

# **The Connection of Parental Education with Child's Prosocial Behavior**

Department of Teacher Education, Rauma

Master's thesis

Author:

Silja Isoiitu-Sjöblom

Supervisor:

PhD (psych.), Adj. Prof. Timo Ruusuvirta

17.4.2022

Turku

The originality of this thesis has been checked in accordance with the University of Turku quality assurance system using the Turnitin Originality Check service.

Master's thesis

**Subject:** Education

**Author:** Silja Isoitu-Sjöblom

**Title:** The Connection of Parental Education with Children's Prosocial Behavior

**Supervisors:** PhD (psych.), Adj. Prof. Timo Ruusuvirta;

**Number of pages:** 82 pages

**Date:** 17.4.2022

### **Abstract**

The connection of socioeconomic status (SES) and the development of children's prosocial behavior has been researched with contradictory results. The connections of maternal and paternal education with children's prosocial behavior have remained obscure, especially the role of fathers has rarely been studied directly. A correlative field experiment was conducted with double-blind conditions to explore the sharing behavior of under school aged children ( $N = 74$ ). Furthermore, children's prosocial behavior was measured with teacher- and parent rated assessments. Results demonstrated that paternal education was significantly connected with children's evaluated prosocial behavior with a moderate to high practical significance ( $d = .05, .07$ ), but not with their sharing behavior. Maternal education had no connection with children's prosociality. The significance of fathers' contribution in children's prosocial development warrants further investigation.

*Keywords:* Prosocial behavior, Development, Education, Dictator game, Altruism, Sharing, Socioeconomic status, Assessment

TURUN YLIOPISTO  
Opettajankoulutuslaitos

ISOITU-SJOBLOM, SILJA: The connection of parental education with children's prosocial behavior

Pro gradu -tutkielma, 82 s.  
Kasvatustiede  
Huhtikuu 2022

---

Korrelatiivisessa tutkimuksessa tarkasteltiin 3-6 -vuotiaiden päiväkotilasten ( $N = 74$ ) prososiaalista käyttäytymistä ja sen yhteyttä isien ja äitien koulutustaustaan. Lasten jakamiskäyttäytymistä mitattiin kaksoissokkokeella, jossa lapset pelasivat diktaattoripeliä jakaen tarroja itselleen sekä itselleen vieraalle lapselle ilman, että kukaan näki lapsen tekemää päätöstä. Lisäksi lasten prososiaalista käytöstä tutkittiin vanhempien ja varhaiskasvatuksen opettajien täyttämällä kyselylomakkeilla. Sekä vanhemmat että opettajat arvioivat korkeasti koulutettujen isien lasten käytöksen prososiaalisemmaksi kuin matalammin koulutettujen isien lasten käytöksen. Äitien koulutustaustalla ei todettu tutkimuksessa olevan yhteyttä lasten prososiaalisuuteen. Jakamiskäyttäytymisessä ei havaittu tilastollisesti merkitsevää yhteyttä kummankaan vanhemman koulutuksen kanssa. Tulokset viittaavat siihen, että isien kouluttautumisella on positiivinen yhteys siihen, miten prososiaaliselta heidän lastensa käytös vaikuttaa. Tulos tuo kiinnostavaa näkökulmaa lasten sosiaalisten taitojen kehityksen ymmärtämiseen, mahdollisten sosiaalisia taitoja kehittävien interventioiden suunnitteluun sekä koulutuspoliittisiin ratkaisuihin.

Asiasanat: prososiaalisuus, prososiaalinen käyttäytyminen, sosioemotionaaliset taidot, sosioekonominen asema, koulutus, diktaattoripeli, arviointi, MASK, PBQ, altruismi, jakaminen

## ACKNOWLEDGEMENTS

First and foremost, I sincerely thank my supervisor PhD in Psychology, Adj. Prof. Timo Ruusuvirta, for his guidance and his endless patience in explaining over and over again the basics of experimental research, and for his fast and accurate replies at any time. The very best part of this thesis-writing process has been meeting a person that highly intelligent and wise but still so warm-hearted and amiable.

I'm appreciative for having been able to participate in a project called Rinnalla (translated Side by Side), which was conducted by the Universities of Turku and Oulu during years 2018-2020. I want to express my gratitude to the project lead, PhD Marita Neitola, for accepting me as a member of the Rinnalla team, in which I learned not only about academic project work but also how to make research with young children following carefully the ethical considerations. She has a deep knowledge about the social and emotional development of children, and I recommend every educator or parent to study her publications. Without her professional support, proficient feet on the ground -supervision, constructive feedback and encouragement this thesis would have never been accomplished.

Furthermore, I express my thanks to the Professor of Educational Psychology Niina Junttila for her advice on the interpretation of the Multisource Assessment of Social Competence Scale.

I would also like to thank my motivating study colleagues Minna and Sonia for the most profound and sometimes academic discussions in the heat of Lölymestari or by the delicacies of Sydvest restaurant. Finally we get the ear piercings we agreed to have after everyone has graduated.

Most importantly, I thank my family for the housekeeping, letting me immerse myself in the world of SPSS. Thanks to my eldest son for the help with the linguistic challenges, to my daughter for taking me to the gym, and for the youngest one for letting his CS team wait, because mom was borrowing his computer.

## Contents

1	Introduction .....	5
1.1	The Significance of Other-regarding Skills.....	6
1.2	Prosocial Behavior.....	9
1.2.1	The Development of Prosocial Behavior.....	12
1.2.2	Parenting Practices .....	15
1.2.3	The Unique Role of Fathers.....	19
1.2.4	The Influence of Child’s Social Environment .....	22
1.3	Socioeconomic Status (SES) .....	26
1.3.1	The Connection of SES and Child’s Development in Previous Research.....	27
1.3.2	Parental Education.....	31
1.4	Study Aim and Research Tasks .....	36
2	Methods .....	38
2.1	Participants .....	38
2.1.1	Parents’ Education.....	39
2.1.2	Ethical Aspects of the Study.....	41
2.2	Materials .....	41
2.2.1	Dictator Game.....	42
2.2.2	The Questionnaires .....	47
3	Results .....	52
3.1	The Connection of Parental Education Levels with Child’s Sharing Behavior .....	53
3.2	The Connection of Parental Education Levels with Child’s pro- and antisocial Behavior .....	56
4	Discussion.....	59
4.1	Study limitations.....	64
4.2	Future research .....	66
4.3	Conclusions .....	68
	References .....	70

## 1 Introduction

I concentrated in my study in the association between parental education and children's pro- and antisocial behavior. The prosocial behavior of a sample (N = 74) of Finnish children in Early Childhood Education and Care (ECEC) or preschool was observed through two aspects. Sharing behavior, which indicates altruism, was measured with dictator game. Co-operative skills, empathy, impulsivity and disruptiveness were measured with two questionnaires for teachers and parents. My target was to investigate, whether fathers' or mothers' education did have a connection with these prosocial behaviors.

The importance of enhancing and supporting the development of children's prosocial skills has been understood, and extensive, multi-disciplinary research already exists. I refer to studies addressing the development of the skills, and the either enhancing or disrupting influencers affecting the development, such as models in the environment of the child and the socioeconomic status of the family. The existing literature, and the interventions based on it, focus mainly on the role which the family environment plays in the development of skills that facilitate individual success, such as better educational achievement and job opportunities, health and reduced malicious behavior (see e.g. Bauer et al., 2014). But the role of parental background in developing skills that concern the welfare of others and affect children's action in groups, i.e., prosocial behavior, has remained under less focus. More specifically, the connection of mothers' and fathers' educations separately, isolated from other socioeconomic factors, has remained obscure. Hence, I focus my study on this narrow area in the wide field of social and emotional development's influencers, aiming to advance understanding about the association between both parents' education and children's prosocial behavior.

Intending to review the association of parental education with children's prosocial development, after defining prosocial behavior and summarizing the current understanding about its development, I will concentrate in two aspects that influence the development of

children's prosocial behavior: first models, emphasizing parents and their parenting styles, which can be affected by parental education, touching also briefly on other influencers like early education professionals and peers. Second, the environment including the socioeconomic status of the family. Finally, I'll bring together the way parental education is associated with parenting styles and family's socioeconomic status.

### **1.1 The Significance of Other-regarding Skills**

Other-regarding behavior is essential for the welfare of both the society and an individual. Everyone wishes to live in a society of high social welfare, in which vandalism, violence and adolescents being led astray have been prevented. However, tensions between groups, ideological polarization with anti-immigrant and racist comments by politicians and acts of violence by adolescents or even children have been reported in the recent news in Finland. It is necessary for the whole society to emphasize and increase respect, tolerance, empathy, and other other-regarding manners among the citizens. A well-functioning society consists of citizens, who are able to adapt, take personal and collective responsibility, are resourceful, and work respectfully with others (Chernyshenko et al., 2018). Spitefulness undermines cooperation, while altruism and inequality aversion enhance establishing and maintaining cooperative outcomes. These preferences are important not only for individual success but also for society's welfare. (Bauer et al., 2014; Hastings et al., 2007.) When aiming towards an inclusive society, both children and adults need support in developing and nurturing social and emotional skills. (OECD, 2017.) Hastings et al. (2005) imply that by supporting prosocial behavior like kindness and compassion, even violence and aggression may reduce in the society.

At an individual level, social and emotional skills have an impact on the identity, performance and well-being of an individual (e.g. Määttä et al., 2017). These skills are related to individual success, such as academic achievement and employability, which can be

considered as a means to better economic outcomes, leading to good quality of life (Modafferi et al., 2017; OECD, 2017). The role peers play in young children's development has also been acknowledged: healthy peer relations have been proven to be an essential resource for children's development. High-quality, satisfying friendships can provide children with a sense of belonging and security, promoting their health and welfare. Children, who form supportive peer relations, become accepted members of their peer groups. Friendships have been associated with school readiness and school adjustment, while having no or poor-quality friendships has been associated with risk for maladjustment and dysfunction. (Kochenderfer-Ladd & Ladd, 2020.)

Children's poor social and emotional skills again may lead to contradictory results: Neitola (2011) inferred in her study about children's social competence that poor social skills and challenges in peer relations can be considered a risk to get excluded from the society. Already in ECEC, children may feel lonely having few or no friends, they can start bullying or get bullied, or even get socially withdrawn. Children who lack critical social skills and peer relationships have been found to get more engaged in disruptive classroom behaviors and fall behind or even fail academically than children who possess higher levels of social competence (Kochenderfer-Ladd & Ladd, 2020).

OECD has made a study on students' social and emotional skills (2017), defining the key skills of the 21st century, which are crucial for one's employment and development in the future. The skills encompassed engagement, self-discipline, stability, innovation, and altruism. The study (2017) described the changing nature of work: digitalization and automation call for different kinds of skills that one needs to succeed than earlier. The fast-changing world requires ability to adjust to changes and work with diverse groups of people, often globally. The individuals who have the skills and capacities needed for adjusting in the fast turns, experience the changing world as liberating and exciting, whereas the ones who do



not adjust that fast, experience insecurity, vulnerability or even life without prospect.

Learning academic or technical skills is no more enough for people to succeed. They need to be accompanied with empathy, perseverance, ability to adapt, respect and work with others, and other social and emotional skills. (OECD, 2017.) Inadequate social and emotional skills cannot be compensated by better cognitive skills (Chernyshenko et al., 2018).

Early Childhood Education and Care (ECEC) has the task to facilitate the school entry and support the development of children's school-based competencies. School readiness is not defined only as proficiency around academic skills, such as literacy and numeracy, but children's social and emotional development, mental health promotion and behavioral adjustment are as important competencies for successful school entry (Bierman, 2018). Schools have particular kinds of requirements for skills. Children spend at school a lot of time in large groups, concentrating in tasks, in which pupils need to coordinate their own goals and behavior with the targets and habits of others. The skills required at schools call for responsibility in social situations and commitment to group goals, and cooperative behavior with peers and teachers. It is essential to get along with others, follow classroom rules, concentrate and work persistently at challenging tasks. (Modafferi et al., 2017). Collie et al. (2018) examined the association of children's prosocial and anxious behaviors with their academic achievement in ECEC and later in grade 3. They found a significant association between prosocial behavior and their academic achievement in ECEC and subsequently in grade 3. Anxious behavior had no association with children's achievements. The researchers suggested, the link between prosocial behavior and achievement could be explained via prosocial behavior affecting the classroom climate in a positive way, and prosocially behaving children being more likely to listen to the teacher and follow rules. Furthermore, literacy and numeracy activities especially in ECEC involved group work, what is required in

collaborative learning activities that require cooperative, helpful and responsible behaviors. (Collie et al., 2018.)

When determining future employment, the OECD report (2017) describes social and emotional skills equally or even more important and influential than cognitive skills. Along with the increasing awareness of the relevance of social and emotional skills for the future world, policy makers and researchers have shown interest in embracing a more holistic approach to widen the policy focus, which has been on cognitive skills, to also support the development and nurture of social and emotional skills. (OECD, 2017.) Likewise, the importance of developing children's social and emotional skills has been recognized among the Finnish educational scientists and stakeholders, and emotion and interaction skills are being taught to enhance the social and emotional skills of children. The National Core Curriculum for Early Childhood Education and Care (Finnish National Agency for Education, 2016b) aims to "improve children's cooperation and interaction skills and skills for working in a peer group, and to guide them towards acting ethically and sustainably, showing respect for others and being members of society" (Helsinki's curriculum for early childhood education and care, 2019). The latest National curriculum that came in effect autumn 2016 emphasizes that schools are obliged to teach emotion and interaction skills. Some municipalities (Laakavuori/Helsinki and Ylöjärvi, for example) have included in their local curricula weekly lessons of emotional and communication skills.

## **1.2 Prosocial Behavior**

The way a person behaves in social situations has two dimensions: at the social end there is *prosocial behavior* and the absence of *antisocial behavior*, at the antisocial end there is aggressive behavior. A socially competent child should behave strongly on the dimension of prosocial behavior and low on the antisocial dimension. Antisocial behavior has either intentional or unintentional negative social consequences, which are directed towards others

or towards the person themselves. (Junttila et al., 2006.) However, even if one has high rates in antisocial behavior, it doesn't exclude the presence of positive traits like helpfulness (Weir et al., 1980).

Prosocial behavior can be seen as an umbrella term for any intentional and voluntary behavior that is a reaction to the needs of others, such as compassion, empathy and sympathy, comforting, helping, sharing and donating, co-operating and responding to distress. The way prosocial behavior is displayed can be proactive prevention of peer's harm, spontaneous actions when another is in distress, acting reparative after having caused harm to another person or just adapting to standards compliantly. All the prosocial actions are considered desirable by the society and therefore attempted to get encouraged in children. A prosocial person, for example, is able to join in conversations, talks nicely, shows respect, makes compromises, co-operates, gives compliments, identifies feelings and emotions in self and others, comforts peers and identifies if someone needs help and asks for help. (Dunfield, 2014; Eisenberg et al., 2006, Eisenberg & Miller, 1987; Hastings et al., 2007; Junttila et al., 2006; Modafferi 2016; Wang, 2020; Weir & Duveen, 1981.) What kind of behavior is counted under the term prosocial behavior, depends on the age. While among under school-aged children behaviors such as helping, sharing and comforting are defined as prosocial behavior, among older children endowing can be added to the definition. Donating for charity can be expected only from adolescents or adults. (Bierhoff, 2009).

To come true, a prosocial act has three prerequisites that must be met: First, one has to take the perspective of another person and recognize that another is having a need. Next, the cause of the problem has to be understood to determine an appropriate response, and finally, one needs to have the motivation to help the person in distress. One's behavior is not stable: in each situation, the goals, needs and values must be prioritized, and one must make the decision, whether to act or not: the decision is affected by interpretation of the situation,

personal goals in the situation, and by predicted consequences of the prosocial action. Even the person's mood, the behavior of people nearby and the attractiveness of the one to be helped may affect the decision. (Dunfield, 2014; Eisenberg et al., 2006; Weir et al., 1980.)

The motive to act prosocially can be positive or negative, i.e., the prosocial actions can be altruistic or nonaltruistic. (Eisenberg et al., 2006; Eisenberg & Miller, 1987; Hastings et al., 2007.) Whether prosocial behavior brings cost or gain to the actor, isn't relevant. Even though it sometimes calls for self-sacrifice, it can also benefit the actor. Hence, the motivation to act prosocially can vary from reciprocity or reward, or fear of punishment for not acting prosocially, to altruistic willingness to ease another's distress. (Dunfield, 2014; Hastings et al., 2007.) Hastings et al. (2007) have defined *altruistic behavior* as a subtype of prosocial behavior: An altruist promotes another's well-being by sacrificing one's own well-being. An altruist does not have the expectation of concrete or social rewards or avoiding punishment, whereas other prosocial behaviors may be motivated by practical, other-oriented or egoistic concerns. (Hastings et al., 2007.) In the research of altruism, studies have noted a possible connection of cultural differences with various levels of altruism in individuals' behaviors (Benenson et al., 2007; Engel, 2011; Harbaugh et al., 2003). Engel (2011) made anthropological surveys using the dictator game to measure altruism and reported effects of cultures: in indigenous societies the equal split was most common, whereas in western societies the sharing behavior was more selfish, and less than one fifth shared equally. However, Benenson and his colleagues (2007) summarized that although there are cultural differences in norms for altruistic behavior, the trend to reward altruistic behavior and punish selfishness occurs in all cultures.

Many theoretical discussions link prosocial behavior, which is motivated by altruistic motives, to *empathy* as the provider of the foundation for prosocial development (Eisenberg & Miller, 1987; Hastings et al., 2015). Empathy-related emotions play an important role in the

development of prosocial behaviors, being the primary motivation for acting in a positive manner with others (Hastings et al., 2015). Rieffe et al. (2010) defined an empathetic person as one, who can respond affectively to other's emotions and who aims at reacting adaptively to other person's needs. Eisenberg et al. (2006) described that an empathetic person feels in the person's own affective response identical or very similar feelings as what the other person is expected to feel. The researchers differed sympathy from empathy emphasizing that sympathy consists of feeling sorrow or concern for the distressed person, instead of feeling the same emotion as the distressed person. Empathy doesn't only involve the capacity to understand, it also involves the capacity to feel. This affective component differs empathy from other moral behaviors. Common to all definitions is that the focus is not on the self. Personal distress again is a self-focused, aversive emotional reaction to other person's emotion. (Eisenberg et al., 2006; Eisenberg & Miller, 1987.) Eisenberg and Strayer (1987) noted that although empathy is related to prosocial behavior, it doesn't necessarily imply that it always results in prosocial behavior, or even in desiring to engage in prosocial actions. Having empathic feelings does not automatically lead to attempts to assist another person. It may lead to feelings of personal distress, but some other feelings may be stronger – like considering cost to self for assisting. (Eisenberg & Strayer, 1987.)

### ***1.2.1 The Development of Prosocial Behavior***

There is strong evidence of research that young children behave more selfish, but their propensity to act prosocially increases with age up to middle childhood (Bauer et al., 2014; Benenson et al., 2007; Daniel et al., 2016; Fabes & Eisenberg, 1998; Steinbeis & Over, 2017; Weir et al., 1980). Research agrees that prosocial behavior is malleable, and it develops via learning experiences: a unique set of social skills develop with age, starting from sensitivity towards fairness and developing to learning the fairness norms and sharing (Steinbeis & Over, 2017). Even though the motivation to help or to pay attention to the needs

of others may start from egoistic anticipating of material rewards or avoiding punishment, it can transfer with time increasingly to other-oriented behavior and possibly towards true altruism. (Fabes & Eisenberg, 1998.)

How the prosocial traits develop, has been of wide interest and is already well documented: Children are born with a unique temperament (Suhonen et al., 2018) and they have an innate ability to feel empathy and engage in other-oriented caring actions in the beginning – even new-born babies cry when they hear other neonates crying (Hastings et al., 2007; Hastings et al., 2015), and 18-month-old children have tried to help, share and comfort another in distress (Williams & Berthelsen, 2017). In order to develop prosocial skills, a child needs *self-regulation* to be able to recognize the cues other persons provide about their desires or needs. (Williams & Berthelsen, 2017.) Self-regulation consists of emotional and attentional regulation, and susceptibility to peer influence (Grolnick & Farkas, 2002). Emotional regulation skills help children to remain calm even in distressing situations (Williams & Berthelsen, 2017) and to manage physiological responses, being able to modulate the expression and intensity of emotions (Morris et al., 2007). Attentional regulation skills support children to maintain their attention on social and environmental cues, which brings them to learn emotional regulation skills.

The human brains are highly plastic, especially in early life: The brain areas supporting the emotional and attentional regulation change especially strongly through infancy to four years age, which means that they are open to positive, enriching experiences, but also vulnerable to negative events (Suhonen et al., 2018; Williams & Berthelsen, 2017). When supporting the child in the development of these skills, parents and caregivers first get motivated with caregiving efforts based on the cues and needs of their infants, modelling an other-oriented approach to interaction, which the child again evaluates and either accepts or rejects. When later encountering others who are in distress or need, the children's empathy

motivates them to act. The way they engage, is shaped by the way they have internalized the prosocial lessons of their parents. Parents can help toddlers, who still are egocentric with limited perspective-taking abilities, to understand another's state by verbalizing the needs of another person. This supports children's ability to identify others' need for help or distress. (Hastings et al., 2015.) The more self-regulated the child becomes being able to comply with given rules, the less discipline is needed (Laible et al., 2015).

Learning to regulate their own behavior, cognitive states and emotions, is a major developmental task over the first three years of children's life, and it requires supports from the care-givers (Williams & Berthelsen, 2017). When growing towards maturity, children need to take an active role in regulating their own behavior, aiming at autonomous self-regulation. The process contains internalization of values, attitudes and behaviors in the child's social environment. (Grolnick & Farkas, 2002). The feedback from parents and other socializers either facilitates or undermines children's development toward self-regulation of effort and attention. It either values a joy-bringing activity more highly, or it lowers their confidence in their child's abilities. Children either engage in the provided learning opportunities, or disengage from them, or act even in counterproductive ways. (Simpkins et al., 2015). The child's temperament impacts on the vulnerability to early life experiences – particular temperaments seem to be more sensitive to the social and physical environments than others (Suhonen et al., 2018). When maturing, youth will seek out such settings, in which their universal and personal needs are met. These settings may support healthy development with positive experiences, or they may provide less positive developmental directions. (Simpkins et al., 2015.)

Recent literature has provided wider aspects to the development of children's prosociality. The unidirectional, for example from parent to child, aspect has in the recent research been replaced by bidirectional approach, recognizing that both interaction partners

influence the child's socialization process. The child's temperament and other traits influence the kind of care the child receives, as well as how susceptible the child is to influences, and how the child responds to caregivers' socialization initiatives. The child's behavior, whether prosocial or aggressive, influences the caregiver's sensitivity and the way they approach discipline. The way the child interprets the messages of the caregiver, influences how well the child accepts the caregiver's values. The more self-regulated the child becomes being able to comply with given rules, the less discipline is needed. (Laible et al., 2015.) However, the study of Daniel et al. (2016) didn't confirm the reciprocity of parent-child interactions: in their study, child's pro- or antisocial behavior had no effect on parental behavior.

Hastings et al. (2015) suggested that there might be differences between sexes in accepting the socialization influences: in girls, compassion, affective empathy and sympathy are more readily socialized, whereas altruism and prosocial behavior may be more readily fostered in boys. Simpkins et al. (2015) considered in their study about family's influence on children's motivation to self-regulation of effort and attention the root of differences between sexes was in the parents: in gender-typed activities, such as sports, parents had differential beliefs and hence provided different opportunities for their daughters and sons, which affected children's own beliefs. However, as maturing, children began to get influenced by other social contexts, like schools, peers and leisure-time activities. (Simpkins et al., 2015.)

### ***1.2.2 Parenting Practices***

It is certainly generally agreed among all cultures and nations, that parenting should be the most important job to the future of the societies. Not only do parents provide their children with nurturance and love, food, clothing, health care and other essential ingredients of life, they also affect children's attitudes, confidence and skills when preparing them for the economic, physical and psychosocial situations in the future. (Smith et al., 2002.) They offer their children possibilities to encounter playmates and control with whom and how the



children interact. Furthermore, they act as role models in encounters, and their wealth, education, possible stress and crises, attitudes, discipline, child-rearing practices, their friends and other social network—the grandparents especially—the affective climate they create, all affect the child. (Hastings et al., 2015; Ladd & Kochenderfer-Ladd, 2019; Neitola, 2011.) Furthermore, stable and economically secure homes, close relations with siblings and peers and positive experiences from ECEC enhance the development (Hastings et al., 2007).

There is a lot of documentation about the importance of parents' time spent with children's activities. For example, reading loud to children motivates children to read, and playing board games raises children's interest in math (see e.g., Aerila et al., 2019; Simpkins et al., 2015). Parents expose their children to value systems and particular experiences by providing toys and specific materials in the home and defining the environments where children spend their time, restricting dangers and undesirable influences. Parents invest their time and money in driving children to lessons and practices, paying for equipment, camps, licenses etc., and cheering their children's teams at games. (Simpkins et al., 2015.)

Family life serves as rendezvous for children's interpersonal abilities; children learn, what relationships are about and how to do them. Parents help children find playmates and teach, how to initiate and arrange a play with play partners, and how to set up a quarrel. They instruct, how to form and maintain relationships, and they create opportunities for children to participate in peer groups. Parents control the circumstances, where their children meet with peers by their choice of living surroundings, ECEC and after-school activities. (Ladd & Kochenderfer-Ladd, 2019.)

Remarkable research has been made about parenting practices and the way parent use control when trying to socialize their children. Various classifications can be found in the literature: control is districted for example between behavioral (applying clearly set rules and supervising children's behavior) and psychological (influencing children's emotions by

means like love withdrawal, guilt induction) styles of control, or between authoritarian and authoritative styles (Grusec & Davidov, 2015). *Authoritarian* childrearing is strict, focused on making children deferential and obedient, whereas *authoritative* parenting style involves setting up clear rules for children's behavior, explaining them, and making age-appropriate demands, but at the same time involving children in decisions, listening to them taking their viewpoints into account, and responding to the children's needs and giving room to children's autonomy (Maccoby, 2015). *Parenting practices* concern parental behaviors, which include the ways in which children are taught about emotions, whereas *parenting style* can be defined as the parental attitudes and behaviors, which affect the emotional climate inside the family: responsive parenting style is child-centered and nurturing, whereas demanding parenting style enforces rules and has high expectations for children (Morris et al., 2007). In line with Morris et al. (2007), Hoff and Laursen (2019) defined parenting style consist of the parents' attitudes about children, containing the emotional climate around the expressions of these attitudes. In their definition, parenting practices include the way parents behave when interacting with their children, the home environments and what kind of connections the parents enable or permit outside the home. (Hoff & Laursen, 2019.)

As described in the previous chapter, self-regulation is a prerequisite for prosocial behavior. Responsive caregiving, which is attuned to children's needs, supports development of self-regulation. If the parenting and child rearing are very critical or overly directive, it may evoke stress responses from children, hindering children's capacity to practice self-regulation (Williams & Berthelsen, 2017). Negative parenting practices may promote respect for demands but fail to scaffold the child to accept the parents' values. Fear hinders the child from learning the parental messages. (Daniel et al., 2016; Grusec & Davidov, 2015.) Hastings et al. (2007) have described parent's role in children's prosocial development complying that to foster prosociality in their children, parents should build warm and secure attachment

relationships with their children, they should use rather authoritative than authoritarian parenting style, reasoning and explaining their decisions and why rules are necessary instead of punishing, and they should support their children's regulation of emotions. (Hastings et al., 2007.) Parents' psychological control again has negative consequences to children's prosocial development. Rejecting, degrading or domineering parenting doesn't model showing regard for others' feelings. Low-power parenting, i.e., exercising parental control in gentle means like supervising, providing structure, direct guidance and encouragement and suggesting appropriate behavior proactively rather than reactively, is effective when fostering young children's prosocial behaviors. The parenting needs to be tailored along the child's maturation, loosening parental control and respecting the child's autonomy, trusting that the children have internalized the prosocial values and hence letting them make their own decisions. Children's emotions should be allowed and not manipulated, encouraging children to try to understand their own and other's emotional experiences, and their ability to regulate their own emotions should be fostered by explaining and discussing emotional expressions. (Hastings et al., 2015.)

Neitola's (2011; 2018) study about Finnish children with and without challenges in peer relations and their parent's methods in teaching their children social skills concurs with the establishments of Hastings et al. (2015). Both parent groups considered social skills important, and teaching prosocial skills, such as helping, sharing, waiting, good manners and empathy, was reported by 65% of the parents. The most common means to foster prosocial skills was discussion: talking about social situations, describing rules and norms, advising, modelling situations and describing, what another person might feel in a particular situation. The parents of children with peer relation issues had stressed especially the significance of good manners. In general, the parenting style of the children with challenges in peer relationships, seemed to be more authoritarian, and stressed orders, denials, rules and concrete

advice in the discussions. A difference in the parental reactions to children's emotions was found between children with and without challenges in peer relations: The parents of children with no challenges seemed more sensitive and reciprocal, concentrating in handling the emotions from the children's point of view, while the parents of the other group aimed to find a reason for the distress and a way to turn the unpleasant emotional state. (Neitola, 2011; 2018).

Summing up recent studies, Williams and Berthelsen (2017) concluded, the results are not unique, whether sensitivity and warmth or the absence of critical and directive parenting is the key element in the development of children's self-regulation and their later prosocial development. Nonetheless, non-hostile parenting and parenting responsiveness are essential for the prosocial development of young children. As Simpkins et al. (2015) summarized: An optimal influence of parents stems from a warm and supportive environment with minimal necessary control, with high yet realistic expectations of the parents. The everyday family life is a natural learning context, in which children can learn prosocial behavior, when the parenting practices are fair and respectful and the relationships close and reliable (Neitola, 2018).

### ***1.2.3 The Unique Role of Fathers***

In the majority of studies, the quality of early interaction at home has focused more on mothers, while paternal child rearing and fathers' influence on children's development, especially in early childhood, has remained under less attention. There are some studies observing the influence of both parents, but the contribution of fathers relative to mothers independently has been less documented, as the parenting behaviors have often been examined without distinguishing between parental figures (Cheung et al., 2018; Daniel et al., 2016; Hastings et al., 2005; Parke & Cookston, 2019; Sorariutta, 2017; Williams & Berthelsen, 2017). A rather comprehensive summary of studies concerning the impact of

fathers in child development is gathered by Keown et al. (2018). Even though there exists literature about father involvement since the beginning of the twentieth century, also Keown et al. (2018) consider the understanding of the effect of father-child relationships on child development still limited because of small body of research, and the researchers call for more studies examining the key aspects of fathering in the family context. Especially in Finland, the parental roles are shifting towards more equal responsibility sharing and involvement in raising the children today— a family leave renewal being planned with even better possibilities for paternity leave (Ministry of social affairs and health, 2021), which calls for equal focus on both parents also in research. Similar tendency has been noticed in the USA, where fathers have been moving toward more equal involvement and participation in the childcare and -rearing. However, this phenomenon is found to apply more clearly only to well-educated and economically advantaged families in the USA. (Parke & Cookston, 2019.) A recent study by Saarikallio-Torp and Miettinen (2021) identified that also in Finland, less-educated and low-income fathers had used parental leave less than high educated fathers. Hence, the economic disparity between social classes can be seen in the patterns of fathering. (Parke & Cookston, 2019).

In their study about differences in parenting between cultures, Harkness and Super (2002) suggested that cultural traditions may either facilitate or discourage parenting behavior concerning fathers' participation in child-care: fathers' involvement in the care of young children varied a lot between the societies studied. The researchers inferred, the variation might stem from the way work is divided between husband and wife, the parents' degree of emotional intimacy, or their living arrangements: there are societies, in which husband and wife don't eat and sleep together, and their spheres of responsibility are separate. In such cultures fathers' involvement in caring infants has been found to be rather negligible, or even prohibited in the norms. Contrarily, in societies where work roles are shared and there is high

intimacy, fathers shared childcare activities with mothers. (Harkness & Super, 2002.) Keown et al. (2018) provided an example of Indian culture, where fathers are obligated to take care of an extended family including family elders, siblings and their families. To fulfil these responsibilities, Indian fathers often sacrifice their involvement with their own children. While Indian mothers are responsible for childcare, fathers are supposed to make economic contributions to the family and to exercise strict authority. (Keown et al., 2018.)

The research has somewhat mixed results about father's contributions to the way their children's prosocial behavior develops, intriguing that the fathers' contribution might increase when children gain age towards adolescence (Hastings et al., 2015; Williams & Berthelsen, 2017). Contrary to the findings of Hastings et al. (2015) and Williams and Berthelsen (2017) concluding that fathers' contribution would change along child's age, Jeynes (2016) inferred, the unique role of the father held across the age of the child.

Parke and Cookston (2019) referred to evidence suggesting that children's development was affected by fathers, but the quality of fathering determined the influence fathers had on children's development. In Neitola's survey (2011, 186), some fathers considered themselves as the highest authorities in the families, which raised in the researcher the question, whether the fathers had enough space to act as a caring parent they wished to be, whilst having the task of maintaining order in the family. In the study of Williams and Berthelsen (2017), maternal parenting had stronger associations with children's prosocial skill development via self-regulation, possibly because mothers spend more time with children in the age of 2–3 years. The study of Parke and Cookston (2019) compared similarities and differences in maternal and paternal interaction with their children. Hardly any difference was found in their childrearing styles, both interacting warm and responsively with children. However, the contexts for interacting with their children were different between fathers and mothers. Fathers spent more time in physical play activities, whereas mothers spent time in

caregiving, toy play, arts and crafts, providing meals and clothing. In conclusion, mothers and fathers provided their children with qualitatively different stimulations: mothers were more verbal and didactic, and fathers more physical and tactile. (Parke & Cookston, 2019). Similar results were gained in a meta-analysis of Jeynes (2016) about fathers' contribution in raising children. A unique contribution of fathers associated with positive social, psychological and academic outcomes was found. Comparing the contributions of mothers and fathers, mothers tended to be more nurturing and emotionally supportive, while fathers tended to focus more on preparing children for their lives and percept into the long-term trajectories of their children's behavior patterns. (Jeynes, 2016.)

Cheung et al. (2018) found that children's internalizing and externalizing problems decreased with fathers' positive parenting and increased with fathers' inconsistent discipline. Fathers' parenting behaviors were found to contribute to children's problems over and above mothers' parenting behaviors. (Cheung et al., 2018.) Daniel et al. (2016) demonstrated both paternal and maternal warmth affect child's prosocial behavior in early childhood and found especially fathers who took part in the socialization of young children successful in internalizing prosocial behavior. Hence the researchers (2016) suggested both parents to be targets when offering interventions that aim to enhance child development via parenting practices. (Daniel et al., 2016.) One further aspect is that fathers and mothers may act differentially with their boys and girls, and also the children have been noticed to behave differently with their mothers compared to their fathers (Williams & Berthelsen, 2017).

#### ***1.2.4 The Influence of Child's Social Environment***

The development of children's prosocial behavior is influenced by child's genetics, temperament, stress responses, cognitive abilities and other biological factors, and by environmental factors that affect the welfare of the family: The family of any form and the personalities and ways of interaction inside the family, and all close relationships

(grandparents, aunts, uncles, family support workers, family friends and peers), socio-economic context, ECEC and schools, the welfare system of the society, culture, media, and life events. (see e.g. Hastings et al., 2015; Neitola, 2011; Suhonen et al., 2018.) Lack of any of the resources outside the family can affect the parental ability to raise their children and teach them social skills. On the other hand, strong resources inside the family may compensate the lack of resources outside the family. (Neitola, 2011, pp. 44-45.)

Human social environment is defined by Barnett and Casper (2001) to “encompass the immediate physical surroundings, social relationships, and cultural milieus within which defined groups of people function and interact”. The parenting environment involves the physical and social surroundings, in which families live. Which places and facilities in the nearby community in addition to the family’s place of residence are utilized as part of the environment, differs between families: They can include the backyard, the neighborhood, playgrounds, the street, a museum, whatever the parents consider as a place connected to parental caregiving. The environment provides the circumstances, objects and materials with its opportunities, challenges and constraints, under which the parenting tasks are carried out, and to which the parents adapt their child-rearing. (Bradley, 2002.)

Chen et al. (2013) explored whether children’s sharing behavior was influenced by the social context in which they were raised. The participants were 4-year-old rural Chinese children that were either in preschools or kindergartens and thus already had experience in interacting with friends and strange children. The researchers used dictator game and added social distance as a variable: there were two conditions, into which the children were randomly assigned. In one condition, the recipient was told to be a friend, and in another condition a stranger. Social distance and family income were negatively related to offers in dictator game: children donated more to friends than to strangers, and children from lower income families donated more than children from higher income families. However,



socioeconomic status did not affect the sharing behavior when playing with strangers, only in the friend condition. Being the only child didn't affect children's prosocial behavior.

Interestingly, even 15-20 percent of the dictators shared more than half to the recipient. Chen et al. (2013) suggested that the phenomena could be explained by young children having seen more examples of adults' interaction with friends than of interaction with strangers, and the children themselves also had more experience in being with friends. Therefore, the social context did not affect their sharing behavior to strangers. Another explanation by Chen et al. (2013) was reciprocal altruism, which is perceivable in Chinese culture that values collectivism. There is an ancient story that all children hear in kindergartens about a boy who has given the big pears to his brother and left only small ones to himself; children are taught to be modest and to share valuable resources with others in the culture. (Chen et al., 2013.)

For ages, the capacity to rear a child has been considered instinctive, and experiences, practical advice and worldly wisdom have been shared by grandparents, churches and the communities. (Smith et al., 2002.) As Harkness and Super (2002) captivating described, in preliterate societies, parents and other elders were able to teach most of what children needed to learn. The learning happened via observation and imitation, i.e., seeing and practicing. However, these traditional supports have faded after family lifestyles have changed and both parents have started to work, and families have become mobile moving after work opportunities, thus losing the previous informal support networks. Consequently, children spend more time playing digital games, watching video clips or growing up with social media. (Smith et al., 2002.) Early childhood educators have become important fellow-caregivers beside the parents.

In Finland, 3–6-year-old children spend most of their time either in ECEC, preschool or at home. In year 2019, over 70% of Finnish 3–5-year-old children participated in full-time Early Childhood Education and Care (ECEC) (Finish institute for Health and Welfare, 2021).

Almost every 6-year-old child participates in pre-primary education, as it is compulsory in Finland to take part in pre-primary or other corresponding education the year preceding the start of their compulsory education (Ministry of education and culture). Getting into ECEC opens an interesting but also challenging environment to children: They get to interact with several boys and girls at the same age, make friends and to adjust to common rules. ECEC centers provide a context in which the children can practice sharing, taking turns, cooperating, taking others' perspectives, and inhibiting aggression (Wang, 2020).

ECEC provides daily excellent learning possibilities, but there are also several stressors children have to cope with during a day in ECEC: adapt their behavior in relationships with several adults and children, and handle disappointments, conflicts and frustrations. However, ECEC provides children with regular daily routines, predictive schedules and social encounters with guidance of scaffolding and sensitive professionals, helping children face the challenges. Suhonen et al. (2018) found that time in ECEC could enhance children's ability to face stressors and thus advance their development. Their study revealed that children's cognitive and language development have not yet been influenced by children's differences in their stress response regulation at the age around one year, when children commonly enter ECEC in Finland. Consequently, the ECEC professionals can recognize the individual needs and challenges of the children with risk factors and provide adequate support to the children's development. (Suhonen et al., 2018.) Bierman et al. (2018) and Suhonen et al. (2018) concluded in line, high-quality ECEC can remedy the development of vulnerable children, regardless their possibly weaker capabilities due to family background or biological givens, by building early emotional, social and behavioral competencies, which lead to positive mental health and alleviates school adjustment in the future.

### 1.3 Socioeconomic Status (SES)

When discussing socioeconomic inequalities, the socioeconomic parameters that are measured need to be defined. *Socioeconomic status* is a construct that consists of objective and subjective features. The objective features are resource-based indicators of socioeconomic status, such as parental education, their occupational status and family income. (e.g. Bradley & Corwyn, 2002; Korndörfer et al., 2015; Krieger et al., 1997; Piff et al., 2010.) The subjective features are prestige-based, indicating an individual's subjective perceptions of their social class rank in society (Piff et al., 2010). *Social class* reflects material conditions that shape the lives and identities of individuals, by which people are categorized during social interactions to upper- and lower-class individuals. Lower class people have less economic resources, educational opportunities and access to elite schools, universities and other social institutions, than people with higher class backgrounds. (Piff et al., 2010.) In the definition of Krieger et al. (1997), social class refers to groups that are formed based on economic relationships. It contains variables that can be measured as categorical variables, locating people within the economy to e.g. employers and employees and unemployed, or owners or not-owners of capital. When adding to the actual resources the status containing the subjective, prestige-based features, the researchers (1997) employed a composite term *socioeconomic position*. Blakemore et al. (2006) completed that a family's relative socioeconomic position not only encompassed the family's access to resources, but also the probability to get exposed to certain harm or risks.

A collective abbreviation SES is widely used in research, combining terms such as socioeconomic status, socioeconomic position, social class and social inequality (Blakemore et al., 2006; Braveman et al., 2005). Being aware of the term SES being used as a measure containing a single socioeconomic variable, a combination of few variables or a wide range of features measured at multiple levels, this paper uses it as an umbrella term for a construct

comprising any socioeconomic factors when referring to previous research, unless the focus has been on only a particular measure, like education in this work.

### ***1.3.1 The Connection of SES and Child's Development in Previous Research***

**Positive connection.** The results of studies about the relationships between families' SES and children's development, well-being and behavior are inconsistent: for example Almås et al. (2017), Bauer et al. (2014), Benenson et al. (2007), Deckers et al. (2015), Falk et al. (2019), Korndörfer et al. (2015), Kosse et al. (2020) and Sutter et al. (2020) have associated high SES of parents with children's better social skills and success at school, while children of parents with lower SES showed less prosocial behaviors and weren't as successful at school. Parents' SES has been concluded to influence the attitudes and values, how parents teach their children to conform to social norms, and how important they consider instilling unselfish, other-regarding behaviors into their children: low-SES parents less likely acquired cooperation-enhancing preferences and their children were less willing to share (Bauer, 2014). Hastings et al. (2015) described the differences in using control in line with Hoff and Laursen (2019): parents of lower SES were more restrictive, controlling and punitive than the parents of higher position. Deckers et al. (2015) concluded in their study that parents' SES shaped children's personality, because it defined the financial and cognitive resources that were available for parents for investments in their children. In their survey, the time the parents of higher SES spent with their children was of higher quality, and their children were more patient and less likely to be risk seeking than children from families of lower SES. As children grew, the children of higher SES families became more altruistic than the ones from the lower position. (Deckers et al., 2015.) The results of Falk et al. (2019) tie well with the ones of Deckers et al. (2015): Parental investments were defined by parenting styles and parental time investments, meaning "quality time" spent between parents and children. The parenting style of high SES parents was warm and forthcoming, and they spent more time on

stimulating activities than the parents of lower SES. Falk et al. (2021) found that parental time investment, which affected the risk-taking and patience of children, was more strongly associated with parental education, while a positive parenting style, which mattered for the formation of IQ and altruism, was more strongly affected by household income.

Economically disadvantaged homes did not arrange as many activities outside the home for their children as did the parents of higher status, and they provided fewer appropriate play materials. The researchers concluded, the low-SES families may have less adequate resources than stable homes, and parents may be stressed, depressed, without social support or in financial distress, having no internal resources for providing cognitively stimulating environment, supportive relationships and sensitive parenting for their children. (Hastings et al., 2015; Hoff & Laursen, 2019). On the other hand, also high-SES families encounter stressors that may hinder the positive parenting: the successful parents may be too busy to engage with their children, and their expectations for their children's achievement may be unrealistically high (Hoff & Laursen, 2019).

**Negative connection.** An opposite result has been reported for example by Chen et al. (2013), Guinote et al. (2015), Miller et al. (2015) and Piff et al. (2010). These researchers have linked high SES of parents to children's lower prosociality, arguing the children from families of low SES acted in more prosocial manners. They found the individuals of higher social class be less trusting, generous, helpful or charitable than the individuals of lower social class. The researchers argued that children from low social class learned to behave more considering and other-regarding, because they needed reciprocal help of others (Piff et al., 2010). They lived in environments that were more threatening and stressful (Hastings et al., 2015) and could not be economically independent, because they had smaller economic resources. Hence, they must rely more on their social bonds to manage in their lives, and they needed help from others to achieve their goals. (Piff et al., 2010.) The culture of wealthier

families was considered to have self-focused characters with low interpersonal sensitivity (Miller et al., 2015) and the parents valued autonomy and individualism instead of fostering respectfulness and obedience, which had been found in the low-SES families (Hoff et al., 2002; Miller, 2015). Almås and her colleagues (2017) concluded, the different socioeconomic groups differed in what they considered to be a fair distribution: more than half of the low status participants and only about 20 percent of high-status participants with meritocratic fairness idea were egalitarians.

**Differences in parents' values.** Parenting styles affect the emotional climates in the home. Differences have been found in the parenting styles between low and high SES families: the less advantaged families considered parental authority over children at home important, and if the parental authority was defied, the authoritarian parents punished their children. They valued conformity in their children, including obedient and respectful behavior. Conversely, parents of higher SES considered important that their children developed initiative and became self-directed. They treated their children as equal participants in the family, discussing about rules with them. The permissive parents of higher SES were less punitive than the ones of lower position. (Hoff & Laursen, 2019.)

Parents of different socioeconomic groups differ in their expectations when children should reach developmental milestones. Parents of higher SES have been found to expect earlier mastery of timetables of language development, school-related or social skills, than parents of lower position, who in turn have considered e.g. toilet training and polite behavior as important milestones. (Hastings et al., 2015; Hoff & Laursen, 2019.)

**Further aspects to the differences in prosociality between high and low SES families.** Van Doesum et al. (2017) brought a new aspect by arguing that that only the target social class was relevant to prosociality, but one's own social class didn't influence people's prosocial behavior. The results of their survey suggested that lower social class participants

didn't behave more prosocially than others, their results indicated only that high status targets were treated in a less prosocial way than others.

Korndörfer and his colleagues (2015) conducted eight studies to analyze whether the country or culture, the way social class was measured or the definition of prosocial behavior via which it was observed, affected the results when examining the effect of social class on prosocial behavior. To tackle the challenge of different cultures or countries' social policies affecting people's prosocial behaviors, Korndörfer et al. (2015) used data sets from several different countries in their study: German, American and international data sets. Prosociality was measured via multiple prosocial acts: donation behavior, volunteering, helping, and trust and trustworthiness in a trust game. The results were inconsistent: social class was positively related to charitable donations in all cultures, the higher-class participants were not only more willing to donate to charity, but also to give their time, than the lower-class participants. The effect was clearly stronger in Germany and in the United States than in the other countries. However, the likelihood and frequency of volunteering varied between countries. An interesting curiosity was that in all countries women volunteered more often and were more likely to volunteer than men, except in Germany, where men volunteered more than women. This was explained by the country's enthusiasm for football. (Korndörfer et al., 2015.) The interpretations remain contradictory: Chen et al. (2013) suggested that in the collectivist cultures children were taught to be modest and to share, whereas Luria et al. (2015) concluded that the capitalists behaved with more prosocial manners, because the rich were supposed to help the needy in individualistic cultures.

The existing studies about the connection of parental education with children's prosocial development mostly study American, Asian or Central European children. Finland differs from many previously researched countries. Whereas in the USA charity plays an important role in helping the poor, and the opportunities to succeed are not equal between

social classes (Korndörfer et al., 2015), the Finnish social welfare system, for example, ensures equal schooling giving unique possibilities to everyone despite the background. There are not many other countries, in which “a child of a poor family can educate herself and achieve her goals in life. A cashier can even become a prime minister”, as the Finnish prime minister Sanna Marin commented in her tweet (Marin, 2019). However, the recent polarization of families’ surroundings is a significant factor concerning both cultural and socioeconomic perspectives.

### ***1.3.2 Parental Education***

Parental education is commonly used as a reliable indicator of a family's socioeconomic status: education level is easy to measure, has low levels of missing data, it reaches also the unemployed, retired and homemakers, and is accurately reported (Krieger et al., 1997). Education can be considered as a measure of human capital, which has a role in generating income (Falk et al., 2021). Falk et al. (2021) found in their study a strong correlation between family income and parental education, which has been confirmed by other researchers, too (see e.g. Bluth et al., 2020). In the research of education’s productivity, the education level was compared to lifetime earnings (the amount of income a person has earned during their lifetime). In 2019, getting educated was profitable in Finland: even though there were significant differences between disciplines, in general the higher education, the more money one had during their life span. Correspondingly, low education was related to poverty. (Husa, 2019.)

Being one commonly used variable in measuring SES, the differences in parenting styles between high and low SES apply to high and low parental education: the higher educated parents have been found more permissive, authoritative and indulgent and less authoritarian than the parents of lower education. In addition to discipline practices, education affects parenting directly via the nature of talk in the family, and indirectly via the parents’



own health and well-being, and their knowledge about child development. (Hoff & Laursen, 2019.)

Parental education relates to children's general development through the support for learning the parents provide, for example books, magazines, toys, discussions, etc. The higher the parents were educated, the more they invested money, resources, and time in their children. Jeong et al., 2017.) Leino et al. (2017) observed in a Finnish study that the highly educated parents had more books in their homes, which the researchers suggested to relate to parents' own reading habits, passing on a positive role model to the children. The quantity and the quality of speech have been proven to be positively related to language development. There's a lot of evidence for the positive relation of verbal responsivity with parental education, higher educated parents addressing more speech to their children and using broader terminology with greater variety of words and more complex language than the parents with lower education. Furthermore, the higher educated parents asked questions that elicit conversations with their children. (Hoff & Laursen, 2019; Jeong et al., 2017.)

Jeong et al. (2017) claimed that highly educated mothers read books on childrearing gaining knowledge about child development and updating it, they and had higher expectations on their children than mothers with lower education. On the contrary, parents with low levels of education didn't have as much knowledge about child development and recommended parenting practices as the high-educated parents, and they were not as capable of supervising and instructing their children, being able to help them neither with homework, nor in meetings with education professionals (Hoff & Laursen, 2019).

The desires for the outcomes of the children are distinct between parents of high versus low SES, and they see for themselves differing roles in helping their children achieve those outcomes (Hastings et al., 2015; Hoff & Laursen, 2019). Low-SES parents have been found to prepare their children for similar roles in the future than the parents themselves have

in the society, instead of preparing them for upward mobility. The differences in the valued characteristics have been speculated to stem from the differences in the kinds of professions that parents hold, assuming that parents act to prepare their children for similar kind of adulthood they themselves have. (Hoff & Laursen, 2019.) This phenomenon was introduced and discussed also by Puttonen (2021), who referred to the survey of Acemoğlu (2021): High-income, educated parents valued independence, because they expected their children to get higher-income entrepreneurial or managerial occupations. Independent workers were more productive generating problem-solving ideas, and they may become entrepreneurs. In contrast, low-income families valued obedience and hard work, because they wanted to prevent disadvantaging their children in the labor market: obedience was an important characteristic for employers, such workers were easy to monitor and direct, they were not likely to deviate from rules or require incentives. (Acemoğlu, 2021.) Erola, professor of sociology at University of Turku, commented in *Helsingin Sanomat* the study of Acemoğlu (2021) from a Finnish perspective implying that more important than attitudes in child-rearing were the expectations of children's education: parents with high education expected their children to get as highly educated as possible, which made the children struggle to get into the desired education, whereas in the families where parents were low educated, children's further education options weren't even discussed, even though the institutes of higher education are free of charge and accessible to everyone in Finland. (Puttonen, 2021.) Hakkarainen et al. (2016) demonstrated similar results, but only concerning fathers: paternal educational background predicted the educational track of their children: the lower paternal education the shorter educational trajectory had the father's offspring.

Bauer et al. (2014) studied the relation of parental background to children's formation of other-regarding preferences. Bauer and his colleagues (2014) were the first to combine experimental measures of children's other-regarding preferences and survey data from parents

to study the connection of parental SES with children's other-regarding preferences: in addition to the experiments done with dictator game, the researchers collected data about children's cognitive skills, siblings, health and the importance they considered peers to have at school. Furthermore, the World Values Survey data was used to analyze parents' values and their willingness to instill unselfish behaviors to their children. Bauer et al. (2014) found an association of low family socioeconomic status with gaps in children's other-regarding preferences that would have enhanced co-operation. Furthermore, they reported a connection of parents' low education with children's more selfish, spiteful and less altruistic behavior. Parents with lower education did not consider it important to instill unselfishness in their children, and these parents were less likely to involve in volunteer activities. These differences in values and socialization could explain the heterogeneity in children's preferences, suggested the authors. They also discussed the possibility of poverty, which was connected with parents' low education, being one explanation for children's lower altruism and higher selfishness. However, the researchers could not conclude it explain the spitefulness. (Bauer et al., 2014.)

Bluth et al. (2020) explored the connection of parental education and adolescent self-compassion. The researchers (2020) argued, the higher parental education, the bigger investment in child's education, which the researchers concluded to lead to better adolescent emotional functioning and good mental health. Child's academic achievement and physical health were also associated with parental education. An interesting result was that fathers' but not mothers' education was connected with adolescent self-compassion. The adolescents' self-compassion was greatest when the fathers had a college level education, in comparison to children of fathers with higher and lower education, who showed lower levels of self-compassion. The researchers speculated, the youth of well-educated fathers may spend time alone and may feel disconnected from their parents, missing the parental support, because the

fathers may work in positions that require long hours, travel and personal commitment. Furthermore, Bluth and her colleagues (2020) speculated, that fathers who have professional degrees may be more prone to self-criticism and they may cause increased stress for their adolescents via high academic expectations. (Bluth et al., 2020). The results were in line with the outcomes of Jakku-Sihvonen and Kuusela (2012), who explored the connections between parents' education background and pupils' success in their studies and their attitudes and plans for further studies in Finland: If none of the parents had passed the matriculation examination, the children's results in the tests were 10 % lower than if both parents had passed the matriculation exam. If only one of the parents had passed the exam, children's results were in the middle of the two ends. The higher the parents were educated, the more their children felt themselves competent. The researchers (2012) discovered that the areas where the adults had lower education levels had more immigrants, unemployed people, children's welfare had issues and the children achieved lower at school, whereas in the areas of high education levels among the adult population, children had higher achievements at school. Jakku-Sihvonen and Kuusela (2012) concluded, the general education level of adults in an area corresponded with the level of children's achievements. (Jakku-Sihvonen & Kuusela, 2012.) Importantly, child's IQ, school performance, patience or health didn't affect child's other-regarding preferences in the study of Bauer et al. (2014). An effect was found only via the way how children were guided to adapt to social norms and via the importance which the parents gave to instilling unselfish behaviors into their children (Bauer et al., 2014).

Parent's educational background was also studied by Sutter and Untertrifaller (2020). The researchers observed the relation of under school -aged children's willingness to cooperate and their parents' educational background. Children whose parents held a high-school or university degree were more likely to cooperate than children of less educated parents. The researchers found that higher educated parents considered it more important that

their child should cooperate than lower educated parents. The conclusions of Sutter and Untertrifaller (2020) tie well with the results of Bauer et al. (2014): normative views of what is desired behavior differed between education levels.

#### **1.4 Study Aim and Research Tasks**

As the literature review shows, previous research has focused on the connection of family's socioeconomic status with the development of child's prosocial skills (e.g. Almås et al., 2017; Bauer et al., 2014; Benenson et al., 2007; Chen et al., 2013; Deckers et al., 2015; Falk et al., 2019; Guinote et al., 2015; Korndörfer et al., 2015; Kosse et al., 2020; Miller et al., 2015; Piff et al., 2010 & Sutter et al., 2020), but only few researchers have isolated education as the only factor among socioeconomic features. Bauer et al. (2014); Hoff and Laursen (2019), Leino (2017), Jeong et al. (2017), separated parental education in their research and demonstrated a positive association between parental education and parenting practices and values that enhance child's prosocial development. Also Sutter and Untertrifaller (2020) and Williams and Berthelsen (2017) explored parental education and its' connection with child's prosocial skills. However, in all the mentioned studies parental education was researched as one factor. Few researchers have explored mothers and fathers separately: Cheung et al. (2016) and Parke and Cookston (2019) compared maternal and paternal parenting styles, Harkness and Super (2002), and Keown et al. (2018) described fathers' role in fostering children, and Daniel et al. (2016) and Jeynes (2016) contributed in the literature by describing the effects of paternal parenting behaviors on children's development. Nonetheless, none of the studies about mothers and fathers considered the parents' education levels as a factor. The aim of this study is to address the impact of mothers' and fathers' education levels separately on ECEC-aged children's prosocial behavior, which as far as we know, no previous research has investigated.

First, I research the connection of mothers' and fathers' education with children's sharing behavior in a dictator game. Previous research has shown contradictory results about the connection of families' socioeconomic status and children's sharing behavior. Even though there is evidence about the fairness view being more egalitarian in families of low SES, all the literature researching the impact of parental education reported a positive connection between parental education and child's development. Hence, I consider having no basis to form any hypothesis about the result.

Second, I analyze the connection of mothers' and fathers' education and children's prosocial behaviors empathy and cooperation, and the antisocial behaviors disruptiveness and impulsiveness, and a summary of prosocial skills rated by parents and Early Childhood Education and Care teachers. Similar to the first research question, I form no hypothesis about the connection between the parents' education levels and children's teacher-rated prosocial behaviors.

My research questions are:

1. Is there a connection between a child's mother's or father's education level and the child's sharing behavior?
2. Is there a connection between a child's mothers' or father's education level and the child's teacher- and parent-rated prosocial behaviors?

## 2 Methods

### 2.1 Participants

This analysis included 74 three- to six-year-old children ( $M = 5,48$  years-of-age,  $SD = 0,77$ , 37 girls). These data were collected in the context of a project of the university of Turku, called Rinnalla (translated Side by Side), which included university research and education of child care staff in methods with which the social and emotional abilities of children in early childhood can be supported (for further information, see <https://sites.utu.fi/rinnalla/en/>).

The measures were conducted between November 2019 and February 2020. The participants in this survey were selected from ECEC centers that had expressed their willingness to participate in the project. When introducing the Rinnalla project, the data collection plan was also introduced both to the parents and to the ECEC-centers. The project leaders explained, the children would be treated anonymously (they were called "child 1, child 2" etc. so that it would be impossible to trace the children afterwards) and all data collected from several ECEC centers would be mixed to preclude even the identification of a ECEC center. It was clarified, the children would only play a short game where they share stickers. After the briefing, the parents were asked whether they would allow their children to participate, and whether they would agree to fill in the questionnaires related to the survey. The children who became parental consent were allowed to participate. In addition, the participating families got the information about the survey in a written form. All ECEC centers were from South-West Finland, middle-sized cities or communities. All children were from Finnish origin and Finnish was their mother tongue. Table 1 displays the demographics for the children, who participated in the survey.

**Table 1***Demographics for Full Sample*

		<i>n</i>	<i>%</i>	<i>M</i>	<i>SD</i>
Age (years)				5,48	0,77
	3	2	2.7		
	4	7	8.1		
	5	19	27.1		
	6	46	62.2		
Gender				1.50	1.50
	girl	37	0.5		
	boy	37	0.5		
Siblings					
	yes	60	90.9		
	no	6	9.1		
Need for support					
	no need	48	72.7		
	linguistic challenges	7	10.6		
	other challenges	11	16.7		
History in ECEC					
	full-time	28	38.9		
	part-time	5	6.9		
	less than 6 months	26	36.1		

**2.1.1 Parents' Education**

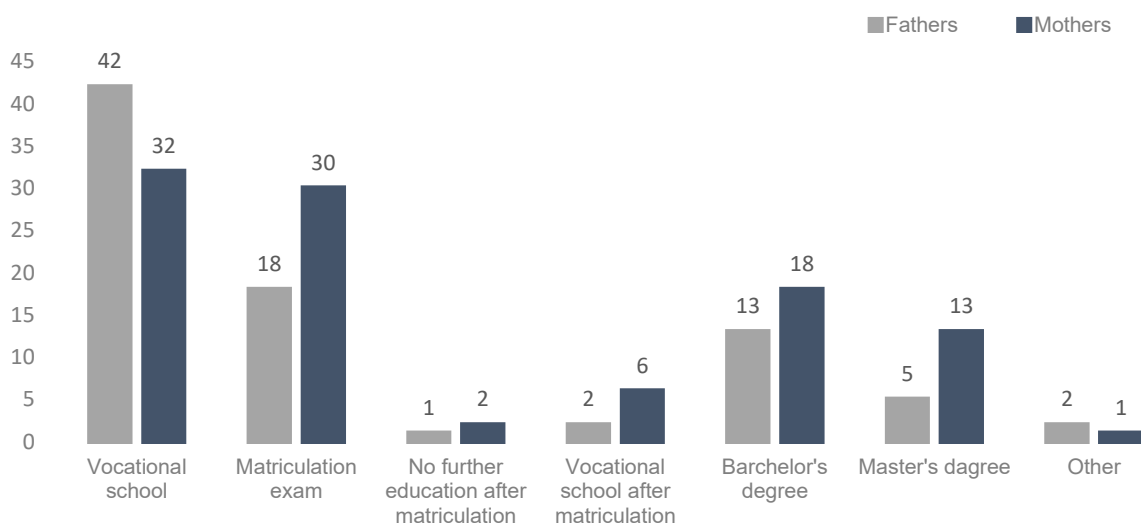
In the sample ( $n = 66$  fathers,  $n = 66$  mothers, the information about parental education was missing from eight children), mothers had on average a slightly higher level of education (basic education  $M = 3.91$ ,  $SD = 1.0$ ; further education  $M = 3.15$ ,  $SD = 1.40$ ) than fathers (basic education  $M = 3.55$ ,  $SD = 0.90$ ; further education  $M = 2.68$ ,  $SD = 1.33$ ). There were three fathers and one mother, who reported no further education after comprehensive school. Figure 1 shows that there were ten fathers more than mothers, who had studied in a



vocational school after comprehensive school, while twelve mothers had continued into general upper secondary education after basic education. Out of the parents, who had completed bachelor's degree, three fathers and seven mothers had no matriculation exam. The Finnish education system is described in the web pages of Finish National Agency for Education ([oph.fi/en](http://oph.fi/en)).

**Figure 1**

*Paternal and Maternal Education in the Sample (n)*



For the survey, two groups were formed based on the parental education level: low education contained matriculation exam or vocational school as the highest degree of education, high education level contained bachelor's degree as the lowest education. Master's degree and the educations defined "other" were included in the higher education level. Table 2 displays that there were significantly more low educated fathers, while mothers' education levels divided almost equally into low and high education levels.

**Table 2***The Paternal and Maternal Education Levels in the Study*

Education level	Fathers		Mothers	
	<i>n</i>	%	<i>n</i>	%
Low	46	69.7	34	51.5
High	20	30.3	32	48.5

**2.1.2 Ethical Aspects of the Study**

The research followed the ethical guidelines of Finnish National Board on Research Integrity (Finnish National Board on Research Integrity TENK, 2019). The research and a whole research plan were evaluated in the Ethics Committee for Human Sciences of University of Turku, Finland. A consent form and information sheet were provided to the children's parents. Children's participation required parental consent. Despite the parental consent, the children's willingness to participate in the game was confirmed before entering the play room, and they were told, they could leave any time if they didn't feel like continuing the play. The children's anonymity was respected, all data were decoded so that no child, nor an ECEC group could be identified.

**2.2 Materials**

The materials for the present study consisted of results of the game, which were typed on computer during the play, and of questionnaires, which were collected from parents and ECEC teachers in paper format and typed on computer later. The results were analyzed using SPSS 27.00. The data are stored at Turku University.

In the Rinnalla (Side by Side) project the data were collected twice from a randomized control group and experimental group: before the Deep Talk intervention and after it. This research utilized only part of the variables collected in the project: the number of stickers

shared in the dictator game, fathers' and mothers' basic and further educations, and PBQ and MASCS evaluations of teachers and parents about children's prosocial behaviors.

### ***2.2.1 Dictator Game***

In this survey, dictator game was used to measure the children's sharing behavior. Dictator game has originally been used in economic experiments to examine the development of bargaining behavior and human cooperation in economics (Harbaugh, 2003), but Kahneman et al. (1986) developed a version, which has been used widely for different purposes; to gain information about consumers' behavior, but also more widely to measure people's altruistic and fair behavior.

The game has two players, who play the game in isolation: the dictator who has a sum of money which the dictator can—but doesn't have to—share with the other person. The dictator doesn't know who the other person is. The receiving player cannot reject the gift, nor can the receiver punish the dictator for unfair sharing. Even if the dictator shared nothing, there are no negative consequences, nor social gains for sharing generously (see Engel, 2011; Gummerum et al., 2010 or Ongley & Malti, 2014 for a more detailed description of the game). The conditions that guarantee the participant's decision is completely socially isolated, are called double blind conditions. In the procedure absolute privacy and isolation from any social consequence is guaranteed by ensuring that no one could get to know the sharing decision made – not the experimenter, nor any observer of the data. (Hoffman et al., 1996).

The dictator game is considered to measure purely altruistic behavior, as the receiver cannot thank nor punish the dictator for the decision. It has been valued for it being simple and having uniform procedure permitting systematic comparisons of altruism across diverse people and contexts. (Benenson et al., 2007; Fehr & Schmidt, 2006.)

In this experiment, stickers were selected to be used as endowments, consistent with other surveys that were directed to children (Benenson et al., 2007; Chen et al. (2013);

Gummerum et al., 2010; Williams et al., 2014). The dictator game was decided to be called child-friendly “the sticker game” emphasizing the idea of just sharing stickers instead of being a decision maker. When preparing the survey, we had asked the ECEC personnel, what kind of themes were popular among children in the participating groups. Along timeless favorite themes like animals, vehicles and tools, several kids liked skating and ice hockey, fairies and princesses; especially the Frozen characters were topical items. Thus, we had three sticker-sets each, 10 of one sort: One of us had three 10-sticker staples of an ice hockey player, a horse and a vehicle, and another of us had sticker staples of a colored cat, an ice skater and a luxurious car. The stickers proved to be a valuable resource to share or to keep. In addition to the stickers, we had two gift bags on the table, post-it notes for signing the child’s name on the bag, and a laptop to gather the children’s answers in the interview.

We built double-blind conditions to ensure, the effect of social influences on the player’s (dictator’s) decisions were eliminated by guaranteeing a complete social isolation and ensuring anonymity: during the play, the experimenter didn’t watch the player’s decision; the dictator’s individual decisions couldn’t be known neither by the experimenter, nor by anyone else.

**Procedure.** The children were individually tested in a separate room close to the room where the ECEC group spent time. They were tested by two female experimenters (M.A. Mari Siipola and M.A. Silja Isoiitu-Sjöblom) who hadn't seen any of the children before. All participating children ( $N = 74$ ) played the dictator game alone, no therapists or other supportive persons were allowed to enter the survey room. The participants were tested in one session, one after one. One session took approximately 5–10 minutes. There were few children, whose parents hadn’t returned the permission questionnaire about allowing their child to participate in the survey. As those children were willing to participate in the game

like their peers, the experimenters played the game with them as well, but didn't record the results of their sharing.

The experimenters visited the ECEC centers as agreed, each at the same time in the morning after breakfast time expecting the children to be fresh and energetic enough in order to concentrate in the moment of playing the game. The game was played simultaneously in two rooms, in uniform manners, following a pre-trained script.

The experimenters asked, who was willing to come and play a game, and invited the voluntary participants (finally, everyone volunteered) into a separate room one by one. There were two gift bags on the table. First the experimenter asked what the child's name was, wrote it on a post-it note and pasted it on one of the bags. After some small talk the experimenter told the child, there were three different staples of stickers and asked, which staple the child liked the most. After choosing the preferred stickers, the experimenter spread two lines of five stickers in front of the child. Next the child was asked to count the stickers. It seemed like a pleasant task and worked as the ultimate ice breaker. Everyone was eager to count, also the ones that weren't able to count right. The experimenter praised them for great counting and stated, there were ten stickers altogether.

Next the experimenter showed the two gift bags on the table. The experimenter told the child, the one with the child's name on it was their bag, and the other bag without a name belonged to another child, whose identity wasn't known. Soon the experimenter would turn around so that she wouldn't see at all, what happens. While the experimenter being turned around, the child should share all the ten stickers either in their own bag or into the other, anonymous child's bag. To confirm, the task had been understood, the child was asked to show the experimenter, where the stickers were to be put the child wished to have for self, and where to put the ones the child wanted to give to the other child. The experimenter still repeated, she wouldn't look how the stickers would get shared. The child was asked to let the

experimenter know, when all stickers had vanished from the table into the bags so that she would be able to turn around. In few cases the child had not shared all stickers. In such a case, the experimenter asked the child to continue sharing as long as all stickers were in the bags, and turned around again. Two children insisted not to share all stickers. The choice was accepted considering it as a conscious decision, comparing it to abstaining.

After finishing the sharing, the experimenter asked some questions for self-assessment, sociometry and measures of helping behavior. The interview was part of the Rinnalla (Side by Side) project, which was excluded from this survey (information about the interview results can be asked from the project leader, see <https://sites.utu.fi/rinnalla/en/>). After the interview the experimenter thanked the child for participating and showed other stickers than the ones in the game, out of which the child could select one to be taken home as a praise for having played brave. The children were pleased with the praises, only few asked, whether they didn't get the stickers of the game that they had shared to themselves. Even though the themes were picked up based on their interests and they seemed to like them, the praise stickers might have been even more fancy with glitters and other extra effects on them. However, when asked, the experimenter answered that she couldn't give those stickers yet, because she was still going to play the same game with other kids. The answer was accepted without further considerations.

At the end the experimenter guided the child to bring the sticker into the child's locker. Before the next child entered, the experimenter counted the results of the previous child's sharing and wrote them up.

**Figure 2***Dictator Game set-up.*

*Note.* The gift bags, the left one with child's name, selected 10 stickers (cars) and the other sticker sets (colourful cat and ice skater). The child is counting the stickers. Picture: Silja Isoiitu-Sjöblom.

**Research Design for Measuring Sharing Behavior.** This was a correlational study using the survey method. The experiment was a double-blind field experiment with an active control group. The independent variables were paternal and maternal education, the dependent variable was the number of shared stickers in the sticker game.

This study was a between-subjects design, as we collected the data primarily from the first treatment. In case a child was absent in the first treatment, the results were taken from the second treatment. There were altogether eight children, whose data were replaced by the results of the second round.

**Analytic Strategies.** The normality of children's sharing behavior in relation with paternal and maternal education in both education levels, high and low, was assessed. The

histograms did not seem normally curved, and a Shapiro-Wilk test showed a significant departure from normality, low educated fathers  $W(46) = .785, p < .001$ , high educated fathers  $W(20) = .654, p < .001$ , low educated mothers  $W(34) = .787, p < .001$ , high educated mothers  $W(32) = .707, p < .001$ . Hence, it was decided to use the Mann-Whitney test to examine the connection of maternal and paternal education with child's sharing behavior.

### **2.2.2 The Questionnaires**

Two questionnaires were used to investigate children's prosociality. The children's prosocial and antisocial behavior was measured using the Multisource Assessment of Children's Social Competence Scale (MASCS) (Kaukiainen et al., 2005), and prosocial skills using a translation of Weir and Duveen's test PBQ (Weir and Duveen, 1981). Both questionnaires were filled in by parents and ECEC teachers. All teachers returned the questionnaires, eight parents' answers remained lacking. There were altogether 74 answers in teachers' questionnaires and 66 in parents' questionnaires. The parent filling in the questionnaire was in 60 cases the mother, in five cases the father and in one case both parents.

**PBQ Questionnaire.** Weir et al. (1980) aimed to investigate children's spontaneous prosocial behavior by comparing individual differences in the absence or presence of challenging or deviant behavior. Based on an assumption that children had individual differences in their tendencies to act prosocially, and that there was a positive relation between different types of prosocial behavior, the researchers created an assessment tool, a questionnaire with which children's prosocial behavior could be measured.

The basis for the questionnaire was collected from teachers that had compiled lists of behaviors they observed among 8-year-old children during school days. The questionnaire they formed measured observable behaviors, it didn't look into the intentions behind the behaviors, nor the antecedents of the behavior or the desired consequences. The test, "Prosocial Behavior Questionnaire" (PBQ), contained twenty questions that were rated on a



three-point scale, scored 1 (Rarely applies) ,2 (Applies somewhat) and 3 (Certainly applies). The questions reflected children's peer to peer behavior via cooperative behavior and playfulness (e.g. "Can work easily in a small peer group", "Will invite bystanders to join in a game"), helpful behavior ("Spontaneously helps to pick up objects which another child has dropped, e.g. pencils, books etc.", "Offers to help other children who are having difficulty with a task in the classroom", "Helps other children who are feeling sick"), and response to distress and empathy ("Shows sympathy to someone who has made a mistake", "Comforts a child who is crying or upset). Attention to task was measured with questions like "Stops talking quickly when asked to", "Settles down to work quickly". The PBQ was validated with a sociometry, a peer-to-peer questionnaire, in which the pupils were to select one girl and one boy from their class, who suited best to a described role in a play. In addition, the observers counted the amount of the teacher issuing injunctions to inappropriately behaving children during a period and calculated an attention index for each child by following whether the pupils were on task or off task during the observation period. The observation results were compared with the sociometry, teacher's perceptions of deviant behavior, and with results of a reading test. The authors have proven that they have created a scale that measures the behaviors that the teachers define prosocial (see Weir & Duveen, 1981). In conclusion, Weir and Duveen recommended the questionnaire they developed to be used in order to rate children's' prosocial behavior.

In this survey, a translation of the original PBQ was used, and the scale was changed to a five-point scale, scored 1,2,3,4 and 5 respectively. One sum variable was formed to comprise general prosocial behavior, combining all 20 questions about children's prosocial behavior in the PBQ questionnaire. This sum variable was called *Prosocial skills (PBQ)*.

**MASCS Questionnaire.** Kaukiainen et al. (2005) developed the Multisource assessment of Children's Social Competence Scale, MASCS (In Finnish: Monitahoarviointi

oppilaan sosiaalisesta kompetenssista, MASK) for the purpose of assessing children's social competence. The MASCS test contains 15 items, which all are scaled from 1 to 4 (1 = not at all, 2 = rarely, 3 = frequently 4 = very frequently). The researchers divided social competence to four sub-dimensions: two assessing the prosocial dimension: cooperative skills (5 items) and empathy (3 items), and two assessing the antisocial dimension: impulsivity (3 items) and disruptiveness (4 items). Impulsivity was defined as a risk factor for antisocial behavior, the child having difficulties in inhibiting immediate responses and in waiting or in planning ahead, whereas disruptiveness was defined as a factor that is directed at other people, trying to harm or annoy them. Thus, disruptiveness is close to aggressive behavior or bullying. (Junttila et al., 2006.) The test has been proven to be valid and reliable (Junttila, 2010).

In this survey, slight modifications were made to the original questionnaires: in the MASCS questionnaire, three questions were removed from the cooperative skills sub-dimension, which weren't suitable for children this young: "Invites other children to the activities", "Starts skillfully a conversation with peers" and "Co-operates with other children". In addition, the term "pupil" was changed to "child". Finally, the MASCS contained thirteen items altogether.

Sums were made in line with the manual for MASCS (Kaukiainen et al., 2005) to describe the different areas of children's prosociality. The 13 questions in MASCS were shared to two main classes: one that combined questions about empathy and cooperation skills, called *Prosocial behavior (MASCS)* and another containing questions about disruptiveness and impulsivity, which was called *Antisocial behavior (MASCS)*. Furthermore, to be able to compare the means of the negative values with the positive values, a sum variable was created with the negative values of the antisocial questions transformed to positive.

**Procedure.** Before visiting the ECEC centers, the questionnaires were delivered to both ECEC professionals and to parents. They were asked to fill in the questionnaires before the experimenters came to play the sticker game. After receiving the questionnaires filled, the data were fed into an excel file.

The questionnaires about children's prosocial behavior that were given to the ECEC professionals and the parents were identical, but the background questions were different. In the teachers' questionnaire the child's age, gender, mother tongue, name of the child's ECEC group, and the evaluator's name were asked. In the parents' questionnaire the background data consisted of the child's age, gender, mother tongue, whether the child had siblings, the name of the child's ECEC group, the time the child had spent in ECEC, and whether it was full-time or part-time, and finally, whether the child had challenges in development, behavior or health, and what kind of challenges they were. The demographics of the sample can be seen in Table 1 and Table 2.

**Research Design for Measuring Pro-/antisocial Behavior.** This part of research was also correlational using the data collected from two questionnaires. The evaluations of parents and teachers were observed in connection with paternal and maternal education. The dependent variables were the pro-/antisocial behaviors: The Prosocial behavior (MASCS), the Antisocial behavior (MASCS) and the Prosocial skills (PBQ), which are described in more detail in the next chapter. Of these three dimensions of prosocial behaviors, sums were formed containing both parents' and teachers' assessments. The sums were used as dependent variables. The independent variables were the education levels of both parents.

**Analytic Strategies.** Because some questions had remained unanswered in the parents' questionnaires, sum variables were formed, which contained the mean of the variable in order to capture a wider range of data. A mean was calculated with a minimum value of 17 questions out of 20 answered in the PBQ questionnaire, a minimum of five answers out of six

in the MASCS prosocial behavior part and six answers out of seven in the MASCS antisocial behavior part. Furthermore, a sum was created combining both teachers' and parents' evaluations for PBQ and both MASCS parts.

The internal consistency of Prosocial skills (PBQ) containing 20 answers from parents and teachers, Prosocial behavior (MASCS) containing 6 answers from parents and teachers and Antisocial behavior (MASCS) containing 7 answers from parents and teachers, was reviewed with Cronbach's alphas, which were good at .941, .875 and .848, respectively. Because the sample size of high educated fathers was rather small ( $n = 20$ ), normality was checked with a Kolmogorov-Smirnov test and by inspecting the skewness by sharing skewness by standard error of skewness, and kurtosis respectively by sharing kurtosis by standard error of kurtosis. The factors Prosocial skills (PBQ) and Prosocial behavior (MASCS) by both father's and mother's education level were normally distributed, but a Kolmogorov-Smirnov test indicated that Antisocial behavior (MASCS) by father's low education level didn't follow a normal distribution,  $D(46) = .159, p = .005$ , with skewness of 1.53 and kurtosis of -0.52. An independent samples  $t$  test was conducted to investigate the connection between father's and mother's low and high education levels and child's parent- and teacher-rated Prosocial skills (PBQ) and Prosocial behavior (MASCS) and Antisocial behavior (MASCS). Additionally, for the skewed factor Antisocial behavior (MASCS), a non-parametric Mann Whitney  $U$  test was used.

Levene's test of equality of variances was used to investigate possible violation of the assumption of homogeneity of variances. In case of violation, the  $p$  values were reported corrected using test data assuming no equal variances. In all cases the exact  $p$  value was reported and an  $\alpha$  level of .05 was consistently used. All  $p$  values were two-tailed. To provide information about the effect sizes, in addition to Cohen's  $d$ , a coefficient of determination,  $r^2$  was reported, when appropriate.

### 3 Results

The association of children's pro- and antisocial behavior and parents' education level was investigated. In separate sets of analyses, children's dictator game performance and pro-/antisocial behavior were used as the dependent variable. Their fathers' education level and their mothers' education level were used as independent variables. Independent samples *t*-tests and Mann-Whitney *U* tests were used in analyses, whenever appropriate. The normality distribution of the data was assessed with Shapiro Wilk's test and the measures for kurtosis and skewness. The homogeneity of variance was assessed with Levene's test for equality.

In the Methods section of this work, the demographics of the sample are described in Table 1, and Figure 1 illustrates details about paternal and maternal educations. Table 2 shows the two groups of education levels that were formed for both mothers and fathers.

The two education levels formed were studied in more detail. Table 3 illustrates in a contingency table the frequency distribution of parental education levels. There were 28 (42%) children in the sample ( $N = 66$ ), whose both parents were low-educated, and 14 (21%) children had both parents high educated.

**Table 3**

*Parental Education Levels in the Sample*

Education levels		<i>M</i>	<i>SD</i>	<i>N</i>
Mothers	Fathers			
low	low	3.61	1.95	28
	high	4.33	1.63	6
Total		3.74	1.90	34
high	low	3.83	1.89	18
	high	4.36	1.45	14
Total		4.06	1.70	32
Total	low	3.70	1.91	46
	high	4.35	1.46	20
Total		3.89	1.80	66

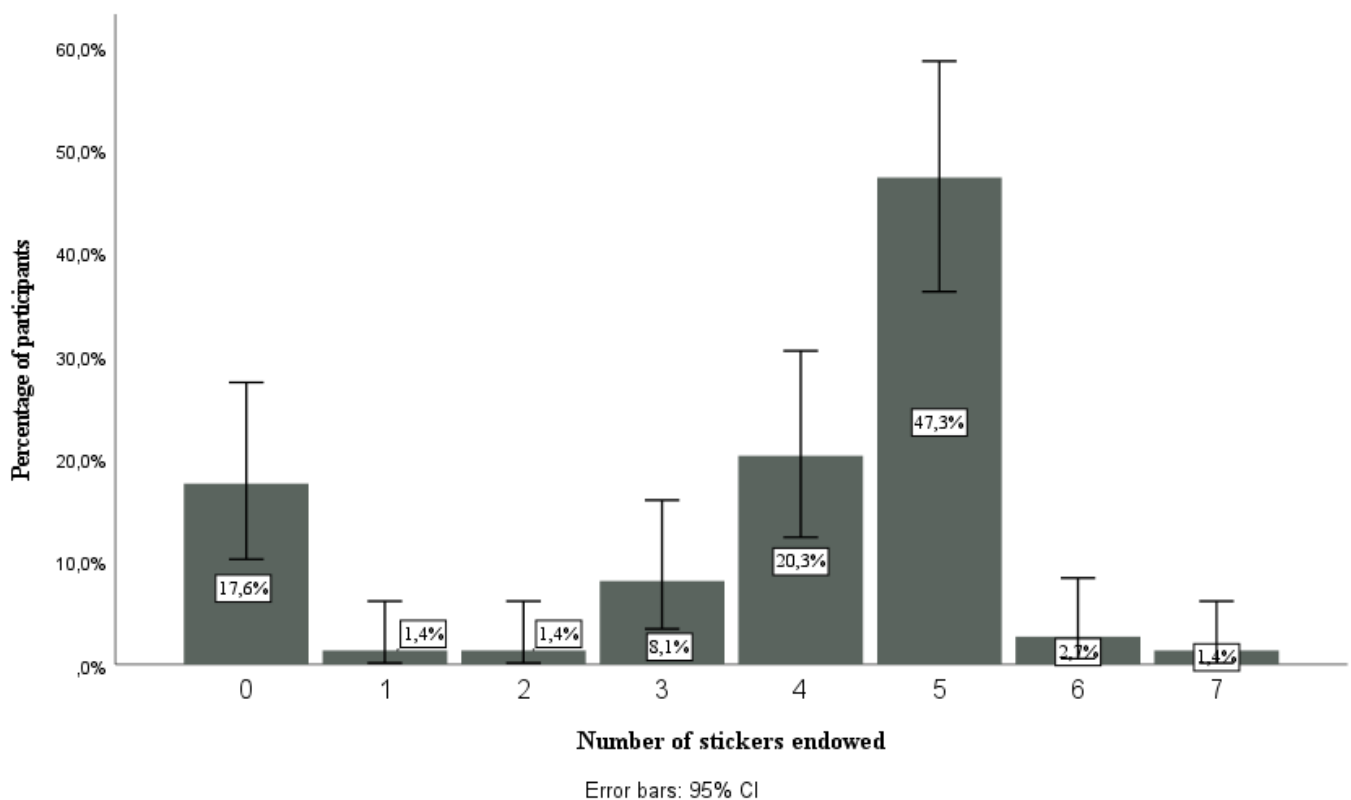
For clarity, I will describe the descriptive and inferential statistics for dictator game behavior and pro-/antisocial behavior separately.

### 3.1 The Connection of Parental Education Levels with Child's Sharing Behavior

In this survey children's sharing behavior was explored in relation with parental education levels. The participants had ten stickers to share. Figure 2 illustrates the distributions of sharing the stickers.

**Figure 3**

*Distribution of Shared Stickers by Number ( $M = 3.72$ ,  $Mdn = 5,00$ );  $SD = 1.93$ ;  $N = 74$ )*



Participants gave on average 3.72 stickers (95%  $CI = [3.26, 4.15]$ ) to an unknown child. All stickers were taken to self by 17.6 % of the children. There were no children

sharing more than seven out of ten stickers, but equal distribution was the most preferred decision.

Table 4 contains the descriptive statistics between low and high educated mothers and fathers based on the number of shared stickers.

**Table 4**

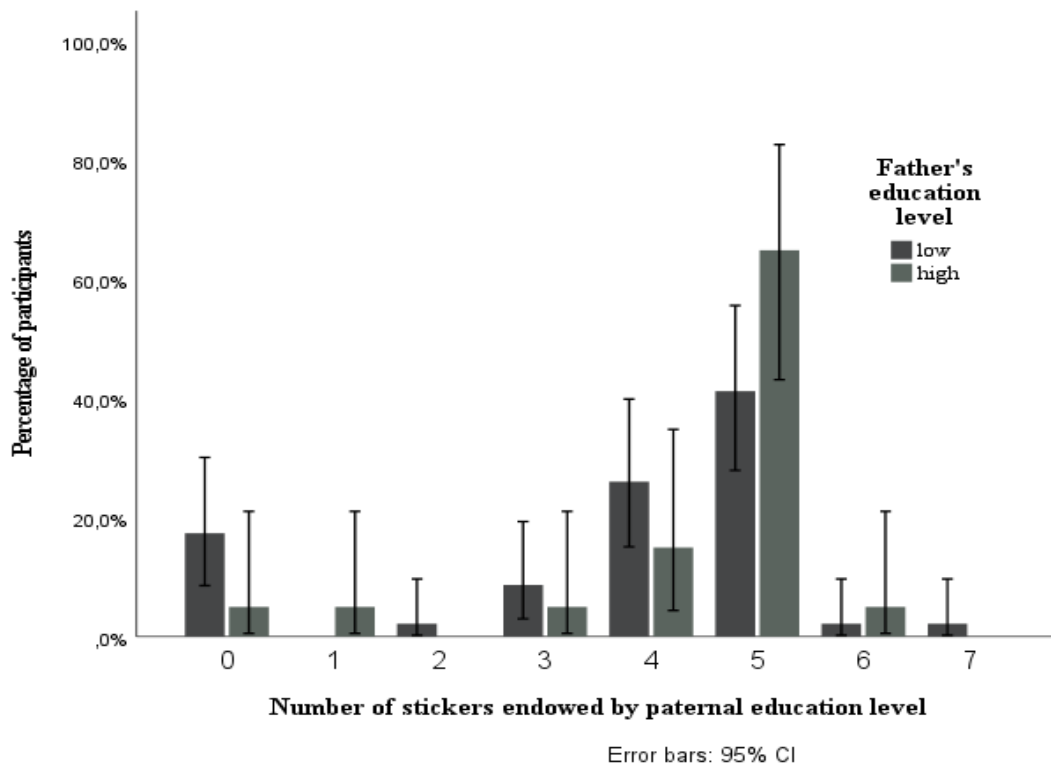
*Dictator Game Scores by Parental Education Levels*

	Education level	<i>M</i>	<i>SEM</i>	<i>SD</i>	<i>Mdn</i>	<i>Min</i>	<i>Max</i>	<i>n</i>
Fathers	low	3.70	.28	1.91	4.00	0	7	46
	high	4.35	.33	1.46	5.00	0	6	20
Mothers	low	3.74	.33	1.90	4.5	0	7	34
	high	4.06	.30	1.70	5.00	0	6	32

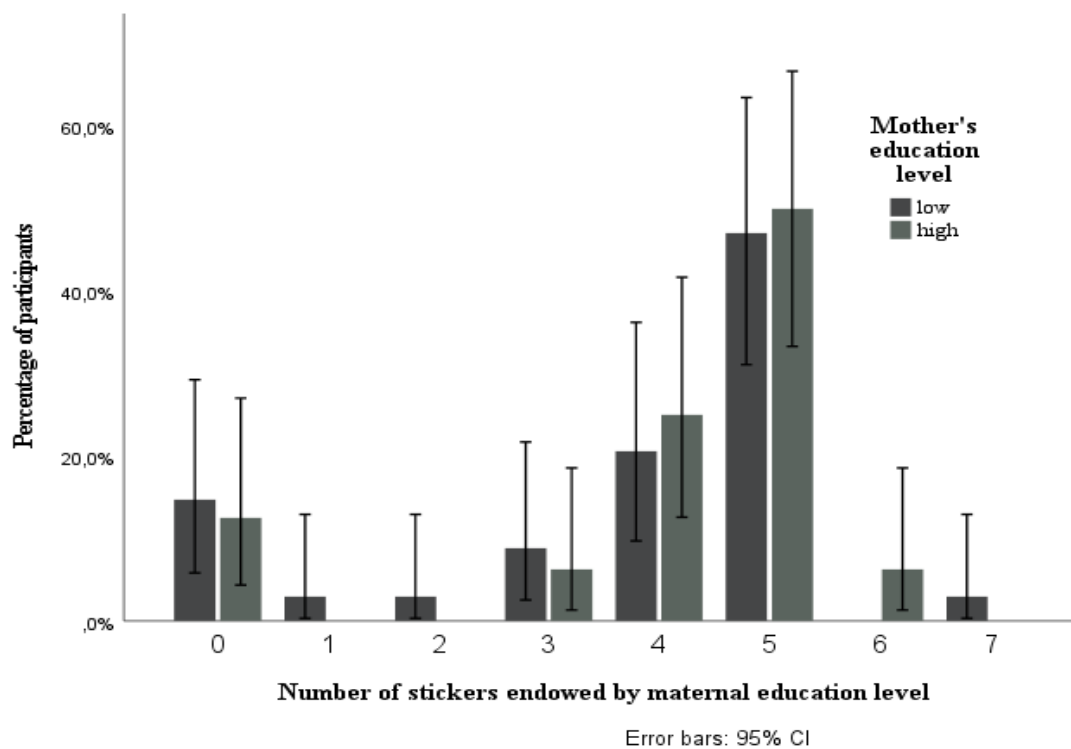
The distributions of shared stickers by parental education levels are described in Figures 4 and 5.

**Figure 4**

*Distribution of Number of Shared Stickers in Dictator Game, by Father's Education Levels*

**Figure 5**

*Distribution of Number of Shared Stickers in Dictator Game, by Mother's Education Levels*





Though Figure 4 shows that the children of low educated fathers seemed to donate more zero stickers than the children of high educated fathers, and equal split was more common among children of high than low educated fathers, a Mann-Whitney  $U$  test indicated that there was no significant difference in the number of shared stickers between the children, whose fathers had lower education and the children, whose fathers had higher education,  $U = 347.00, p = .091, r = -0.21, r^2 = .04$ .

Figure 4 indicates that the sharing behavior of high and low educated mothers' children did not differ significantly from each other. Children's sharing behavior was not significantly affected by mother's education level,  $U = 487.00, p = .433, r = -0.10, r^2 = .01$ .

### **3.2 The Connection of Parental Education Levels with Child's pro- and antisocial Behavior**

The teacher- and parent-rated questionnaires PBQ and MASCS were used to assess children's prosocial and antisocial behavior, respectively. Mean parameter values for each of the analyses are shown in Table 5 for fathers with low ( $n = 46$ ) and high ( $n = 20$ ) education, and mothers with low ( $n = 34$ ) and high ( $n = 32$ ) education, as well as the results of the  $t$  tests comparing the parameter estimates between the two education level groups.

An independent samples  $t$  test was performed to assess, whether the amount of prosocial behavior differed between children with low versus high educated fathers and mothers. Table 5 shows the results. For mothers the difference was statistically not significant. However, for fathers, it was found that the children of low educated fathers scored less in PBQ than the children of high educated fathers,  $t(64) = -2.61, p = .011, 95\% CI = [-1.20, -0.16]$ , with a medium to high practical significance (Cohen's  $d = -0.70, 95\% CI = [-1.24, -0.16]$ ). To measure the strength of the association between paternal education and child's prosocial skills, the coefficient of determination was calculated. It explained a medium to large proportion of variance in child's prosociality scores ( $r^2 = .10$ ).

The result was repeated with the MASCS prosocial behavior assessment, which included the teachers' and parents' evaluations of the children's empathy and co-operation skills,  $t(58.93) = -2.31$ ,  $p = .025$ , 95%  $CI = [-0.75, -0.53]$ , with medium effect ( $d = -0.50$ , 95%  $CI = [-1.03, 0.03]$ ,  $r^2 = .08$ ). These two tests suggest that the children of high educated fathers were associated with a statistically significantly larger mean value of prosocial behavior than the children of low educated fathers.

However, for disruptiveness and impulsivity, i.e., antisocial behavior, there was no statistical significance between high and low educated fathers. Because the data weren't normally distributed, the results of the evaluations of children's antisocial behavior (MASCS) score were investigated with a Mann-Whitney  $U$  test. This score was found non-significant between children with low ( $Mdn = 3.57$ ,  $n = 20$ ) and high ( $Mdn = 3.86$ ,  $n = 46$ ) educated fathers,  $U = 427.50$ ,  $z = -0.45$ ,  $p = .649$ , with a small effect size  $r = -0.06$ ,  $r^2 = 0.04$ .

**Table 5***Assessments of High and Low Educated Parents' Children's Prosocial Behavior*

Evaluation	Education level				<i>t(df)</i>	<i>p</i>	Cohen's <i>d</i>	95% <i>CI</i>
	Low		High					
	<i>M</i>	<i>SEM</i>	<i>M</i>	<i>SEM</i>				
1. Prosocial skills (PBQ)								
Fathers	6.52	0.15	7.20	0.21	-2.61 (64)	<.001*	-0.70	[-1.20, -0.16]
Mothers	6.68	0.20	6.79	0.15	-.45 (64)	.403	-0.11	[-0.62, 0.39]
2. Prosocial behavior (MASCS)								
Fathers	5.81	0.13	6.21	0.11	-0.31 (58.93)	.011*	-0.50	[-0.75, -0.53]
Mothers	5.86	0.16	6.02	0.11	-0.85 (56.16)	.397	-0.21	[-0.56, 0.23]
3. Antisocial behavior (MASCS)								
Fathers	3.12	0.53	3.08	0.70	0.49 (63)	.629	-0.15	[-0.14, 0.23]
Mothers	3.06	0.69	3.15	0.49	-1.11 (63)	.271	-0.28	[-0.26, 0.75]

*Note.* The values of Antisocial behavior (MASCS) were transferred from negative to positive.

\**p* < .05.

#### 4 Discussion

The purpose of this study was to examine the connection of mother's and father's education levels with child's prosocial behavior. Findings from the study indicate that children of high educated fathers behave more prosocially than children of low educated fathers. Mothers' education didn't have any association with children's prosocial behavior in the present study. The children of high educated fathers were assessed to interact more playfully and co-operative with peers, show more empathy, and seek and give advice to peers than the children of low educated fathers. The result arouses interest in low versus high educated fathers' parenting practices and other background factors, and their effects on children's development.

The first research question aimed to explore, is there a connection between a child's mother's or father's education level and the child's sharing behavior. Dictator game, in which children allocated resources between themselves and another child, was used to study the relation. No statistically significant difference was found in children's prosocial behavior between high and low educated parents. Previous studies about the relation between the family's SES and children's altruistic giving using the dictator game have produced inconsistent findings (see for example Benenson et al., 2007; Chen et al., 2013; Korndörfer et al., 2015; Piff et al., 2010). This study could not replicate neither the previously reported negative, nor the previously reported positive connection between the family's SES and child's sharing behavior.

Exploring results of studies about children endowing stickers in the dictator game, without considering the effects of parental education, the numbers of stickers shared to an unknown child implied that the children in this study behaved rather altruistically donating on average 37 % of their stickers to another child. Also the percentage of equal distribution (47 %) was high. For example, in the study of Chen et al. (2013), only 25 % gave half of the

stickers to strangers. The result could contribute to research about cultural differences in altruistic behavior, which is beyond the scope of this study.

Secondly, we investigated, is there a connection between a child's mother's or father's education level and the child's teacher- and parent-rated pro- and antisocial behaviors. There was a statistically significant difference in children's prosocial behavior and their fathers' but not their mothers' education level. The children of low educated fathers were rated to behave less prosocially than the ones of high educated fathers. The effect sizes of these differences suggested a medium to large effect (PBQ: Cohen's  $d = -0.50$ , 95%  $CI = [-1.03, 0.03]$ ; MASCS:  $d = -0.70$  [-1.24, -0.16]). Paternal education explained a medium to large proportion of variance in child's prosociality scores,  $r^2 = .10$  and  $.08$ , respectively. No corresponding differences were found in children's antisocial behavior between their mothers' and fathers' education levels. In detail, teachers and parents assessed the children of high educated fathers more other-regarding, empathic and co-operative than children of low educated fathers, but the children of those two groups did not differ in impulsivity and disruptiveness.

Previous research has produced inconsistent findings reporting both negative and positive correlations between family's SES and children's prosocial behavior. The studies suggesting that children of lower SES behaved more prosocially, having less self-focused characters, higher interpersonal sensitivity and more egalitarian fairness view (Chen et al., 2013; Guinote et al., 2015 and Miller et al., 2015; Piff et al., 2010), did not get support from this study. The results of the present study are partly consistent with the studies that have found a positive correlation between family's SES and children's positive behavior (Almås et al., 2017; Bauer et al., 2014; Benenson et al., 2007; Deckers et al., 2015; Falk et al., 2021; Korndörfer et al., 2015; Kosse et al., 2020; Sutter & Untertrifaller, 2020): Paternal education confirmed the positive correlation between SES and child's prosocial behavior, but maternal education didn't. Bauer et al. (2014) found the children of low-SES families more selfish and

spiteful, but in the current survey, no corresponding connection was found with antisocial features and paternal education.

Comparing the previous studies with each other and this study is intricate, though. The way the concept of SES has been measured varies between studies, by single or by multiple indicators, or even by a weighted combination of indicators (Hoff & Laursen, 2019). The comparison of studies is impeded due the wide range of definitions of prosocial behavior in the studies: is prosocial behavior defined in a narrow way as helping, donating or sharing, or is it based on several prosocial acts. The type of the participant group has varied in the studies consisting for example of university students, adolescents, survey panels or small children. Junttila (2010) discussed the conflicting results of studies using assessments. Social competence depends on the context and the evaluator; different raters may have differing values, and they evaluate a child's social competence from different perspectives, which explains the inconsistency of the evaluations (Junttila, 2010). For example, peers may consider different behavior acceptable than teachers or grandparents (Dirks et al., 2010). Parents know their children's behavior best and they have the widest possibility to follow the children's behavior in different situations, but they often see the children interact only in small groups of friends or siblings and lack the possibility to observe their children interacting with peers in structured group situations. Furthermore, parents have strong feelings and expectations towards their children, which may affect their ratings. (Junttila, 2010.) The teachers and other ECEC professionals rate the children only based on their behavior in ECEC, being able to observe the children's behavior in bigger groups and in both structured and free learning situations. Furthermore, they are educated to pay attention to children's social competence. However, the teachers may be affected by some other skills or talents of the child that are appreciated by the teacher, and they may pay attention to the child's academic ability, family background, social class, personality traits like extroversion, or the

obedience and courteous behavior towards adults. (Junttila, 2010; Weir et al., 1980.) Jones et al. (2016) point out that that in addition to children's behaviors, features of the living surroundings in which children grow are reflected in the measures of children's social and emotional development. Children's competencies vary depending on where and when they are measured, and the characteristics of the context where children are assessed, should be understood when assessing their social and emotional competencies. (Jones et al., 2016.) Furthermore, measuring education similarly is not unambiguous, as the education systems vary between countries. In some studies, the education level has been measured by years of education (e.g. Bauer et al., 2014; Deckers et al, 2015), in others by degrees taken, like in this survey. School efficiency should be taken into account when measuring the education level in years spent at school. Similarly, there are respected degrees requiring hard work and degrees that are easy to take or even obtained in unethical ways. In all, none of the previous studies had the same focus as this work: researching the parental educations separately, focusing on certain prosocial behaviors of children under school age.

The present study has two main findings. First, only paternal education had a positive correlation with children's prosocial behavior. This study contributes to the small body of literature addressing the role of fathers in fostering child's prosocial development (e.g. Jeynes, 2016; Keown et al., 2018; Parke & Cookston, 2019). The result may support the recent findings that consider paternal contribution even more important than maternal contribution in fostering children's prosociality (see Bluth et al., 2020; Cheung et al., 2018; Hakkarainen et al.; 2016). Secondly, the correlation was found only in the parent- and teacher-rated assessments of children's prosocial behavior, but not in the sharing behavior, which was measured by playing the dictator game. The result suggests that there might be differences in children's motives to act in a prosocial way, which manifests in the different measures with which the prosocial behavior is assessed. Another explanation could be that the subtypes of

prosocial behavior measured are of various importance in the ECEC-aged children's priorities.

When supporting child's prosocial development, parents spend time with their offspring, read, play, support, discuss and explain, help find playmates and model social relationships. (Aerila et al., 2019; Hastings et al., 2015; Ladd & Kochenderfer-Ladd, 2019; Simpkins et al., 2015); they live in a safe neighborhood and enable their children to practice co-operation in the family surroundings and in high-quality ECEC (Suhonen et al., 2018). Previous research has demonstrated that parenting styles and parents' values vary between high and low parental education (Bauer et al., 2014; Hoff & Laursen, 2019; Puttonen, 2021), what may be affected by the differences in the environmental contexts where the parents operate (Hoff et al., 2002). Furthermore, previous research has proven education and income correlate (Bluth et al., 2020; Falk et al., 2021); Bauer et al. (2014) suggested that poverty could be one explanation for children's low altruism. It remains unclear, though, to which degree high-educated fathers have these prosociality-fostering qualities, and to what extent these paternal qualities are significant to children's development. Evidence suggests that fathers take an active role in preparing children for future, and the high-educated parents' expectations on their children are higher than the expectations of parents with lower education (Hastings et al., 2015; Hoff & Laursen, 2019; Jeong et al, 2017; Jeynes, 2016). One might conclude, high-educated fathers expect success from their offspring and support the development of skills that are crucial, such as ability to adjust and work with diverse people (see e.g. OECD, 2017).

Even though the motivation to act prosocially is not in the focus of the present study, previous literature about the motivation might shed some light on the study results, why the difference was found only in the assessments but not in the dictator game. Prosocial behavior can be motivated by inducements benefitting self, such as fear of punishment for not acting



prosocially, or wish for reciprocity or reward, or by altruistic willingness to help. (Chen et al., 2013; Dunfield, 2014; Hastings et al., 2007.) Assuming that the dictator game played in double-blind conditions reflects altruism, the present study results imply altruism having weaker connection with paternal education than the other prosocial behaviors, which were measured by assessing the children's behavior. In this study, the behavior the teachers and parents assessed, was observed in co-operative group or family activities, where the child might have experienced the benefits of reciprocity. In the dictator game there was no possibility for reciprocity, nor did anyone observe the child's decision, how to share the endowments. There are studies that have modified the conditions in the dictator game by varying the dictator's anonymity level and social distance: The offers of the dictators decreased in line with weakening the anonymity or social isolation conditions. (Hoffman et al., 1996.) Eckel and Grossman (1995) replaced the anonymous recipient with charity, what tripled the donations. Chen et al. (2013) examined whether children's altruistic behavior in dictator game differed when sharing to friends versus to strangers. Children shared significantly more to friends than to strangers. Hence, the paternal education level might not have affected children's altruism, but the children of high educated fathers had possibly learned to behave in a cooperative and other-considering way with other children they were familiar with, and in front of teachers and parents, being aware that other-regarding behavior was the behavior that was expected from them.

#### **4.1 Study limitations**

There are several limitations in the present study. The extraneous variables the child's age, gender, whether the child had siblings, need for support and time the child had spent in ECEC were excluded from this survey. Their potential impact on the results must be considered when evaluating the results, and their affect would be worth further research. Also peer evaluations and self-evaluations about the children's helping and comforting behavior

were gathered in the Rinnalla (Side by Side) project. These data were left out of scope in this survey but could have given a wider perspective to the evaluations. Furthermore, in the project, the sharing behavior was compared with the teachers' and parents' evaluations. Though the measures used in this survey were stable and the results consistent, examining the evaluations of the teachers and parents in connection with children's altruism in double-blind conditions might have increased the reliability of the data gathered in the questionnaires.

In the dictator game experiment, there were remarkable differences in children's numeracy skills. In the small talk phase, where the experimenter let the child count the 10 stickers, some children weren't able to perform the task correctly. Whether numerical skills could have explained the absence of the effects of parental education on children's sharing behavior, remains obscure. Chen et al. (2013) used only four stickers in the dictator game, which presumably reduced the risk of children's numeracy skills affect the results. Reducing the number of endowments could have strengthened the validity of this survey. Furthermore, counting the stickers had only an icebreaking role in the experiment, but the opportunity could have been utilized to gather data about the numeracy skills of 3-6 -years-old children.

Although the sample size ( $N = 74$ ) was sufficient, this sample was rather homogeneous, every parent having at least basic education and only one having achieved doctoral degree. Also cultural variation among the participants was low. The generalizability of the current results must be established by future research with a larger sample size. It also might be useful to extend the current findings by examining more extreme ends of parental education or family SES, to more differing living surroundings of the participants, or to various cultural backgrounds, where for example linguistic barriers might influence children's behavior.

## 4.2 Future research

Experimental studies are not common in the field of educational sciences. The study method gave direct and specific information about children's behavior without the challenges of measuring children's behavior by assessments, and playing with children with parental consent didn't cause any ethical challenges. I reckon, the method could be more widely used in educational sciences, together with other research methods. Also, the questionnaires gathered in the Rinnalla (Side by Side) project provide with further research opportunities: for example, possible differences in the assessments between parents and teachers in connection with children's background data, such as gender, need for support and socioeconomic status, might be fruitful research topics. A possible effect of the time the child has spent in ECEC on child's prosocial behavior is a connection worth examining: the existing literature suggests, high-quality ECEC can remedy the development of vulnerable children, regardless their possibly weaker capabilities due to family background or biological givens (Bierman et al., 2018; Suhonen et al., 2018). Researching, whether ECEC levels out the impact of fathers' low education in children's prosociality, might be addressed in future studies. On the other hand, especially in Finland, ECEC is of high quality and provides opportunities to practice social skills in a safe environment (Suhonen et al., 2018). Even if high-educated fathers utilized the possibility for paternal leave and spent time caring for children at home (Ministry of social affairs and health, 2021; Saarikallio-Torp & Miettinen, 2021), when returning to work, the children presumably participate in ECEC, whereas the children of unemployed parents may stay longer at home. This assumption and the possible effects of time spent in ECEC might be addressed in future studies. Bauer et al. (2014) concluded that the gap associated with low parental education had no effect on bright children, but it was especially profound among children who had low cognitive skills. Furthermore, they found no gap for children who had low cognitive skills but high parental education. In the Rinnalla (Side by Side) project, the

need for support was gathered as background factor. Based on Bauer et al.'s (2014) findings, the connection between children's need for support, paternal education and prosocial skills could be further studied with this data.

The current study demonstrated Finnish children have rather egalitarian fairness view. It would have been intriguing to discuss with the participants after having played the dictator game about their decision-making process, and document, why they shared the way they did. Such an interview might have thrown some light on the endower's fairness view, possible selfishness or altruism, and on their motives. There are studies in which the researchers have gained information about the underlying mechanisms in the sharing behavior by modifying the conditions in the game and documenting the effects of the modifications to the behavior (see, for example, Gummerum et al., 2010; Ongley & Malti, 2014; Williams et al., 2014). Mellers et al. (2010) asked the participants before playing the dictator game, what they anticipated to feel about different sharing options, and what they thought would be the fair thing to do and compared the results of the dictator game with the anticipations. However, to my knowledge, interviews after a game played in double-blind conditions haven't been conducted.

The connection of paternal education with children's prosocial behavior was the main outcome of this study, but conspicuous is also the result, maternal education didn't have any connection with children's prosocial behavior. In all, the results provide a good starting point for discussion and further research: these initial findings should get confirmed with a larger, more heterogeneous sample and if reproduced, future research on finding explanations, why maternal education doesn't have an effect but paternal does, is warranted. Furthermore, whether paternal income has a stronger connection with children's prosocial development in comparison with maternal income, and whether the result is culture-specific, might be interesting topics for future work.

Recently, well-educated and economically advantaged fathers have increasingly begun to get involved in childrearing (Parke & Cookston, 2019), using parental leave more than low-educated fathers (Saarikallio-Torp & Miettinen, 2021). If, as the present study suggests, fathers'—not mothers'—education and hence their parenting practices and income affect the development of children's prosocial behavior, then there is a need for research that would establish more understanding of the extent of fathers' importance in children's prosocial development.

### **4.3 Conclusions**

In all, there seem to be positive decisions made in Finland; the obligatory education was set to 18 years, which should ensure at least a vocational level education to everyone. Furthermore, there is a target that by 2030 at least 50 % of all young adults will have completed a higher education degree (Finnish Government, 2021). To tackle the decrease of PISA (the Program for International Student Assessment) results the Finnish National Board of Education has established a project called “Basic education of the future—let's turn the trend!”. The project targets to keep schools non-selective structuring the basic education so that there would be no connections between children's learning outcomes and their social backgrounds or living areas.

If parents, especially the fathers, improve their parenting skills via increase of the education level and via programs targeted to selected parents, have sufficient resources, the importance in participating in high-quality ECEC is emphasized, and in addition interventions are developed both for groups of children and for individuals of low SES, we will be on the way to raise citizens, who adapt to the fast-changing, global world, support the needy and share resources equally.

The present study represents a first attempt to address the gaps in the literature concerning the connection of both parent's educations separately with the prosocial behavior

of children under school age. No significant connection was found between maternal education and children's pro-/antisociality, but paternal education was significantly connected with teacher- and parent-rated prosocial behaviors. Hence, the results of this study encourage to consider fathers' role important in fostering children's prosociality. Future studies should aim to replicate the results in a larger and more heterogeneous sample, considering extraneous variables. If the results are confirmed, an interesting area of investigating the underlying factors opens for future research.

## References

Acemoglu, D. (2021). *Obedience in the Labor Market and Social Mobility: A Socio-Economic Approach* (NBER Working Paper No. 29125). National Bureau of Economic Research. <https://www.nber.org/papers/w29125>

Aerila, J-A., Kauppinen, M., Niinistö, E-M. & Sario, S. (2019). Iltasatukirjahylläillä tasa-arvoa ja tukea perheiden lukemiseen. In E-M. Niinistö, J-A. Aerila, S. Sario, & M. Kauppinen (Eds.), *Ytimessä – Kirja kaiken oppimisen keskiöön* (pp. 116-122). Helsinki: OPH. <https://aoe.fi/#/materiaali/532>

Almås, I., Cappelen, A. W., Salvanes, K. G., Sørensen, E. Ø., & Tungodden, B. (2017). Fairness and family background. *Politics, Philosophy & Economics*, 16(2), 117-131. <https://doi.org/10.1177/1470594X15618966>

Barnett, E. & Casper, M. (2001). A definition of “social environment”. *American journal of public health*, 91(3), 465-470. <https://doi.org/10.2105/AJPH.91.3.465a>

Bauer, M., Chytilová, J., & Pertold-gebicka, B. (2014). Parental background and other-regarding preferences in children. *Experimental Economics*, 17(1), 24-46. <http://dx.doi.org.ezproxy.utu.fi/10.1007/s10683-013-9355-y>

Benenson, J., Pascoe, J., & Radmore, N. (2007). Children’s altruistic behavior in the dictator game. *Evolution and Human Behavior*, 28(3), 168–175. <https://doi.org/10.1016/j.evolhumbehav.2006.10.003>

Bernelius, V. (2013). Eriytyvät kaupunkikoulut: Helsingin peruskoulujen oppilaspuhjan erot, perheiden kouluvalinnat ja oppimistuloksiin liittyvät aluevaikutukset osana kaupungin eriytymiskehitystä. [Doctoral dissertation, University of Helsinki]. Helsingin kaupungin tietokeskus. <http://urn.fi/URN:ISBN:978-952-272-530-1>

Bierhoff, H. W. (2009). *Psychologie prosozialen Verhaltens: Warum wir anderen helfen*. Kohlhammer Verlag.

Bierman, K. L., Mathis, E. T., & Domitrovich, C. E. (2018). Serving the needs of young children with social, emotional, and behavioral needs: A Commentary. *School mental health, 10*(3), 254-263.

Blakemore, T., Gibbings, J., & Strazdins, L. (2006, December). Measuring the socio-economic position of families in HILDA and LSAC. In *ACSPRI Social Science Methodology Conference, University of Sydney*.

Bluth, K., Park, J., & Lathren, C. (2020). Is parents' education level associated with adolescent self-compassion?. *Explore, 16*(4), 225-230.

Bradley, R. H., & Corwyn, R. F. (2002). Socioeconomic status and child development. *Annual review of psychology, 53*(1), 371-399. 10.1146/53100901135233

Bradley, R. H. (2002). Environment and parenting. In M. H. Bornstein (Ed.), *Handbook of parenting: Biology and Ecology of Parenting* (2nd ed., Vol. 2, pp. 281–314). Lawrence Erlbaum Associates Publishers.

Braveman, Cubbin, C., Egerter, S., Chideya, S., Marchi, K. S., Metzler, M., & Posner, S. (2005). Socioeconomic Status in Health Research: One Size Does Not Fit All. *The Journal of the American Medical Association, 294*(22), 2879–2888.

<https://doi.org/10.1001/jama.294.22.2879>

Chen, Y., Zhu, L., & Chen, Z. (2013). Family income affects children's altruistic behavior in the dictator game. *PloS one, 8*(11). <https://doi.org/10.1371/journal.pone.0080419>

Chernyshenko, O. S., Kankaraš, M., & Drasgow, F. (2018). *Social and emotional skills for student success and well-being: Conceptual framework for the OECD study on social and emotional skills*. OECD Education Working Papers 173, OECD.

<https://doi.org/10.1787/db1d8e59-en>

Cheung, R. Y., Boise, C., Cummings, E. M., & Davies, P. T. (2018). Mothers' and fathers' roles in child adjustment: Parenting practices and mothers' emotion socialization as



predictors. *Journal of Child and Family Studies*, 27(12), 4033-4043.

<https://doi.org/10.1007/s10826-018-1214-1>

Collie, R. J., Martin, A. J., Roberts, C. L., & Nassar, N. (2018). The roles of anxious and prosocial behavior in early academic performance: A population-based study examining unique and moderated effects. *Learning and Individual Differences*, 62, 141-152.

<https://doi.org/10.1016/j.lindif.2018.02.004>

Committee for Children. (2015). Second Step. Early learning through grade 8.

<http://www.cfchildren.org/second-step>

Corter, C. M., & Fleming, A. S. (2002). Psychobiology of maternal behavior in human beings. In M. H. Bornstein (Ed.), *Handbook of parenting: Biology and Ecology of Parenting* (2<sup>nd</sup> ed., Vol. 2, pp. 61-181). Lawrence Erlbaum Associates Publishers.

Daniel, E., Madigan, S., & Jenkins, J. (2016). Paternal and maternal warmth and the development of prosociality among preschoolers. *Journal of Family Psychology*, 30(1), 114.

<https://doi.org/10.1037/fam0000120>

Deckers, T., Falk, A., Kosse, F., & Schildberg-Hörisch, H. (2015). *How does socio-economic status shape a child's personality?* IZA Discussion Paper No. 8977, Inst. Study Labor, Bonn.

Dirks, M. A., Treat, T. A., & Weersing, V. R. (2010). The judge specificity of evaluations of youth social behavior: The case of peer provocation. *Social Development*, 19(4), 736-757. <https://doi.org/10.1111/j.1467-9507.2009.00559.x>

Van Doesum, N. J., Tybur, J. M., & Van Lange, P. A. (2017). Class impressions: Higher social class elicits lower prosociality. *Journal of Experimental Social Psychology*, 68, 11-20. <https://doi.org/10.1016/j.jesp.2016.06.001>

Dunfield, K. A. (2014). A construct divided: prosocial behavior as helping, sharing, and comforting subtypes. *Frontiers in Psychology*, 5, 958.

Eisenberg, N., Fabes, R. A., & Spinrad, T. L. (2006). Prosocial development. In N. Eisenberg, R.A. Fabes, & T. L. Spinrad (Eds), *Handbook of child psychology 3*, 646-718. NJ: John Wiley & Sons.

Eisenberg, N., & Miller, P. A. (1987). The relation of empathy to prosocial and related behaviors. *Psychological bulletin*, *101*(1), 91.

Eisenberg, N., & Strayer, J. (1987). Critical issues in the study of empathy. In N. Eisenberg, & J. Strayer (Eds.), *Empathy and its development* (pp. 3-13). New York: Cambridge University Press.

Engel, C. (2011). Dictator games: A meta study. *Experimental economics*, *14*(4), 583-610.

Fabes, R. A., & Eisenberg, N. (1998). Meta-analyses of age and sex differences in children's and adolescents' prosocial behavior. In N. Eisenberg (Ed.), *Handbook of child psychology 3: Socialization, personality, and social development* (5<sup>th</sup> ed., pp. 1-29). N. Wiley

Falk, A., Kosse, F., Pinger, P., Schildberg-Hörisch, H., & Deckers, T. (2021). Socioeconomic status and inequalities in children's IQ and economic preferences. *Journal of Political Economy*, *129*(9), 2504-2545.

Fehr, E., & Schmidt, K. (2006). Chapter 8 The Economics of Fairness, Reciprocity and Altruism - Experimental Evidence and New Theories. *Handbook of the Economics of Giving, Altruism and Reciprocity*, *1*, 615–691. [https://doi.org/10.1016/S1574-0714\(06\)01008-6](https://doi.org/10.1016/S1574-0714(06)01008-6)

Finnish institute for health and welfare (THL). (2021, September 24). *3-5-year-olds participating in full-time early childhood education and care on 31 December, % of population of the same age, services paid for by the municipality (ind. 1227)* <https://sotkanet.fi/sotkanet/en/metadata/indicators/1227?>

Finnish National Board for Education. (2016a) *National core curriculum for basic education 2014*. Finnish National Board of Education. Retrieved from [https://www.oph.fi/sites/default/files/documents/perusopetuksen\\_opetussuunnitelman\\_perusteet\\_2014.pdf](https://www.oph.fi/sites/default/files/documents/perusopetuksen_opetussuunnitelman_perusteet_2014.pdf)

Finnish National Board for Education. (2016b). *National core curriculum for pre-primary education 2014*. Finnish National Board of Education. Retrieved from [https://www.oph.fi/sites/default/files/documents/esiopetuksen\\_opetussuunnitelman\\_perusteet\\_2014.pdf](https://www.oph.fi/sites/default/files/documents/esiopetuksen_opetussuunnitelman_perusteet_2014.pdf)

Finnish National Board on Research Integrity TENK. (2019). *The ethical principles of research with human participants and ethical review in the human sciences in Finland: Finnish National Board on Research Integrity TENK guidelines 2019*. Retrieved from [https://tenk.fi/sites/default/files/2021-01/Ethical\\_review\\_in\\_human\\_sciences\\_2020.pdf](https://tenk.fi/sites/default/files/2021-01/Ethical_review_in_human_sciences_2020.pdf)

From, T., Kalalahti, M., Mietola, R., Paakkari, A., Sahlström, F., Varjo, J., & Vartiainen, H. (2014). Eriytyvä peruskoulu [Segmenting comprehensive school]. *Yhteiskuntapolitiikka*, 79(5), 553–559.

Grolnick, W. S., & Farkas, M. (2002). Parenting and the development of children's self-regulation. In M. H. Bornstein (Ed.), *Handbook of parenting: Practical issues in parenting*, 5, 89-110. Lawrence Erlbaum Associates Publishers.

Grusec, J. E., & Davidov, M. (2015). Analyzing socialization from a domain-specific perspective. In J. E. Grusec & P. D. Hastings (Eds.), *Handbook of socialization: Theory and research* (2<sup>nd</sup> ed., pp. 158-181). Guilford Press.

Guinote, A., Cotzia, I., Sandhu, S., & Siwa, P. (2015). Social status modulates prosocial behavior and egalitarianism in preschool children and adults. *Proceedings of the National Academy of Sciences*, 112(3), 731-736. <https://doi.org/10.1073/pnas.1414550112>

- Gummerum, M., Hanoch, Y., Keller, M., Parsons, K., & Hummel, A. (2010). Preschoolers' allocations in the dictator game: The role of moral emotions. *Journal of Economic Psychology*, 31(1), 25–34. <https://doi.org/10.1016/j.joep.2009.09.002>
- Hakkarainen, A. M., Holopainen, L. K., & Savolainen, H. K. (2016). The impact of learning difficulties and socioemotional and behavioural problems on transition to postsecondary education or work life in Finland: a five-year follow-up study. *European Journal of Special Needs Education*, 31(2), 171-186. <https://doi.org/10.1080/08856257.2015.1125688>
- Harbaugh, W. T., Krause, K., & Liday, S. J. (2003). Bargaining by children. *University of Oregon Economics Working Paper*, (2002-4).
- Harkness, S., & Super, C. M. (2002). Culture and parenting. In M. H. Bornstein (Ed.), *Handbook of parenting: Biology and Ecology of Parenting* (2<sup>nd</sup> ed., Vol. 2, pp. 253-280). Lawrence Erlbaum Associates Publishers.
- Hastings, P. D., Miller, J. G., & Troxel, N. R. (2015). Making good: The socialization of children's prosocial development. In J. E. Grusec & P. D. Hastings (Eds.), *Handbook of socialization: Theory and research* (pp. 637–660). The Guilford Press.
- Hastings, P. D., Rubin, K. H., & DeRose, L. (2005). Links among gender, inhibition, and parental socialization in the development of prosocial behavior. *Merrill-Palmer Quarterly* (1982-), 467-493.
- Hastings, P. D., Utendale, W. T., & Sullivan, C. (2007). The socialization of prosocial development. In J. E. Grusec & P. D. Hastings (Eds.), *Handbook of socialization: Theory and research* (pp. 638–664). Guilford Press.
- Helsinki's curriculum for early childhood education and care (2019). City of Helsinki, Education Division. Helsinki, 2019. [https://www.hel.fi/static/liitteet-2019/KasKo/vare/Helsinki\\_Vasu\\_EN\\_Sivut.pdf](https://www.hel.fi/static/liitteet-2019/KasKo/vare/Helsinki_Vasu_EN_Sivut.pdf)

Hoff, E., & Laursen, B. (2019). Socioeconomic status and parenting. In M. H. Bornstein (Ed.), *Handbook of parenting: Biology and ecology of parenting* (3<sup>rd</sup> ed., Vol. 2, pp. 421–447). Routledge/Taylor & Francis Group. <https://doi.org/10.4324/9780429401459-13>

Hoff, E., Laursen, B., & Tardif, T. (2002). Socioeconomic status and parenting. In M. H. Bornstein (Ed.), *Handbook of parenting: Biology and ecology of parenting* (2<sup>nd</sup> ed., Vol. 2, pp. 231-252). <https://doi.org/10.4324/9781410612144>

Hoffman, E., McCabe, K. A., & Smith, V. L. (1996). On expectations and the monetary stakes in ultimatum games. *International Journal of Game Theory*, 25(3), 289-301.

Holden, G. W., & Miller, P. C. (1999). Enduring and different: a meta-analysis of the similarity in parents' child rearing. *Psychological bulletin*, 125(2), 223.

<https://doi.org/10.1037/0033-2909.125.2.223>

Husa, T. (2019). *Koulutus ja elinkaaritulos*. Artikkelit 10/2019. Akava Works. <https://akavaworks.fi/julkaisut/artikkelit/koulutus-ja-elinkaaritulos/>

Jakku-Sihvonen, R., & Kuusela, J. (2012). *Perusopetuksen aika: Selvitys koulujen toimintaympäristöä kuvaavista indikaattoreista*. Opetus- ja kulttuuriministeriön työryhmämuistioita ja selvityksiä 2012:13. <http://urn.fi/URN:ISBN:978-952-263-151-0>

Jeong, J., McCoy, D. C., & Fink, G. (2017). Pathways between paternal and maternal education, caregivers' support for learning, and early child development in 44 low-and middle-income countries. *Early Childhood Research Quarterly*, 41, 136-148.

<https://doi.org/10.1016/j.ecresq.2017.07.001>

Jeynes, W. H. (2016). Meta-analysis on the roles of fathers in parenting: Are they unique?. *Marriage & Family Review*, 52(7), 665-688. DOI: 10.1080/01494929.2016.1157121

Jones, S. M., Zaslow, M., Darling-Churchill, K. E., & Halle, T. G. (2016). Assessing early childhood social and emotional development: Key conceptual and measurement

issues. *Journal of Applied Developmental Psychology*, 45, 42-48.

<http://dx.doi.org/10.1016/j.appdev.2016.02.008>

Junttila, N. (2010). *Social competence and loneliness during the school years: Issues in assessment, interrelations and intergenerational transmission*. [Doctoral dissertation, University of Turku]. Turku University Library. <http://www.utupub.fi/handle/10024/59283>

Junttila, N., Voeten, M., Kaukiainen, A., & Vauras, M. (2006). Multisource assessment of children's social competence. *Educational and psychological measurement*, 66(5), 874-895. <https://doi-org.ezproxy.utu.fi/10.1177/0013164405285546>

Kahneman, D., Knetsch, J. L., & Thaler, R. H. (1986). Fairness and the assumptions of economics. *Journal of business* 59(4), S285-S300. <http://www.jstor.org/stable/2352761>

Kaukiainen, A., Junttila, N., Kinnunen, R., & Vauras, M. (2005). MASK-Monitahoarviointi oppilaan sosiaalisesta kompetenssista [MASCS—Multisource Assessment of Social Competence Scale, the manual]. *University of Turku, Finland: Center for Learning Research & Teacher Education Department*.

Keown, L. J., Franke, N., & Kaur, R. (2018). The role of fathers in supporting children's development. In Sanders M., Morawska A. (Eds.), *Handbook of parenting and child development across the lifespan* (pp. 121-142). Springer, Cham. [https://doi.org/10.1007/978-3-319-94598-9\\_6](https://doi.org/10.1007/978-3-319-94598-9_6)

Kochenderfer-Ladd, B., & Ladd, G. W. (2020). Peer Relationships and Social Competence in Early Childhood. In O. N. Saracho (Ed.), *Handbook of research on the education of young children* (4<sup>th</sup> ed., pp. 32-42). Routledge.

Korndörfer, M., Egloff, B., & Schmukle, S. C. (2015). A large scale test of the effect of social class on prosocial behavior. *PloS one*, 10(7). <https://doi.org/10.1371/journal.pone.0133193>

Kosse, F., Deckers, T., Pinger, P., Schildberg-Hörisch, H., & Falk, A. (2020). The formation of prosociality: causal evidence on the role of social environment. *Journal of Political Economy*, 128(2), 434-467.

Krieger, N., Williams, D. R., & Moss, N. E. (1997). Measuring social class in US public health research: concepts, methodologies, and guidelines. *Annual review of public health*, 18(1), 341-378. <https://doi.org/10.1146/annurev.publhealth.18.1.341>

Ladd, G. W., & Kochenderfer-Ladd, B. (2019). Parents and children's peer relationships. In M.H. Bornstein (Ed.), *Handbook of Parenting: Volume 5: The Practice of Parenting* (3<sup>rd</sup> ed., Vol. 5, pp. 278-317). Routledge.

<https://doi-org.ezproxy.utu.fi/10.4324/9780429401695>

Laible, D., Thompson, R. A., & Froimson, J. (2015). Early socialization: The influence of close relationships. In J. E. Grusec & P. D. Hastings (Eds.), *Handbook of socialization: Theory and research* (2<sup>nd</sup> ed., pp. 35-59). Guilford Press.

Leino, K., Nissinen, K., Puhakka, E. & Rautopuro, J. (2017). *Lukutaito luodaan yhdessä. Kansainvälinen lasten lukutaitotutkimus (PIRLS 2016)*. Jyväskylä: Koulutuksen tutkimuslaitos.

<https://ktl.jyu.fi/julkaisut/julkaisuluettelo/julkaisut/2017/PIRLS%202016%20RAPORTTI.pdf>

Luria, G., Cnaan, R. A., & Boehm, A. (2015). National culture and prosocial behaviors: Results from 66 countries. *Nonprofit and Voluntary Sector Quarterly*, 44(5), 1041-1065.

Maccoby, E. E. (2015). Historical overview of socialization research and theory. In J. E. Grusec & P. D. Hastings (Eds.), *Handbook of socialization: Theory and research* (2<sup>nd</sup> ed., pp. 3-32). Guilford Press.

Marin, S. [MarinSanna]. (2019, December 26.) *Olen tavattoman ylpeä Suomesta. Täällä köyhän perheen lapsi voi kouluttautua pitkälle ja ylittää elämässään moneen. Kaupan*

*kassasta voi tulla vaikka* [tweet]. Twitter.

<https://twitter.com/MarinSanna/status/1206315232181784582>

Mellers, B., Haselhuhn, M., Tetlock, P., Silva, J., & Isen, A. (2010). Predicting behavior in economic games by looking through the eyes of the players. *Journal of Experimental Psychology: General*, 139(4), 743–755. <https://doi.org/10.1037/a0020280>

Miller, J. G., Kahle, S., & Hastings, P. D. (2015). Roots and benefits of costly giving: Children who are more altruistic have greater autonomic flexibility and less family wealth. *Psychological Science*, 26(7), 1038-1045. <https://doi.org/10.1177/0956797615578476>

Ministry of education and culture (n.d.). *Pre-primary education*. <https://okm.fi/en/pre-primary-education1>

Ministry of social affairs and health (2021, November 23): *Reform aims to encourage both parents to take family leave*. <https://stm.fi/en/reform-aims-to-encourage-both-parents-to-take-family-leave>

Modafferi, S., Boniface, M., Crowle, S., Star, K., & Middleton, L. (2016). Creating opportunities to learn social skills at school using digital games. *European Conference on Games Based Learning* (p. 461). Academic Conferences International Limited.

Morris, A. S., Silk, J. S., Steinberg, L., Myers, S. S., & Robinson, L. R. (2007). The role of the family context in the development of emotion regulation. *Social development*, 16(2), 361-388.

Määttä, S., Koivula, M., Huttunen, K., Paananen, M., Närhi, V., Savolainen, H., & Laakso, M.-L. (2017). Lasten sosioemotionaalisten taitojen tukeminen varhaiskasvatuksessa. Opetushallitus. Raportit ja selvitykset, 17/2017. [http://oph.fi/julkaisut/2017/lasten\\_sosioemotionaalisten\\_taitojen\\_tukeminen\\_varhaiskasvatuk sessa](http://oph.fi/julkaisut/2017/lasten_sosioemotionaalisten_taitojen_tukeminen_varhaiskasvatuk sessa)



Neitola, M. (2011). *Lapsen sosiaalisen kompetenssin tukeminen–vanhempien epäsuorat ja suorat vaikutustavat*. [Doctoral dissertation, University of Turku]. Turku: Painosalama oy. <http://urn.fi/URN:ISBN:978-951-29-4815-4>

Neitola, M. (2018). Parents as teachers and guides of their children's social skills. *Journal of Early Childhood Education Research*, 7(2), 392-414.

OECD (2017). *Social and emotional skills. Well-being, connectedness and success*. OECD Publishing.  
[https://www.oecd.org/education/school/UPDATED%20Social%20and%20Emotional%20Skills%20-%20Well-being,%20connectedness%20and%20success.pdf%20\(website\).pdf](https://www.oecd.org/education/school/UPDATED%20Social%20and%20Emotional%20Skills%20-%20Well-being,%20connectedness%20and%20success.pdf%20(website).pdf)

Ongley, S. F., & Malti, T. (2014). The role of moral emotions in the development of children's sharing behavior. *Developmental Psychology*, 50(4), 1148-1159.

Parke, R. D., & Cookston, J. T. (2019). Fathers and families. In M. H. Bornstein (Ed.), *Handbook of parenting: Being and becoming a parent* (Vol. 3, pp. 64–136). Routledge/Taylor & Francis Group. <https://doi.org/10.4324/9780429433214-3>

Peltonen, A., & Kullberg-Piilola, T. (2005). *Tunnemuksu: tunnetaitoja perheille ja kasvattajille*. Lasten keskus.

Piff, P. K., Kraus, M. W., Côté, S., Cheng, B. H., & Keltner, D. (2010). Having less, giving more: the influence of social class on prosocial behavior. *Journal of personality and social psychology*, 99(5), 771-784. <https://doi.org/10.1037/a0020092>

Puttonen, M. (2021, August 24). 430000 ihmisen tutkimus: rikkaat ja koulutetut opettavat lapsilleen eri asioita kuin pienituloiset – Suomalaistutkija kertoo, millä on aidosti väliä. *Helsingin Sanomat*, Tiede. <https://www.hs.fi/tiede/art-2000008197341.html>

Rieffe, C., Ketelaar, L., & Wiefferink, C. H. (2010). Assessing empathy in young children: Construction and validation of an Empathy Questionnaire (EmQue). *Personality and individual differences*, 49(5), 362-367.

Rinne, R. (2017). Puhkeaako PISA-kupla, lohkoutuuko peruskoulu?. *Kasvatus: Suomen kasvatustieteellinen aikakauskirja* 48 (2017): 2.

Saarikallio-Torp, M., & Miettinen, A. (2021). Family leaves for fathers: Non-users as a test for parental leave reforms. *Journal of European Social Policy*, 31(2), 161-174.

Simpkins, S. D., Fredricks, J. A., & Eccles, J. S. (2015). Families, schools, and developing achievement-related motivations and engagement. In J. E. Grusec & P. D. Hastings (Eds.), *Handbook of socialization: Theory and research* (2<sup>nd</sup> ed., pp. 614-636). Guilford Press.

Smith, C., Perou, R., & Lesesne, C. (2002). Parent education. In M. H. Bornstein (Ed.), *Handbook of parenting: Social conditions and applied parenting*, (4th ed., pp. 389-409). Lawrence Erlbaum Associates Publishers.

Sorariutta, A. (2017). ”Yhdessä enemmän matemaattista osaamista” – äidin ja isän ohjausvuorovaikutus ja varhaiskasvatuksen määrä lapsen kehityksen ennustajina. [Doctoral dissertation, University of Turku]. <http://urn.fi/URN:ISBN:978-951-29-7044-5>

Steinbeis, N., & Over, H. (2017). Enhancing behavioral control increases sharing in children. *Journal of Experimental Child Psychology*, 159, 310–318.

<https://doi.org/10.1016/j.jecp.2017.02.001>

Suhonen, E., Sajaniemi, N. K., Alijoki, A., & Nislin, M. A. (2018). Children’s biological givens, stress responses, language and cognitive abilities and family background after entering kindergarten in toddlerhood. *Early Child Development and Care*, 188(3), 345–358. <https://doi.org/10.1080/03004430.2016.1218157>

Sutter, M., & Untertrifaller, A. (2020). Children's heterogeneity in cooperation and parental background: An experimental study. *Journal of Economic Behavior & Organization*, 171, 286-296. <https://doi.org/10.1016/j.jebo.2020.01.010>

Valkonen, T. & Aerila, J.-A. (2020). Deep Talk – hiekkakertomukset avaavat tilan yhteiselle kielelle. In Neitola, Aerila, J.-A., & Kauppinen, M. (Eds.), *Rinnalla: taide, kerronta ja sosiaalisemotionaalinen oppiminen varhaiskasvatuksessa*. Rinnalla - Taide, kerronta ja sosiaalisemotionaalinen oppiminen varhaiskasvatuksessa.

Finnish Government (2021): *Education policy report of the Finnish government*. Publications of the Finnish Government 2021:64. <http://urn.fi/URN:ISBN:978-952-383-927-4>

Wang, Y. (2020). *Young children's peer relationships and interactions in small group settings*. [Doctoral dissertation, University of Turku]. <http://urn.fi/URN:ISBN:978-951-29-7925-7>

Webster-Stratton, C., & Reid, M. J. (2018). The Incredible Years parents, teachers, and children training series: A multifaceted treatment approach for young children with conduct problems. In J. R. Weisz & A. E. Kazdin (Eds.), *Evidence-based psychotherapies for children and adolescents* (pp. 122–141). The Guilford Press.

Weir, K., & Duveen, G. (1981). Further development and validation of the prosocial behaviour questionnaire for use by teachers. *Journal of Child Psychology and Psychiatry*, 22(4), 357-374.

Weir, K., Stevenson, J., & Graham, P. (1980). Behavioral deviance and teacher ratings of prosocial behavior: Preliminary findings. *Journal of the American Academy of Child Psychiatry*, 19(1), 68-77.

Williams, K., & Berthelsen, D. (2017). The development of prosocial behaviour in early childhood: Contributions of early parenting and self-regulation. *International Journal of Early Childhood*, 49(1), 73-94.

Williams, A., O'Driscoll, K., & Moore, C. (2014). The influence of empathic concern on prosocial behavior in children. *Frontiers in psychology*, 5, 425.

<https://doi.org/10.3389/fpsyg.2014.00425>