picture-aided interview: children who had experienced change of day-care place more frequently endorsed higher level of those fears.

8.4.2. The role of parents in inducing children's fears

The most distant environment, *macrosystem* (according to Bronfenbrenner's theory), which includes norms, values and beliefs, has an impact on parents' decisions in their educational and child-rearing practices. Next author will analyse the role of parents in the contribution to children's fears – how their behaviour and child-rearing practices may influence children's fears.

Parents-related fears

There are many ways for parents to cause or contribute to fears in their children. We could see it already in the previous chapters where children's fears and child-parent agreement was presented. Of course if parents do not recognize the fears of children they cannot help their child to cope with them. Thus, parents can contribute to their children's insecurity and well-being by both direct (e.g. using fear as a disciplinary method) and indirect ways (e.g. establishing a problematic family atmosphere). Next author will give a brief overview about children's fears that are related to parents' (significant adults) and their behaviour.

Two categories of fear were related to close people (parents) in semi-structured interview: fears of significant adults' behaviour and separation. Also two situations in picture-aided interview were directly connected with parents: having my parents argue and parents' criticism of the child. Three of these fears are significantly different over the ten years (see Table 31 page 195). The *frequency* of reported fears of separation, parental arguments and parents' criticism has decreased over the ten year. But if we focus on the *intensity* of these fears (see columns "great fear" in table) we can see no decrease of fear, even there is a slight tendency towards the increase of fears of parental arguments and parents' criticism of the child.

Table 31. Children's fears related to significant adults behaviour (percentages) in 2002 and 1993

Fear	2002				1993				χ^2	p<
	No fear	little fear	medium fear	great fear	No fear	little fear	medium fear	great fear		
Significant adult's behaviour (SSI)*	85.7	3.3	5.5	5.5	87.8	2.6	5.2	4.3	.25	.97
Separation (SSI)	91.2	2.2	2.2	4.4	77.4	0.9	12.2	9.6	10.15	.05
Parents' argue (PAI)	45	15.4	15.4	24.2	15.4	36.6	29.7	18.3	29.02	.01
Parents' criticism of the child (PAI)	18.7	19.8	25.3	36.2	5.1	20.7	42.9	31.3	13.02	.01

* SSI – semi-structured interview; PAI – picture-aided interview

About 13% of children reported fear of significant adults' behaviour in both studies. The fear-provoking behaviour can be different, e.g. punishments or violent/unfriendly behaviour toward the child.

Interviewer: What things are you afraid of?

Child: I am afraid of my mom and dad when they switch me (girl, 5, 1993)

Also some parents contributed to their children's fears by inconsiderate and irresponsible behaviour.

Interviewer: What things are you afraid of?

Child: Spiders

I: Why are you afraid of them?

C: They can eat me.

I: Oh! They can't. Spiders don't eat people. Why do you think such things, how do these things come into your mind?

C: My father... When I go to sleep in the evening, and sometimes I don't want to sleep very well, and then he comes next to my bed and says that if I don't sleep immediately a spider will come and eat me...

(boy, 6, 1993)

Also children's fears can be generated by the absence of limits – parents do not regulate the activities of their small children.

Interviewer: What things are you afraid of?

Child: Horrible videos.

I: Why? Have you watched some of them?

C: Yes.

I: Where?

C: My dad brings these home and then we watch these.

I: Does your father really allow you to watch these videos?

C: Yes.

I: How much have you been afraid of these kinds of horrible videos?

C: I am afraid not very much, so-so... But my little sister, who is three, she is afraid of them very much.

(boy, 6, 1993)

So, one important thing that parents can do for the security of their children is firstly to think carefully about their own behaviour, as maybe this is a strong source of their children's fears.

Disciplining methods as influencing factors of children's fears

In 2002 an additional questions (see Appendix 1 parents' questionnaire, the question 49, 50, 51) were asked of parents in their questionnaire about disciplining methods that they use with children. It is very possible that educational methods used by parents' have impact on children's security, and punishments can also have fear-provoking effect for small children. General methods that parents use are presented in Table 32 (page 197).

Table 32. Disciplining methods that parents use (percentages) in 2002

Method	Very often	Sometimes	Rarely	Never
Reproving	41.1	50.0	7.8	1.1
Prohibiting of something pleasant	5.6	35.6	48.9	10.0
<i>Frightening for gaining child's safety</i>	4.4	35.6	34.4	25.6
Milder corporal punishment: e.g. pulling the hair, spanking, etc.	2.2	21.1	60.0	16.7
Threatening	4.4	23.3	33.3	38.9
<i>Frightening for gaining obedience</i>	3.3	14.4	44.4	37.8
Harsh corporal punishment: e.g. rod, beating	0	5.6	30.0	64.4
Isolation	1.1	1.1	13.3	84.4

The most frequent disciplining method is *reproving*, plus parents tend to use *prohibition of something pleasant* and *frightening* quite often for assuring the child's safety. *Corporal* punishment (e.g. pulling the hair, spanking) was in the fourth place according to parents' assessments. Such disciplining method as *isolation* was named only by 15% of parents and it was the least used by parents. Parents evaluated these punishments as 6.7% very effective, 67.8% as effective and 25.6% as not effective.

Parents use *frightening as socializing* method with their children: 69% of parents reported the use of frightening with the prohibition of something good, 42% with punishment, 26% with police/policeman, 12% with leaving alone, 10% imaginary creatures (e.g. ghost), 6% with kidnapper, 6% with doctor or hospital, 3% frighten their children with abandonment, 2% with the danger of death, 1% of parents use some animal and 1% closing into a dark room. No differences were found according to children's *gender*.

There have been found several correlations between children's self-reported fears and disciplining methods used by their parents (see also Table 6 Appendix 7). Children whose parents used **reproving** as disciplining method named higher level of fears of nightmares (.27, $p < .01$) and war, guns, etc. (.28, $p < .01$) according to semi-structured interview and lower level of fear of significant adults' behaviour (-.27, $p < 0.01$). **Isolation** correlated positively with the fear of getting lost in a forest (.21, $p < .05$).

Children whose parents have used such **corporal punishments** as pulling the hair, slapping, spanking, etc. showed a higher level of fear of television (.21, $p < .05$) and interestingly, a lower level of fear of significant adults' behaviour (-.24, $p < .05$). Also the use of such forms of corporal punishment correlated positively with the number of fears expressed by children in semi-structured interview (.21, $p < .05$). Also parents who have used these milder ways of

corporal punishment tended to use harsher physical punishment also (e.g. rod, beating) (.31, $p < .01$).

Use of harsher corporal punishment was found to be in relation with both parents' educational level – mother's ($F=5.42$, $p < .01$) and father's ($F=2.63$, $p = .05$). The lower was the parents' educational level the more frequently they endorsed the use of this kind of punishments. Milder corporal punishment was related to parents' marital status: divorced parents reported the use of such punishments less than married or living in unmarried cohabitation ($F=4.49$, $p < .05$).

Frightening the child to gain safety gave also two negative correlations: children whose parents used frightening as educational method endorsed lower level of fear of imagined creatures ($-.24$, $p < .05$) and nightmares ($-.24$, $p < .05$). Also frightening for gaining obedience was related to parents' educational level, both mother's ($F=3.03$, $p < .05$) and father's ($F=2.90$, $p < .05$) – parents who reported lower level of education tended to use this way more frequently. Also fathers with secondary education endorsed the use of frightening for gaining child's safety more frequently than father's with high education ($F=2.73$, $p < .05$).

Children whose parents use **frightening** with *leaving the child alone* expressed higher level of nighttime fears (.21, $p < .05$). Using frightening the child with the *closing into dark room* correlated positively with the children's fear of darkness (.23, $p < .05$). Frightening the child with *kidnapper* correlated positively with the fear of strange adults (.21, $p < .05$). Here we can see possible direct influence of parents' education methods on children's fears development (development of fears of darkness and strange adults because of the use of frightening with closing into dark room and kidnapper).

Children whose parents use frightening with *police/policeman* endorsed lower level of fear of parental criticism of the child ($-.26$, $p < .05$). Frightening with *leaving the child without something pleasant* correlated negatively with the fear of strange adults ($-.35$, $p < .01$). Finally, children whose parents tended to use the frightening with the *death* endorsed higher level of fear of separation (.21, $p < .05$) and nighttime fears (.29, $p < .01$).

Thus, 11 positive and 6 negative correlations have been found between children's fears and disciplining methods and fears used by parents.

Thus, we can see that there are many potential influencing factors which may have positive or negative effect on children's fears. Only some of them, analysed in this chapter were related to family environment and close adults behaviour.

Thus, Hypothesis 6: parents tend to use fear as socialization mean or child-rearing method, which can promote children's fears – has been confirmed.

DISCUSSION

According to Bronfenbrenner's theory changes in children's immediate environment (*microsystem* and *mesosystem*) and other environments (*exo-* and *macrosystem*) may have impact on her/his development and security. As Paquette & Ryan (2001) have concluded according to this theory, changes or conflict in any one layer will ripple throughout other layers. As the microsystem is the nearest system to children (e.g. family, day care, peer group) and the child is a member of several microsystems, this has the greatest impact on children's security. Mainly societal changes take place firstly in *exo-* and *macrosystemic* levels. Those layers and societal changes have an impact on children's security, but are mediated by microsystems (e.g. family), not directly. One exception is mass media (for children, this means primarily television), which belongs to the *exosystem* but can still influence children directly. *Macrosystem* is the farthest from children and influences them through their parents – the common values, beliefs, norms and attitudes, which are the basis of parents' educational decisions, come from this level. Thus, all levels of children's environment according to Bio-ecological Systems Theory can have an impact on children's fears and cause differences in fears, directly or indirectly (mediated by microsystems, e.g. family).

Author's main interest in the dissertation was firstly to study children's insecurity as expressed in fears, coping ways and differences in these aspects over the period of rapid societal changes by using children themselves as informants and fear as one indicator of insecurity. Secondly, author wanted to analyse parents' assessments about children's fears and agreement between two groups of informants. Fears are usually considered to be a normal part of children's development. Surely, some fears are inevitable, for example, fears of strangers, separation, getting lost. But too frequently, researchers have assumed that childhood fears are common, expected, transitory and not a particularly serious facet of development. There are several studies that show the long-term relationship between early childhood fears and some phobias in adulthood (Ollendick, 1983). Thus, children's fears are important to investigate and need serious attention by the adults (parents and teachers).

Author has organized the following discussion around the five main aims of the dissertation presented in introduction.

Differences of children's fears over the ten years

Author considers the differences in children's fears over the ten years one of the most important research questions and also the one main value of the dissertation. Author could not find any similar studies where the differences among same-age children's fears over time have been investigated. The only similar study is the Finnish part of our research project which is conducted by A.R.

Lahikainen and her students. The new aspect is that in our project were developed two methods which differentiate cultures and times (see Lahikainen et al., 2007).

While the structure of fears and the levels of self-reported fears appear to vary somewhat across cultures, children everywhere seem to be most frightened of many of the same things (Mellon et al., 2004). The majority of previous studies as well as our study include such Factors as danger and death, unknown (in this dissertation the Factor of imagination related things seems to be similar with this), animals, injuries, failure and criticism. Although some disputable aspects can exist in children's fear structure according to factor analysis presented in the dissertation, author considers this important and valuable to show because she didn't succeed in finding any previous studies where preschool children's fear structures were presented. All fear structure analysis has been done on the basis of school-aged children data and FSSC methodology (e.g. King et al., 1989; Gullone et al., 2001; Owen, 1998; Shore & Rapport, 1998). Author suggests that the fear structure of young children merits further investigation.

It is really surprising how many children have old, archaic or unrealistic fears for an urban child listed among the common fears (e.g. unfamiliar exotic animals, ghosts, dragons). In our study almost 2/3 of children reported the fear of exotic/ unfamiliar animals and imagined creatures in both studies. But several dangerous real life things (e.g. cars and traffic, serious diseases, electricity, etc.) which adults encourage to the child to be afraid of or teach the child to be very careful with these potentially dangerous things, are actually very rarely fears reported by children (see also Maurer, 1965). Is the inborn evolutionary "fear memory" really so powerful? Is it then possible that "new" monsters from television can enter easily into the children's world because children have the archaic base for fears of such kind?

It is very important that while several fears have remained quite the same, we found also several significant differences in children's fears over the ten years. The frequency of several fears has increased and also decreased among children. The most significant increase was observed in fears of imagination-related things including television-related fears, fears of imagined creatures and of nightmares. The high frequency of fears of *imaginary creatures* in early childhood has been documented earlier (e.g. Bauer, 1976; Draper & James, 1985; Lentz, 1985a; Muris et al., 1997b). But in our research there has even been a significant increase in the fears of this kind. It is interesting that children often know that monsters, ghosts, witches and vampires do not exist in reality: they can make the crucial distinction between fantasy and reality (on the cognitive level), but this does not necessarily reduce their fearfulness. For example, one 6-year-old girl said: "I know that ghosts don't really exist. But I can't help being afraid of them when I am home alone." Muris and Merckelbach

(2000) have found that fear of imagined creatures was in the second place among preschool children, but in our study this fear was in the third place.

The fears of *nightmares* have increased dramatically. Our results are quite different from those of other studies – in 1993 a surprisingly low number of children reported being afraid of nightmares, and we have not yet found a very good explanation for that. But in 2002 children's self-reported frequency of nightmares was higher than other studies about preschool children's nightmares (see e.g. Bauer, 1976; Muris & Merckelbach, 2000; Muris et al., 2001).

In our study author considers one of the more interesting findings to be the differences in *television*-related fears. Television fears have been studied separately a lot (e.g. Cantor, 1994, 1996, 2002; Cantor & Wilson, 1988; Murphy, 1985; Palmer et al., 1983; Smith & Wilson, 2002; Sparks, 1986; Valkenburg et al., 2000; Wilson et al., 1987; Wilson, 1989; just to name a few). But author couldn't find any research except the Finnish part of our research project, where television fears are analysed from such comparative perspective (differences over time). It seems to me also that in previous studies little attention is paid to the potential indirect impact of television to children's other fears. Our results showed that television has a major impact on young children's fears. The high prevalence and increase of media-related fears is an important finding. Nearly everything shown on television (news, documents, series, and even children's programs) is a potential source of fears, at least for young children. The capacity of television programs to produce nightmares and other emotional disturbances has already been documented. It is also proved in many studies that children don't watch only programs suitable for children but even more frequently they may watch programs for adults (e.g. Cantor, 1996, 1994; Harrison & Cantor, 1999; Sparks, 1986). The contents of television programs have changed and we can suppose that the amount of time children spend watching television is increased (e.g. Valkenburg et al., 2000). At the same time the parental control over children's television viewing and setting limits has decreased (Cantor & Wilson, 1988, Palmer et al., 1983, see also chapter 5.6.).

According to the results of our study, author surmises that television is often an important indirect source of other fears, like nightmares, darkness, imaginary creatures, animals, war, guns, violence, accidents and death. Particularly children's fear of imagined creatures is fed by television programs – it may be that television awakens and arouses ancient, evolutionary fears (e.g. darkness, loud voices, unreal creatures), some unconsciously, but some of them consciously.

Author wants to emphasize that such a high frequency of television fears as we have found in 2002 is not found in any other research except for the results of the Finnish part of our study in 1993. Furthermore, Estonian children's frequency of television-related fears in 2002 is virtually the same as Finnish children's in 1993 (according to Lahikainen et al., 2003). In Estonia, programs were at that time more national, but now we have many international programs available by cable TV.

It is obvious that television and media had a greater impact on children's fears in 2002 than ten years before. In the 1993 study, the fears of several animals (both familiar and exotic) were in the first place, but in 2002 those fears have decreased and media-related fears have dramatically increased to the first place. The high prevalence of media-related fears in Finland in 1993 and in Estonia in 2002 is a significant cultural and social finding, which is evidently correlated with the increased TV exposure. However, it must be remembered that television can have various functions, also positive, in children's and families' lives. Therefore, we cannot draw such a conclusion that television is bad for children because it arouses so many fears (Kirmanen & Lahikainen, 1997, 123). Of course, setting more limits for children by parents is needed. Acting as a protective filter between mass media and young children, parents could reduce the potential harmful effect coming from this exosystemic level of children's environment. However, we cannot attribute all these differences in children's fears over the ten years to television and media alone. Family background factors may be hiding behind those results also. We can say that the changes in media (amount and content) combined with changes in family environment (e.g. parenting style, educational values) and changes in the greater society together have had a strong impact on young children's fears. Author thinks that television (media) related fears are a very important topic that should be investigated further.

It is important to mention that the reversed tendencies appeared – while several fears have increased, some fears have decreased also. In particular, this was seen according to the picture-aided interview. Thus, author can't claim clearly that children's fears have increased or decreased. Both directions exist. While imagination related fears have increased, the fears connected with separation and social fears show a decreasing tendency. Generally, the number of children's self-reported fears has increased and also the intensity level of fears has rather increased than decreased. One possible explanation may be the development of technology (mostly the impact of television) and the increase of aggressiveness among children (increasing violence in society and media, increase of bullying and aggressive behaviour even among preschool children). At the same time children may be more independent or better prepared for potentially dangerous situations (e.g. getting lost or being without parents, etc.) and don't fear such things as much as earlier.

Surprisingly, the ranking order of the most common fears expressed by the young children in our studies shows some similarities with the corresponding lists for *school-aged* children based on the FSSC-R method (see e.g. King et al., 1989; Muris et al., 1997a, 1997b; Ollendick et al., 1991; Owen, 1998). When the open-form question method was used, the most common fears were similar and related to small animals (spiders, snakes), death, darkness, war, illness, ghosts and burglars (see e.g. Muris et al., 1997b). Although in our study the fears of danger and death were not mentioned very often in semi-structured

interviews, the picture-aided interview produced high ratings for the fears of getting lost surrounded by strange people and in the forest, which belong to fear of danger and death in the factor analytical patterns found by the FSSC-R method (e.g. Ollendick, 1983).

According to several previous studies young children have many global and unrealistic fears of imaginary creatures and animals, nightmares, etc., whereas more specific and realistic fears, for example, involving bodily injury and physical danger, are more common among older children (e.g. Bauer, 1976; Burnham & Gullone, 1997; Elbedour et al., 1997; Muris et al., 1997a, 1997b), and fears associated with interpersonal relations and social concerns develop later, during the school years (Ferrari, 1986; Gullone, 1996; Murphy, 1985; Ollendick et al., 1985; Robinson et al., 1991). Our findings don't support these viewpoints completely. Author thinks one of the most interesting and important results of our study is the finding that our preschool aged children expressed many *fears related to social relations*, especially in the picture-aided interview. Fears related to social problems (e.g. teasing by peers) or close relationships (e.g. conflict between parents) show a high level of frequency and intensity according to the picture-aided interview. The fears concerning behaviour of peers have increased according to semi-structured interview also. According to the picture-aided interview the frequency of fears related to social relationships have decreased generally, but the intensity of those fears has remained essentially the same, even there is slight tendency to increase of the amount of those children who reported the highest level of those fears.

Thus, we have to consider that young children may already have problems because of social relations. The fears of this kind are quite sensitive to investigate, so it is necessary to think carefully about the choice of research method. It is quite probable that young children's social fears are underestimated because of the methodology used in previous studies. Fears reported by children in picture-aided interview were mostly such that are hard for children to recognize and verbalize. Those fears were expressed quite rarely in the semi-structured interview

Of course the question may arise if the fears of social relations have the same content in preschool age and in school age. Those fears are in both ages related to significant social relations, but maybe in preschool age more connected with the fear of use of violence by significant others, the fear of getting hurt, several dangers which come from significant others' behaviour (e.g. punishments, parental conflicts), but in later age connected more with the level of social relationships, (e.g. the fear of lack of being accepted by others, unsatisfied need for belonging). Although the majority of children in our sample reported social relations fears in relation to getting hurt (e.g. teasing by peers or punishments by parents), there were also several children who endorsed this kind of fear in relation to being without playmates or friends (e.g. nobody wants to play with me in day care). Maybe it should be discussed for future research

to divide the category of social fears into two – one for fears which result from several dangers in social relations and the other for fears of unsatisfied need for belonging, acceptance by significant others.

Also in non-conformity with previous studies (e.g. Bauer, 1976; Burnham & Gullone, 1997; Elbedour et al., 1997; Muris et al., 1997a, 1997b), the children in our study reported the fear of *bodily injury* and physical danger (under category of minor injuries) among the ten most common fears. These fears have also been considered more characteristic for older children.

So, we need to think about the possibility that some fears typically considered to appear in school age by earlier researchers may exist already among younger children. As Owen (1998) has said, children in 1990s express quite the same fear classes as children of previous generations did. However, some fears of a real life situation can appear at an earlier age among present day children than earlier studies show. It seems quite possible that this may be also a question of the methodology used.

Author found similarly with a number of earlier studies (e.g. Elbedour et al., 1997; Lentz, 1985a; Muris et al., 1997a, 1997b) that fears of *animals* belong to the most common fears of preschool children. Although these fears have slightly decreased (not significantly) during the last decade according to the results of this study, young children still endorse these kinds of fears very often. But children in our studies have also reported a significantly higher number of different animals than is proposed in the FSSC scale and shown in other research (see Appendix 6).

The fears connected with *separation* are considered to be one of the most typical for preschool children (Ferrari, 1986; Gullone, 1996; Robinson et al., 1991). In our study in the semi-structured interview (open-form question) children quite rarely reported the fear of separation (e.g. fear of being alone or getting lost). But it can be argued that separation as a source of fear is reflected in many other fears children brought up, for example, in the fear of death, day-care, different kind of accidents, etc. (Kirmanen, 2000). Author thinks that on one hand some children have to be alone more than earlier because of the increase of their parents' duties, but on the other hand we hope that parents are more aware today that young children are not allowed to be left alone.

We have found that children's fears related to the behaviour of significant others (especially peers) has increased, and also there was found a significant increase of the general number of self-reported fears. Here we can suppose the possible effect of societal change, by which is meant higher work duties with higher parental stress and less time to spend with children, than earlier. Also the increase of fears related to imagination (imagined creatures, nightmares and television) indicates the impact of globalization and the development of technology. One possible explanation for the increase of number of children's self-reported fears can be that maybe children in 2002 were more ready to talk openly about their fears and therefore reported more fears than children in 1993.

Maybe they are prepared to talk more about their lives and it has been suggested that it is allowed to express fears and other problems.

According to our findings we can claim that some fears of young children are stable, “*universal*”, e.g. fears of separation, getting lost and darkness (so-called developmental fears), while some fears are more *context dependent* (changeable) than others, e.g. imagination related fears, social fears (See also Lahikainen et al., 2007; Taimalu et al., 2004a). Such fears increase or decrease because of changes in society or they are more culture-specific (influence of “national pedagogy” is also possible). It seems that some fears are an inevitable part of child development. These universal fears can be interpreted as a reflection of children’s general innate need for protection by adults – fears related to danger and death and separation situations are more global fears, these are not so strongly connected with culture or changes in society. In this research the most context-dependent fears appeared to be imagination-related fears (TV, nightmares, imagined creatures), minor injuries, and the behaviour of “significant others”.

Agreement between two informants – children and parents

Parents’ assessments of children’s fears are important indicator what show how well parents perceive their children’s problems. Several previous studies (e.g. Barrett et al., 1991; Kolko & Kazdin, 1993; Lapouse & Monk, 1959; Mahat & Scoloveno, 2003; Muris et al., 2001; Sorin, 2000) have shown that there is very low agreement between parents’ and their children’s assessments about the child’s fears. Parents frame large part of the closest environment for young children (microsystem according to Bronfenbrenner’s theory) and their attitudes toward children’s problems, including fears, have a strong impact on children’s security.

Young children are frequently considered to be unreliable informants because of their cognitive and verbal limitations. Therefore, many researchers use only parents (or sometimes teachers) as informants. But adults perceive and appreciate children’s fears and other problems differently from children themselves. To better understand the development of children it is important to investigate their opinions, thoughts and feelings as voiced by children themselves. Both parents and young children themselves are important informants. The dissertation confirms earlier findings regarding the low level of agreement between child and parent assessments (e.g. Lahikainen et al., 2006; Muris et al., 2001).

Although the Factors do show similarities to the earlier factor analytical patterns of fears, there were also some differences. The self-rated fears of school age children are usually described by a 5-factor model (Gullone & King, 1992; Ollendick et al., 1989). Using a revised version of the Fear Schedule for parents (including 94 items, 15 reworded and 14 new items), Bouldin and Bratt (1998) found three new Factors in addition to the five traditional ones.

According to our study the fear structures of children's and parents' assessments do not match very well with each other. This may be also the question about low similarity between children's and parents' measures used in our study.

It is interesting that in our studies parents' assessments have remained very constant over the ten years; there were very few differences between their assessments between 1993 and 2002 study. But the picture is different when two informants, parents and children are compared. We found a low level of agreement between parents and their children regarding the occurrence of fear items. The same result has been found in many child studies and the same conclusion we have made analysing Estonian and Finnish children's and their parents' assessments in 1993 study (see Lahikainen et al., 2006).

It is possible that parents underestimate fears not only because of the desirability effect, but also because it is difficult for them to recognize fears, for instance, when they are personally involved in the fear-inducing situation (parental arguments, parental criticism, fear of death of a significant person) (Lahikainen et al., 2006). Parents also overestimated some fears in our study.

It is interesting that on the one hand children's fears generally have increased according to semi-structured interview and the number of self-reported fears is higher; but on the other hand fears have decreased according to picture-aided interview. In addition children's fears are not different according to parents' assessments. Thus, it seems that parents do not perceive differences in their children's fears. We can't interpret the low agreement between two groups of informants obligatorily as bad or negative. It is not surprising that children and adults perceive fears differently. Children can report more acute fears than what they can remember any given moment. It is quite obvious that they don't remember all fears because of cognitive limitations. Parents can remember fears that they have noticed earlier or that the child doesn't remember or is not able to verbalize. Unquestionably there are also some fears which parents don't notice or know about. Both groups of informants together give us different pictures about children's fears which can complement each other. Both methods, parents' questionnaire and children's interview, are suitable to use. We can't say that parents' assessments are wrong, but it is better to use both groups of respondents and children as the main informants about their lives. Using parents is particularly necessary in young children's research because children themselves can't answer all questions adequately. It gives us the parents' viewpoint of children's fears and makes it easier to give suggestions to parents or helps to develop some training or advice for parents on how to handle their children's fears.

In addition to awareness of children's fears parents' *attitude* toward their fears is important. Young children's security depends essentially on their parents' behaviour and respect toward children's fears and other problems. If parents assess their children's fears adequately and treat these as an inevitable aspect of

life, but as an occasionally serious problem, which needs help and support, then children feel secure. If parents view children's fears as unessential and a sometimes funny thing which needs no attention, or even they use fears as a socializing means or tools for gaining children's obedience, then they can support the development of significant insecurity in their children.

Gender differences in children's fears

Many studies about children's fears have confirmed (see chapter 5.2.) that girls report more fears than boys. But the samples of the majority of these studies have been school- aged children. In this dissertation author has to say that the differences of fear level depending on children's gender are unclear. Significant differences were not found according to gender, and results can support the opinion of some previous studies (e.g. Bauer, 1976; Draper & James, 1985; Gullone, 1996; Lentz, 1985a, 1985b; Kirmanen & Lahikainen, 1997; Maurer, 1965) that those differences may more clearly appear among school-aged children. Preschool age children independently of their gender express quite similar fear levels and numbers.

Interestingly, a slight tendency is even seen that preschool-age boys tend to express higher number of fears than girls. Maybe one more possible explanation is that the equalization of sex-roles in our society and extending attitudes that boys are also allowed to fear and be weak (e.g. cry) have started to influence such things. There were also no significant differences between parents' assessments about children's fears according to the gender of children.

Coping with fears

According to Theoretical Model of Children's Fears (Smith et al., 1990) it is necessary to investigate not only fear (its content, intensity or frequency) but also other aspects of fear like coping strategies. So we can get a more complete picture about children's fears. The investigation of coping ways with fears is very important, because this aspect is usually lacking in fear research. It is necessary to investigate not only fears but also coping ways to get a more complete picture about children's security.

In our study we distinguished more categories of coping ways (17) than in previous studies. For example, Mooney and his colleagues (1985) and Mooney (1985) have distinguished only 5 categories and Muris with his colleagues (2001) 6 categories. All these categories were used in our study also, but we have some categories, which those studies didn't show: aggressive behaviour, using fantasy, expression of feeling (mostly crying) and two cognitive coping ways. In author's opinion the first three of those are very important and characteristic for preschool children. Previous studies (Mooney et al., 1985; Mooney, 1985; Muris et al., 2001) have shown the one category "social support", but in our study this general strategy has been divided into three

categories: seeking support from significant others, from peers and from strangers. Also we have divided seeking support from significant others into two categories trying to differentiate seeking support for the purpose of getting concrete help or as only an expression of attachment behaviour without seeking concrete help. While seeking support from others is one of the more frequent coping ways among young children (Kirmanen & Lahikainen, 1997; Mooney et al., 1985; Mooney, 1985), it is necessary to investigate this way in more detail. It is good to emphasize that children ask help from significant adults in problematic situations significantly more than ten years before. It shows that children can ask for help if necessary and they can hope for support and assistance from parents (and other familiar people) and we can conclude that their relationships with significant others are warm and supportive.

One of the most interesting findings was that the use of cognitive coping ways (both extinction of fear emotion from mind and treating cognitively) has increased significantly over the ten years. The findings of previous studies have shown that cognitive coping ways are not characteristic for preschool children (e.g. Cantor & Wilson; 1988, Harrison & Cantor, 1999; Kirmanen & Lahikainen, 1997; Wilson et al., 1987). In 1993 there were *no* children who mentioned cognitive coping ways, but in 2002 a remarkable amount of children reported such ways.

Children reported generally more coping ways in 2002 than in 1993 study. The only way which was excluded from both studies was praying. It seems not to be characteristic for Estonian children because our quite atheistic culture and the influence of previous Soviet-Union period. This is different from other studies – where preschool children have been shown to use praying as a coping method (e.g. Kirmanen & Lahikainen, 1997; Mooney et al., 1985; Mooney, 1985) although this is still not very common. Kindergarten- and school-teachers often claim that children are much more aggressive nowadays than some time ago, but it is good to focus on our result that among the various coping ways, children did not bring out aggressive behaviour in 2002 any more frequently than in 1993.

It seems surprising that on the one hand children reported more coping strategies generally and also more cognitive coping ways in 2002 than in 1993 study, but on the other hand there were significantly more children in 2002 than in 1993 who didn't know what to do or reported passive behaviour ("doing nothing"). It is very positive that children know more possibilities for coping with fears and use their cognitive capacities more effectively than earlier. Maybe it is possible here that children were ready to talk about coping strategies more freely than ten year earlier. Maybe circumstances have changed so that young children have encountered several environmental factors at an earlier age than in previous times, and that those experiences may advance them cognitively also. One more explanation may be the possible changes in educational values. Maybe earlier adults tried more to protect children from

harmful experiences (including fears), but perhaps today children are more frequently expected to manage themselves, to be more independent from adults in coping with their troubles and problems. One probable explanation may be also that there was an increase in two different groups of children within the 2002 study – one group who brought out many different coping ways (the child has many fears and reports different coping way for every fear), and another group who is more passive (does nothing) or doesn't know how to cope.

The results of this dissertation are quite similar to the 1993 Finnish results (Kirmanen & Lahikainen, 1997): Estonian children in both studies (1993 and 2002) reported escaping/avoiding behaviour as frequently as did the Finnish children. Also seeking support from others was common among Finnish children (Kirmanen & Lahikainen, 1997) and Estonian children mentioned this coping way in the second place by frequency in 1993. Those findings correspond to other coping studies also (Mooney et al., 1985; Mooney, 1985; Muris et al., 2001) where seeking support and escape/avoidance behaviours were the most frequently reported.

Girls mentioned more frequently seeking support from parents according to the study by Muris and his colleagues (2001) and the Finnish 1993 study (Kirmanen & Lahikainen, 1997) and this is in conformity with our findings. Also girls tend to use more escaping behaviour in our study, but boys in Finland 1993.

Thus, we can say that children have more fear-coping ways in 2002 than ten years before. This is a good tendency because the more children know effective strategies the better they can manage with their fears. But the fact that quite a large amount of children don't know how to cope with fear or believe that there is nothing to do is quite alarming. Author thinks the fears of those children need greater attention and those children need more help, support and teaching of coping strategies from parents and other adults (e.g. teachers). Children's coping strategies need certainly further investigation.

Parental role in inducing fears among children

Societal changes are reflected in the contents, frequency and intensity of children's fears. When there are very rapid and deep changes in society it generates insecurity in society as well as in families. The majority of the impacts of the outside world which influence children are mediated by children's important microsystems, mainly family (parents).

According to Bio-ecological Systems Theory the macrosystem which includes culture, norms, values and beliefs have a strong impact on parents' educational decisions in their children's upbringing. For example, the decision to use or not to use fears as a means of children's socialization. So, the macrosystem influences children's security through the microsystem (family). Societal changes make the role of the parents complicated because their own childhood experience derives from a very different society (Dencik, 1995). As

author has written in chapter 5.7. parents' child-rearing practices can have a significant role in children's fears (e.g. Rapee, 1997; Sinha, 1973; Siqueland et al., 1996). Also parents tend to use fear as socializing (Izard, 1977) and disciplining mean (Gershoff, 2002; Tuan, 1979).

It is well known according to the history of (home) education that authoritarian and strict education was common, which was based on parents' strong authority from the one side and children's total obedience from the other. We can say that old educational traditions persisted in Estonian education for a longer time than in Western countries, which was probably influenced also by the Soviet period where discipline and obedience in education was highly valued (e.g. Makarenko, 1955). Hämäläinen, Kraav and Raudik (1994) have said that fear has been used by several generations for gaining children's safety or obedience. Such beliefs and disciplining methods seem to be quite persistent and tend to spread from generation to generation. So it is not surprising that a significant amount of parents in our study endorsed the use of fear as an education method. Several correlations were found between children's fears and disciplining methods, included frightening used by parents.

Also according to semi-structured interview the category children's self-reported fears called "fear of behaviour of significant adults" included different kinds of descriptions of harmful and dissatisfying behaviour of significant others and pain caused by others, mainly be parents. It is noteworthy that children at the age of 5 to 6 are not afraid only of criticism or punishment, but of the larger scale of actions of significant others which hurt them.

Surely, to help children cope with fears it is necessary to know about children's fears and acquisition ways. Also parents should to practice self-analysis – don't they themselves support children's fears in some ways? Of course some fears remain in use as socialization tools and are even useful, e.g. fear of the disapproval in the eyes of role models keeps people on the right track sometimes. So, fears of rejection or some other fears could modify behavior in a positive way, so that one doesn't do anything to risk losing the esteem of others. But parents need to think about what kind of fears and how they use to socialize their children.

Parents are in a very complicated position today – they understand that the world has changed and rapid changes take place continually, that their own childhood experience is not sufficient for bringing up their children in the present moment, that they are unable to understand their children's childhood and experiences as the children feel. Parents may feel unsure when planning the education.

Methodological considerations and evaluation of methodology

One of the important values of the dissertation is the presentation and testing of the novel methodology used. The methodology of compilation of data was developed within our project by Professor Lahikainen (Finland), Associate Professor Kraav (Estonia) and PhD student Kirmanen (Finland). The methodology seems very suitable for investigation of preschool aged children. Here in the dissertation a picture of Estonian results and differences over the ten years is given. The design of the study is unique. The methodology required controlling. It was tested in Finland (Lahikainen), but it was necessary to try in different societal and cultural conditions also. Author has participated in the project from the beginning of the first study where we translated the questionnaires for Estonian context. Author also has participated as interviewer in both studies – in 1993 study there were four interviewers, but in 2002 author was the only one. So, we found an opportunity to utilize the methodology, and tried to establish necessary conditions so that Estonian data would be comparable with Finnish data.

There have been significant differences in Estonia over the ten years, which meant that we had to consider changed conditions and attitudes. For example, in the first study the main difficulty was to catch parents and their children who were randomly selected from population register – there were many problems because of incorrect contact information. But in the second study the problems arose in the very beginning because of privacy data protection and after that because of parents' refusals and attitude like "what I will get for that" – so there author came across the participants' motivational questions and awareness in a new level.

The complete methodology and design of this study is different from earlier studies: the fears of preschool-aged children are investigated by two combined methods using two informants and conducted in two different times (the second after 10 years). Children's self-reported fears reveal the contents of threats from their own perspective, which may not be known to the parents.

Although accepted and used widely, with controlled reliability and validity, Ollendick's measures (FSSC-R and its modifications) are not sensitive enough for preschool-aged children. Firstly, the items of this scale and also format are too abstract for young children. Secondly, it omits certain central objects of fears, which have been found to be common for preschool children – for example, there too little a number of several animals represented, also television-related fears need more attention. We can see (Appendix 6) how many of several fear objects Estonian preschool children reported in our research. It is not possible to include all these kinds into fear scale form, but young children have very concrete thought and so they cannot on their own generalize their concrete fears under more universal fear items.

By using **two different methods** for measuring fears this study is able to provide a wider and richer picture of fears among young children than previous

studies (e.g. Ferrari, 1986; Gullone, 1996; Muris et al., 2003b; Robinson & Rotter, 1991). Author thinks this is particularly valuable in that we haven't chosen one method only, but instead give children an opportunity to report freely all kind of fears they can remember and then more deeply investigate selected fears, which are not considered to be very common for preschool children.

In *semi-structured interviews* the children mentioned a huge amount of fears (244 kinds of them, see Appendix 6). However, the *picture-aided interview* revealed higher levels of fearfulness than did the semi-structured interview. It demonstrates the necessity for combined methods in young children's study – one makes it possible to get information about the large variety of fears and find some new fears, the second enables us to further investigate some specific fears or fears that are not so easily and freely expressed in open-form interview.

Majority of the fears represented in the *picture-aided interview* are fears that are hard for children to recognize and verbalize, and to communicate to an adult they have never met before. The picture-aided interview revealed fears that remained hidden or were expressed rarely in the semi-structured interview. It seems that it is easier for children to report their fears in a picture-aided interview, particularly when highly emotional topics are involved (for instance, fear of being left alone without parents, fear of going to bed alone) or situations where children have to testify against his/her parents' behaviour (e.g. parental arguments, punishments by parents).

So we can definitely say that the picture-aided interview is very suitable for preschool children interview. The attention must be paid only to how much and which fear items to select for representing in pictures. Of course, it is not possible to construct an iconic inventory that is representative of all fears. Each researcher needs to decide what kind of fears he/she wants to investigate more deeply. Pictures must be simple and easy to understand and they should not contain anything that in itself is threatening (Lahikainen et al., 2003, 102). It is not possible to develop a set of say, 80 pictures (as many as are fear items in FSSC). In author opinion maybe more than 30 would be too many. Also it is an important question how to find the neutral level in picture so that it reminds the child who is afraid of such situation of his/her fear, but doesn't scare the child who doesn't already have this fear (the criterion of neutrality).

Of course, here in the picture-aided interview can emerge the question about FSSC-R, which was raised by McCathie and Spence (1991) – if this method measures children's real fears or the *attitudes* toward this situation in the case if it would occur (see also chapter 4.3. page 77). This question may remain, but it is necessary to add that many children in our sample have shown direct connections between their answers to the situations of picture-aided interview and their own real fear and real experiences (not only the attitude, see for example page 157). Besides, the picture-aided part of interview was the most interesting and motivating for children also – despite the fact that this was the

last part of interview they waited eagerly when interviewer showed the pictures, listened to the short story with interest and talked about those fears eagerly.

So, we can conclude that semi-structured interview with open-form question, on the one hand, and the picture-aided interview on the other hand offer different pictures of children's fears. However, as also Kirmanen and Lahikainen (1997, 125) say, it is not very fruitful to try to answer the question which technique tells the "truth" about children's fears. These methods give different, but complementary information about children's problems.

In addition to two methods in children's interview we used **two informants**. As is the case in earlier studies, the results of our two studies show low agreement between parents' and children's answers. Parents as informants cannot replace children themselves. Even young children may be competent informants of their condition and can provide essential and invaluable information about their problems and well-being, when they are listened to emphatically and allowed to speak freely without hurrying them. However, we cannot ignore the importance of parents as informants. Due to young children's cognitive and verbal limitations and other age-specific characteristics, it is still recommended to investigate the parents to get additional and different information about children's fears (or other problem studied), family environment and background information. We suggest that children should be used as primary informants in child research and if possible, the best way is to use more informants (e.g. children and parents, or children and teachers, or all three).

Of course the questions may arise about the possible influence of interviewers. It is certain that in using the interview method, the interviewer's personal characteristics and behaviour (e.g. age, gender, appearance, motivation, child-centeredness) may have an impact on interviewee and on her/his answers. So, different interviewers can get different answers. Thus, author felt in the planning of the second study that she wanted to be the only interviewer, as that way she could minimize the different influences of different interviewers.

Also the presence of a third party (mostly parent) could influence the child's answers. But in some cases there was no other way – some parent or some children didn't agree to participate if parent was not allowed to be in the same room. We tried to gain as few as possible number of interviews where the third party was present. Fortunately, the amount of such kind interviews was low in our studies.

The methods we used were well-suited for the investigation of young children's fears and enabled the children to express a large variety of fears. An interview method like this can be successfully used with young children to produce new information about their fears and why not about other problems too, though it requires careful planning and implementation. The semi-structured interview was more time-consuming and demanding, but the picture-

aided interview is a relatively easy method for both children and interviewer, being less time consuming than the semi-structured part.

Discussions with young children give us a more detailed and comprehensive picture of fears in young children than any other technique used earlier. The combination of semi-structured and picture-aided interviews and Children's Global Rating Scale (CGRS) for measurement of the intensity of fears was successful. In spite of all reservations, interviews with children are an excellent way of getting closer to children's own experiences in their life and their ways of constructing it in words (Lahikainen et al., 2003). Author thinks that the readiness to cooperate and positive attitude on the part of children also encourages us in our opinion that this method is suitable to use.

Also the **validity and reliability** of research methodology is a very important question.

To show the *reliability*, internal consistency (Cronbach alpha) was counted for two separate scales (consisting of 19 categories of semi-structured interview and 8 pictures of picture-aided interview) and also for parents' scale in 1993 and 2002 study. Values remained between 0.7 and 0.8, which is high enough. Also we have counted classification agreement (kappa-coefficients) between two independent researchers (see Table 9 page 138) in the categorizing children's self-reported fears in 1993 study.

Validity is possible to show through several ways also. Several preliminary studies were conducted and experts, Anja Riitta Lahikainen, Tiina Kirmanen, and Inger Kraav developed the methodology of our study (see also Lahikainen et al., 2003). It helped to increase content validity (according to Gall, Borg and Gall (1996, 250) content validity is determined systematically by content experts).

Construct validity is the extent to which a particular test can be shown to assess the construct that it purports to measure (Gall et al., 1996, 249). Author has to remark that not the whole phenomenon of insecurity was analysed in this dissertation. We have studied one part of children's insecurity – fears. Although fear is not the only indicator for studying insecurity, this emotion turned out to be a suitable indicator for an understanding and registering of young children's insecurity. There are several other parts in insecurity, for example, worries, phobias, and anxieties. Since fears are very common in preschool age and at the same time children are cognitively and verbally developed enough to know and express what they are afraid of, we believe that fears enables us to study a significant and essential part of young children's insecurity. It is probable that such very young children are not able to talk about their worries and anxieties. In addition, the concept of fear is well understandable for children. If we would ask about anxieties, worries and phobias, it is more likely that they would not understand what we are asking for. Fear is the easiest term to understand and a

common emotion for them. Our measures of fear may contain some phobias also.

Internal validity is the extent to which extraneous variables, which can influence the phenomenon studied, have been taken into consideration and controlled (Gall et al., 2005, 252) (e.g. the expectations and behaviour of researcher, weaknesses of sample selection). We tried to establish this kind of validity by using similar criteria (e.g. same town, only Estonian children) and the random selection of sample in both studies. Differences of the background factors of respondents between two studies (e.g. children's gender and age, parents' age, education) were checked and were found to have no significant differences there. We formulated questions to be as neutral as possible (e.g. pictures of the picture-aided interview), and the interviewers were well-trained (Lahikainen et al., 2003). They were advised to be as neutral as possible and not to direct or influence children's answers in any way.

External validity (the degree to which the results can be generalized beyond the research sample to other groups (Gall et al., 2005, 254). Random samples are generated from the 5–6-year old children in the town studied. The differences in insecurity can thus be generalized in that population. We don't know any reason to believe that changes in the other parts of Estonia would be different. Also there were problems in reaching the parents in 2002 study (which has been described earlier, see chapter 7.1.), so that it is quite possible that participants of this study were more active, conscious or motivated than those with whom author could not get contact. But as the support to external validity, author can point to the random selection of sample.

Limitations and suggestions

Many ethical questions may arise with young children, for example, the promise of confidentiality, or the opinion that the fears are too sensitive a topic to study, or such study can disorder the family or child's privacy, cause harm for participants or their relationships. To address that, firstly, all parents and children participated voluntarily, without any obligation. Secondly, both the child and parent were allowed to choose whether or not the parent was present in the interview (see more in Lahikainen et al., 2003, 101–102). Many parents said later that participation in this study was very beneficial for them and of great help in better understanding of their child. Thirdly, in preschool age majority of children have not yet learned to hide their fears and they speak about these freely, easily and without "false shame", even boys. Fourthly, it is said that speaking about fears is not harmful but even useful for children as a coping way. The majority of children had a very positive attitude toward the interview and eagerly answered interviewer's questions; some of them asked after the interview if and when the interviewer will come back again to talk with the child because they liked it. Fifthly, to guarantee that children feel well during and after interview we started and finished the interview with positive

things in their life: interview started with the talk and playful action about child's family and other significant people. We finished interview with question "What things make you feel happy and joyful?". The last question in particular was mostly for the well-being of respondents. Also every child got a small present. Sixthly, in the children's interview there wasn't any question about such things that could direct thoughts to the harming or frightening influence of home or family (e.g. if and how your parents have frightened you?).

It is hard for children to articulate their fears, and they become easily tired. Because of their shorter time perspective, children will probably only be able to express the most acute fears. Fears such as losing a loved one or being left alone, that are difficult for young children to verbalize or to express emotionally, were much less common in the semi-structured interview than in the picture-aided interview.

The method we used is expensive and time consuming. It also places great demands on interviewers, who need to be flexible and tolerant with children, and their internal motivation is needed – it is good if they are interested in this topic and work with children themselves. Also they need to receive special training (preparation) for this job.

The sample sizes formed for reasons that had to do with the resources available in the respective countries (Estonia and Finland). The Estonian sample was kept to a bare minimum for purposes of statistical comparison between the two countries. A larger sample size would have given greater control over the background factors. However, our results are in general concordance with several previous studies. In addition, there were some difficulties in the formation of sample in 2002 which were described in chapter 7.1. So there is a possibility of some differences between respondents between 1993 and 2002 – for example, maybe parents of 2002 study were more active, more interested and motivated to participate. Of course this is only speculation. A question remains about the possible effect of missing answers on the results. No significant differences were found in gender and age distribution of children, in parents' age and educational level. Only there were more parents in 2002 than in 1993 study living in unmarried cohabitation and less married couples. Because of the quite small sample size the level of generalization of results is low. We can generalize results on Tartu children and maybe to urban children too, but not to the whole Estonian population of same-age children.

Author has strongly emphasized the impact of television on children's fears and differences over the ten years. However we cannot attribute all these differences to television and media only. Other societal changes or family background factors may be hiding behind those results also or maybe some other factor we haven't measured at all.

As we have written in our paper (Lahikainen et al., 2006) the fear measures used in these studies have their advantages and their drawbacks. Fear lists for parents and picture-aided interviews for children are comparable methods for

the purposes of making the fears inquired about equally salient to the informants, but the associations arising in connection with a word or a picture may obviously differ. In many cases it is also difficult to find an exact pictorial presentation for the phenomenon concerned: as well as concretizing, the picture also narrows down the phenomenon. Maybe it would be necessary to use an open-form question for assessing children's fears (What do you think are the things your child is afraid of?) in parents' questionnaire also to compare freely reported fear categories of children and parents.

We chose our methods of data collection on the basis of what we thought would be the most effective strategy both for the parents and for the children, given the limited financial and time resources available and the requirements of having as similar measures as possible. The most effective measures in the case of children are not necessarily the most effective measures for parents and vice versa. However, our combination of several different methods did at least allow us to demonstrate the variability of children's fears.

Also a complete, representative list of fears is hardly obtainable. For example, Estonian children were able to mention 17 types of familiar and 30 types of unfamiliar animals, while Finnish children identified 27 types of familiar and 41 types of unfamiliar animals in semi-structured interviews in 1993 study.

Television-related fears also concerned different kinds of programs: documentaries, news and entertainment for parents as well as children's programs. In other words, regardless of the instruments chosen, the measurement of general fearfulness will in all probability be more or less biased. It is important to discuss therefore what kinds of fears are most relevant to children and how they should be measured.

At the same time it is surely needed to use some methods to express fears freely (e.g. open form question), so we can discover some new fears which are not represented in earlier measures. For example, we think it would be necessary to add more television fear items and some animals to the widespread FSSC scale. The list of about 80 fear items includes only one concerning television-related fears ("mystery movies") but this no longer seems to be enough. Animals also are represented by too narrow a selection.

The coding system of fears (see Appendix 4) proved to be suitable and exhausting, but the coding of coping ways (see Appendix 5) needs some further discussion and maybe some improvement.

Thus, *for future research* two aspects should be taken into consideration: firstly, it is necessary to use suitable methodology; eligible would be several combined and complementary methods, which enable children to safely express their thoughts and feelings. Pictorial methods are particularly suitable in author's opinion. Secondly, to get enough and adequate information it is necessary to use not only one, but more informants. Even young children may be competent informants of their condition and can provide essential

information about their fears and problems. Children can provide indispensable information about their experiences, which serve as a critical mirror of the adult-centric view on childhood (Lahikainen et al., 2006). The methodology like this used in our study proved to be suitable for gaining information about as sensitive a topic as fear and from as complicated a sample as preschool children are. We encourage using this methodology and testing it further, for example, in other countries and/or cultures. This methodology enables the researcher to get a complete enough review about children's fears. The results allow us to form and reform viewpoints and knowledge about young children's fears, help to prepare necessary education programs for adults who are involved with children, and inform officials who deal with or can have influence on some aspects of children's rights or security (e.g. persons who decide on the selection of television programs, or persons who deal with child protection, etc.).

Educational aspect of this research includes the necessity to know more about children's fears, which enables adults to understand children better and to help them cope with fears. Also we can't underestimate diagnostic value – if we know the norms we can give more attention to children who have different fears and problems. Also such studies give a good base for the education of parents, teachers and other adults working with children. It is necessary to teach them how to help children cope with their usual problems (e.g. fears), that fear must not be thoughtlessly used as socialization mean, that children's fears can be a serious problem which need adult's attention. There is a need for programs where adults can get information and help about the development of children, how to raise them, how to cope with problems (e.g. fears, etc.). In addition, it is necessary to regulate the use of media (especially television) and to educate parents in this field also. It is necessary to assess critically the content and quality of children's programs and also the programs for adults, which are on screen earlier when children are not sleeping. It is necessary to conduct more local studies of several aspects of children's security and well-being, so decision makers could rely on those results and base future programs on them. Children themselves need to learn more about their own emotions, how to express and cope with negative emotions (e.g. fears), including the development of feelings of security, control and self-worth.

To summarize, author wants to point out the following once more as the main values of this dissertation:

- 1) highly interesting results obtained from the comparison of children's fears between two studies conducted to find out the differences in children's fears over a period of time in a society in transition;
- 2) investigation of television-related fears in the context of other fears and the result that those fears have increased significantly;
- 3) some fear types (categories) which have been considered mostly to be typical for school-aged children according to previous studies were found

to be expressed also by younger children (social fears and bodily injury/physical harm);

- 4) information about coping ways, which is a rarely investigated aspect in previous studies. We consider coping with fears as really important in children's sense of security; 5) picture about children's fears according to the assessments of two informants' groups; 6) presentation of novel methodology developed in our project and showing its appropriateness for the investigation of young children.

SUMMARY

In the dissertation Estonian preschool children's insecurity through their fears and coping ways was treated and analysed. Fears and coping ways were analysed from a comparative perspective – the differences in children's fears and coping strategies in a transforming society according to two studies, 1993 and 2002 were presented. In addition two other important aspects of children's security were investigated – the agreement between parents and children about children's fears and some background factors and environmental aspects (e.g. educational methods used by parents).

Fears proved to be a suitable indicator of young children's security (insecurity).

Main aims of this dissertation were the following:

1. Give a theoretical overview about fear concept, children's fears, coping, and the role of significant others (e.g. family) and some background factors (e.g. age, gender, SES, etc.) in children's fears,
2. Analyse differences in preschool children's fears and coping strategies over the ten years of rapid societal transformations by comparison of two studies (1993 and 2002),
3. Find out if there are any differences in fears and coping ways according to children's gender,
4. To analyse the agreement between two informants', children's and their parents' reports about the child's fears,
5. To analyse the impact of some background factors and parental role in promoting of children's fears.

All these aims have been realized.

In the theoretical part of the dissertation theoretical frame was given and main concepts were explained. Bronfenbrenner's Bio-ecological Systems Theory (1979) and Integrative Theoretical Model of Children's Fears (Smith et al., 1990) form the theoretical frame of this dissertation. Also this part gave a thorough overview of the fear concept and fear acquisition ways, many previous studies in this field, coping with fears and some influencing factors (e.g. background factors, societal changes, parents and family).

In the empirical part the methodology of the research was explained completely. After that the results of four main aspects of our study were presented:

1. Children's fears and the differences of fears,
2. Coping strategies and differences in this aspect,
3. Agreement between children's and parents' assessments,
4. Children's fears relations with some family background factors (included educational methods used by parents for disciplining the child).

Six hypotheses of the dissertation were:

1. Children's fears are influenced by societal change. We can suppose that children's fears have significantly different over the ten years.
2. Television has had a significant impact on young children's fears and children have more television-related fears in 2002 than ten years earlier.
3. The agreement between different informants, parents and children is quite low.
4. There are no significant differences in fears of preschool children according to children's gender.
5. Preschool children tend to use mostly non-cognitive (behavioural) coping ways, cognitive coping ways are not very characteristic for them.
6. Parents tend to use fear as socialization mean or child-rearing method, which can promote children's fears.

All these hypotheses have been confirmed.

We have used two informants – preschool children as first informants about their fears and their parents as the other important informants group to get their assessments about children's fears and also information about home environment, children's experiences and background information. For this purpose, a detailed child interview method was used. The interview consisted of three main parts: target diagram for the investigation of the child's significant others, semi-structured part with open-form question and picture-aided part with eight pictures for investigation of children's self-reported fears. A questionnaire was developed for parents. The methodology was tested by two similar studies (1993 and 2002) concurrently in two countries (Estonia and Finland). We claim that this methodology is suitable for investigation of young children's fears and other sensitive problems. Particularly the picture-aided interview is valuable in studies of young children. Some weaknesses and limitations have been also pointed out in discussion.

The main findings and values are the following:

1. The pattern of children's fears is different over the ten years. The most dramatic difference proved to be the increase of imagination-related fears including the fears of television, imagined creatures and nightmares. At the same time the increase of television-related fears seems very alarming. These findings show that television can have impact on children's other fears also. Also the huge amount of several self-reported fears is noteworthy. Maybe there are really more scary things in society (e.g. television, violence), but it is also possible that children talk more openly about their fears and therefore report more fears.
2. It is remarkable that social fears and fears of bodily injury have been expressed by preschool children in quite high level, particularly in

picture-aided interview. These both have been considered to first appear mainly in school age. It was quite alarming to find the increase of fear of behaviour of peers according to semi-structured interview.

3. The information obtained about coping ways. This aspect has been investigated rarely in previous studies. Several coping ways were reported by children, more in 2002 than in 1993 study. It is important to point out the significant increase of cognitive coping ways in 2002 study, which were not mentioned in 1993 study.
4. Agreement between two informants, children and parents was low which is in concordance with several previous studies. Children and parents perceive and assess children's fears differently. It is clear that even very young children can be good informants for their problems/fears and should be considered as primary informants in child research, but parents are also appropriate informants. Using both groups gives us a more complete picture about children's fears.
5. Parents themselves can induce fears by the use of fear as socialization mean. The role of parents in provoking their children's fears is rarely studied.
6. Novelty of used methodology. We used a combination of several methods and two informants and author can claim that this methodology is suitable for preschool aged children's study.

Thus, here we can see the impact of societal change on children's fears and coping ways. However, majority of influences of outside world and societal changes reach the child not directly but through significant people, family and parents. According to the results some suggestions for future research have been presented in the discussion.

Surely the fears of children need further investigation. Particularly we are interested in media(television)-related fears. It is urgently needed to study how the technologisation influences children's security.

To underline the educational value of this dissertation author claims that the findings help...:

- ... to get an overview and understand young children, her/his feelings and thoughts better
- ... to give possibility and material for schooling of adults (e.g. parents, teachers). This information may serve as a stimulus to the implementation of education programs to help adults understand normative fears experienced by children.
- ... to comprehend better how societal changes can have strong impact on children's security. It is quite common to forget that not only adults but also children are influenced by changes in society.
- ...to test the research methodology, show that this is suitable for use in young children research

Normative data on the fears of children from different nationalities and circumstances may contribute to our understanding of children's emotional development and assist us in the identification of children whose fears are persistent, who may be in distress, and who may require psychological treatment (Burnham & Gullone, 1997; Dong et al., 1994). Results and conclusions, author hopes, would be suitable and useful to use, for example, for the schooling of parents and teachers, but also for researchers who investigate children's emotions and influencing factors. As Davidson, White, Smith and Poppen (1990, 56) has said, if children's fears can be accurately enumerated and the intensity of fear responses quantified, the implications of these findings can be directed toward helping children learn to cope effectively with their fears.

Author hopes she has added some new and valuable approach to the discussion on the development of new methodology of childhood research and on the role of children as informants on their own life. Also she hopes that some educationally valuable guidelines and information for schooling of parents, teachers and others can be found from this dissertation. A further idea is to compose a handbook for adults working with children on the basis of this dissertation.

SUMMARY IN ESTONIAN

Laste hirmud ja toimetulekustrateegiad: võrdlev käsitlus

Käesolevas doktoritöös käsitleti ja analüüsiti Eesti koolieelikute ebatavalisust nende hirmude kaudu (kasutades hirme kui üht ebatavalisuse indikaatorit) ja hirmudega toimetuleku viise. Hirme ja toimetulekuviiise käsitleti võrdlevalt – vaadeldi laste hirmude ja hirmudega toimetulekuviiiside erinevusi transformeerivas ühiskonnas (Eestis) kahe uurimuse tulemustest lähtudes. Uurimused viidi läbi 1993.a. ja 2002.a. Tegu oli ulatusliku Soome-Eesti ühisprojektiga “Laste ebatavalisus, selle põhjused ja toimetulek”, millega alustati 1990ndate alguses ja mille juhiks on olnud alguses peale professor A. R. Lahikainen Soomest Tampere Ülikoolist. Käesolevas töös kasutati ainult Eesti andmeid. Lisaks hirmudele ja nendega toimetulekuviiisidele uuriti veel kaht olulist laste turvalisust iseloomustavat aspekti – vanemate ja laste hinnagute kooskõla laste hirmude hindamisel ja mõningate taustafaktorite ja lapse kasvukeskkonna tegurite seoseid laste hirmudega (nt vanemate kasvatusemeetodid). Hirmud leiti olevat väikeste laste ebatavalisuse sobivaks indikaatoriks.

Peamised eesmärgid antud töös olid järgmised:

1. Anda teoreetiline ülevaade hirmu mõistest, laste hirmudest, hirmudega toimetulekust ja lastele oluliste inimeste (nt vanemad) ja mõningate taustafaktorite (nt lapse vanus, sugu, sotsiaalmajanduslik staatus jne) mõjust laste hirmudele,
2. Analüüsida erinevusi Eesti koolieelikute hirmudes ja hirmudega toimetulekuviiisides kiirete ühiskondlike muutuste ajajärgul võrreldes kümneaastase (1993 ja 2002) vahega läbiviidud uurimusi,
3. Uurida, kas lähtuvalt lapse soost on laste hirmudes ja hirmudega toimetuleku viisides erinevusi,
4. Analüüsida kahe küsitletud kontingendi (lapsed ja nende vanemad) arvamuste vahelist kooskõla laste hirmude hindamisel,
5. Analüüsida mõningate taustafaktorite (nt vanemate haridustase jms) ja vanemate kasvatustegevuse rolli laste hirmude tekkel.

Kõik need eesmärgid said autori hinnangul täidetud.

Teoreetilises osas selgitati töö teoreetilisi aluseid ja põhimõisteid (ebatavalisus/turvalisus, hirm, ängistus, foobia, mure). Eelkõige moodustavad käesoleva doktoritöö teoreetilise raamistiku Bronfenbrenneri Bioloogilis-ökoloogiline Süsteemiteooria (1979) ja Laste Hirmude Integreeritud Teoreetiline mudel (Smith et al., 1990). Teoreetilisest osast saab põhjaliku ülevaate hirmu mõistest ja hirmude omandamise teedest, tutvustatakse varasemate laste hirmude uurimuste tulemusi, käsitletakse hirmudega toimetuleku temaatikat ja räägitakse mõnin-

gatest võimalikest laste hirme mõjutavatest teguritest (nt taustafaktorid, ühiskondlikud muutused, vanemate kasvatustegevus jms).

Töö teises, empiirilises osas selgitatakse põhjalikult uurimuse läbiviimise meetodikat. Meetodika töötati välja eespool nimetatud uurimuse raames projektijuhi professor Lahikaise (Soome), dotsent Kraavi (Eesti) ja tol ajal doktorantuuris õppinud T. Kirmase (Soome) poolt.

Sellele järgnevalt tutvustatakse töö nelja kõige tähtsama valdkonna tulemusi:

1. Laste hirmud ja erinevused neis mõõdetuna kümne aastase vahega
2. Hirmudega toimetulek ja muutused selles aspektis võrreldes kaht eespool nimetatud uurimust
3. Kooskõla laste ja vanemate arvamuste vahel laste hirmude hindamisel
4. Seosed laste hirmude ja mõningate kasvukeskkonna tegurite vahel (nt mõned taustafaktorid, aga ka vanemate kasvatusemeetodid laste distsiplineerimisel)

Doktoritöös püstitati ka kuus hüpoteesi:

1. Ühiskondlikud muutused mõjutavad laste hirme. Seega me võime eeldada, et laste hirmud on olulisel määral erinevad võrreldes kümne aastase vahega tehtud kaht uurimust.
2. Televisioon omab arvestatavat mõju väikeste laste hirmudele ja lastel on 2002.a. uurimuste tulemusel rohkem televisiooniga seotud hirme kui 1993.a. uurimuse järgi.
3. Kooskõla kahe küsitatud kontingendi, vanemate ja laste vahel laste hirmude hinnangutes on üsna madal.
4. Koolieelikuealiste laste puhul ei ole olulisi erinevusi hirmudes laste soost sõltuvalt.
5. Koolieelikuealised lapsed kalduvad hirmudega toimetulekuks kasutama peamiselt mittekognitiivseid viise, kognitiivsed toimetulekuteed ei ole neile eriti iseloomulikud.
6. Lapsevanemad kalduvad kasutama hirmu sotsialiseerimisvahendina või lapsekasvatusemeetodina, mis võib soodustada laste hirmude teket.

Kõik need hüpoteesid leidsid kinnitust.

Valim koosnes kahest grupist – koolieelikuealised lapsed kui esimesed ja peamiselt informatorid oma hirmude kohta ja nende vanemad kui teine oluline grupp, kes annab olulist informatsiooni laste hirmude ning ka lapse kasvukeskkonna kohta. Et saada lapselt võimalikult palju informatsiooni kasutati uurimismeetodina individuaalset suulist intervjuud lapsega. Intervjuu koosnes kolmest peamisest osast: laste sotsiaalse võrgustiku (“oluliste teiste”) välja selgitamiseks märklaua stiilis diagramm, pool-struktureeritud intervjuu avatud küsimustega ja kaheksal pildil põhinev intervjuu uurimaks laste hirme. Vanematel paluti täita ankeet. Seda meetodikat testiti kahe sarnase (kordus-) uurimuse käigus (1993 ja

2002) samaaegselt kahel erineval maal (Eestis ja Soomes). Saadud tulemustele ja kogemusele toetudes julgeme väita, et see metoodika on sobilik väikeste laste hirmude ja teiste sensitiivsete probleemide uurimiseks. Autor tahab esile tõsta just piltidel põhinevat intervjuu osa, mis on eriti sobilik ja väärtuslik väikeste laste küsitlemiseks. Mõningad piirangud ja nõrgad kohad ilmnisid samuti, neid on selgitatud töö diskussiooni osas.

Olulisemad tulemused ja töö väärtused on autori arvates järgmised:

1. Laste hirmude muster on kümne aasta jooksul muutunud. Kõige märgatavam muutus on lapse kujutusvõimega seotud hirmude sageduse oluline kasv. Nende hirmude alla paigutuvad televisiooniga seotud hirmud, ettekujutatud olendite ja pahade unenägude hirmud. Televisiooniga seotud hirmude kasv näib murettekitav. Samuti näitavad saadud tulemused, et lisaks televisiooniga otseselt seotud hirmudele mõjutab televisioon ka laste teisi hirme. Märkimisväärne on ka laste endi poolt esile toodud erinevate hirmude suur hulk ja varieeruvus. Võimalik, et ühiskonnas ongi rohkem hirmutavad kui varem, aga võib ka olla, et lapsed on harjunud rääkima oma hirmudest avatumalt ja vabamalt kui 10 aastat varem ja seetõttu tõid esile rohkem hirme. Mõned laste hirmud on ka vähenenud.
2. Esiletõstmist väärrib asjaolu, et koolieelikud lapsed tõid küllalt palju esile hirmu kehalise vigasaamise pärast ja sotsiaalseid hirme, seda viimast eriti piltidel põhinevas intervjuu osas. Mõlemaid neid hirmuliike peetakse sellisteks, mis ilmnevad peamiselt kooliealistel lastel. Murettekitavaks võib lugeda tulemust, et lapsed nimetasid teises uurimuses oluliselt sagedamini kui esimeses ka hirmu ekaaslaste käitumise ees (peamiselt kiusamine jms tegevus).
3. Autor peab väärtuslikuks lastelt saadud informatsiooni hirmudega toimetulekuviiside kohta. See on oluline aspekt laste turvatunde juures, kuivõrd ja kuidas nad oma hirmudega toime tulevad. Seda aspekti on varasemates uurimustes vähe uuritud. Lapsed nimetasid mõlemas uurimuses suure hulga erinevaid toimimisviise, huvitaval kombel oli neid 2002.a. uurimuses rohkem kui 1993.a. Rõhutada tasub ka seda, et kognitiivseid hirmuga toimetulekuviise nimetasid lapsed teises uurimuses oluliselt rohkem kui esimeses. Üldiselt peetakse kognitiivseid toimetulekuviise rohkem iseloomulikumaks kooliealistele lastele.
4. Kooskõla kahe uuritavate grupi, vanemate ja laste vahel oli madal. See tulemus on ka sarnane mitmete varasemate uurimuste tulemustele. Siit saab teha järelduse, et juba üsna väikesed lapsed võivad olla heaks ja sobivaks informaatoriks, kui asi puudutab nende probleeme/hirme ja seetõttu peaks laste kohta käivates uurimustes kindlasti kasutama infoallikatena ka lapsi endid, mitte ainult täiskasvanuid. Samas ei saa me alahinnata vanemate küsitlemise vajalikkust. Täiskasvanud ja lapsed tajuvadki hirme erinevalt, seetõttu on madal kooskõla loomulik. Võimalusel

mõlemate vastajate grupi (laste ja vanemate) kasutamine on parim viis saamaks täielikumat ülevaadet laste hirmudest.

5. Vanemad ise võivad samuti olla laste hirmude põhjustajaks või soodustajaks. Üheks põhjuseks on siin hirmude kasutamine sotsialiseerimisvahendina vanemate kasvatustegevuses. Vanemate rolli laste hirmude põhjustamisel on samuti harva uuritud.
6. Kasutatud uurimismetoodika uudsus. Kasutati mitut erinevat metoodikat ja kaht uuritavate gruppi. Saadud tulemuste ja ka laste intervjuerimisel saadud kogemuse põhjal võib autor väita, et antud metoodika on sobiv koolieelikueas laste uurimiseks.

Kõigis neis tulemustes saame näha ühiskondlike muutuste võimalikku mõju laste hirmudele ja hirmuga toimetulekuviisidele. Siiski enamus välismaailma mõjusid ja muutusi jõuavad lapseni mitte otse, vaid neile oluliste inimeste, pere ja vanemate, vahendusel. Vastavalt käesoleva uurimuse tulemustele on töö diskussiooni osas tehtud ka mõningaid ettepanekuid ja soovitusi edasiste uurimuste jaoks.

Kindlasti vajavad laste hirmud ka edasist uurimist. Eriti huvipakkuv on autori arvates meedia (televisiooniga) seotud hirmude temaatika. Meie ühiskonnas toimunud ja edasi toimuva tehnoloogiavõimaluste tohutu kiire arengu mõju lastele (just eriti psühholoogilises, emotsionaalses aspektis) on hädavajalik uurida.

Eraldi tuuakse siinkohal välja selle töö pedagoogiline väärtus. Töö autor arvab, et selle uurimuse ja doktoritöö tulemused aitavad:

- ... saada ülevaate laste emotsionaalse arengu ühest aspektist ja väikesi lapsi, nende tundeid ja mõtteid paremini mõista
- ...pakkuda materjale ja mõtteid täiskasvanute programmide/koolituste jaoks (nt lapsevanemad, õpetajad), mis aitaksid paremini mõista lapsi ja nende normaalsete hirmude olemust
- ...mõista paremini kuidas ühiskondlikud muutused võivad avaldada mõju laste turvatundele. Üsna sageli unustatakse, et mitte ainult täiskasvanud, vaid ka lapsed on mõjutatud muutuste poolt, mis ühiskonnas toimuvad
- ...katsetada väljatöötatud uurimismetoodikat ja näidata, et see on sobiv väikeste laste uurimustes kasutamiseks

Normatiivsete hirmude kohta käivad andmed erinevatest kultuuridest, rahvustest ja tingimustest pärinevate laste kohta aitavad mõista laste emotsionaalset arengut ja aitavad kaasa nende laste kindlakstegemisele, kelle hirmud on püsivad, kes võivad olla stressis ja võivad vajada psühholoogilist abi ja sekkumist (Burnham & Gullone, 1997; Dong et al., 1994). Autor loodab, et käesolevas doktoritöös esitatud tulemused ja järeldused on sobivad ja kasulikud kasutamiseks näiteks lapsevanemate ja (lasteaia)õpetajate koolitamisel, aga samuti ka uurijatele, kes uurivad laste emotsioone ja neid mõjutavaid tegureid.

Nagu Davidson, White, Smith ja Poppen (1990, 56) on öelnud – kui laste hirmud on täpselt üles loetletud ja hirmude intensiivsus määratud, siis nende tulemuste põhjal tehtud järeldused võiksid olla suunatud laste aitamiseks, et lapsed õpiksid efektiivselt oma hirmudega toime tulema.

Autor loodab, et tal õnnestus lisada mõningaid uusi ja väärtuslikke ettepanekuid/lähenedisviise arutellu lapsepõlve uurimuste uute metoodikate arengust ja lastest kui olulistest informatsiooniallikatest nende elu kohta käivate aspektide osas. Loodetavasti leidub käesolevas töös ka mõndi kasvatuslikust seisukohast väärtuslikke juhiseid ja informatsiooni lastevanemate, (lasteaia)õpetajate ja teiste koolitamiseks. Edasises perspektiivis on plaanis käesoleva doktoritöö põhjal koostada käsiraamat lastega töötavatele täiskasvanutele.

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APPENDIXES

APPENDIX 1

Children's questionnaire (interview form to be filled in by interviewer):

PAGE 1.

Interviewer:.....

Child's number:.....

Date:.....

Time of interview:.....

Duration of interview (in minutes):.....

The place of interview:

1. day care institution (kindergarten)
2. some other place of day care
3. home
4. something other, what?.....

The parents' attitude towards child's interviewing:

1. very positive, favorable
2. quite positive
3. neutral
4. quite negative, doubtful
5. very negative, withdrawn

Did the interviewer meet the child before the interview?:

1. yes
2. no

Factors which have disordered the interview:

.....

How the child behaved during the interview:

Spoke spontaneously	1	2	3	4	5	didn't speak spontaneously
Sat still (calmly?) in her/his place	1	2	3	4	5	moved around continuously
Understood questions rapidly	1	2	3	4	5	didn't understand all at once, additional explanations needed
Calm	1	2	3	4	5	restless (obstreperous?)
Could listen, concentrate	1	2	3	4	5	didn't listen, descended (fell) into her/his own thoughts
Interested	1	2	3	4	5	not interested
Alert	1	2	3	4	5	tired

Refusal of interview:

1. parents refused
2. the child refused

Some other notable circumstances:.....
 PAGE 2-3. (questions 3)

Child's significant persons (significant others) (scale of importance, intimacy from 0 to 3 – where 0 mean the most important, very close)

Child's important persons	0	1	2	3
Mother				
Father				
Stepmother				
Stepfather				
Grandmother				
Grandmother				
Grandfather				
Grandfather				
Sister				
Sister				
Sister				
Sister				
Brother				
Brother				
Brother				
Brother				
Step-brother				
Step-brother				
Step-sister				
Step-sister				
Nanny/day care teacher:				
Mates in day care institution:				
Playmates/other children:				

PAGE 5

Question 7

What are doing if you are afraid of.....? What helps to cope with this fear?

The object of fear	Coping way

PAGE 6

Question 8

Picture aided interview (8 pictures)

Picture	0 – isn't afraid	1 – is afraid a little	2 – is afraid to some extent	3 – is afraid a lot
1. Going to sleep				
2. Teasing by other children				
3. Parents' quarrel				
4. Parents criticism toward the child				
5. Going to the doctor				
6. Getting lost in the forest				
7 Getting lost in the town				
8. Parents are going on a long trip				

Question 9

What things make you feel happy, glad?

.....

APPENDIX 1

Parents' questionnaire:

University of Tartu
Department of General Education
Ylikooli 18, 50090 Tartu
Phone: 375155
Interviewer: Merle Taimalu
Lecturer and PhD student of Department of General Education
Phone: 05046967; e-mail: mtaim@ut.ee

CHILDREN'S FEARS: QUESTIONNAIRE FOR PARENTS OF 5–6-YEAR OLD CHILDREN

The questions in this questionnaire are only about your 5–6-year old child who was interviewed.
Instruction for answering:

- in most cases you have only to circle the most suitable answer of the choices given
- in questions where the answers are not given to choose from or if any of them don't suit you, write your answer on the line given for this purpose (also you can write on the free space of paper)
- please answer all questions and sub-questions

Example:

37. Is there time in your family:

a)	for mother's hobbies	Not at all	only a little	quite much	very much
b)	for father's hobbies	1	2	3	4
c)	for mother and child being together	1	2	3	4
d)	for father and child being together	1	2	3	4
e)	for mother and father being together	1	2	3	4

If you have any questions and/or you need help with completing the answers, please contact with the interviewer.

Thank you in advance,

Merle Taimalu

I BACKGROUND

1. Child's date of birth
2. Child's gender
1 – girl
2 – boy
3. Parents' year of birth:
a) mother
- b) father
4. Your habitat (town, country)
5. How many years have you lived in your present habitat?
.....years
6. How many times has your family moved after the birth of this child?
.....times
7. Are mother and father of the child
1 – married
2 – unmarried cohabitation
3 – divorced or living separately
4 – one parent is dead
8. Have the parents had other marriages or cohabitations?
Mother: 1 – no 2 – yes
Father: 1 – no 2 – yes
9. Do you have in your family any children from previous marriages or cohabitations?
1 – no
2 – yes we have, how many?
- If yes, how old are they?
10. Who is the guardian of the child?
11. Who are the members of the child's family?
1 – father
2 – mother

- 3 – stepfather
- 4 – stepmother
- 5 – siblings, how many? how old?
- 6 – grandparent(s)
- 7 – somebody else, who?

12. Who lives in the same home with the child?

13. Parents' education:
- | | | |
|---|--------|--------|
| | mother | father |
| a) primary education (4.–6. grades) | 1 | 1 |
| b) middle education (8.–9. grades) | 2 | 2 |
| c) secondary education (11.–12. grades or vocational) | 3 | 3 |
| d) high education (university/college) | 4 | 4 |

14. Mother's occupation

15. Father's occupation

16. Do you do vocational work at home also?

- | | | |
|------------|--------|--------|
| | mother | father |
| no | 1 | 2 |
| yes, what? | 1 | 2 |

.....

17. Do you go to work outside home?

- | | | |
|--|--------|--------|
| | mother | father |
| a) no, why?..... | 1 | 1 |
| b) yes, what is your job schedule like? | | |
| – regular daily work | 2 | 2 |
| – regular work in evenings | 3 | 3 |
| – work with irregular time | 4 | 4 |
| – other kind of work organization, what? | 5 | 5 |

.....

18. Is your flat (apartment) is situated in....
- 1 – in the centre of bigger town
 - 2 – in the suburb of bigger town
 - 3 – in small town
 - 4 – in other settlement
 - 5 – in country
19. In what kind of house is your flat?
- 1 – in big stony (panel-) house
 - 2 – in individual dwelling
 - 3 – in terrace
 - 4 – in two-storey house
 - 5 – something else, what?
20. Is your flat.....
- 1 – owned by you
 - 2 – government-owned flat
 - 3 – rental flat
 - 4 – official flat
 - 5 – hostel
 - 6 – public institution
 - 7 – something else, what?
21. The size of your flat..... m²
22. How can you manage with your income?
- 1 – we can hardly manage
 - 2 – income are enough for medial subsistence
 - 3 – income are sufficient for good subsistence
23. How big is your family's attainable (net income) income per month?EEK
24. How big are your family's liabilities (e.g. school loan, car or flat loan etc)? EEK
25. How long (to what age) was the child at home with parent(s)?years.....months
26. If the child has been in day care institution outside home then from what age?years.....months
27. How is the childcare organized at the present time?
- 1 – the child is at home with mother

- 2 – the child is at home with father
 - 3 – the child is at home sometimes with mother and sometimes with father (the working time of parents is arranged respectively)
 - 4 – at home with some other family member or relative
 - 5 – at home with nanny or housekeeper
 - 6 – in kindergarten (day care institution)
 - 7 – in play group (A place where children can play together for shorter time)
 - 8 – private day care institution
 - 9 – informally in somebody's family
 - 10 – at grandmother's or some other relative's home (place)
 - 11 – in the first grade
 - 12 – something else, what?
28. How many times has the child changed her/his day care place?
29. Has the child some kind of illness (disorder?) or disability diagnosed by doctor?
 1 – no
 2 – yes, what?

when diagnosed?

30. (How good is your family's state of health?)

	mother	father	the child	other children
a) very good	1	1	1	1
b) quite good	2	2	2	2
c) moderate	3	3	3	3
d) quite bad	4	4	4	4
e) very bad	5	5	5	5

31. Has your child had the following disorders during the last half year?
- | | not at all (no?) | sometimes | frequently (a lot?) |
|--|------------------|-----------|---------------------|
| a) enuresis at night | 1 | 2 | 3 |
| b) enuresis at day | 1 | 2 | 3 |
| c) eating difficulties | 1 | 2 | 3 |
| d) headache | 1 | 2 | 3 |
| e) stomach ache | 1 | 2 | 3 |
| f) difficulties in falling asleep | 1 | 2 | 3 |
| g) general unwillingness to do something | 1 | 2 | 3 |
| h) nightmares | 1 | 2 | 3 |
| i) tiredness | 1 | 2 | 3 |
| j) other disorders, what? | 1 | 2 | 3 |
32. How long mother breast-fed the child?years.....months
33. In your family does any time remain for...
- | | not at all | only a little | quite a lot | very much |
|-------------------------------------|------------|---------------|-------------|-----------|
| a) mother's hobbies | 1 | 2 | 3 | 4 |
| b) father's hobbies | 1 | 2 | 3 | 4 |
| c) mother and child being together | 1 | 2 | 3 | 4 |
| d) father and child being together | 1 | 2 | 3 | 4 |
| e) mother and father being together | 1 | 2 | 3 | 4 |
34. Have you had any of the following problems in your family after the child was born?
- | | not at all | only a little | quite a lot | very much |
|--|------------|---------------|-------------|-----------|
| a) economic difficulties | 1 | 2 | 3 | 4 |
| b) serious conflicts between family members | 1 | 2 | 3 | 4 |
| c) difficulties/disharmony in spouses relationship | 1 | 2 | 3 | 4 |
| d) someone close to the child has been ill (seriously) | 1 | 2 | 3 | 4 |
| e) someone close to the child has died | 1 | 2 | 3 | 4 |
| f) alcohol problems in child's close environment | 1 | 2 | 3 | 4 |
| g) other problems, what? | 1 | 2 | 3 | 4 |

35. Is there in your family any of the following problems in the <u>present moment</u> ?				
	not at all	only a little	quite a lot	very much
a) economic difficulties	1	2	3	4
b) serious conflicts between family members	1	2	3	4
c) difficulties/disharmony in spouses relationship	1	2	3	4
d) somebody child's close person is ill (seriously)	1	2	3	4
e) somebody child's close person has died	1	2	3	4
f) alcohol problems in child's close environment	1	2	3	4
g) other problems, what?	1	2	3	4

II CHILD'S BEHAVIOR

36. Assess how much the following applies to your child.				
The child:	generally not	sometimes	frequently	almost always
a) tells parents about her/his unpleasant things, disappointments, umbrage	1	2	3	4
b) is ashamed with strange people	1	2	3	4
c) becomes sulky while adults criticise and annoy with her/him	1	2	3	4
d) expresses her/his feelings publicly	1	2	3	4
e) demands parents' attention continuously during free time	1	2	3	4
f) is afraid of going to sleep alone in dark	1	2	3	4
g) comes to sit on mother's/father's laps gladly	1	2	3	4
h) is afraid of new and strange things and situations	1	2	3	4
i) stays with strange person in evening gladly if parents have to go somewhere	1	2	3	4
j) is very jealous of family members' mutual relations	1	2	3	4
k) manages with him-/herself, hopes to his-/herself	1	2	3	4
l) performs for others willingly	1	2	3	4

m) moves away from adults even in strange surroundings	1	2	3	4
n) sleeps in certain times	1	2	3	4
o) talks spontaneously also with unfamiliar people	1	2	3	4
p) becomes enthusiastic about new things and situations	1	2	3	4
q) falls into his/her thoughts for a long time	1	2	3	4

37. What is the child's behavior in games and duties?

The child:	generally not	sometimes	frequently	almost always
a) is not able to concentrate for a long time on her/his games and activities	1	2	3	4
b) initiates activities on his/her own	1	2	3	4
c) is offended and loses self-control when he/she fails in something (e.g. doesn't win in game)	1	2	3	4
d) plays gladly with other children	1	2	3	4
e) is dejected (depressed?) because of failure and interrupts the activity	1	2	3	4
f) is reluctant to do difficult tasks	1	2	3	4
g) watches more television (videos) than plays or is engaged in something	1	2	3	4

38. What is the child's behavior among other children?

The child:	generally not	sometimes	frequently	almost always
a) considers the activities and suggestions of other children	1	2	3	4
b) becomes insecure and withdraws from group activities	1	2	3	4
c) bullies and disturbs other children's games and activities	1	2	3	4
d) he/she has been bullied by other children	1	2	3	4
e) avoids other children's company	1	2	3	4
f) is able to defend him-/herself if necessary	1	2	3	4

39. Following are listed things that are known to cause fears in children. Do those things cause fears in your child? Please write any more things that your child is afraid of?

	not at all	a little	to some extent	a lot
a) being bullied by others	1	2	3	4
b) parents' quarreling (conflicts)	1	2	3	4
c) meeting strange people	1	2	3	4
d) going to the day care institution	1	2	3	4
e) parents' punishments	1	2	3	4
f) ghosts or some other imagined creatures	1	2	3	4
g) staying at home with strange nanny	1	2	3	4
h) eating some unpleasant food	1	2	3	4
i) death	1	2	3	4
j) thunder, thunderstorms	1	2	3	4
k) darkness/ going to sleep in dark	1	2	3	4
l) nightmares	1	2	3	4
m) being alone	1	2	3	4
n) thrillers, horror films	1	2	3	4
o) getting lost in strange place	1	2	3	4
p) burglars	1	2	3	4
q) closed rooms	1	2	3	4
r) snakes, wasps, bees	1	2	3	4
s) being in a car accidents	1	2	3	4
t) strange dogs	1	2	3	4
u) seeing blood	1	2	3	4
v) fire	1	2	3	4
w) high places, height	1	2	3	4
x) going to a hospital	1	2	3	4
y) going to a doctor/dentist	1	2	3	4
ii) doing some new thing	1	2	3	4
kk) something else, what?	1	2	3	4
.....				
.....				

5 43a. Is the child afraid of some more animals in addition to the ones listed above? Please write here.

.....

III CHILD'S RELATIONS WITH OTHER PEOPLE

40. How close are the following people to your child? (if somebody is missing then choose the variant 5)

	very distant	quite distant	quite close	very close	missing
a) mother	1	2	3	4	5
b) father	1	2	3	4	5
c) someone among siblings	1	2	3	4	5
d) grandparent(s)	1	2	3	4	5
e) nanny	1	2	3	4	5
f) friend (playmate)	1	2	3	4	5
g) somebody else, who?	1	2	3	4	5

41. If the child has siblings what is the relationship with them like? (if there are no siblings please go to question 46)

	usually not	sometimes	frequently	almost always
a) the child is envious of siblings	1	2	3	4
b) the child is jealous of younger sibling	1	2	3	4
c) the child nags with siblings	1	2	3	4
d) the child gets along with siblings well	1	2	3	4

42. What following things connected with human relations cause worry to your child?

	not at all	to some extent	a lot
a) conflicts with playmates	1	2	3
b) other children bully her/him	1	2	3
c) other children are bullied	1	2	3
d) breaking of significant human relationship	1	2	3
e) excessive use of alcohol by close person	1	2	3
f) serious illness of close person	1	2	3
g) the death of close person	1	2	3
h) quarreling (conflicts?) of own parents	1	2	3
i) divorce of own parents	1	2	3
j) violence of close person	1	2	3
k) conflicts with parents	1	2	3
l) nagging with siblings	1	2	3
m) something other, what?	1	2	3

43. Has your child experienced any of the following things?

	has not experienced	has experienced, more than year ago	has experienced, during last year
a) serious conflicts with playmates	1	2	3
b) other children bully her/him	1	2	3
c) other children are bullied	1	2	3
d) breaking of significant human relationship	1	2	3
e) excessive use of alcohol by close person	1	2	3
f) serious illness of close person	1	2	3
g) the death of close person	1	2	3
h) conflicts of parents	1	2	3
i) divorce of parents	1	2	3
j) violence of close person	1	2	3
k) conflicts with parents	1	2	3
l) nagging with siblings	1	2	3
m) something other, what?	1	2	3

44. How much your child counts on the following people when he/she has difficulties or worries? (if anyone is missing then choose the variant 5)
- | | not at all | to some extent | quite a lot (much?) | very much | missing |
|----------------------------|------------|----------------|---------------------|-----------|---------|
| a) mother | 1 | 2 | 3 | 4 | 5 |
| b) father | 1 | 2 | 3 | 4 | 5 |
| c) nanny | 1 | 2 | 3 | 4 | 5 |
| d) sister | 1 | 2 | 3 | 4 | 5 |
| e) brother | 1 | 2 | 3 | 4 | 5 |
| f) playmate | 1 | 2 | 3 | 4 | 5 |
| g) grandparent | 1 | 2 | 3 | 4 | 5 |
| h) God | 1 | 2 | 3 | 4 | 5 |
| i) somebody else, who?.... | 1 | 2 | 3 | 4 | 5 |
45. Does the child talk with you about her/his important things?
- | | 1 | 2 | 3 | 4 | 5 |
|-----------------------|---|---|---|---|---|
| a) <u>with mother</u> | | | | | |
| b) <u>with father</u> | | | | | |
| 1 – usually not | | | | | |
| 2 – rarely | | | | | |
| 3 – sometimes | | | | | |
| 4 – frequently | | | | | |

IV FAMILY, SOCIETY AND ENVIRONMENT

46. How satisfied are you with your life presently?
- | | very satisfied | almost satisfied | quite unsatisfied | very unsatisfied |
|---|----------------|------------------|-------------------|------------------|
| a) place of living | 1 | 2 | 3 | 4 |
| b) arrangements of the child's day care | 1 | 2 | 3 | 4 |
| c) relations with neighbors | 1 | 2 | 3 | 4 |
| d) the life style and use of time of own family | 1 | 2 | 3 | 4 |
| e) marriage/cohabitation | 1 | 2 | 3 | 4 |
| f) children's behavior | 1 | 2 | 3 | 4 |
| g) own economic condition | 1 | 2 | 3 | 4 |

47. How much do you feel insecurity (uncertainty) because of the following things while thinking about the future?
- | | usually not | sometimes | frequently | almost always |
|--|-------------|-----------|------------|---------------|
| a) own state of health | 1 | 2 | 3 | 4 |
| b) children's state of health | 1 | 2 | 3 | 4 |
| c) own marriage/cohabitation | 1 | 2 | 3 | 4 |
| d) keeping my job/getting of workplace | 1 | 2 | 3 | 4 |
| e) economic conditions | 1 | 2 | 3 | 4 |
| f) living place | 1 | 2 | 3 | 4 |
| g) social problems | 1 | 2 | 3 | 4 |
| h) world politics | 1 | 2 | 3 | 4 |
| i) ecological problems | 1 | 2 | 3 | 4 |
| j) something else, what? | 1 | 2 | 3 | 4 |
48. When you visualize your future, how secure does it seem to you.....
- 1 – very insecure and scary
 - 2 – quite insecure and scary
 - 3 – not insecure, but not secure also
 - 4 – quite secure
 - 5 – very secure
49. How often do you use following educational/punishment methods with this child?
- | | never | rarely | sometimes | frequently |
|--|-------|--------|-----------|------------|
| a) scolding | 1 | 2 | 3 | 4 |
| b) prohibition of pleasing thing | 1 | 2 | 3 | 4 |
| c) insulation, confinement | 1 | 2 | 3 | 4 |
| d) pulling the hair, slapping, spanking | 1 | 2 | 3 | 4 |
| e) rod, beating | 1 | 2 | 3 | 4 |
| f) threatening | 1 | 2 | 3 | 4 |
| g) intimidation (frightening) for the purpose of gaining child's safety | 1 | 2 | 3 | 4 |
| h) intimidation (frightening) for the purpose of gaining child's obedience | 1 | 2 | 3 | 4 |
| i) something else, what?..... | 1 | 2 | 3 | 4 |

8. 50. Are these means effective by your experience?

- 1 – not remarkably effective
- 2 – quite effective
- 3 – very effective

51. If you use intimidation (frightening) or threatening in the education of your child, :

- 1 – threatening with some animal (which?)
- 2 – threatening with imagined creature (e.g. bogey, witch, ghost etc)
- 3 – threatening with abandonment
- 4 – intimidation with leaving alone
- 5 – threatening with closing into dark room
- 6 – threatening with police/policeman
- 7 – threatening with deprivation of something what the child wants (likes)
- 8 – threatening with punishment
- 9 – threatening with kidnapper
- 10 – threatening with doctor/ hospital
- 11 – threatening with death
- 12 – with something else, what?

52. How frequently do you offer or give your child approval or reward by using one of the following ways?

	never	rarely	sometimes	frequently
a) praising (praise?)	1	2	3	4
b) approving physical tenderness (e.g. hugging etc)	1	2	3	4
c) buying a new thing (e.g. toy)	1	2	3	4
d) taking the child to some pleasant place	1	2	3	4
e) making additional time for the child	1	2	3	4
f) buying some sweets etc	1	2	3	4
g) permission to stay up for a longer time in evening	1	2	3	4
h) rewarding with money	1	2	3	4
i) something else, what?	1	2	3	4

53. Are these means effective by your experience?

1 – not remarkably effective

2 – quite effective

3 – very effective

54. Do you have something that you want to add? Please write this here.

.....

Thank you very much!

APPENDIX 2

Pictures of picture-aided interview and short stories

STORIES FOR PICTURES:

Picture 1

Katrin/Priit is going to sleep. Mother has said “Good night!” to her/him and switched off the lights. Katrin/Priit is alone in her/his room.

- a) How does Katrin/Priit feel? (what kind of feeling does Katrin/Priit have?)
- b) What does Katrin/Priit do?
- c) Is she/he afraid of ? How much? (see the figure of fear intensity measure in appendix 3)

Picture 2

Katrin/Priit is playing in the yard. Now should be her/his turn to swing, but Maia/Mati intervenes and pushes Katrin/Priit away).

- a) How does Katrin/Priit feel?
- b) What does Katrin/Priit do?
- c) Is she/he afraid of ? How much? (see the figure of fear intensity measure in appendix 3)

Picture 3

Katrin's/Priit's mother and father are quarreling and are angry at each other.

- a) How does Katrin/Priit feel?
- b) What does Katrin/Priit do?
- c) Is she/he afraid of ? How much? (see the figure of fear intensity measure in appendix 3)

Picture 4

Katrin's/Priit's mother and father are very angry at Katrin/Priit and scold her/him.

- a) How does Katrin/Priit feel?
- b) What does Katrin/Priit do?
- c) Is she/he afraid of ? How much? (see the figure of fear intensity measure in appendix 3)

Picture 5

Katrin/Priit is at the doctor.

- a) How does Katrin/Priit feel?
- b) What does Katrin/Priit do?
- c) Is she/he afraid of ? How much? (see the figure of fear intensity measure in appendix 3)

Picture 6

Katrin/Priit has lost her/his way while picking berries in the forest. She/he can't find the way home.

- a) How does Katrin/Priit feel?
- b) What does Katrin/Priit do?
- c) Is she/he afraid of ? How much? (see the figure of fear intensity measure in appendix 3)

Picture 7

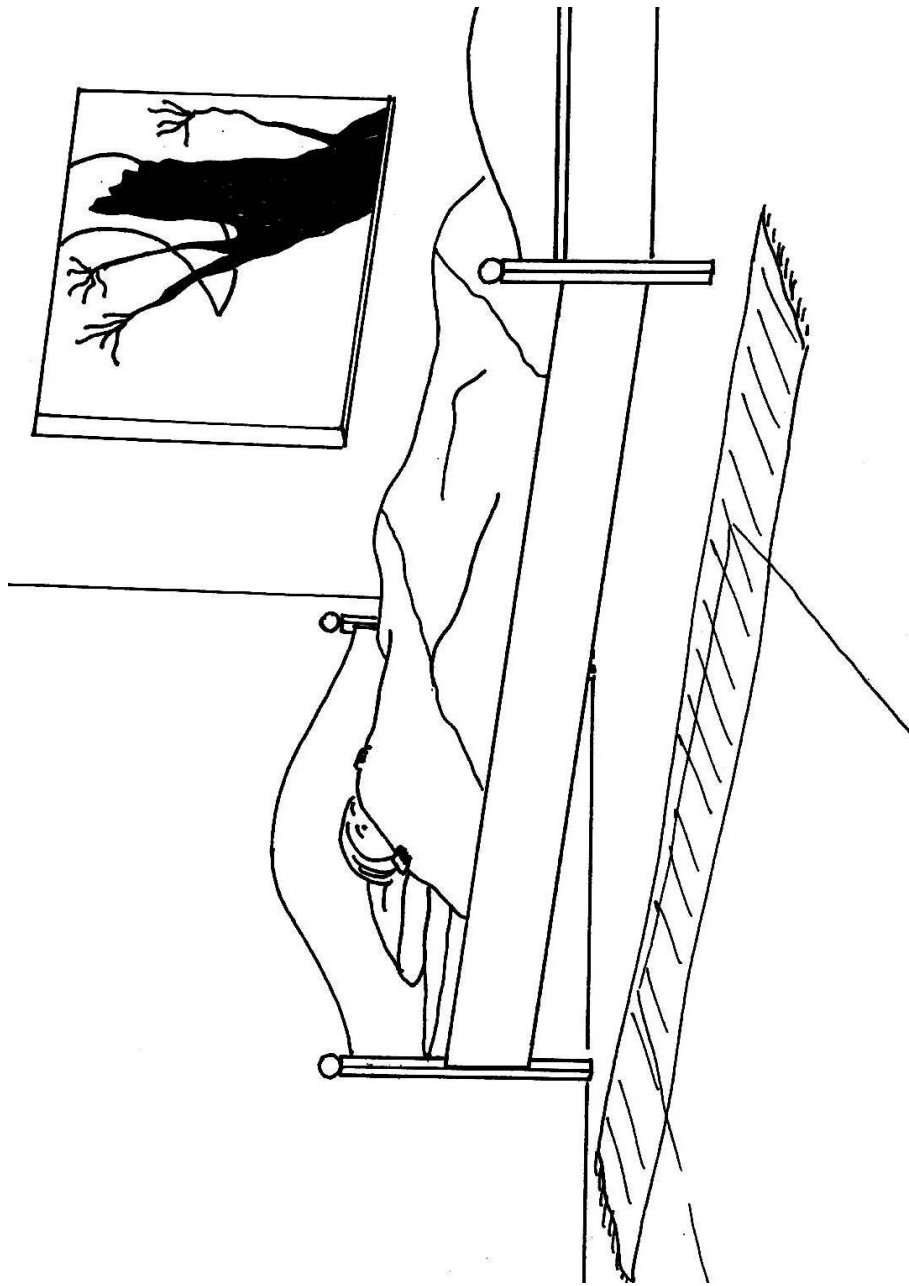
Katrin/Priit has lost her/his parents in the town. There are only strange people around and Katrin/Priit can't go home.

- a) How does Katrin/Priit feel?
- b) What does Katrin/Priit do?
- c) Is she/he afraid of ? How much? (see the figure of fear intensity measure in appendix 3)

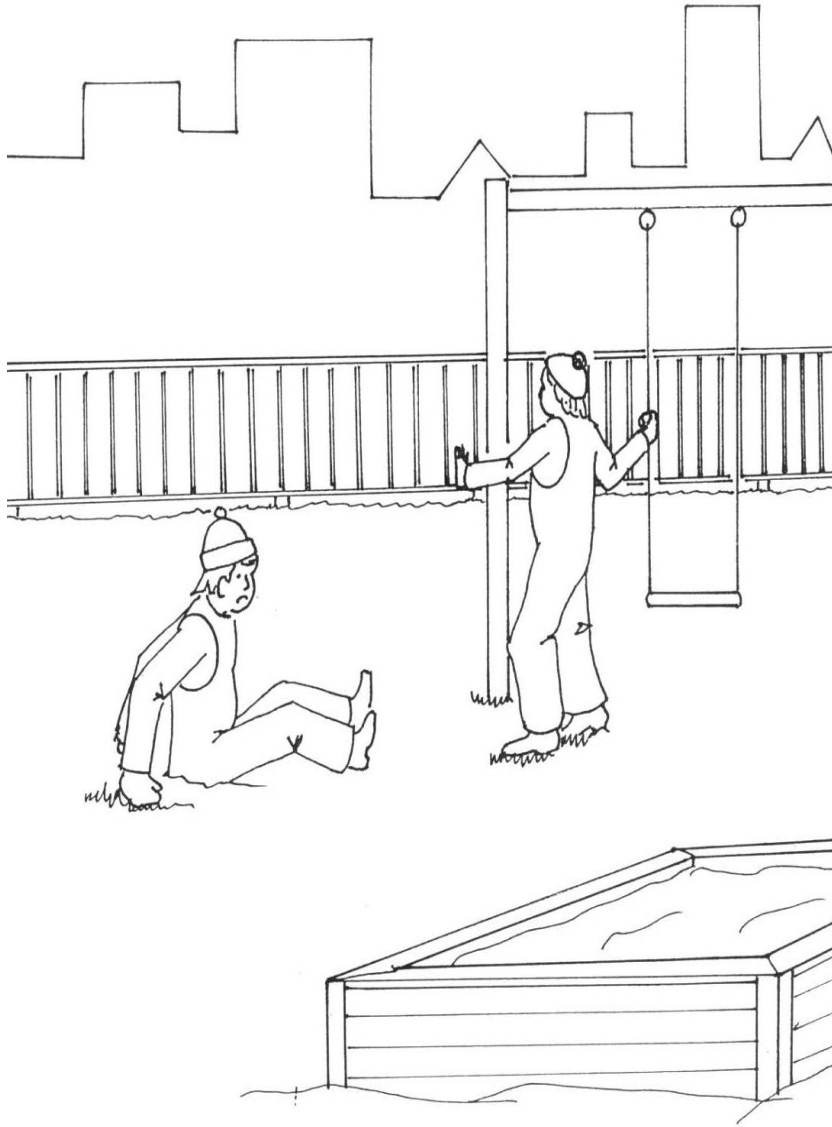
Picture 8

Katrin's/Priit's mother and father are going for a long trip.

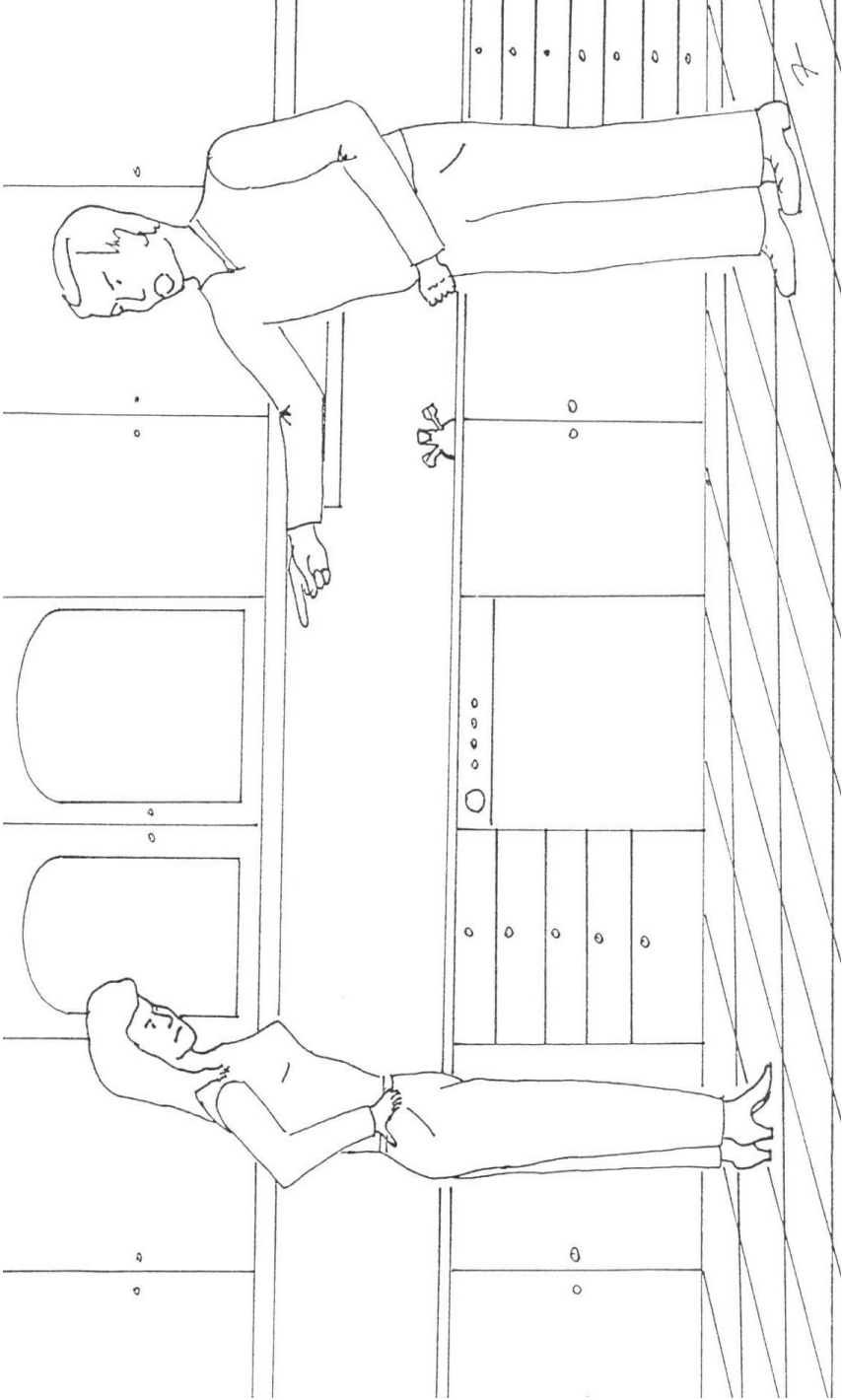
- a) How does Katrin/Priit feel?
- b) What does Katrin/Priit do?
- c) Is she/he afraid of ? How much? (see the figure of fear intensity measure in appendix 3)



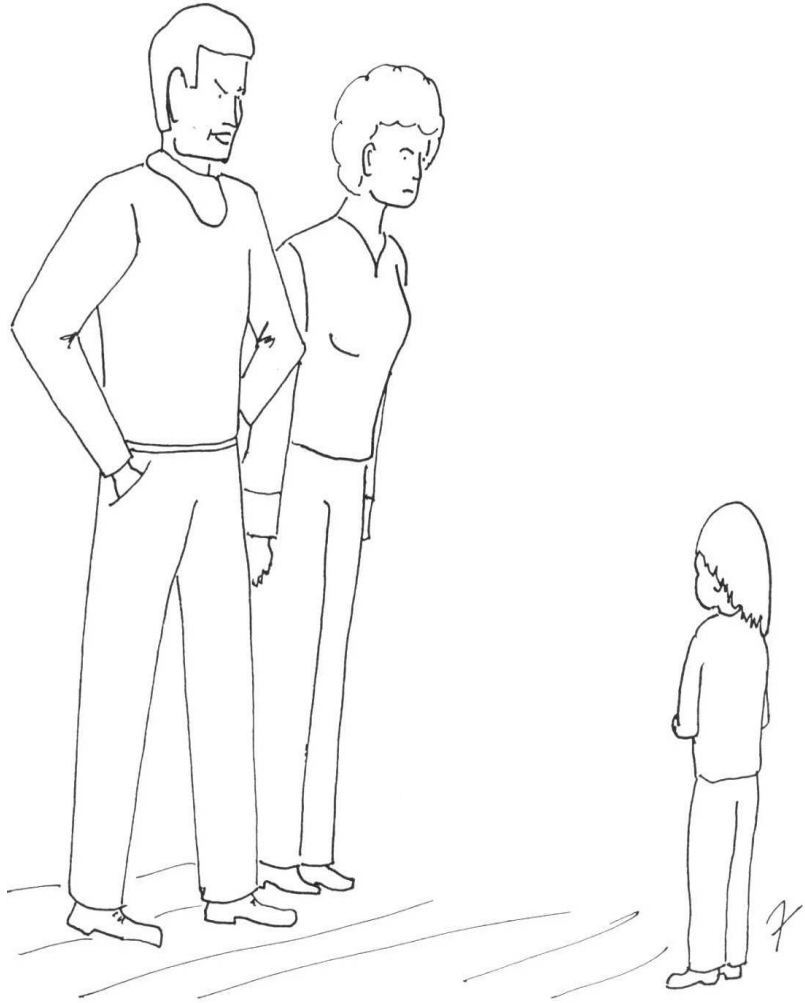
PICTURE 1



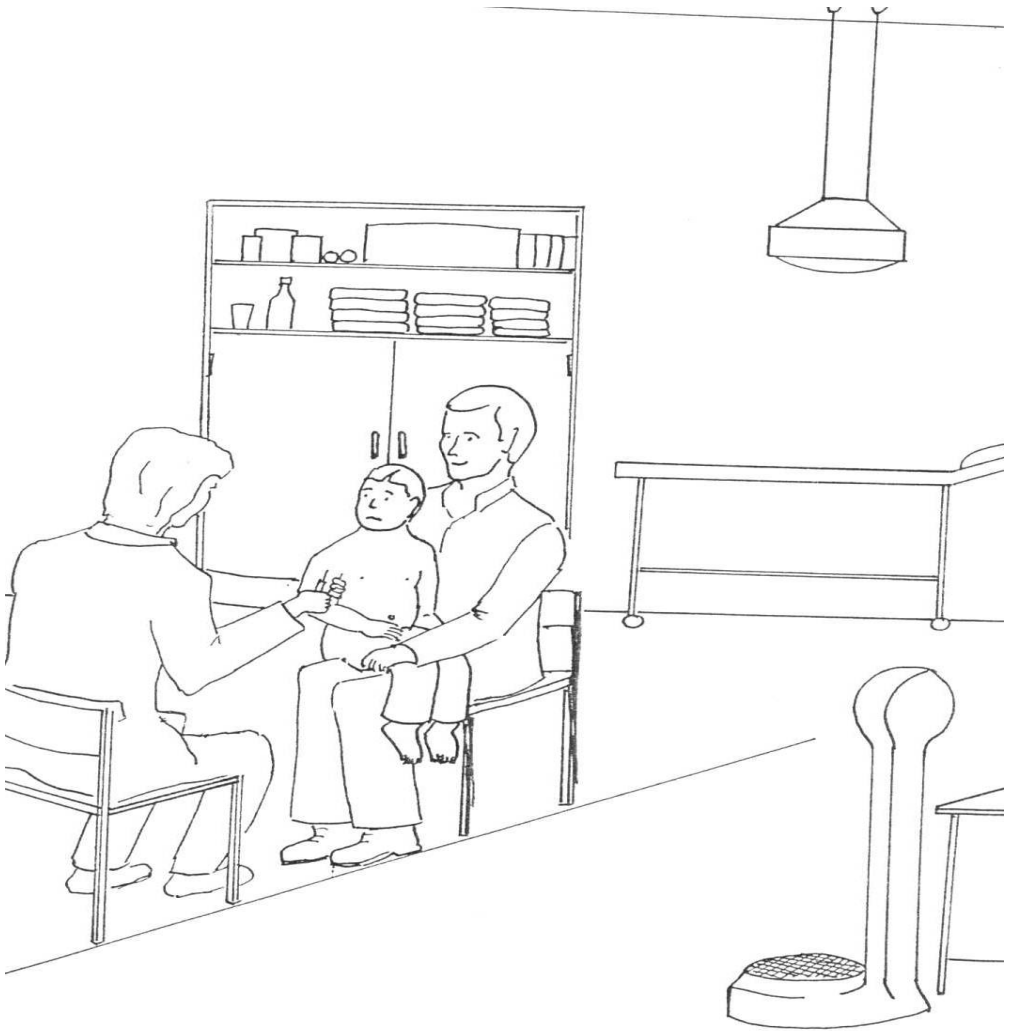
PICTURE 2



PICTURE 3



PICTURE 4



7

PICTURE 5

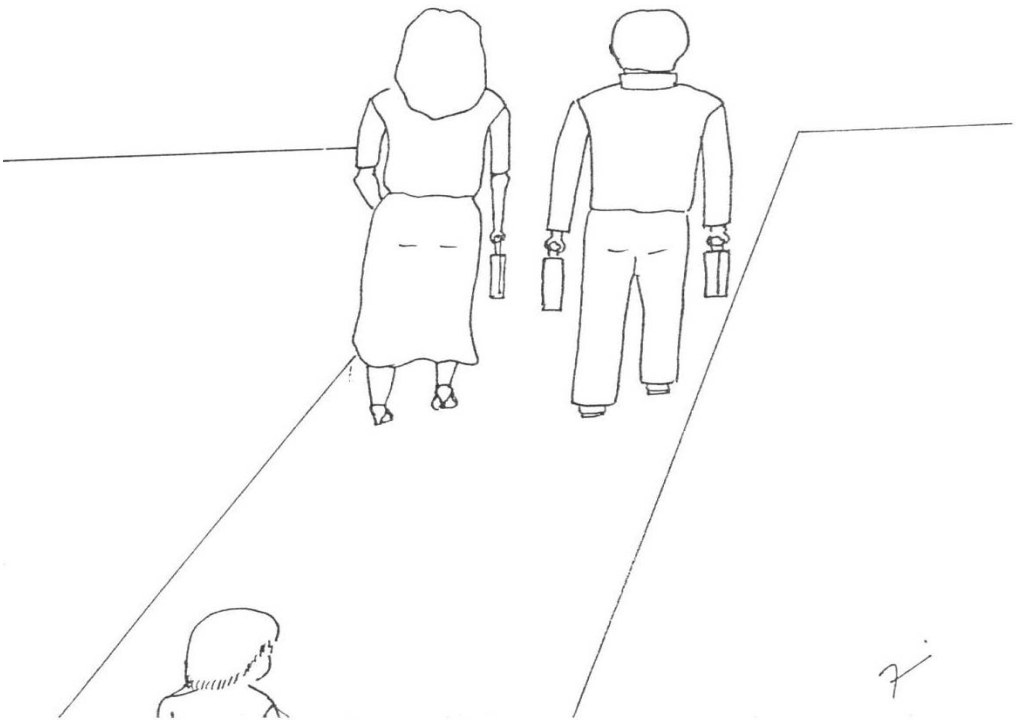
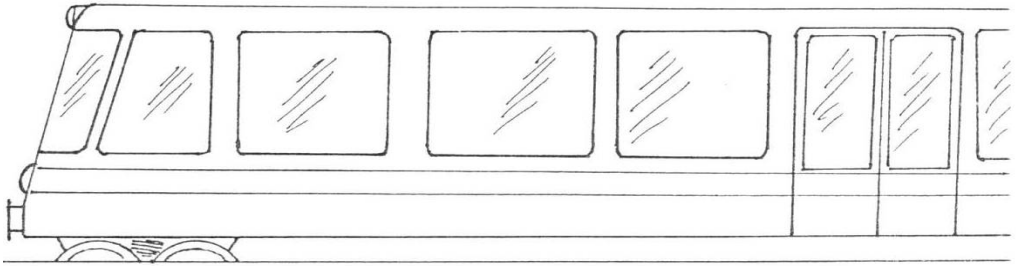


PICTURE 6

7



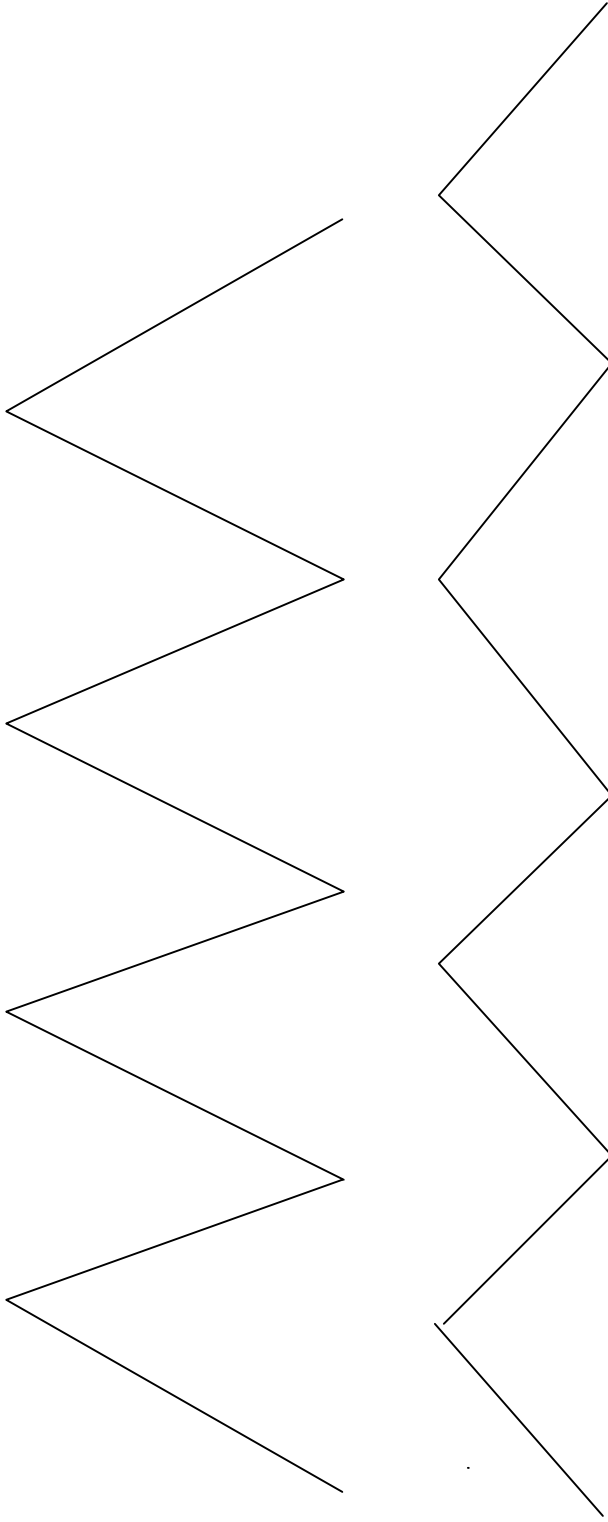
PICTURE 7



PICTURE 8

APPENDIX 3

Fear intensity measure. Children's Global Rating Scale (Carpenter, 1990)



APPENDIX 4

The guide for categorization of fears of children's semi-structured interview

Category No	The name and description of fear category
1	<p>Fears connected with significant adults:</p> <ul style="list-style-type: none"> – fear is related to the behavior or characteristics of significant adults or the danger of punishment. This person is significant, important, who is child's security-object, long-range relationship, etc. For example, parents, grandparents, uncles, aunts, other family members or close relatives or nannies. – For example, parents are quarreling, nanny smells of alcohol, teacher dissatisfied with me, if I can't do right, dad tweaks me, etc
2	<p>Fears connected with peers:</p> <ul style="list-style-type: none"> – fear is related to other children, their behavior. Other children bully, tease, frighten me. – For example, sister hits me, brother bullies, friend in day care teases, friend talks bogey stories, other children don't play with me in day care etc <p>Question may rise – is the big sibling adult or child? It depends on her/his age, over 16 year old we classify as adult</p>
3	<p>Fear of traffic, traffic accidents and vehicles:</p> <ul style="list-style-type: none"> – fears related to all kinds of vehicles, cars, machines; car accidents and other situations in traffic; cars, ships, planes, bicycles, motorbikes, etc.
4	<p>Fear of thunderstorms and other nature forces:</p> <ul style="list-style-type: none"> – fear is related to some kind of nature forces (thunderstorm, lightning, thunder, and other frightening situations in nature) – for example, the window will break with thunderstorm, cyclone will come and tree falls on our house, etc.
5	<p>Fears of minor injuries and small accidents:</p> <ul style="list-style-type: none"> – fears related to dangers and accidents with the child in her/his own immediate environment, while the threat of death or the awareness of death risk does not concur. – For example, falling, high places, getting burns, toxic flowers, nettles, light a candle, traumas, blood, cut on the hand, wall can fall down, etc. <p>The most important is to decide if the fear belongs to this category or to 15 (big accidents and death), depending on the fact if the death risk or awareness of this risk is present (then 15), or is this only the fear of pain, etc. (then 5 category)</p>
6	<p>Fear of familiar animals:</p> <ul style="list-style-type: none"> – fears related to familiar animals of child's close environment. The child can have experience with these animals (e.g. wasp, horsefly, dogs, cats, bull, cow, goose, rat, mice, horse, ladybird, tick, angry/aggressive animals, etc.)

7	<p>Fear of loss or rejection of a significant person and the other fears of separation:</p> <ul style="list-style-type: none"> - related to the risk of loss of significant others (security objects), they are not available for child. The fear of abandonment. The death of close person, or accidents - for example, parents are not here, when I wake up; mother doesn't come to day care to take me home, something can happen with dad when he comes from work in evening, etc.
8	<p>Fears connected with strange adults:</p> <ul style="list-style-type: none"> - fears related to strange people generally. People who seem "strange" to child, e.g. madman, gypsy. Also people who can be dangerous to meet, e.g. burglars, thieves, bad uncles, neighbor who kills dogs with a gun, drunks). Also, for example, policeman
9	<p>Fears connected with new things and situations:</p> <ul style="list-style-type: none"> - fear of new, unfamiliar things and situations. Any other aspect which seems not to be frightening in itself but only that the thing is new for the child - for example, eating something new, going to the day care first time
10	<p>Fear of imaginary creatures or other fantasy-related things:</p> <ul style="list-style-type: none"> - fears related to child's fantasy and imagination, e.g. bogeys, ghosts, spooks, UFO; also prehistoric animals or imaginary unreal creatures (e.g. dinosaurs, dragons, vampires, werewolf) - also, for example, seems that somebody is under the bed, I feel that someone comes in through the window, branches of tree rumble on the roof in night, toy-teeth glint in the dark, etc.
11	<p>Fear of nightmares:</p> <ul style="list-style-type: none"> - fear is caused by nightmare, bad dream
12	<p>Fear of darkness:</p> <ul style="list-style-type: none"> - fear is connected with the dark and dark places
13	<p>Fears connected with television programs:</p> <ul style="list-style-type: none"> - fear is related to some concrete television program or frightening thing seen on TV (e.g. shooting with guns in TV, if people are killed in the film, etc.) - also fears which are indirectly connected with television, for example, the child reports being afraid of car accident. If to ask "why?", he/she answers that there was terrible car accident presented in television news. In that case this fear classifies as television-related and also as traffic-related fear
14	<p>Fear of going to sleep/ nighttime fears:</p> <ul style="list-style-type: none"> - fear which are connected with going to sleep, being alone in her/his bed. Other fears related with night-time (e.g. the child tells that some thing begins to frighten him/her, especially at night, but can't say what exactly; or begins to be afraid of terrible things having

	seen from TV in evening; or I am afraid at night, because there are mice at night)
15	<p>Fear of big accidents and death:</p> <ul style="list-style-type: none"> – dangers and accidents related to child him/herself or her/his immediate environment which are connected with death or danger of death. Awareness of the risk of death. Death generally or own death (e.g. flooding, fire, house will be broken and I will die, fall down from bridge and drown)
16	<p>Fear of war, guns, violence, etc:</p> <ul style="list-style-type: none"> – war, soldiers' attack, guns, weapons, violence, etc.
17	<p>Fear of unfamiliar/exotic animals:</p> <ul style="list-style-type: none"> – fears connected with animals who don't relate to child's close environment, child doesn't have real experience with this animal, e.g. wild animals, exotic animals (found living in distant forests or other far environments) and imaginary animals (e.g. wolf, bear, tiger, lion, crocodile, poisonous spiders, poisonous snakes, big snakes, giraffe, boar, whale, shark, electric eel, ice bear, big birds who catch people, etc). – but when, for example, a child living in countryside reports that he was afraid of moose who he can meet walking in the forest, or the child says that he is afraid of a lion because he has met it in the zoo and imagines that the lion can get out from the cage – those are real animal fears (6 category)
18	<p>Fear of being alone and getting lost:</p> <ul style="list-style-type: none"> – fear is related to being alone or getting lost, e.g. being alone at home, getting lost in the town or in the store, brushing teeth alone, having to go to toilet alone at night (here is added also the night-time fears), going home alone from the friend's place, etc.
19	<p>Medical fears:</p> <ul style="list-style-type: none"> – fears connected with doctor, dentist, going to a doctor, a hospital, injection, being afraid of germs, AIDS etc
20	<p>Other fears:</p> <ul style="list-style-type: none"> – all other fears which could not be classified under any 19 categories above

- **Note. If the fear seems to present some different aspects, then it is classified under several categories – e.g. I am afraid of being alone in the dark – is classified under two categories, 18 and 12**

APPENDIX 5

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The guide for categorization of coping ways with fears

1. **Active constructive activity** for the purpose of changing the situation or the behavior of other people, tries to influence the situation herself/himself. Primary control.
 - inducing other people by verbal suggestions, commands, tries to get other people to behave in such way he/she wants, so that the danger or fear would decrease or disappear (e.g. if mother scolds says to her that he hasn't done this; says something very good so that parents would not get angry; asks parents to stop the quarrel)
 - Non-verbal attempts to solve the situation or decrease the fear (e.g. when is lost in a town, seeks the home; changes the channel when is afraid of terrible TV program; lights the lamp when fears being alone in a dark; calls to 112 when is afraid of burglars, etc.)
2. **Seeking support and help from significant others.** Tries to influence the situation with the help of significant people. Asks for help (e.g. asks the mother to turn off TV; asks the father to go with her when she is afraid of big boys in playground; when is afraid of a snake asks the dad to kill it, etc). Also manipulating with others.
3. **Seeking support and help from unfamiliar person.** For example, asks for help from a strange uncle (or policeman) when has gotten lost in a town; cries for help, etc. (maybe in this case use unfamiliar people, as sometimes strange people can mean the people themselves act strange, e.g. a psychotic or alcoholic walking the streets talking to himself) (Does you use of the word uncle really mean an uncle of the child or does it mean something else? Why uncle? How about saying asks for help from a stranger or other adult (e.g. relative) that is not known or close to the child.
4. Attempts to influence the situation or the behavior of other people with **aggressive behavior**; also the self-destructive behavior. The child tries to influence by aggressive behavior (e.g. striking) or verbally (e.g. disputing) the fear object or situation. For example, hits back when other child has hit him; kills the spider with toy-block; lights the bee on fire, etc. Self-destructive behavior also.
5. Seeking support from significant others and **attachment behavior**. For example, talks to mother about his/her fear; holds father's hand while watching a war-film; goes to the parents' bed when wakes up at night after bad dream; runs to the teacher when boys bully in day care place, etc. The child doesn't ask for help in actually solving the situation, but seeks only security, social support or consolation. Here is important only the moral support and attachment behavior, but in 2 category it is important also real help from other person. For example, the child runs to her mother and sits on her lap when big brother is teasing (5), or the child runs to her mother and complains to her that the big brother is teasing, then the mother comes to scold him (2). Both can exist together at the same time also.

6. **Seeking support from the peers.** Child seeks security, support or help from other children (playmates, siblings, etc). For example, goes to sister's room when is afraid of being alone; plays with friend, etc.
7. Using the **security object**, but not other people (e.g. cuddles his teddy-bear when is afraid going to sleep in a dark room).
8. **Escaping behavior**, avoiding the fear object or feeling, escape from fear object, extinction of the fear object or feeling from the mind on **behavioral level**. Tries to direct thoughts to another direction, repulse the fear from the mind by behavior. For example, covers her eyes when there is a terrible scene on TV; closes his eyes; goes under the blanket; runs away from the animal.
 - child escapes from concrete situation (e.g. goes away from the fear object; hides himself; goes away; goes to another room; goes to toilet room and locks the door when is afraid of getting tweak, etc.
 - child avoids the fear object on a behavioral level (e.g. goes around the drunk person; uses the stairs instead of the elevator; doesn't disturb the snake; doesn't go to a dark place)
9. **Exchange the activity**, escaping to other activity. Also the escaping behavior. Child starts to do something else to forget the fear. For example, going to play or read the book, starts to draw, or listens the music when is afraid of being alone watching TV; lights all lamps and goes to the kitchen and takes some food when wakes up at night and is afraid of dark
10. **Expression of the feeling**, e.g. crying, sneering (grinning). If follows that the child tries to influence other people's behavior by crying (e.g. cries because then parents stop scolding her) it is not expression of feeling but attempt to control the situation (1. category)
11. **Extinguish the fear feeling or –object from the mind on cognitive level**. Child tries to direct his thoughts to some other (e.g. good) thing; thinks of something else; tries to forget; tries to think about some pleasant thing; avoids thinking about wicked dogs; tries to forget the bad dream
12. **Treatment of the fear feeling or –object on cognitive level**. Child tries to convert the thing/situation to seem positive. Thinks about the situation so that it doesn't seem so frightening. For example, thinks there is nothing to be afraid of because it's only a dream/or TV; thinks that bogey doesn't exist in reality; thinks that going to a doctor helps him to get/stay healthy; knows that there are not poisonous spiders in Estonia; watches the TV program to the end because knows that "good" will win in the end
13. **Praying**. Hopes that God helps; if she prays in the evening then will not have nightmare
14. **Testing reality**. To get the fear to decrease, the child has to control what is truth and what is the result of imagination. For example, goes to check what is going on when is afraid of the dog growling; when fears to wash teeth alone in bathroom looks around and under the bath to be

sure there is nobody; looks under the bed to check there is not bogey; when has had a bad dream that his bicycle was stolen goes to check if it is in the garage, etc.

15. **Seeking solution for the frightening situation by fantasy.** For example, would build a brick-wall so that the burglar couldn't get in; would use the sword to fight against a lion; would jump into TV and hit or knock the bad man down; when has gotten lost in the forest would ask an owl/bunny to direct the way home; would keep one eye open at night, etc.
16. **Doesn't do anything:** e.g. child will stay calm when a doctor gives an injection until the pain subsides or goes away. Sustains the fear (meaning that child does nothing and fear continues)
16-a **doesn't know what to do**
17. **other coping ways with fears,** which were not suitable to classify under any other category above

APPENDIX 6

All kinds of children's self-reported fears according to semi-structured interview with frequencies

Fear Category No	The name of category and self-reported fears by children	Frequency in 2002	Frequency in 1993
1	Fears connected with significant adults (their behavior):		
	Parents' punishments (physical)	1	4
	Teacher peeves in day care	3	1
	Mom frightens to get the child eat her/his food	1	
	Mom frightens with bogey	1	
	Mom frightens with gypsy	1	
	Mom frightens...	1	
	Mom-dad dissatisfied with child	1	
	Dad puts the lamp very near to my face if I cry	1	
	Amount:	10	5
2	Fears connected with peers (behavior):		
	Bullying	5	3
	Some child hurts me in the day care	11	1
	Boys hound girls in the day care	1	1
	Big noise in the day care		1
	Boys try to kiss girls in the day care		1
	Boys make foolish things in the day care	1	1
	Sister startles me		1
	Other children startle me in the day care	3	1
	Going to the day care while I have had quarrel with somebody	1	
	Strange boys beat me up me in the yard	2	
	Brother frightens me (e.g. with bogey)	2	
	Big strange boys come to the day care	1	
	Other children hide themselves in the day care and I look around and think that there is nobody else but me	1	
	Staying alone in the yard while brother runs away	1	
	Brothers bully	1	
	Other children take my things in the day care	1	
One boy takes a knife with him to the day care	1		
	Amount:	31	10

	Boar	2	7
	Lynx		3
	Owl		1
	Eagle		1
	Moose	3	
	Deer	1	
	Hedgehog	1	
	Several animals (male, female, "Youngs")		1
	<u>Domestic or commonly seen animals:</u>		
	Dog	24	24
	Mouse	5	8
	Rat	2	
	Cat	6	4
	Bull	1	4
	Cock		3
	Cow	1	3
	Pig		2
	Goat		1
	Horse	3	1
	Big rats (in Estonian "võhrud")		1
	Guinea-pig		1
	Turkey, goose		1
	Hawk ("hen-hawk")	1	
	Hamster	1	
	Own parrot at home "bites"	1	
	<u>Insects etc:</u>		
	Spider	8	6
	Bee, wasp	13	2
	Louse, nits (on head)		1
	Earthworm		1
	Moth		1
	Tick	2	1
	Ladybird	3	
	Gnat	2	
	Red ants	3	
	Small water-animal, who lives in the pond	1	
	Insects	2	
	Amount:	152	175
7	Fears of separation, being without/losing a loved one etc:		
	Mother and father leave for a long time	1	
	I am afraid for my mom (that something bad could happen to her)	1	
	Mom comes home late at night and leaves early in the morning	1	
	That mom goes home from day care without me	1	
	The bus broke down, so I was afraid of that I	1	

	can't get back to home to my mom Mom went to the balcony	1	
	Amount:	6	
8	Fears of strange adults and strange bad or strange adults (e.g. drunks, burglars etc): burglars, robbers, etc. or other bad people Drunk Kidnappers; fear that somebody will catch and take me away Strange people come in (home) Punk Policeman Gypsy Strange person (child believes that this is a bad person – in Estonian “päät”) Guests	13 1 1 1 1 1 1 1	15 3 1 1 1 1 1
	Amount:	20	22
9	Fears of new situations and things: Cadaver on the ground Negroes At the one's boys home others covered my eyes and turned off the lights Bomb warning in the hospital To go to the day care for the first time Drumming at the Metsamoor's place I begin to vomit at the day care Getting ill at the day care	 1 2 1	1 1 1 1 1
	Amount:	4	5
10	Fears of imagined creatures and other fears related to child's imagination: Imagined creatures – bogey, ghost, spook, etc. Witches Vampires Dragon, dinosaur UFO People's faces in the dark Some voice The book snaps my finger Lion comes next to my bed Branch behind the window Horn-man (in Estonian “Nukitsamehed”) Skeleton Water-ghost Lord of heaven Big beasts with big tusks Big fish (the picture in the book) Books are alive and want to catch me	36 7 4 11 3 1 1	36 8 3 1 1 1 1 1 1 1 1 1 1

	Fighting, shooting	6	1
	Amount:	8	8
17	Fears of exotic animals:		
	Lion	13	33
	Tiger	20	21
	Crocodile	10	6
	Rhinoceros	3	4
	Poison spider		3
	Ice-bear	3	3
	Leopard	4	3
	Shark	6	3
	Buffalo		2
	Gorilla		2
	Cobra		2
	Elephant	2	2
	Crab		1
	Cheetah	5	1
	Panther		1
	Whale		1
	Hippopotamus	1	1
	Dingo		1
	Sea-lion		1
	Scorpion	1	1
	Monkey	1	
	Giraffe	1	
	Puma	1	
	Piranha	1	
	Poison lizard	2	
	Amount:	74	92
18	Fears of being alone and getting lost:		
	Being alone at home	4	8
	Being alone in dark (e.g. going to the yard, etc.)	2	4
	Being alone	3	3
	To go alone to toilet	1	1
	To go alone in dark to pee to WC		1
	Playing alone in the yard		1
	Getting lost in the forest		2
	Being alone in the forest	1	
	Amount:	11	20
19	Fear of going to doctor/dentist:		
	Doctor		4
	Infections		2
	Germs		1
	AIDS	1	1
	Eyes may get damaged if I watch TV too much		1
	Amount:	1	9

20	Other fear objects:		
	Terrible things		1
	Big roar (e.g. electric drill)		1
	Welding		1
	Amount:		2
	Total amount of reported fear objects:	573 (645)	510 (550)

APPENDIX 7 – TABLES

Table 1. Percentages of picture-aided interview in 2002 and 1993

Fear items	2002					1993				
	No fear	Little fear	Average fear	Great fear	No fear	Little fear	Average fear	Great fear	χ^2	p
Getting lost in a forest	3.3	11	25.3	60.4	0.9	12.4	35.4	51.3	4.13	.25
Going to sleep alone in dark	8.8	16.5	27.5	47.2	2.6	21.4	29.9	46.1	4.45	.22
Getting lost in town in a crowd	13.2	20.8	29.7	36.3	2.6	17.3	46.2	33.9	11.74	.01
Parents criticism of the child	18.7	19.8	25.3	36.2	5.1	20.7	42.9	31.3	13.02	.01
Going to a doctor	26.4	20.8	26.4	26.4	11.1	22.5	41.2	25.2	9.898	.02
Parents are leaving for a trip	35.1	15.4	25.3	24.2	3.5	18.4	35.4	42.7	36.20	.00
Being bullied by peer	37.3	18.7	26.4	17.6	14.9	33.9	39	12.2	18.29	.00
Parents' quarrels	45	15.4	15.4	24.2	15.4	36.6	29.7	18.3	29.02	.00

Table 2. Percentages of semi-structured interview in 2002 and 1993

Fear items	2002				1993				χ^2	p
	No fear	Little fear	Average fear	Great fear	No fear	Little fear	Average fear	Great fear		
Nightmares	12.1	23.1	28.6	36.3	94.8	0.9	1.7	2.6	142.93	.00
Television related fears	17.6	13.2	14.3	54.9	52.2	6.1	22.6	19.1	39.76	.00
Exotic animals	35.2	6.6	14.3	44	30.4	0.9	23.5	45.2	8.25	.08
Imaginary creatures	35.2	9.9	17.6	37.4	59.1	1.7	15.7	23.5	15.75	.00
Familiar animals	37.4	13.2	22	27.5	30.4	2.6	36.5	30.4	12.26	.01
Minor injuries and accidents	69.2	11	8.8	11	76.5	2.6	10.4	10.4	6.18	.10
Fears of peers' behaviour	71.4	14.3	8.8	5.5	89.6	2.6	3.5	4.3	13.57	.00
Darkness/ dark places	78	4.4	7.7	9.9	81.7	3.5	10.4	4.3	2.91	.41
Fears of strange people	79.1	2.2	5.5	13.2	77.4	0.9	7.8	13.9	1.06	.79
Fears of significant adults' behaviour	85.7	3.3	5.5	5.5	87.8	2.6	5.2	4.3	0.25	.97
Big accidents and death	86.8	0	6.6	6.6	87	0.9	3.5	8.7	2.70	.61
Being alone/ getting lost	87.9	2.2	3.3	6.6	89.6	0	5.2	5.2	3.14	.37
War, guns, violence	89	2.2	3.3	5.5	93	0	4.3	2.6	3.85	.28
Separation/ losing a loved one	91.2	2.2	2.2	4.4	77.4	0.9	12.2	9.6	10.15	.02
Nighttime fears and related to going to sleep	94.5	0	3.3	2.2	93.9	1.7	3.5	0.9	2.21	.53
New things and situations	94.5	2.2	0	3.3	80	4.3	7.8	7.8	10.84	.01
Thunderstorms, nature forces	95.6	0	2.2	2.2	99.1	0	0	0.9	3.21	.20
Traffic and vehicles related fears	96.7	0	2.2	1.1	96.5	0.9	2.6	0	2.09	.55
Medical fears	98.9	1.1	0	0	92.2	0	4.3	3.5	7.45	.02
	N= 91				N= 115					

Table 3. The number of children's self-reported fears according to semi-structured interview in 2002 and 1993

Number of fears	2002	1993	t	p
0	0	2.6	1.75	Ns
1	4.4	3.5	0.33	Ns
2	3.3	11.3	2.29	.05
3	8.8	13.9	1.16	Ns
4	12.1	19.1	1.39	Ns
5	16.5	17.4	0.17	Ns
6	11	7.8	0.78	Ns
7	14.3	7.8	1.46	Ns
8	11	5.2	1.49	Ns
9	2.2	2.6	0.19	Ns
10	1.1	2.6	0.81	Ns
Over 10	15.4	6.1	2.11	.05

Table 4. The frequency distributions of the children's fears in 2002 and 1993 (assessed by the *parents and children* in semi-structured interview)

Object of the fear	Fears none/little	Fears some extent	Fears a lot
2002:	C ¹ 88	2	1
Traffic accidents	P ² 59	23	8
Thunderstorms etc	C 87	2	2
	P 50	24	16
Familiar animals (parents – dogs)	C 46	20	25
	P 50	26	14
Strange adults	C 74	5	12
	P 67	18	5
New situations and things	C 88	0	3
	P 81	9	0
Imagined creatures	C 41	16	34
	P 44	41	5
Nightmares	C 32	26	33
	P 52	26	12
Television programs	C 28	13	50
	P 53	28	9
Big accidents and death	C 79	6	6
	P 49	27	14
Being alone/getting lost	C 82	3	6
	P 45	31	14
1993:	C 113	3	0
Traffic accidents	P 46	43	22
Thunderstorms etc	C 114	0	1
	P 52	48	11
Familiar animal (parents – dogs)	C 38	42	35
	P 46	48	17
Strange adults	C 90	9	16
	P 76	34	1
New situations and things	C 97	9	9
	P 79	32	0
Imagined creatures	C 70	18	2
	P 48	54	9
Nightmares	C 110	2	3
	P 48	50	13
Television programs	C 67	26	22
	P 60	48	3
Big accidents and death	C 101	4	10
	P 51	36	24
Being alone/getting lost	C 103	6	6
	P 37	58	16

¹ C – children; ² P – parents

Table 5. The frequency distributions of the children's fears in 2002 and 1993 (assessed by the *parents and children* in picture-aided interview)

Object of the fear	Fears none/little	Fears some extent	Fears a lot
2002:	C ¹ 13	25	43
Going to bed alone in the dark	P ² 48	19	23
Teasing by other children	C 51	24	16
	P 60	26	4
Parental arguments	C 55	14	22
	P 59	23	8
Parental criticism/punishment	C 35	23	33
	P 51	36	3
Going to the doctor	C 43	24	24
	P 66	18	6
Getting lost in the forest	C 13	23	55
Getting lost surrounded by strange people	C 31	27	33
	P 37	35	18
Parents are leaving for a trip (staying without parents)	C 46	23	22
	P 61	18	11
1993:	C 24	30	46
Going to bed alone in the dark	P 37	44	19
Teasing by other children	C 48	39	14
	P 51	47	3
Parental arguments	C 52	30	18
	P 61	31	9
Parental criticism/punishment	C 26	43	32
	P 22	70	9
Going to the doctor	C 33	41	26
	P 49	41	10
Getting lost in the forest	C 13	35	52
Getting lost surrounded by strange people	C 20	46	34
	P 17	58	26
Parents are leaving for a trip (staying without parents)	C 21	35	44
	P 60	28	13

¹ C – children ² P – parents

Table 6. Correlations between children's fears and disciplining methods used by parents in 2002

Fear	<i>Frightening for gaining child's safety</i>	<i>Frightening for gaining obedience</i>	Re-proving	Prohibiting of something pleasant	Isolation	Milder corporal punishment:	Harsh corporal punishment:
Significant adults behaviour	-.05	-.00	-.27**	-.11	.00	-.24*	-.17
Peers' behaviour	-.03	.07	-.00	.16	.05	.18	.01
Small accidents	.20	-.13	.15	.05	-.02	.10	-.04
Familiar animals	.17	.03	.19	.10	-.10	.03	.00
Separation	-.07	-.08	-.11	-.17	.08	-.10	-.08
Strange adults	-.06	-.02	.02	.01	.11	.13	.03
New things	-.11	-.01	.02	.01	.16	.13	-.05
Imagined creatures	-.24*	-.05	.16	-.06	-.05	.04	.01
Nightmares	-.24*	-.04	.27*	.11	.19	.19	.08
Darkness	.02	-.06	-.11	-.09	-.14	-.07	-.10
Television	-.09	-.04	.11	.18	.11	.21*	.17
Big accidents, death	.06	.05	-.16	.06	.10	.02	.10
War, guns, violence	-.11	.00	.28**	.08	-.05	.19	.16
Exotic animals	-.19	-.03	-.02	.08	.09	.17	.11
Being alone/getting lost	.04	.03	.07	-.20	-.16	-.04	.03
Going to sleep (P)	-.09	.15	-.17	.04	.09	-.07	.08
Teasing by peers (P)	-.04	.09	-.01	.01	.09	-.05	-.01
Parental conflict (P)	.01	.07	.03	.14	.12	.17	.08
Parents are criticising (P)	-.09	-.01	.02	.01	.12	.08	.10
Going to doctor (P)	.07	.05	.10	.07	.07	.13	.07
Getting lost in a crowd (P)	-.11	.05	.12	.15	.19	.12	-.01
Getting lost in a forest (P)	-.17	-.13	-.04	.04	.21*	-.06	-.09
Parents are leaving for a trip (P)	.04	.09	-.06	.11	.04	.13	.09

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

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Educational career

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Employment career

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Conference papers

2006:

- Transforming knowledge about media influence on children's fears: comparative perspective. Presented in ECER 2006 (Annual Conference of European Educational Research Association (EERA) September, in Geneva, Switzerland
- Problems in Estonian children's families: comparative perspective of family relations in private context. Presented in ESFR (European Society on Family Relations) conference, September, in Darmstadt, Germany
- The impact of television to preschooler's sense of security in transforming society. Presented in EAPS (Estonian Academical Association of Education, EAAE) 2006 Conference, January 2007, in Tartu, Estonia

2005:

- Changes of parents' values in preschool children education in transforming society. Presented in ECER 2005, September, in Dublin, Ireland
- Children's fears as indicators of children's well-being in societal change. Presented in Childhoods 2005 Conference, July, in Oslo, Norway
- Children's right to physical immunity: legislative situation in Estonia and implications for education. Presented in CiCe (Children's Identity and Citizenship in Europe) 2005 Conference, May, in Ljubljana, Slovenia

2004:

- The impact of societal change on children's welfare: a comparative perspective. Presented in ECER 2004, September, in Rethymnon, Crete
- Estonian teachers' beliefs of teacher efficacy. Presented in ATEE (Association for Teacher Education in Europe) 2004 Spring University, May, in Tartu, Estonia
- Preschool children's fears – the comparison of parents' and children's assessments in 1993 and 2002. Presented in EAPS Conference, in Tartu, Estonia

2003:

- Changes in the security of children in a transition society: the case of Estonia. Presented in the plenary session of conference "What's new? Nordic-Baltic perspectives on childhood and families", in Tampere, Finland
- Preschooler's fears: changes during the last ten years in Estonia (1993–2002). Presented in ATEE Spring University, May, in Riga, Latvia
- Teacher efficacy, its relations with teaching and learning. Presented in EAPS Conference "Haridus kõigile [Education for Everybody]", October, in Tartu, Estonia

2002:

- The changes in the value judgements, problems experienced in child-rearing and educational methods of Estonian preschooler's parents between 1990 and 2002. Presented in EAPS Conference, December, in Tallinn, Estonia
- Preschooler's fears and coping with fears according to children's gender. Presented in the 1st Scientific Conference of PhD students of social and educational sciences, April, in Tallinn, Estonia

2001:

- Preschooler's coping with fears as learning to manage with own problems and the role of close people in this process. Presented in EAPS Conference, October, in Tartu, Estonia

2000:

- Parents' attitude to their children's fears as the one indicator of home educational environment. Presented in EAPS Conference, in Tartu, Estonia

1998:

- The role of significant others in the origin of preschooler's problems – fears and bad mood. Presented in the Conference of Institute of Home Education, in Tartu, Estonia

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2. **Ots, Loone.** Mitmekultuurilise hariduse õppekomplekt eesti kirjanduse näitel. Tartu, 1999.
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