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Determination of Prosocial Behavior of Preschool-Aged Children in the Context of Preschool Education



Palacký University
Olomouc

**DETERMINATION OF PROSOCIAL BEHAVIOR OF
PRESCHOOL-AGED CHILDREN IN THE CONTEXT OF
PRESCHOOL EDUCATION**

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INTRODUCTION

Today's society, which builds on a global, complex basis, yet it is also beginning to gradually turn away from this direction, is extremely difficult and impossible to objectively assess how society will change, under what influences it will shape and in what direction it will evolve. The change in thinking and especially in human behavior was not caused by information and communication technologies, nor by technologization, but by excessive meeting our needs and, in a sense, by well-being and not respecting material things (excessive consumption), other people and the message of each individual – meaningful life. The quality of life of society has been improved and, consequently, the entire society in the basic human spheres has been weakened. The person's ability to communicate naturally has decreased, concepts such as humility, respect, patience and discipline have disappeared from real life, and this is emphasized by a person's inability to distinguish between virtual reality and real life. The moral, ethical and value orientation of society is different, and the validity of values and ethical norms seems to be losing its primary importance. The entity of being a beneficial person for other people and being able to selflessly help is proving extremely important for the future of the next generation, but in the context of the pandemic, it was manifested in great deprivation in many cases. Being a prosocial individual for others has disappeared. It is only a part that is filled with morality and decency, but it is very important. How is it possible to influence society to be prosocial and to go back to human values, but not to rights and obligations? These are, especially, the real role models that children imitate from the beginning. This clearly includes the parent (father, mother) and in the broader social context it also includes the kindergarten teacher's impact. What is the prosocial behavior of a child in preschool age, how to measure it adequately, are the questions we have tried to answer in this scientific monograph. Therefore, we prioritized the creation and verification of *QSPBPCH – Questionnaire for surveying prosocial behavior of preschool-aged children* in Slovakia. The presented monograph analyses and summarizes theoretical starting points on the issues of prosociality, prosocial behavior and introduces a new research instrument to measure the prosocial behavior of preschool children. Further, we present the interpretation of empirical findings from our research carried out. It would be appropriate if prosociality remained an unchanging factor of human being and society, independently of the different curves of society's development.

1 PROSOCIALITY AND PROSOCIAL BEHAVIOR

1.1 *Attributes of Prosociality and Prosocial Behavior*

Within the psychology of personality and positive psychology, prosociality begins to come to the fore in the 1950s. Prosociality belongs to original and basic amenities of human personality (Arlitt 1930, Simmer 1971, Yarrow, Waxler 1976, In: Roche 1992). We can state that the concept of prosociality is primarily a psychological term, but its content fulfilment is the subject of interest to philosophy, theology or religious studies, as well as sociology, economics and, of course, pedagogy. Philosophers primarily perceived people as egotistical, noble and generous, but also as something in between. The philosophical discussion about the nature and existence of altruism is still vivid today in contemporary psychology, especially in social (Batson, Powell 2003) and developmental psychology (Konner 2002), but the perspective of pedagogy in this regard is also relevant. However, it is often very difficult to distinguish between motives and concepts of prosocial behavior, especially in preschool children. Philosophical interests are thus not very pronounced and are mainly reflected in moral judgment influenced by cognitive development theory. However, the question is whether prosociality, in today's society, really fulfils its role, or has become just a fashion trend, so that a person for the other person is no longer a person – a value above everything. Basic psychological theories, which had a significant impact on developmental psychology, also influenced thinking about prosocial development, especially in the past. Relevant ideas were primarily taken from psychoanalytic theory, behavioral theory, social education theory and cognitive developmental theory. In addition, the given idea of prosocial behavior was influenced by Hoffman and his theoretical contributions aimed at understanding empathy (1982, 2000), socialization (1970, 1983) and also by Grusec's (Grusec, Goodnow 1994) and Staub's (1979, 1992, 2003) thinking about socialization.

Prosocial behavior mostly integrates with the term *altruism*. The differentiation of these concepts is particularly noticeable through the emphasis of the *ultimate reward*. *Altruism* is considered to be the kind of behavior that is based on selfless help to other person without any expectation of profit or any kind of reward, whether material, financial or social consent. This includes acts motivated by an interest in other people or internalized values, objectives and rewards instead of expecting specific or social rewards or avoiding punishment (Eisenberg, Mussen 1989). Another difference is that prosocial behavior is understood as a certain pattern

of behavior and vice versa, *altruism as motivation*. Prosocial behavior can therefore be regarded as a more specific type of behavior within the framework of prosociality (Eloost, Straw 2008). Wispe (1972 In: Brown 2006) sees *prosocial behavior* as a kind of family of five, which members are: *altruism, solidarity, cooperation, charity and helping*. These individual substructures in Wispe's view are aimed at the recipient of this behavior and not at all or only at least at the executor. Bateson et al. (1989, p. 44) refers to prosocial behavior as: *a desire to make efforts to benefit other people*. Prosocial behavior influenced by external motivation is considered selfish. We can therefore conclude that prosocial behavior is *voluntary actions that are intended to help or benefit another individual or group of individuals*. It has a clear impact on improving the quality of interactions between individuals and groups. *Prosocial behavior* may be performed for plenty of reasons including egoistic, other-oriented, or practical concerns (Boxer, Tisak, Goldstein 2004, Eisenberg 1986), although some scientists no longer consider it prosocial behavior. Eisenberg, et. al. (1999) deals with the problem of prosocial behavior through an examination of the judgement leading precisely to this behavior. It distinguishes 5 categories of prosocial moral assessment, arranged in a developmental qualitative scale. Like Kohlberg's theories of moral development (towards principle and freedom), the quality (in a sense of the presence of morally relevant freedom) of prosocial decisions develops gradually. Eisenberg (1998) combines prosociality with the development of empathy. Lewin (1951) argued that prosocial behavior, like any other behavior, is a function of personality and environment. The question of what processes are the basis of prosocial behavior, what motivates an individual to act prosocial, has been studied in psychology for decades, but the unequivocal answer has not yet been heard. Among the types of prosocial behavior Witte (In: Nakonečný 1999) included:

- *planned formal assistance,*
- *informal spontaneous assistance,*
- *direct assistance in crisis situations,*
- *direct personal assistance,*
- *indirect anonymous assistance.*

Prosocial behavior is applied in various forms, it is important to think not only about species, but also about forms. Wispe (In: At the End of 1999) lists following ***forms of prosocial behavior***: 1. *donation*, 2. *assistance*, 3. *offer of cooperation*, 4. *sympathy, empathy and understanding*, 5. *support*. *Prosocial behavior* is a social behavior that benefits another individual (Eisenberg 1982). Prosocial behavior has traditionally been associated with general

personality traits such as honesty, humility, helpfulness, empathy, etc. (Penner, Dovidio, Piliavin, Schroeder 2005). Bar-Tal and Raviv (1982, p. 199) point to prosocial behavior: as a contradiction of negative forms of social behavior. It is a broad category that includes such behaviors that are assisting, collaborative or exchanging. It is defined as behavior that benefits another person. The concept of prosocial behavior covers a wide range of phenomena such as helping, sharing, self-sacrifice and observance of norms. All these phenomena have one common characteristic. This means that the activity of an individual is aimed at protecting, maintaining or increasing the well-being of an external social object: a particular person, group, society as a whole, a social institution or a symbolic being (ideology, morality system) (Reykowski 1982, p. 378). One thing is clear, prosocial behavior is always voluntary and intentional. Let us not forget that it should be separated from behavior that accidentally benefited another person. Altruistic and prosocial behaviors can be easily interchanged, since it is difficult to detect the intrinsic motivation behind the actions performed. Mussen and Eisenberg-Berg (1977 In: Eisenberg 1982, p. 6) consider a behavior to be prosocial that was intended to help others intentionally and voluntarily and in which the motive was unspecified, unknown or not altruistic. Smithe and Mackie (2007, p. 517) define prosocial behavior as behavior in which the immediate aim is to help or benefit others. Rather, the determining factor is the intention that the acts have been carried out and the consequences of these acts are not emphasized. Thus, we can say that prosocial behavior is one that a person does consciously and voluntarily without any duties, and its aim is to improve the life of individuals or groups that may be known or unknown to an individual performing a good act. Prosocial behavior is characterized by deeds and acts performed in favor of others without any expectation of reward or without social consent. These acts of behavior have the character of providing selfless help when there is no expected reward or reciprocity in the future and it is based on a person's inner attitude towards others and their free choice. Reykowski (1979, p. 24, In: Harmless, Mlčák 2009, p. 49 – 50) describes the types of prosocial behavior according to person's incurred expenses and received profits, interacting against the background of other forms of human behavior, while indicating the following classification:

- *the activity is organized in a way that other person gets the benefit, while the individual (A) sacrifices something of his own (property, health, life) – an activity allocentric;*
- *the activity is organized in a way that other person gets the benefit and the individual (A) brings the natural costs of the activity (sacrificing time, effort) – an activity helping;*
- *the activity is organized in a way that the individual (A) or others either get the benefit or do not lose it — cooperative activity;*

- *the activity is organized in a way that the individual (A) gets the benefit, but there is practically no link between the activity of the individual and the interests of others;*
- *the activity is organized in a way that the individual (A) gets the benefit, while the benefit and losses of other individuals are side effects – an activity egocentric;*
- *the activity is organized in a way that the individual (A) benefits thanks to the costs of others – an explosive activity;*
- *the activity is organized in a way that someone else (person, company) carry the loss independently of the costs that an individual (A) can carry in this situation. Category a, b, c refers to prosocial behavior. Category e refers to asocial behavior. Category f, g refers to antisocial behavior and category d is neutral in this context.*

Altruistic prosocial behavior includes voluntary help motivated primarily by an interest in needs and benefits of the other person. It is often triggered by compassion and internalized moral norms or principles. The assisting entity is primarily concentrated on the need of the other person; their behavior sometimes leads to its own costs or losses. *Compliant prosocial behavior* can be defined as helping other people, which is motivated by a response to their verbal or nonverbal request. This kind of help occurs a lot more often in society than spontaneous help. The higher level of compliant prosocial behavior appears to be linked to a higher level of moral appreciation orientated towards achieving social recognition, but also to a higher level of acceptance of perspective and compassion. *Emotional prosocial behavior* is aimed at helping others in emotionally loaded situational conditions. These situations can invoke involved person's compassion, but also a high level of excitement and personal distress. Thus, helping is strongly motivated by compassion, which corresponds with the helpers' tendency to orientate more to others than to their own persona, as well as to a high level of empathy. Emotionally loaded situations have greater potential to activate a tendency towards action and behavior that would solve such a situation. *Public prosocial behavior* presents an act that takes place with the participation of an audience and the public, and is probably motivated, at least in part, by a wish to gain acceptance and respect of others. The influence of the public – the audience on expressions of prosocial behavior can vary, depending on the personality of the helper, the situation, the circumstances. In some individuals, it may be of an incentive character increasing the likelihood of assistance. On the other hand, the presence of other people may cause a fear of inappropriate interference associated with mistrust of one's own competence, which may prevent providing help (Cacioppo, Petty, Losch 1986). *Anonymous prosocial behavior* is a kind of assistance that is performed without individual knowing whom he or she is helping. It is

mostly motivated by positively experienced emotions related to performing a good deed. Anonymous prosocial activities can be negatively affected mostly by the need for an individual to be valued for what he does for others and to gain social recognition, as well as the difficult controllability of such assistance. Finally, *dire prosocial behavior* is defined as helping behavior in critical and dire situations that do not always provoke emotional reflections (Carlo, Randall 2002). The authors of dividing prosocial tendencies Carlo and Randall (2002) found out that respondents who reported more help within the six types of prosocial tendencies were more likely to discuss the perspective of others, use stereotypical prosocial moral judgement, show greater compassion and social responsibility, and were more likely to help within various situations. Creating a uniform theory for such a heterogeneous area as prosocial behavior has not yet succeeded. The importance of factors that accelerate and modify processes at the end of which is the prosocial behavior of an individual is implemented on the background of normative beliefs. Psychology has yielded many partial findings that do not currently have the character of completely exhaustive answers to the question of multiplex conditionality of prosocial behavior and assistance. Most theories have been empirically confirmed, so each of them can contribute to clarifying this phenomenon. However, the theoretical aspects of prosocial behavior do not apply to all situational circumstances. If we exclude philosophical thoughts of the evolutionary theory of help, then psychological concepts that deal with prosocial behavior and altruism are grouped around questions about their conditionality of personality and situational factors. Even those conceptions that place a strong emphasis on one of the mentioned variants, on situational or personality factors, always turn also to the other important determinant (Harmless, Mlčák 2009).

1.2 *Factors Interfering Prosocial Behavior*

When exploring the main theoretical and empirical approaches in order to understand determinants and motivation of prosocial behavior, we focused on identifying situational, social and individual factors that influence the extent to which the prosocial behavior of an individual, and especially of a preschool child in kindergarten, is adopted and strengthened (Eisenberg 1986, Clark 1991). Nowadays there are relatively few scientific papers and empirical studies in scope of the prosocial behavior of preschool children focused on the genetic and neurohormonal basis for such behavior. The lack of empirical studies is rather surprising given that genetic,

evolutionary and neurohormonal factors of antisocial, aggressive and criminal behavior have entered the literature (Ellis, Hoffman 1990). However, this also reflects the current characteristic aspects of our society, as was mentioned earlier. As stated by Eisenberg, Fabes and Miller (1990), some biological factors that influence antisocial behavior are also likely to be responsible for deviations in prosocial behavior.

Thus, factors interfering with the prosocial behavior of preschool children play an important role in the final decision of the individual to act prosocially, therefore it is essential to know their impact on the individual, to develop it positively and then apply it further within society. The functionality and influence of these factors is noticeable from the birth, hence we will try to point them out from an unlimited time point of view from the birth of an individual to his productive age. At the same time, we will reflect and analyze what can affect the prosocial behavior of a preschool child in kindergarten.

Biological factors

Evolutionary view of prosocial behavior and heredity of prosocial tendencies in preschool children

The percentage of shared or common genes is hypothetically considered an important determinant of altruism that reflects among species members. It could be expected that more altruism will be directed to closest relatives than to distant relatives or those who are not relatives (Hastings, Zahn-Waxler, McShane 2005). In order to make the selection effective (in evolutionary terms), altruists must be able to distinguish between individuals who are their relatives and those who are not. Rushton, Russell, Well (1984) pointed out that there is a congenital ability to recognize someone who is genetically similar. However, there is evidence that people are more willing to help others who are genetically related (Bar-Tal, Bar-Zohar, Greenberg, Hermon 1977) and also the degree of biological affinity is positively linked to the willingness to help (Cunningham 1985, 1986). Moreover, the more valuable the useful act is, the more likely it is coming from the genus (Essock-Vitale, McGuire 1985, Borgida, Conner, Manteufel 1992). People are also more likely to seek and help others who are similar to them (Eisenberg 1983, Rushton et al. 1984). For that reason, individuals who are related and physically similar will probably have more common genes than dissimilar, different individuals. Predisposition to help others who are similar can increase survival of people who presumably have genes in common with altruist. In many species (including humans), prosocial behavior extends to relationships. In summary, evolutionary perspectives of prosocial behavior

indicate that this behavior is the result of evolutionary forces (Sober, Wilson 1998). Prosocial behavior can be selected because: *1) it increases the survival of individuals to reproductive age, 2) it increases an individual's reproductive ability, 3) it increases one or both of these tendencies in other members of the species who probably transmit the same genes.* This argument comprises the fact that evolutionary forces supporting altruistic behavior often come into conflict with those forces that support behavior that maximizes the survival of an individual. From this complex interaction of competing forces comes the potential to act prosocially and to take into account individual differences in the prosocial response (Hofer 1981). Twin study, focused on the impact of genetics on individual differences in prosociality, have shown that if the correlation between scores on prosocial response is higher in identical twins than in fraternal twins, the difference is referred to genetic effects. In studies aimed at twins that included results on adults and their prosocial tendencies, the researchers detected that genetic factors represent from 40% to 70% of the deviation in twins' altruism, empathy and care (Hastings et al. 2006). Most of the remaining deviations in twins' idiosyncrasies caused rather different environments than their common environment (Rushton, Fulker, Neale, Nias, Eysenck 1986, Davis, Luce, Kraus 1994). Although in another adult study, differences in prosocial behavior were mainly associated with a common and different environment (Krueger, Hicks, McGue 2001). It is presumed that the co-occurred deviation decreases with age (Scarr, McCartney 1983, Scourfield, John, Martin, McGuffin 2004). Johnson and Krueger (2004) examined the heredity of middle-aged adults, which are probably related to prosocial properties. They found out that about 50% of the deviation in extraversion and neuroticism was elucidated by genetic influences. However, this was not the case of compliant, openness and conscientiousness. It is assumed that leniency contributes or overlaps prosocial tendencies (Graziano, Eisenberg 1997). Although genetics appears to contribute to children's prosocial tendencies, genetics studies also provide evidence of the important role of the environment, which has a large impact on prosocial behavior. Estimates of the extent of impact of heredity on individuals vary slightly within studies (Scourfield et al. 2004, Plomin et al. 1993, Zahn-Waxler, Robinson, Emde 1992, Zahn-Waxler, Schiro, Robinson, Emde, Schmitz 2001). Plomin et al. (1993) found no evidence of a genetic impact on the change of the composition of the biological determinants of prosocial behavior of 653 empathy indexes of children aged 14 to 20 months, although genetic factors were partly responsible for the stability of empathy. Thus, various researches (Robinson, Emde, Corley 2001) indicate that there is a significant variability in heredity estimates related to age and prosocial response rates. The role of genetic and external influences of the environment on the prosocial tendencies of individuals has also been tested in

other types of studies focused on genetics. In their study, Deater-Deckard, Dunn et al. (2001) found that most of the discrepancies in research reports of adults about the prosocial behavior of their children (mostly of preschool and school age) were caused by external (non-genetic) factors, especially aspects of the different environment affecting children, although there were significant impacts on common environmental influences. In addition, in a study involving only identical preschool twins, Deater-Deckard, Pike et al. (2001) obtained further evidence about the role of different environments (e.g. maternal supportive and repressive behavior) in predicting children's prosocial behavior. Further relevant evidence, based on an examination of the role of genetics in prosocial behavior, was provided by studies of children with certain genetic abnormalities. Williams syndrome, caused by microdeletion of part of the long arm of chromosome 7, is associated with a specific personality profile, which contains highly social, empathetic, sympathetic and prosocial interpersonal behavior (Mervis, Klein-Tasman 2000) more significantly than in normal children or patients with some other disorders such as Prader-Willi or Fragile X syndrome (Jones et al. 2000, Semel, Rosner 2003). Therefore, highly specific and sensitive social profile of individuals with Williams syndrome suggests that homozygous deletion of one or more genes is involved in distortion (but not determination) – in the shift to such prosocial behavioral components (Eisenberg 2006).

Neurophysiological fundamentals of prosocial reaction

Behavioral genetics research provides information on the presence and scale of genetic contribution to prosocial behavior, but does not identify the conditions or processes of interaction between the organism and the environment through which genotypes are transformed into phenotypes. Research and theory of neurological processes can provide a mechanism for mediation between genetics and obvious behavior (Hastings et al. 2005). Panksepp (1986) proves that brain opioids affect the rate of strengthening social contact, and fluctuations in opioids in the brain, and basic emotional systems influence altruistic behavior. Panksepp (1986, p. 44) argued that any mammalian behavior aimed at helping comes from live dictates of brain systems that mediate social ties and mother care. This view is in accordance with MacLean's opinion (1985), who argued that altruism is based on mother's behavior, competence and play, which are partly mediated by the limbic system of the brain. MacLean further points out that the prefrontal neocortex, which has evolved relatively recently in evolution and is most significant in humans, provides the basis for concern for others and a sense of responsibility and conscience. There is immediate evidence of attempts to identify the neuronal roots of prosocial behavior and emotions. It was argued that the perceptual foundations

of empathy can be “*mirror neurons*” (Gallese 2001). Besides, Decets and Chaminade (2003) used positron emission tomography neuroimaging (i.e. PET scanning) to show that neural structures known to be involved in an emotional response (e.g. amygdala and adjacent orbitofrontal cortex and islet) were activated in those people who heard sad stories designed to evoke sympathy and empathy. Listening to neutral stories did not cause similar neural activation. Increased nervous activity was also detected in cortical areas involved in joint motor representations (e.g. dorsal premotor cortex, right lower parietal lobule) - areas of the brain that were considered important when looking at others (Ruby, Deceta 2001). Other scientists emphasize the importance of frontal cortical activity in sympathetic reactions. Harmon-Jones, Vaughn-Scott, Mohr, Sigelman, Harmon-Jones (2004) found out that provocation with anger increased the activity of the left anterior cortical activity and decreased proper activity, but it was discovered that high levels of sympathetic reactions eliminate these effects. Further, Eslinger et al. (1998, Eslinger, Eastin, Grattan, Van Hoesen 1996) studied individuals with ante lesions and found that when a lesion was formed in the dorsolateral ante system, deficiencies in the cognitive aspects of empathy were manifested. On the other hand, when the lesion was formed in the orbitofrontal system, larger deficits in the emotional aspects of empathy were manifested. Such findings suggest that complex nervous reactions are likely to be involved in prosocial actions and reactions, which is in accordance with Panksepp’s assertion (1986) that functional unitary brain circuits cannot be expected to be discovered for global constructs such as altruism, sympathy and prosocial behavior. We can therefore conclude that biological factors are likely to play a role in individual differences in empathy and prosocial behavior, including in preschool children. However, major part of the relevant research of biological mechanisms comes from working with animals, and existing work in the field of behavioral genetics is limited in quantity and scope. Furthermore, it is not clear whether some of the above-mentioned biological correlations of empathy or prosocial behavior play a causal role in individual differences between people in prosocial tendencies (e.g. they may simply be correlations or consequences of empathy). *Finally, there is evidence that overall environment plays a crucial role in prosocial development, even in behavioral genetic research.* The key to understanding human prosocial behavior is the ability to determine to what extent biological factors, preceding environmental influences and current context, influence individual’s prosocial behavior and its subsequent development (Wachs 1994).

Developmental trends of prosocial tendencies in children

According to both theory and empirical knowledge, prosocial behavior and empathy appear at an early age. Hoffman (1982, 2000) created a four-level theoretical model that defines the role of influencing infants, cognitive perception, self-awareness and self-differentiation in the development of prosocial behavior. Specifically, he outlined an evolution shift in time from self-esteem in response to suffering of others to empathetic interest in others, leading to different oriented prosocial behaviors. In Hoffman's first phase, newborns and infants display basic empathetic reactions that manifest themselves as "global empathy", through one or more simple ways of empathy (e.g. based on reactive crying, mimicry). Because young children are unable to distinguish their own suffering from the suffering of others, they often experience self-harm in response to the suffering of others, which proves their reactive crying in response to the sound of another crying. Starting at the end of the first year of life, *egocentric empathetic anxiety* begins to emerge in infants and it is assumed that they seek comfort for themselves when exposed to the stress of others. At this level, children began to develop a sense of self separate from others. However, this sense is quite immature (i.e. they cannot fully distinguish between their own suffering and that of others). Thus, the child probably reacts in the same way to empathetic and real emergencies. At the beginning of the second year of life, toddlers begin to help the victim of need (caress, touch). Around the same age, they can intervene by hugging, physically helping or getting the help of someone else (Zahn-Waxler, Radke-Yarrow 1982). Hoffman refers to this level of *quasi-egocentric empathetic anxiety*. According to Hoffman (2000), toddlers can distinguish between their own and other empathetic interests during this developmental period. Nevertheless, toddlers can experience an empathetic interest in the other person, not just themselves. They may also sometimes try to soothe another person, but such prosocial behavior probably also involves the other person getting what toddlers themselves find. Empathy at this level differs from the previous stage, since toddlers are not purely egocentric and are more likely to respond with appropriate empathetic influence. Stern (1985) argued that young children subjectively develop themselves and are able to recognize the subjectivity of the other person sooner, as Hoffman (2000) mentioned. Stern (1985) assumes that, predominantly out of a child's intentional consciousness, parents, especially, can support an early development of affective empathy, if they are empathetic in their interactions. Sometime during the second year of life, children enter a period of real empathetic suffering. According to Hoffman (1982, 2000), this stage marks a period in which children become increasingly aware of other people's feelings and are able to

understand that other people's perspectives and feelings may differ from their own. Therefore, prosocial actions reflect awareness of the needs of the other person (compared to the egocentric empathy of the previous stage), and children can be more accurate in their empathetic reactions and help others in a less egocentric way. In addition, with the development of speech and language, children are able to empathize and sympathize with a wider range of emotions than before. According to Hoffman (1982), though, the empathetic response is limited to immediate or specific situations which are rare for everyone. If children begin to develop more sophisticated perspective skills and acquire the ability to think abstractly, they develop the ability to empathetic reactions, even if the other person is not physically present (e.g. if they hear or read about someone in need). In addition, children up to the middle of childhood can empathize with another person's general state or their difficult situation. Thereafter, the adolescent is able to understand and respond to the situation of the whole group, which can be a group of poor or politically oppressed people. Hoffman (1982) in this context has shown that with increasing cognitive maturation, a person is able to better respond to the concerns of others.

Empathy and prosocial behavior of children

Emotions play an extremely important role in the development of prosocial values, motives and prosocial behavior. Emotions related to empathy are particularly important. Definitions of empathy vary. Empathy is defined as an affective response that originates from fear or understanding of another emotional state. It is identical or very similar to what the other person feels or what could be expected from the other person's state (Eisenberg 2006). Empathy can be perceived as the ability to feel another person's moods and feelings. The effort to imagine yourself in the place of the other person and in his experienced situation. *The basis of empathy is self-awareness. The more open we are to the perception of our own feelings, the better we can recognize and understand them in other people.* As a consequence, one must first realize their emotions first, only after that they can understand the emotions of others (Goleman 1997). Rogers (1999, p. 106) sees empathy as one of the softest and most powerful ways we use ourselves. Despite everything that has been said about this topic, it is a way of being that rarely occurs in full bloom in relationships. Wisenman (1996, In: Silent 2010), based on 53 scientific definitions, found that when trying to define empathy, the following ideas most often appear: 1) experiencing the world as experienced by others, 2) understanding the current feelings of others, 3) approaching others without prejudice, 4) expressing understanding of other people. Using the identical term "empathy" to describe various constructs leads to confusion, which is why Daun and Hill (1996) proposed distinguishing concepts of empathy using more precise

terminology: 1) dispositional empathy, 2) empathic experience, 3) empathic process. Problems with an inconsistent view of empathy may also result in what way, depending on individual authors, we can understand: 1) trait, 2) condition, 3) process. *Empathy as a trait*. In this case, empathy is understood as personality trait, feature, ability (e.g. ability to get to know other people through their inner experience or ability to perceive the emotions of others). Empathy as a trait can have both an emotional and cognitive side. When we talk about characteristics, we can distinguish people qualitatively and quantitatively, so we can also talk about low or high levels of empathy. *Empathy as a condition*. It is defined as a situationally specific condition. It is perceived as an indirect or mediated response to a particular stimulus or person. This reaction can be cognitive, affective or affective-cognitive. Based on intra-individual differences, people differ in how they experience it. Thus, there may be significant differences between the person of the observer of empathy and the other person. *Empathy as a process*. Empathy in this case is described as a multiphase process. It is therefore composed of alternating sequences of experience which, at that moment, arise and from the shared experience of these feelings with another person. It is necessary to distinguish empathy from related intermediary emotional reactions, especially from sympathy and personal stress. Sympathy is an affective response that often stems from empathy, but can come directly from perspective reception or other cognitive processing, including obtaining information from memory. It consists of a feeling of sadness and worries about a desperate or other individual in need (instead of feeling the same emotion that another person's experience or expects). Personal suffering also often stems from exposure to negative condition or other person's condition, but it is a self-directed, aversive emotional response to a substitute experiencing other emotions (e.g. discomfort, anxiety) (Batson 1991, Eisenberg, Shea, Carlo, Knight 1991). As mentioned, empathy and sympathy are very powerful factors that can radically influence and enter into prosocial development and prosocial activity. Empathy was widely seen as a substantial moral emotion in some philosophical theories of morality (e.g. Hume 1751 – 1957) and was considered a significant consequence of moral behavior. The developmental studies supported the opinion about the positive relationship between different rates of child empathy and their prosocial behavior (Zahn-Waxler, Cole, Welsh, Fox 1995, Eisenberg, Spinrad, Sadovsky 2006, Trommsdorff, Friedlmeier, Mayer 2007). Despite this extensive empirical evidence of the positive relationship between empathy and prosocial behavior, the analysis of Eisenberg and Miller (1987) showed that the relationship is rather negligible within the level of influence, such as the relationship between moral reasoning and moral action (Blasi 1984). Scientists therefore argue that further analysis of prosocial behavior motives and moderators is needed (Eisenberg 2000). From a socio-cognitive

perspective, empathy, together with moral judgment, is likely to affect moral action, since empathy and moral judgment require the ability to take a role into account and are therefore likely to be interconnected (Helwig 2008). Hoffman (2000) argued that moral emotions and moral judgment can be consistent dispositions and thus they may promote moral acts to each other. For example, empathy for a victim can be aggravated by the judgment that they are responsible for caring about the victim's fate, thereby promoting the prosocial action of the child. Despite this important argument, very few studies have assessed how moral judgment mitigates the relationship between an individual's sympathy and prosocial behavior. The study by Miller, Eisenberg, Fabes and Shell (1996) examined combined effects of sympathy and moral reasoning on prosocial behavior. Empathetic individuals with high level of prosocial moral reasoning were more social than others with low empathy. Subsequently, there was no difference in helping behavior between children with high and low sympathy within the group of children using low levels of prosocial moral reasoning. This study documents the mitigating effect of moral reasoning in the relationship between sympathy and prosocial behavior. An individual's motivation to act prosocial is complex and may involve conflicting motives (Puka 2004). People differ in their moral motivation, so theories about moral development emphasized that these differences represent moral acts (Rest 1986). Negative feelings after a moral violation (e.g. guilt) and deontological or altruistic arguments indicate that the violator personally accepts the validity of the moral rule. As such, attributes – emotions and deontological arguments – are an inherent motive for acting morally (Keller 1996, Nunner-Winkler 1999, Mascolo, Fischer 2007). This argument was supported by experimental studies which revealed that individuals who attributed negative emotions to criminals resisted the real temptation to cheat (Asendorpf, Nunner-Winkler 1992). Although moral motivation and moral conduct are closely interconnected from a theoretical point of view, this relationship has only been empirically studied by a few studies, and most of them have focused on immoral (aggressive) behavior. Several studies, for instance, have documented that children and adolescents who manifest aggressive behavior show less moral motivation than children and adolescents who do not exhibit aggressive behavior (Arsenio, Gold, Adams 2004, Krettenauer, Eichler 2006, Malti, Keller). So far, only a few studies have examined moral motivation in relation to moral (prosocial) behavior. Gummerum, Keller, Rust and Hanoch (2007) have shown that preschool children with high moral motivation have better scores in prosocial dilemmas. Malti et al. (2007) found that moral motivation of six years old children is related to the prosocial behavior of their mother. There has also been a direct link between moral motivation and prosocial behavior. These findings provide evidence that, as early as childhood, moral motivation is an

important precursor to moral acts, although these relationships may depend on other specific samples and measures used (Malti, Keller, Gummerum, Buchmann 2009). Since moral motivation has a conceptually strong cognitive component and represents an assessment of responsibility, studies of Malti, Keller, Gummerum, Buchmann (2009) provide evidence that moral judgment can independently contribute to prosocial behavior. The finding that moral motivation, especially in a more serious context of harm, makes sense in prosocial activity, could be explained by the experience of the moral socialization of children with regard to different types of violations. On the other hand, violations regarding harm are not in accordance with the negative moral obligations we owe everyone. Positive moral obligations leave more personal freedom and may therefore depend more considerably on the situational context (Frankena 1973). The attributes of the emotions of individuals and the corresponding justifications point to a self-assessment process which includes reflections on their own motives in a specific moral situation in relation to a broader socio-moral context (Krettenauer et al. 2008). Moral motivation thus includes judgments of responsibility which guide the moral conduct of an individual and are likely to be linked to the emerging moral self (Mascolo, Fischer 2007, Krettenauer et al. 2008). Moral motivation and different assessments of empathy have also been shown to be interconnected. The increasing link between morally relevant emotions, such as empathy and moral judgment, is likely to contribute to the later development of moral self, as it may indicate an increasingly internalized morality that is embedded in a person's self-knowledge, which forms an essential part of personality and his (moral) identity (Krettenauer et al. 2008). Empathy, in this case, is understood as the ability to sympathize with another person and partially identify with them. Within motivation, a theoretical view of empathy is a necessary condition for altruistically motivated prosocial behavior (Hoffman, 1984). Several empirical studies targeted on children in the United States (Zahn-Waxler, Radke-Yarrow. King 1979, Eisenberg et al. 1988), Germany (Friedlmeier 1993, Trommsdorff 1993) and other cultures (Kienbaum 1993, Kobayashi 1995, Trommsdorff 1995) also support this view. As Staub pointed out (1986), the specifics of the emotional quality that precedes prosocial behavior allow us to distinguish between altruistic and egotistical prosocial behavior. This theory is the basis of studies on the effects of empathy and anxiety on prosocial behavior. Several studies have shown that not only empathy, but also other emotions, such as anxiety, can be activated in a situation where we observe the misfortune of another person. In this case, coercion is perceived feeling of nausea and irritation. Whether both empathy and anxiety can induce prosocial behavior is not yet clear and solidly confirmed in the scientific literature (Batson, Fultz, Schoenrade 1987, Cialdini et. al. 1987). Some studies have shown a negative relationship

between anxiety and prosocial behaviour (Friedlmeier 1993, Kienbaum 1993, Trommsdorff 1993, 1995). In childhood, empathy seems to promote prosocial behavior, while fear as a negative emotional reaction blocks prosocial behavior. Although many psychologists assumed that empathy played an important role in prosocial behavior, in a meta-analytical review Underwood, Moore (1982) found that empathy was not significantly related to prosocial behavior. Therefore, it turns out that it is necessary to distinguish between emotional reactions related to empathy. Batson (1991) assumed that compassion (though labeled as “empathy” by Batson) was closely tied to other-oriented motivations and, consequently, to other-oriented altruistic helping behaviors. On the contrary, personal suffering involves an egotistical motivation to alleviate one’s own suffering, so it is expected to motivate prosocial behavior only when the easiest way to alleviate your own suffering is to alleviate the suffering of the other person. The personal anxious reactions of individuals were also positively related to their tendency to engage in satisfactory, required prosocial behaviors in other contexts (Eisenberg et al. 1988, Eisenberg, Fabes et al. 1990). It is therefore possible that individuals who show a high level of submissive behavior towards their peers have relatively low social capacity and regulation of emotions. They express the required prosocial behavior as a means of limiting unpleasant social interactions (Eisenberg, Guthrie et al. 1999, 2002). In short, the research findings are consistent with the conclusion that sympathy and sometimes empathy (depending on its operationalization) are positively related to prosocial behavior, while personal suffering, especially when assessed by non-verbal measures, has a negative relationship or is not related to prosocial behavior. In addition, there is evidence that the relationship of sympathy and empathy to prosocial behavior is mitigated by a dispositional forward-looking approach (Knight et al. 1994) and a moral justification (Miller et al. 1996).

Cultural Determinants of Prosocial Behavior in Preschool Children

As opposed to strictly biological factors, research into the cultural foundations of prosocial reaction provides an important insight into the role of the social environment in the prosocial development of an individual. People living in different cultures may be genetically different from each other, but these differences are unlikely to fully considerate the large cultural differences that are manifested in human social behavior. Research in Eastern cultures suggests that societies differ greatly in the extent to which prosocial and cooperative behavior is normative, since these differences in turn affect the prosocial development of an individual. In field studies of individual cultures, some scientists have described communities in which

prosocial behavior and communal values (or in the past have been) are highly appreciated and common, such as those of Aitutaki, Polynesian Island (Graves, Graves 1983), Javanese people (Mulder 1996, Williams 1991) and people from the Papago tribe in Arizona (Rohner 1975, Eisenberg Mussen 1989). On the contrary, other social and behavioral scientists described cultures in which prosocial behavior was rare and cruelty or hostility was the standard, such as in the community of Ikov from northeastern Uganda (Turnbull 1972) or Alores living on an island east of Java (Rohner 1975). In addition, social experiments, such as the communally oriented kibbutz in Israel (Nadler, Romek, Shapira-Friedman 1979), support the view that subcultural variations may have a significant impact on prosocial values and behavior. The perceived practical value of prosocial behavior varies between cultures. Such differences can also affect early socialization. We may observe that in some cultures, such as those in West Africa, prosocial behavior has been encouraged since childhood (e.g. infants are already offered objects and then encouraged to give them back as gifts) in order to promote the standards of co-ownership, sharing and exchanges that are believed to bind and unite the social group they form (Nsamenang 1992). In many cases, reports of cultural differences in the prosocial response are based on single-cultural studies and qualitative data (or only observations and derivation). Empirical studies of prosocial behavior and values sometimes involve only one culture, rarely more. Although the results of empirical research are generally in accordance with qualitative cultural studies, little is known about intercultural differences in real prosocial activities targeting those who are not part of the child's family or community when emphasizing the importance of culture in prosocial development. It is also unclear what factors mediate or mitigate the cultural factors observed and discovered by scientists (Eisenberg 2006). However, researchers have found through constant studies that children from traditional rural and semi-agricultural communities, even relatively traditional subcultures (e.g. Mexican American children) are more cooperative than children from urban or pro-Western cultures (Eisenberg, Mussen 1989). We must still bear in mind that also in Slovakia nowadays urbanization of cities is at a high level, although on the other hand part of the population abandons such a lifestyle and relocates outside towns to smaller municipalities (Gajdoš, Moravanská 2017). In other studies, they asked children to do a series of options related to distribution, sharing their stuff with peers, providing, donating multiple things to peers that did not change a child's own profit. Brazilian children (Carlo, Roesch, Knight, Koller 2001), Mexican, American children generally satisfy and gift peers more than Euro-American children (Kagan, Knight 1981, Knight, Nelson, Kagan, Gumbiner 1982) and the gap among Mexican Americans increases from 5 to 6 years to the age of 8 to 9 years (Knight, Kagan 1977). Sometimes, however, there were no significant

differences between Mexican or Mexican-American children and Euro-American children in choosing options in which, for example, a peer could get more tokens in the game (Kagan, Knight 1981, Knight, Nelson, Kagan, Gumbiner 1982). The tendency of children to choose more for peers than for themselves is stronger compared to third-generation Mexican-American children (Knight, Kagan 1977), suggesting that acculturation is associated with a decrease in prosocial tendencies. In another variant of the study regarding task assignments, children should have make choices when choosing the option to provide more to a partner team on the expense of themselves. Mexican-American or Mexican children also tended to give more tokens overall to a partner team than Euro-American children (Knight, Kagan, Buriel in 1981). Mexican-American children with stronger ethnic identities were found to be more interested in the results of others in the area (Knight, Cota, Bernal 1993). For a similar role in Cook Island, Polynesian children were much more generous than children from New Zealand towns and rural children of European descent (Graves, Graves 1983). Other studies examined interstate or intercultural differences in sharing or assistance. Only a few consistent differences have been found among Western industrial countries such as Germany, Russia, Australia and the United States (napr. Kienbaum, Trommsdorff 1999, Russell, Hart, Robinson, Olsen 2003). In studies of North and South America, Mexican rural children and children of a Euro-American city in principle equally helped peers in an uncompetitive context (Kagan, Madsen 1972) and Mexican-American and Euro-American children were no different in their anonymous share of confectionery and sweets with unknown (unspecified) classmates (Hansen, Bryant 1980). Significantly their best did American children in anonymous sharing of confectionery and sweets with strangers, they were much more willing to share than Colombian children of the same age, although some (but not all) were passive (Pilgrim, Rueda-Riedle 2002). When comparing Eastern and Western cultures, even more consistent differences can be found between groups of children aged 3 to 7 years. However, Trommsdorff (1995) found no difference in prosocial behavior in 5 year olds in Germany and Japan to help desperate peers. Stewart and McBride-Chang (2000) found that Asian children (ethnic groups) were more willing to donate donations for participating in the study to other children in the classroom who were unable to participate as children of the Western Caucasus in Hong Kong. Similarly, Rao and Stewart (1999) found that Asian (Chinese, Hong Kong and Indian) parents were more willing to share food with their peers than respondents from the United States. Subsequently, Asian children were more spontaneous and allowed others to choose some food. Research in the natural environment focused on the systematic observation of prosocial behavior in different cultures is rare. In the classic study of Whiting and Whiting (1975), prosocial behavior was

operationalized as a composed index of offering help (including food, toys and useful information) that offers support and useful suggestions. Cultures in which children recorded relatively high prosocial behavior (Kenya, Mexico, Philippines) differed from the other three cultures (Okinawa, India and the United States) in several dimensions. In prosocial cultures, people tended to live together in wider families, the female role was important (women made a significant contribution to the economic status of the family), the work was less specialized and the government was less centralized. In addition, the prosocial behavior of children was associated with the timely assignment of work and the assumption of responsibility for the well-being of family members and the economic well-being of the family (Whiting, Edwards 1988). Like Whiting's data on the work and structure of the family, Graves (1983) found that children from Aitutaki (Polynesian), especially girls from urban backgrounds, did less work and were not as prosocial as children born in traditional extended families. In accordance with some of the above mentioned researches on prosocial behavior of Asian and Western children, Stevenson (1991), based on his observation of children in Taiwan, Japan and USA, found that the incidence of sharing, reassurance and assistance among children in kindergarten was lowest in the United States. Stevenson et al. (1991) argued that Chinese and Japanese companies generally place great emphasis on the socialization of children in order to be responsible and prosocial to others in their group (e.g. family, class and society) (Hieshima, Schneider 1994). Privileges and social recognition in the classroom depend on the group rather than on individual achievements. The researchers also suggested that Japanese mothers in their family traditionally use empathetic sensitivity to support their children's empathy and the needs of other people (Lebra 1994, Trommsdorff, Kornadt 2003). However, parental appreciation of prosocial behavior between the 1950s and 1960s in the People's Republic of China (Lee, Zhan, 1991) appears to have decreased, so it is unclear whether these findings would be repeated in today's Asian countries. These countries are undergoing rapid cultural changes in globalization (Eisenberg 2006). Thus, we can conclude that already in early childhood, the impact on the development of prosociality in children is a fairly strong factor, and therefore the function of a teacher and parent is irreplaceable, dominant and necessary on their part.

Moral judgement, values and beliefs about social responsibility

Moral reasoning or moral thinking according to Lajčiaková (2005, p. 17) involves both knowledge of moral norms and a way of thinking about moral problems – it is a way how an individual perceives moral problems and try to solve them. Moral judgement, according to many authors, is perceived as a process that is tied to cognitive and social development. Moral

development reflects an individual's opinion of what is good and what is wrong. Opinion varies gradually depending on the age of the individual and his maturation. The development of morality has several aspects, while the current theories describing the development are evidence of its inconsistency (Ráczová, Babinčák 2009). The basis for understanding the construct of moral judgement is provided by well-known cognitive theories of the development of moral judgement, represented by Piaget and Kohlberg (Heidbrink 1997, Vacek 2008, Lajčiaková 2008). They stress the crucial importance of reason, thinking and judgment in understanding morality and moral action (Dvořáková 2008), relying on the fact that moral proceedings cannot be assessed regardless of the judgment and intent of the person acting (Blasi 2004). The most famous such a concept is Kohlberg's cognitive theory of the development of moral judgement. It is set in the context of Piaget's findings about the connections between cognitive development and moral reasoning. Kohlberg's formulated stages of moral development tell how the way of thinking about moral problems is changing depending on the development of cognitive structures. The whole theoretical concept of moral judgement relies on measurement. Kohlberg built it on how people argue when dealing with hypothetical moral dilemmas, considering different development-specific ways of thinking as universal degrees of moral judgement. Kohlberg's concept has several characteristics that are also sources of criticism of this concept and offer a starting point for further theories and research. Research of prosocial and careful moral reasoning is a set of work that is important for understanding intercultural variations in cognition about prosocial behavior. Relatively few intercultural differences in prosocial reasoning (Eisenberg, Boehnke, Schuhler, Silbereisen 1985, Eisenberg, Hertz-Lazarowitz, Skoe et al. 1999) have been observed among industrial Western cultures. Thus, in general, we can say that moral justification for care, prosocial relationship or prosocial self-assessment of people from Western cultures showed much greater similarities than differences (Eisenberg 2006). Prosocial moral reasoning of adults from other cultures or less industrial ones can be significantly different from people from Western cultures, especially as they get older. However, the pattern in this case is not very consistent. Further research shows that a third of observed Middle Eastern children in Israel prefer considered acts, as opposed to Israeli-Jewish children of Western heritage who prefer spontaneous acts (Jacobsen 1983). Western society therefore values rather prosocial acts that seem to be based on endogenous motivation, while people from traditional cultures value rather prosocial activities that reflect the ability to respond to the needs of others and reciprocal commitments (Eisenberg 2006). At the moment, very interesting questions arise: What happens to different cultures when globalization is at its peak? How does it affect the prosociality of an individual when cultures and peoples are mixed

and national differences are faded? Is a new multicultural society being created, or are we going back to our native – national society?

Socialization of a child inside and outside the family

Family structure, socialization in the family, socialization among peers and in schools can strengthen or counter cultural influences. However, existing research has limitations, given the over-reliance on parents' statements about their children's prosocial tendencies and their own socialization practices, or when they have used very short observations to measure their children's behavior (which does not have to be generalizable). The research also had a lack of data from fathers and from minority and eastern populations. It is probable that the relations of aspects of parental control and punishment to developmental outcomes (including prosocial and moral development) vary slightly within cultures (Trommsdorff, Kornadt 2003). Most of the work is correlated; therefore it is impossible to establish causal relationships. The prevailing view of socialization is focused on the parent-child relationship, which is complex, two-way and with transactional influence (Bugental, Grusec), and this relationship is rooted in the macro environment (e.g. neighborhoods, cultures). However, this complexity is generally not reflected in existing empirical research on the socialization of prosocial behavior.

Demographic characteristics of families and family members and their association with prosocial behavior of children

Intuitively, prosocial behavior of individuals could be expected to be associated with the socioeconomic status of their families (see Whiting, Whiting 1975). However, the findings are inconsistent regarding the relationship of socioeconomic status indexes, such as family income or parental education, to most types of prosocial behavior (Laible, Carlo, Raffaelli 2000, Eisenberg, Fabes 1998). The findings of the impact of a family structure and family size in relation to prosocial behavior are mixed. Rehberg and Richman (1989) found that preschoolers from families where fathers were absent reassured others (but did not help) more than girls and boys from complete families. Other scientists did not find the effects of the father's absence on measuring the prosocial response (Call, Mortimer, Shanahan 1995, Dunn et al. 1998) and some scientists found that adolescents in families with both parents voluntarily work more than those with only one parent (Keith, et. al. 1990, Youniss et al. 1999, Lichter et al. 2002, Huebner, Mancini 2003). It was also found that family size and prosocial behavior or sympathy are not connected (Gelfand, Hartmann, Cromer, Smith, Page 1975, Chou 1998). Research shows that children in a large family voluntarily helped more (Zaff, Moore, Papillo, Williams 2003) and

children with multiple siblings in the family are less helpful in emergencies (Staub 1971) or less soothing their peers (Rehberg, Richman 1989). There is also quite a possible occurrence of bystander effect. Staub believed that individuals from small families were more confident and therefore more likely to take the initiative and spontaneously intervene to help someone else. In contrast, individuals in larger families may be better at helping and sharing on a daily basis due to the need to get involved. In accordance with that reasoning, Weissbrod (1976) found out that a large family affects its member, on the one hand, in the context of a slower response, indecision in providing emergency assistance, but, on the other hand, in acquiring a higher level of generosity. The findings concerning the ordinal position are small, insufficient and limited in scope. Firstborn children, especially girls, were found to be more willing than their peers to share different things with their peers (Sharma 1988). Besides that, older siblings have more frequent prosocial manifestations in sibling interactions compared to younger siblings (Whiting, Whiting 1975, Bryant, Crockenberg 1980, Furma, Buhrmester 1985, Dunn, Munn 1986, Stoneman, Brody, MacKinnon 1986), but perhaps partly due to their older age (rather than his ordinal status as such) and greater involvement in work and care, as this provides opportunities for prosocial behavior (de Guzman Carlo 2004). Other scientists found no relationship between the order of the firstborn and the other children in the family and the extent of prosocial response (Gelfand et al. 1975, Rheingold, Hay, West, West 1976) or sympathy (Wise, Cramer 1988), or they obtained mixed results (Eisenberg, Fabes, Karbon, Murphy, Carlo et al. 1996). In general, older children seem to be more prosocial, especially in their actual (rather than reported by parents) prosocial behavior and interactions with younger siblings.

Parenting and parent-child relationship

Good supportive socializers (real role models) should have a positive impact on children's prosociality and should then persist into adulthood. However, support for this premise is mixed in research. Some studies have shown a positive relationship between the mother's whole-hearted support index or sensitivity (often versus negativity) and the prosocial or empathetic response of children and adolescents, at least for some measures (Waxler, Radke-Yarrow, King 1979, Bryant, Crockenberg 1980, Janssens, Gerris 1992, Eberly et al. 1993, Robinson, Zahn-Waxler, Emde 1994, Krevans, Gibbs 1996, Janssens, Dekovic 1997, Eberly, Montemayor 1998, Deater-Deckard, Dunn et al. 2001, Shek, Ma 2001, Dunn, Cutting, Fisher 2002, Asbury, Dunn, Pike, Plomin 2003, Kiang et al. 2004, Laible, Carlo 2004, Strayer, Roberts 2004, Lerner et al. 2005). On the contrary, other scientists were unable to obtain evidence of the relationship between parental kindness (or rejection) and the prosocial behavior of children

or their empathy (Turner, Harris 1984, Koestner, Franz, Weinberger 1990, Iannotti et al. 1992, Eberly, Montemayor 1999, Stewart, McBride-Chang, 2000, Kienbaum, Volland, Ulich 2001), or found very different connections between parental support and kindness and prosocial behavior and child sympathy (Carlo, Roesch, Melby 1998). Sometimes the relationship of parental kindness to the prosocial response of children was poor, i.e. it was only an important means of mediation. Zhou et al. (2002) found out that the relationship of parental kindness to the facial and self-reported empathies of elementary school pupils was indirect through its positive relationship with parental expressions of positive emotions in a context in which the emotions of others occur (especially the positive emotions of others). According to the statements of parents, the helpfulness of their children was higher in those adolescents who have more time and do more activities with their parents (Eberly, Montemayor 1998). A study that examined the level of parental empathy (Kochanska, Forman, Coy 1999) found that the mother's sensitivity (contingent, adequate response) to her children at 9 (but not 14) months predicted a higher level of empathy – a prosocial response in toddlers at 22 months (cf. van der Mark et al. 2002). In addition, Spinrad (1999) found that the observed sensitivity of mothers to their infants at 10 months of age was positive in relation to toddlers who received attention at the age of 18 months. In addition, Clark and Ladd (2000) found that parental emotional connection with children (including mutual positive engagement between parents, child, parental love, intimacy and happy emotional tone, as well as reciprocity) is positively related to the prosocial aspiration of teachers in kindergartens. There is also limited evidence that young children who live in good family relationships and are positively attached to mothers show a certain level of sympathy as early as 3.5 years of age (Waters, Hay, Richters 1986) and show more prosocial behavior and interest in others at around the age of 5 (Kestenbaum, Farber, Sroufe 1989, Iannotti et al. 1992). The study of 22-month-olds emotionally attached to the mother showed a positive effect on their empathy, sympathy, but not yet significant and somewhat inconsistent (van der Mark et al. 2002). In addition, according to testimonies of adolescents with a good emotional relationship with parents, a connection has been shown to be associated with their increased ability to show empathy, sympathy and prosocial behavior by the prospective reaction of Turkish adolescents. It was evident in adolescents of the early stage of adolescence (Kumru, Edwards 2003), as well as in adolescents of the middle and late stages of adolescence (Markiewicz, Doyle, Brendgen 2001, Laible, Carlo Roesch 2004). This was also confirmed by statements made by parents about the usefulness of adolescents (Eberly, Montemayor 1998), although not in all studies (Eberly, Montemayor 1999, de Guzman, Carlo 2004). Because children, emotionally attached to their parents, who are sensitive and cordial,

tend to adopt parental cordiality and act prosocial. The connection between positive attachment of children to parents and parental cordiality is an indirect support for the prosocial development of such children. Staub (1992) also claimed that the quality of children's early and positive attachment to their parents is important for developing a sense of connection with others and positive appreciation of other people (Oliner, Oliner 1988). However, in families where the child or parent has noticeable mental problems, the connection between positive attachment and prosocial behavior or empathy is not manifested, because other more complex relationship bonds arise here (Radke-Yarrow, Zahn-Waxler, Richardson, Susman, Martinez 1994). It is presumed that the degree of association between the prosocial response of children and parental heartfelt behavior is reduced by some other socialization approaches. Dekovic and Janssens (1992) found that the democratic approach of parents, involving parental cordiality and support combined with a certain difficulty and suggestions providing, information and positive conditions, is associated with positive prosocial behavior of Dutch children, as stated by teachers and peers (Janssens, Dekovic 1997). Robinson et al. (1994) report that mothers who were relatively negatively set up and still controlled their children tended to reduce rather than increase empathy. This included children aged between 14 and 20 months of age (those who had moderate or high empathy for 14 months). Childcare can serve as a background or contextual variable that increases a child's perceptiveness based on parental influence, including parental inductions, comments, and moral standards (Hoffman, 1970). Of particular importance in the study of prosocial behavior is parental induction – educational technique, verbal discipline, in which the socializer provides explanations or reasons by which he requires the child to change his behavior (Hoffman 1970). Hoffman (2000) argued that induction probably supports moral development because it induces the optimal level of excitement for learning. Hoffman (2000) further mentions that, over time, inductive messages are perceived as internalized because the child plays an active role in the processing of information (which is encoded and integrated with the information contained in other inductions and focuses more on the child's activity and its consequences). Over time, children are likely to remember the causal connection between their actions and the consequences for others. Scientists have usually tried to assess the extent to which parents use induction as a general way of discipline, but not just to promote prosocial behavior. Inductions vary in content: they can appeal to justice, including the fairness of the consequences of a child's behavior on another. They may appeal to legitimate authorities or provide factual information. In addition, inductions can focus on the consequences of a child's behavior, either on the parent or on another person involved in the situation (often called remolded induction). Hoffman (1970) argued that peer-oriented

inductions are probably most effective because they are best suited to provoke sympathy. Victim-centered discipline appears to increase the level of interpersonal understanding, which is related to higher guilt, including fear of harming other person (de Veer, Janssens 1994). Further, it has been found out that inductions emphasized by others (including parents) react to children's behavior; they predict higher levels of prosocial behavior (Krevans, Gibbs 1996). Stewart and McBride-Chang (2000) found that parental emphasis on the effects of child's bad behavior in the family and on what others think of the child is positively related to the results of research into Asian children in Hong Kong on the level of anonymous donation. The tone in which inductions are often given can contribute to their effectiveness, especially in young children. Zahn-Waxler, Radke-Yarrow and King (1979) noted that the motherly use of affectively loaded explanations, especially those involving moralization, was positively associated with the toddler's prosocial behavior in the second and third years of his life. The explanations delivered without affecting them were not effective perhaps because the toddlers were unlikely to have attended or thought their mother was strict. Similarly, Miller, Eisenberg, Fabes, Shell and Gular (1989) found that peer-related inductions were positively associated with children's sad reactions if others were in need and if their mothers delivered them with affective intensity. However, parental inductions given in situations involving relatively high degrees of anger, in particular guilt-inducing inductions appear to be associated with low levels of prosocial behavior in preschool age (Denham, Renwick-DeBardi, Hewes 1994). It may be assumed that the configuration of parental procedures within the style of education affects the effectiveness of inductions. Likely subsequent inductions will be more effective in promoting prosocial behavior or empathy when verbalized by parents who do not usually use powerful assertive (repressive) techniques (Dlugokinski, Firestone 1974, Hoffman 1983), they can also be effective if the children are part of a model of democratic, authoritarian style of parental education (Dekovic, Janssens 1992, Janssens, Gerris 1992). Some discrepancies in induction findings may stem from the failure of scientists to assess the critical dimensions of parental responses in research. Grusec and Goodnow (1994) claimed that internalization of parental responses probably depend on the accurate perception of children's message and their acceptance by children. They suggested that the clarity, redundancy and consistency of their responses in research, as well as its adaptation to the child's developmental level, should influence the accurate perception of children's message. Children are more likely to receive a message if they perceive it as appropriate, find it motivating (e.g. if it provokes empathy or insecurity) and believe that the value contained in the message is self-sufficient. Grusec and Goodnow (1994) also assumed that parental responsibility or a willingness in the past to satisfy

the wishes of the child promotes the child's willingness to fulfil the wishes of the parents. It may therefore be productive to examine the clarity of parents' messages, responses and variables regarding the adoption of a message by the child as moderators of the relationship between parental induction and prosocial behavior of children. In general, scientists have found that the use of assertive techniques within discipline, such as physical punishment or deprivation of privilege, is either unrelated (e.g. Zahn-Waxler, Radke-Yarrow, King 1979, Janssens, Gerris 1992, Kochanska et al. 1999), or negatively related to prosocial behavior of children (Deater-Deckard, Dunn et al. Dlugokinski, Firestone 1974, Bar-Tal, Nadler et al. 1980, Krevans, Gibbs 1996, Asbury, Dunn, Pike, Plomin 2003). Similarly repressive and authoritarian parental style had no connection (Iannotti, Cummings, Pierrehumbert, Milano, Zahn-Waxler 1992, Russell et al. 2003, Diener, Kim 2004) or negatively related (Dekovic, Janssens 1992, Hastings et al. 2000, Russell et al. 2003) to prosocial behavior of the child.

Parental control and prosocial behavior of children

A critical issue when considering parental punishment and control is likely to be whether the degree of power exercised by the parent is perceived in a given context or culture as disproportionate and arbitrary or proportionate. Parental requirements and expectations of socially responsible and moral behavior (often expressed in authoritarian parental style) were associated with socially responsible and prosocial behavior (Dekovic, Janssens 1992, Janssens, Gerris 1992, Janssens, Dekovic 1997, Lidner-Gunnoe, Hetherington, Reiss 1999), with the promotion of values of care for adolescent children (Pratt, Hunsberger, Pancer, Alisat 2003) and the care of their moral reasoning (Pratt, Skoe Arnold 2004). On the contrary, strict refusing parental control over the child is associated with a low level of sympathy (Laible, Carlo 2004). In Western cultures, we often see parental emphasis on adolescent autonomy, which is also associated with prosocial development (Bar-Tal, Nadler et al. 1980, Pratt et al. 2004). This relationship can occur as early as childhood (Clark, Ladd 2000). In Asian cultures, which emphasize parent training and filial piety (Stewart et al. 1998), training of this kind has been associated with anonymous prosocial behavior; while restrictive control is marginally negative (Stewart, McBride-Chang 2000). Other scientists found a positive link between appropriate parent control and child empathy (Bryant 1987) or girls' sympathy (not boys') a few years later in adulthood (Koestner, Franz, Weinberger 1990). Analogously, parental monitoring of adolescent activities was positively associated with volunteering adolescents in a large survey (Huebner, Mancini 2003, Zaff et al. 2003). In the case of middle-class families, parental requirements for prosocial behavior appear to be part of a way of raising children that is

expected to be mature (Greenberger, Goldberg 1989). On the contrary, parental evaluation of the match itself, which can often lead to arbitrary over-control, was associated with a low level of prosocial behavior of children with mothers and peers (Eisenberg, Wolchik, Goldberg, Engel 1992).

Parental emphasis on the child's prosocial values

Since parents who have acquired prosocial values are also expected to model their children's prosocial behavior, it is reasonable to assume the relationship between parental prosocial values and prosocial behavior of children. Although some scientists found no evidence of a relationship between parental emphasis on prosocial response and prosocial behavior or empathy of children (Turner, Harris 1984), other scientists gained mixed (Bryant, Crockenberg 1980) or positive relationships (Trommsdorff 1991). Perhaps the most exciting evidence of the importance and impact of parental prosocial values are studies of adults who have shown unusual acts of altruism. Rescuers in Nazi Europe recalled the moral values of caring for their parents or another most influential person in their lives (London 1970, Hart, Fegley 1995, Oliner, Oliner 1988). Rescuers said their parents felt that ethical values should be expanded and given to all human beings. Interestingly, rescuers were no different from those who were not rescuers in their reported exposure to unprofessional values such as honesty or justice. However, real-life moral examples often strengthen their values or even develop new moral values in adulthood when interacting with other adults who discuss value issues and participate together in moral activities with other individuals (Colby, Damon 1992). Thus, it is presumed that the socialization of values focused on other values, even if it begins to develop and its origin is in the family, and then continues in the life of man through a dynamic process.

Strength of assertive and punitive techniques within discipline

In general, scientists have found that the use of assertive techniques promoting power, such as physical punishment or deprivation of privilege, is either unrelated (Zahn-Waxler, Radke-Yarrow, King 1979, Janssens, Gerris 1992, Kochanska et al. 1999), or negatively related to prosocial behavior (Dlugokinski, Firestone 1974, Bar-Tal, Nadler et al. 1980, Krevans Gibbs 1996, Deater-Deckard, Dunn et al. 2001, Asbury, Dunn, Pike, Plomin 2003). In addition, physical child abuse is associated with low levels of empathy and prosocial behavior in children (Howes, Eldredge 1985, Main, George 1985, Miller, Eisenberg 1988, Koenig, Cicchetti, Rogosch 2004). Nevertheless, there is a difference between occasional, measured use of assertive behavior techniques in the context of a positive parent-child relationship and the use

of punishment as the preferred predominant type of discipline. People who rescued Jews in Nazi Europe said that the punishment they received from their parents was not a routine response, but was linked to specific behavior rather than being used for no reason (Oliner, Oliner 1988). Furthermore, Miller et al. (1989) found that the maternal report on the use of physical techniques (including physical punishment) was positively associated with the empathetic grief of preschoolers when looking at others in need, but only in children whose mothers also used a relatively high level of inductive discipline (Hoffman, 1983). A punishment may invoke immediate fulfilment of the socializer's expectations for the prosocial behavior of a socializing child if the socializer monitors the behavior of the child (Morris, Marshall, Miller 1973), especially if a coincidence is specified between the lack of prosocial behavior and punishment (Hartmann et al. 1976). However, these effects often disappear quickly when the sentence is taken away (Hartmann et al. 1976), so children tend to attribute prosocial behavior induced by techniques of assertive action to external motives, such as fear of detection or punishment (Dix, Grusec 1983). However, unlike material punishment, social dissent is positively connected with a fact that children attribute their own gift with internal motives (Smith et al. 1979). It is therefore possible that social dissent (e.g. verbal punishment) can be used to reinforce internally motivated prosocial behavior. Maternal manifestations of mothers' disappointment towards her child have been connected to greater prosocial behavior (Stewart, McBride-Chang 2000).

Modeling – social imitation in children

Due to the importance of modelling (hereinafter referred to as social imitation) in the Social Learning Theory (Bandura 1986), many scientists examined whether the prosocial behavior of individuals varies depending on their exposure to prosocial or selfish models. In general, individuals who see a generous model or useful model are more generous to others or bring benefits in a given prosocial model (Rice, Grusec 1975, Rushton, Teachman 1978). Furthermore, we can conclude that more models can be more effective than inconsistent models to induce accurate imitation of donation (Wilson, Piazza, Nagle 1990). In most laboratory studies of social imitation, prosocial behavior is modeled only once. It is therefore impressive that some scientists have gathered evidence to generalize new behavior or environment (Midlarsky, Bryan 1967, Rushton 1975), but others have not and therefore refuted these findings (Rushton, Teachman 1978, Rushton, Littlefield 1979). Adults who control important and valuable resources or things (Grusec 1971) create models that appear to children as relatively strong models or as models competent (Eisenberg-Berg, Geisheker 1979). Moreover,

the stimulating and valuable prosocial models that children encounter seem to encourage their prosocial behavior, especially when prosocial behavior is not costly and represents what they would like to do, to which they tend (Staub 1971, Weissbrod 1976). Conversely, when prosocial behavior involves self-denial (e.g. giving a gift), short-term exposure to the good-hearted model appears to have little effect in children or may even reduce their donor behavior (Grusec 1971, Weissbrod 1976). It may be assumed that short-term unintended cordiality prevents children from feeling well. This also applies to helping others in need, as well as maintaining valuable commodities for themselves. However, in the context of a class in which kindness is unlikely to be completely uncontrolled, preschool children mimic the prosocial behavior and values of adults with whom they had a relatively warm and good relationship (Yarrow, Scott 1972, Yarrow et al. 1973). In addition to laboratory studies, the researchers examined whether children are a role model for other socializers, such as parents. In the first two years of a child's life, it is not confirmed that children consistently socially mimic mother's sharing or assistance to a person in need (Zahn-Waxler et al. 1979, Hay, Murray 1982). However, the social imitation of helping habits of mothers (e.g. participation in housework) seems to increase the likelihood that one and two year olds help with similar tasks (Rheingold 1982). Real-life altruist data further indicate the effect of parental social imitation. Youth volunteering was found to be linked to their parents' volunteering rate. Besides, the types of volunteering chosen by young people tend to be similar to those carried out by their parents (Keith et al. 1990, Hart, Fegley 1995, Janoski, Wilson 1995, National Center for Education Statistics 1997, Stukas, Switzer, Dew, Goycoolea, Simmons 1999, McLellan, Youniss 2003). In accordance with the idea that parental social imitation promotes the prosocial tendencies of children, empathetic parents tend to have children (of the same sex) who are already helpful in primary school (Fabes, Eisenberg, Miller 1990), i.e. they are prone to empathy and compassion rather than to egotistical personal life (Fabes et al. 1990, Eisenberg, Fabes, Schaller, Carlo, Miller 1991, Eisenberg, Fabes, Carlo, Troyer et al. 1992, Eisenberg, McNally 1993). On the contrary, the connections between parental empathy (rather compassion) and child empathy were mixed. Nevertheless, some scientists have gained positive relationships between parent-child empathy. Some scientists found such correlations consistent (Trommsdorff 1991, Strayer, Roberts 2004), but others gained inconsistent correlations (Strayer, Roberts 1989, Bernadett-Shapiro, Ehrensaft, Shapiro 1996). Some parents with higher empathy may be too excited and desperate, which is expected to lead to a lower ability to provide help in many contexts. The significant findings that have been obtained could also explain a number of mechanisms, including the impact of heredity on compassion and empathy. It is possible that, as part of parental practices, altruism stems from

other family factors, such as social imitation, for instance, from optimal discipline, exposure to prosocial cultural or social values. However, the research findings concerning the parents of prosocial offspring are almost identical to experimental laboratory studies, which imply a social imitation of development, their prosocial tendencies (Eisenberg 2006).

Moral instruction – preaching, inciting children

The verbalization of adults regarding prosocial behavior was studied in non-disciplinary contexts (laboratory situations in which the adult does not respond to the wrong behavior of the child) as well as in disciplinary situations (induction). In studies on the effects of moral instruction – reproaching or incitement – the instigator indicates what should be done, but does not directly and explicitly direct a specific activity to the child. The instigator often also cites the reasons why a child should or should not help (Eisenberg 2006). Moral instruction – teaching, incitement – is often normative in content, with the instigator stating what should be done and stating either prosocial or selfish norms (Bryan, Walbek 1970). Most scientists have found no influences, or they pointed to the inconsistent effects of normative moral lessons – commands, incites – of those who are not parents in relation to the donation behavior of children (Bryan, Walbek 1970, Zabatany, Hartmann, Gelfand 1985). However, it seems that the normative incitation promotes generosity, if it is an encourager, promoting the donation of an adult who will have a direct impact on children (Eisenberg-Berg, Geisheker 1979). In addition, it was found that empathy-inducing tutoring highlighting the emotional consequences for recipients of help provokes more private donations than tutoring of neutral control (Dlugokinski, Firestone 1974, Eisenberg-Berg and Geisheker 1979, Perry, Bussey, Freiberg 1981, Smith 1983) or repressive impending reprimands (Perry, et al. 1981). Moral instruction – reproaching, empathetic incitement – was also found to increase the efforts and success of primary school children when they help their peers (Ladd, Lange, Stremmel 1983) and is related to prosocial behavior also in other environment or later (Grusec, Saas-Kortsaak, Simutis 1978, Smith 1983). Not all of the scientists found that effects of moral instruction – reproaching, incitement evoke empathy in children. Some studies suggest that inciting, morally instructing, could lead children to believe that an adult or recipient would be angry with them if they did not help them, and this could provoke a negative reaction rather than empathy (McGrath, Power 1990), or compliance rather than internalization. It follows that incitement and moral instruction works best if children feel they have a choice, and if the exhortations and moral lessons emphasize the positive results of the help (Grusec, Saas-Kortsaak, Simutis 1978, McGrath, Wilson, Frassetto 1995). Furthermore, the results of one study suggest that empathetic

exhortations, instructions are particularly effective in children who are exposed to inductive discipline at home (Dlugokinski, Firestone 1974).

Stimulus and commands for children

Individuals invited by various stimuli to help or share something were found to have a tendency to do so (Gelfand et al. 1975, Israel, Raskin 1979, Hay, Murray 1982), but the effects of directing orders persist for no more than 11 days (Israel, Brown 1979) or 4 weeks (Israel, Raskin 1979). Direct requests for prosocial behavior may be particularly important for children because of their limited ability to understand the emotions and situational situations of others (Denham, Mason, Couchoud 1995). However, there is evidence that restraining orders are less effective in older children than in younger children (White, Burnam 1975). Highly restrictive instructions may induce rather reactivity. Moreover, in the first years of life, children are unlikely to attribute forced behavior to internal reasons (McGrath, Power 1990).

Reinforcement – strengthening prosocial behavior in children

In accordance with the theory of learning, it was found that specific (Fischer 1963) and social (Gelfand et al. 1975, Grusec, Redler 1980, Mills, Grusec 1989, Eisenberg, Fabes, Carlo et al. 1993) reinforcements increase the prosocial behavior of children at least in the immediate context. Although specific rewards may provoke prosocial behavior in a given context, the long-term effect of specific benefits may be negative. Lepper (1983) argues that the provision of specific rewards undermines the intrinsic motivation of prosocial behavior in children. Fabes, Fultz, Eisenberg, Plumlee, Christopher (1989) also found that the use of material rewards for the helping behavior of schoolchildren would undermine their subsequent, anonymous prosocial behavior during free choice. Rewards can be characteristic for these children and it may therefore be very likely that they attribute their initial prosocial behavior to external reward (not an internal motive). The effects of social empowerment may therefore vary depending on the type of praise and age of the child. Strengthening prosocial behavior does not appear to increase prosocial tendencies in other environments or over time for young children and could even weaken it (Grusec 1991, Eisenberg, Wolchik et al. 1992). In addition, it turns out that praise, which attributes positive behavior of children to their dispositional kindness or internal motives (e.g. because they like the help of others), is more effective than praise, which simply marks this act as positive (Grusec, Redler 1980, Mills, Grusec 1989). Grusec and Redler (1980) assumed that older children could consider the interpretation of strengthening a particular act

or act as a consequence of different situations, while younger children do not consider praise for their actions to be a manifestation with wider relevance.

Emotional socialization of children

Parental education, which helps children cope with negative emotions in a constructive way, is associated with children's empathy and prosocial behavior. This may be partly due to children who are unable to cope adequately with their emotions, tend to become circumstance and experience a self-directed aversive reaction (i.e. personal fear) when confronted with the difficulties of others, while children who can regulate their emotions are empathetic and compassionate (Eisenberg, Fabes, Murphy et al. 1994, 1996). Buck (1984) assumed that repressive reactions of parents, when children show negative emotions, lead to increased excitement of children when they experience negative emotions, as well as to attempts to hide such feelings. Eisenberg, Fabes, Schaller, Carlo and Miller (1991) found that mothers who accentuated to their sons the need to control their negative emotions influenced their sons in such a way that they showed physiological signs of anxiety while watching a film that evoked empathy and compassion, but reported low levels of anxiety in response to the film. This means that if these boys are confronted with bad feelings and anxiety of others, they are prone to empathize with them, but they hide it, they do not want others to know about it. Parents who discourage their children from showing negative emotions are more likely to teach their children about the harmful effects of emotional manifestations on others. However, when it comes to preventing the expression of negative emotions, this is probably associated with the anxiety of girls in kindergartens whose mothers were also restrictive in this regard, i.e. that they were generally less supportive. By restricting emotions inadequately for child's age or low levels of support, mothers can cause trauma to their children (Eisenberg, Fabes et al. 1992). Parents should demonstrate ways of managing emotions or encourage their children to use certain means to manage them. Eisenberg, Fabes, Schaller, Carlo and Miller (1991) found that boys whose parents encouraged them to actively deal with situations causing their own sadness or anxiety were relatively more likely to empathize than personal anxiety in empathy-inducing contexts. In addition, studies on mothers who have tried to find out why their child feels badly show that they ultimately help children talk about it and share their negative emotions (Eisenberg, Fabes, Carlo et al. 1993). Similarly, Belden, Kuebli, Pauley and Kindlerberger (2003) found that questions from mothers about emotional responses, states of mind or interpretations of their children about motivation for good deeds that their child had done in the past correlate positively with children's empathy. In addition, Denham and Grout (1992) found

that the prosocial behavior of preschoolers was positively related to mothers' tendencies to explain their grief, and Kojima (2000) found that the prosocial behavior of young children in sibling relationships was positively related to mothers alerting their children about the actions and emotional states of their siblings. However, I must point out that a positive link between parental conversation about emotions and prosocial tendencies has not been found in all studies (Eisenberg, Fabes, Schaller, Carlo, Miller 1991, Garner, Jones, Gaddy, Rennie 1997, Eisenberg, Losoya et al. 2001). In short, scientific findings are consistent with the view that parenting, which helps children regulate their negative emotions to prevent excessive arousal, can promote empathy, compassion and prosocial behavior rather than personal suffering. Moreover, the effects of parental upbringing practices related to parents' emotions are mitigated by individual differences in children's emotional response, regulation and aspects of the child's temperament and personality (Eisenberg et al. 2006).

Other family and external influences on children's prosocial behavior

People and institutions, excluding parents, in children's environments are potential socializers of children's prosocial actions. Researches, how non-birth influences can support, alter the prosocial behavior of children, are still in basic stages (Huston, Wright 1998), and the findings are still inconsistent and ambiguous.

Siblings and their impact on the prosocial behavior of children

Because the siblings know each other very well, they would be expected to play an important role in developing social understanding within inter-person relationships, including prosocial behavior (Dunn, Munn 1986). Even one to two-year-olds show prosocial behavior toward their siblings (Dunn, Kendrick 1982). Preschool children provide a relatively high level of soothing behavior for their younger siblings who are in need (Stewart, Marvin 1984, Howe, Ross 1990), but show relatively low feedback rates on unknown younger children (Berman, Goodman 1984), because older siblings often act as caregivers of younger siblings. The sibling relationship provides children opportunities to learn about the needs of others and to take effective care of others. In addition, children with supportive sibling relationships tend to be less preoccupied with their own feelings of anxiety and better understand the feelings and states of others – they promote prosocial behavior and action (Sawyer et al. 2002). The connection between the presence of siblings and prosocial behavior is not always consistent, and it is asserted that the quality of the sibling relationship may be more predictive of positive behavior of children than the actual presence of siblings in the household (Cutting, Dunn 1999). Older

children are more likely to introduce prosocial behaviors focused at their younger siblings, and younger siblings accept reciprocal roles, showing high levels of submissiveness and modelling (Dunn, Munn, 1986, Stoneman, et al. 1986). In addition, there is evidence that older sisters are particularly involved in prosocial interactions with their siblings (Whiting, Whiting 1975, Stoneman et al. 1986, Sawyer et al. 2002). Tucker and his colleagues (1999) found out that personal qualities and experiences of sibling relationships of older siblings were related to the empathy of younger sisters, but not younger brothers (Searcy, Eisenberg 1992). A study targeting Japanese children showed positive prosocial behavior of siblings towards each other (Kojima 2000). Conversely, Dunn and Munn (1986) found very little correlation between the prosocial behavior of older and younger siblings (Bryant, Crockenberg 1980), despite the fact that the cooperation and prosocial behavior of younger siblings were positively related to the provision of favors and the cooperation of older siblings. The characteristics of siblings can affect the degree of prosocial behavior between them. Thus, if one sibling has difficulty with initiating, maintaining or promoting positive interactions, prosocial and supportive sibling interactions are likely to be negatively affected.

The influence of peers on prosocial behavior of children

Theorists dealing with the development of morality often associate the acquisition of morality with the processes of social interactions with peers (Piaget 1932, 1965). They claim that interactions involve a mutual connection, frequent cooperation and reciprocity. Thus, interaction can provide an optimal atmosphere for obtaining concepts and behaviors reflecting justice, kindness and care for the well-being of another (Youniss 1980). For example, obtaining at least one reciprocal friendship is related to a higher level of prosocial behavior (Wentzel, Barry, Caldwell 2004). Peers sometimes respond to the prosocial activities of peers (Eisenberg, Cameron, Tryon, Dodez 1981), and such strengthening can affect the prosocial behavior of children. Girls in preschool (but not boys) who exhibited a fairly high level of spontaneous prosocial behavior were the ones who received a marginally more positive strengthening of their prosocial actions from peers (Eisenberg et al. 1981). Eisenberg et al. (1981) points out that, children, who were more social and positive, received the greatest mutual support when engaging in prosocial behavior. In this way, a cyclic process can occur in which socially competent children provoke more positive interactions to prosocial behavior, which in turn increases their prosocial behavior. The opposite process occurs in children with low social skills. In the context of this cyclic process, Fabes, Martin and Hanish (2002) analyzed the interaction rate of low and highly prosocial children. Interactions between children with low

and high rates of prosocial relationships (about 5% of the time) have rarely been observed. This phenomenon was called “prosocial segregation”. The more time a preschool child spent with a prosocial peer at the beginning of the school year, the higher the degree of positive interactions manifested later in the school year. Fabes, Moss, Reesing, Martin and Hanish (2005) found that children’s exposure to prosocial peers was associated with increased prosocial behavior of a child a year later. These findings highlight the great potential of prosocial behavior of peers in terms of the consequent impact on another child’s favorable prosocial development. These researches show that interactions provide unique opportunities for the development of prosocial behavior and mutual positive reactions. In such contexts, we can see how peers with higher prosocial behavior can influence the type and degree of potential prosocial reactions of others. It seems that prosocial behavior among friends is motivated not only by interest (Costin, Jones 1992), but also by loyalty, consideration of commitments regarding reciprocity and the fact that friends want social contact or ask for help more often (Birch, Billman 1986). Sometimes children are as prosocial to friends as to other peers (Berndt, Hawkins, Hoyle 1986). This was shown in studies in which children had to choose between friends and strangers who they would help. Children sometimes helped people who they could not determine well whether he or she was a stranger or friend because they believed that a friend would understand, that they wanted to gain friendship with a stranger or competed with a friend (Staub, Noerenberg 1981, Berndt 1982).

School and preschool environments and programs for the development of prosocial behavior

Based on the obvious minor or greater influence of the surroundings, it can be assumed that the school environment and individual programs also influence the prosocial behavior of individuals in some way. The findings also suggest that a typical environment in a kindergarten classroom may not lead to frequent prosocial interactions between children. In order to provoke more frequent, spontaneous and, in particular, effective prosocial actions in the classroom between children, clear and unambiguous expectations regarding the prosocial behavior of children are needed. In addition, structuring classes in order to provide children with opportunities to help others may support prosocial behavior (Eisenberg et al. 2006). Bizman, Yinon, Mivtzari and Shavit (1978) pointed out that in Israeli kindergartens, if children of heteronomous age were enrolled in classrooms (there were also younger peers in the classrooms), altruistic children were more likely to be closer in age - homogeneous age. Some scientists have tried to assess the different effects of preschool and family care on children’s prosocial development by comparing children who attend preschools with those who remain at

home. Clarke-Stewart (1981) found that prosocial behavior was higher in children attending preschools than those children who did not. However, further unambiguous and clear evidence in support of this claim is ambiguous. Schenk and Grusec (1987) found that children who did not attend kindergarten but were at home behaved more often prosocially in situations where they came into contact with adult strangers. However, unknown children were helped equally by both groups of children (even those who attended preschool and those who were at home). Further research has yielded a result that suggests that if a child attends a preschool, it has no reliable or consistent effects on the emerging prosocial development of children (Austin et al. 1991). Although the differences between the upbringings of children at home and in pre-school facilities may be negligible, the quality of care is dominant and is likely to mitigate the degree and type of impact that preschool facilities have on children's prosocial behaviors and attitudes (Love et al. 2003). The quality of the preschool environment is related to self-regulation of children (Howes, Olenick 1986), empathy and social competence (Vandell, Henderson, Wilson 1988), consideration (Phillips, McCartney, Scarr 1987) and positive partner behavior, including prosocial behavior (Broberg, Hwang, Lamb, Ketterlinus 1989). Moreover, very cordial and supportive interactions with teachers were associated with social imitation of prosocial activities of teachers by preschool children (Yarrow et al. 1973), empathetic-prosocial responses to suffering (Kienbaum, Volland, Ulich 2001) and positive interactions between pupils in the primary school classroom (Serow, Solomon 1979). Howes, Matheson and Hamilton (1994) also found that children whose relationship with their current teachers and first preschool teachers was good and fearless were rated as more considerate and empathetic to unknown peers. Thus, the extent and type of impact that children have in terms of pre-school and school experience, as well as the durability of effects on the prosocial response, are likely to vary depending on the quality of care received and the relationship of the child with the teacher, as well as the quality of care of parents at home. Based on given scientific research and facts related to socializing of prosocial attitudes and behaviors, several scientists have attempted to design school programs aimed at promoting a prosocial response. We must not forget that, if we look at the history of pre-school education, we also find part of prosocial education there, as a partial and clearly visible, inseparable component in religious education, moral education, aesthetic education, but also in other educational areas.

1.3 *Dispositional and Personality Correlates of Prosocial Behavior*

Not all aspects of personality are likely to have a substantial genetic basis. Some researches of personality correlations (especially those considered to be part of temperament, such as negative emotionality) are therefore relevant to understanding the dominant foundations of prosocial behavior and empathy. In addition, information about the correlates of the personality of prosocial behavior could provide a guide to the external origin of prosocial behavior if there is an evidence of a connection between a given aspect of personality and socialization (Eisenberg et al. 2006).

Consistency of prosocial behavior

The assertion that there are personality correlations with prosocial behavior implies a basic premise: there is some consistency in the prosocial response of individuals. The consistency of the existence of an altruistic (or moral) personality has been a subject of debate for many years and continues to be discussed in social and psychological literature (Batson 1991, Eisenberg, Guthrie et al. 2002). The argumentation about the consistency of prosocial behavior is weakest in studies targeting infants and mothers and preschoolers (Eisenberg et al. 1984, Dunn, Munn 1986, Strayer, Roberts 1989), but we must observe that, on the other hand, they have obtained relevant evidence of their consistency (Denham et al. 1994, Kienbaum et al. 2001, Robinson et al. 2001, Van der Mark et al. 2002).

Sociability, fellowship, timidness and shyness

Research (Stanhope, et al. 1987, Volling et al. 2001) shows that social individuals are more pro-social than their socially weaker peers when they help others with social initiation or lead them to social interaction (Eisenberg et al. 2006).

Social competence and socially appropriate behavior

Because prosocial behavior is socially appropriate in many contexts of social behavior, it is not surprising that the prosocial behavior of individuals often correlates with indexes of socially appropriate behavior. Although not all scientists have achieved significant results in their research (Sawyer et al. 2002), prosocial children tend to be perceived by adults as socially qualified and constructive advisers (Eisenberg, Fabes, Karbon, Murphy, Wosinski et al. 1996, Eisenberg, Fabes, Murphy et al. 1996, Eisenberg, Guthrie et al. 1997, Inglés, et. al. 2003), have high scores in the field of skills in solving social problems (Marsh , Serafica, Barenboim 1981,

Warden, Mackinnon 2003), positive social interaction with peers (Farver, Branstetter 1994, Warden, Mackinnon 2003) and are able to establish cooperation (Dunn, Munn 1986, Jennings et al. 1987). In accordance with the combination of inter-person appropriate behavior and prosocial behavior, the reactions of empathy and sympathy of individuals are focused on a close friend or several friends (Farver, Branstetter 1994, Clark, Ladd 2000, Coleman, Byrd 2003, Sebanc 2003), on a relationship supporting partnership (de Guzman, Carlos 2004, Laible et al. 2000, Sebanc 2003, Lerner et al. 2005), on receiving prosocial activities of peers (Persson 2005), on minor conflicts with friends (Dunn, Cutting, Fisher 2002), on the low level of victimization among peers (Johnson et al. 2002, Coleman, Byrd 2003) and on the popularity of peers (Dekovic, Janssens 1992, Dekovic, Gerris 1994, Caprara et al. 2000, Clark, Ladd 2000, LaFontana, Cillessen 2002, Slaughter et al. 2002, Coleman, Byrd 2003, Wentzel 2003, Wilson 2003). Clark and Ladd (2000) gained results that are consistent with the hypothesis that the prosocial activities of individuals mediate a positive, warm relationship between parents and them; they are manifested by peer acceptance of others, as well as by the number of friendships formed. In addition, mature prosocial moral reasoning positively correlated with sociometric status as well as with teachers' reports on social competence and appropriate level of communication behavior (Bear, Rys, 1994). As a result, individuals who are prosocial, tend to have positive relationships and interactions with their peers. The degree of social competence or popularity can also affect the types of prosocial behaviors that individuals prefer. Hampson (1984) found that popular prosocial adolescents tend to engage more often in prosocial contact with their peers. Thus, being accepted by peers can affect the level of comfort of individuals in helping peers. Conversely, people who prefer to help in ways that do not involve social contact with peers may be less popular for their evasive attitude (Eisenberg et al. 2006).

Behavioral problems and aggression

In prosocial individuals, it is very likely that they evaluate aggression negatively (Nelson, Crick 1999) and show low aggression and few externalizing problems in their behavior (Goodman 1994, Caprara et al. 2000, Caprara, Barbaranelli, Pastorelli 2001, Welsh et al. 2001, Denham, Blair et al. 2003, Warden et al. 2003, Wilson 2003, Diener, Kim 2004). The relationship of the prosocial response to aggression is likely to vary depending on the actor's motivation to engage in prosocial behavior. However, prosocial actions, which include a positive affective response of the individual and are not motivated by personal gain, can also be negatively related to the aggression of adolescents. Various research reports on prosocial actions performed for individual's personal profit were positively related to reported aggressive

activities and acceptance of aggression (Boxer et al. 2004). Gil and Calkins (2003) found that aggressive toddlers showed more evidence of empathy or their fears than less aggressive toddlers. Yarrow et al. (1972) found a positive correlation between prosocial and aggressive behavior of boys (but not girls). In young children, who are generally non-aggressive, aggression may indicate assertiveness rather than hostility or intent to harm others (Eisenberg, Mussen 1989). In addition, the lack of regulation, which is manifested in aggression, will help young children to express concern towards an unknown adult (Gil, Calkins 2003). As observed, with increasing age, a negative relationship can develop between aggression and prosocial tendencies. Hastings et al. (2000) found no relationship between interest in others and problem behavior between the ages of 4 and 5. Thus, the inverse relationship between compassion and externalizing problems (aggression) appears to be beginning to consolidate during preschool until early school years (Eisenberg et al. 2006).

Assertiveness and dominance

It may be asserted from the outset that assertiveness and dominance are related to the frequency and type of prosocial behavior. An assertive person has a relatively high level of responses to compassion and personal struggles (Eisenberg, Fabes et al. 1990), prosocial behavior (Barrett, Yarrow 1977, Larrieu, Mussen 1986, Denham, Couchoud 1991) and in particular a high level of spontaneous assistance to others, togetherness and ability to share (Eisenberg et al. 1981, Eisenberg et al. 1984). For many individuals, a certain level of assertiveness may be necessary in order to spontaneously approach others in need of help. Conversely, non-assertive, non-dominance people tend to be prosocial only at the request of others (Eisenberg et al. 1981, Eisenberg et al. 1984, Larrieu 1984), apparently because they are often asked to help or share (Eisenberg et al. 1981, Eisenberg, McCreath, Ahn 1988). Another study suggests that individuals who are not only assertive but also try to control others may have poor prosocial behavior (Krebs, Sturup 1982).

Self-esteem and related constructs

There seem to be a positive relationship between self-esteem and prosocial tendencies, but this is rather valid for older individuals. In studies focused on preschools and elementary schools, scientists found mostly no relevant evidence of the relationship between self-esteem or self-awareness and prosocial behavioral behavior measures (Cauley, Tyler 1989, Rehberg, Richman 1989). Probably children, while self-assessment, do not use adequate dimensions of their self-awareness. However, it is also possible that the self-awareness of children is not based

on permanent characteristics that are relevant to prosocial reactions. In fact, individuals who feel good can focus on the needs of others, because they still meet their own needs. They may also feel that they have a sufficient level of skills to help others. It is therefore assumed that the performance of socially competent behavior, including prosocial behavior and self-awareness, is comprehensively interconnected during development (Eisenberg et al. 2006).

Religiosity

Religion (as measured by participation in worship) in research was positively related to participation in voluntary activities during adolescence (Lichter et al. 2002, Huebner, Mancini 2003) and also presupposes subsequent voluntary behavior in early adulthood (Zaff et al. 2003). Similarly, going to the community and helping community service, predicted to adolescents the initial attending of a Catholic or church school (Youniss, McLellan, Su, Yates 1999). Research shows that participation in church and other community youth groups is linked to voluntary service (McLellan, Youniss 2003). It is quite likely that religious institutions provide opportunities for organized prosocial activities. Religious identity, if it includes moral subtexts, is associated with a prosocial personality (Furrow, King, White 2004). At present, however, it is not yet clear whether prosocial behavior is associated with identification or acceptance of certain religions (Eisenberg et al. 2006).

Behavioral regulation

Research shows that prosocial individuals are relatively well able to guide their behavior and have low impulsivity (Eisenberg, Fabes, Karbon, Murphy, Wosinski et al. 1996, Thompson, Barresi, Moore 1997, Wilson 2003, Deater-Deckard, Dunn et al. 2001). The relationship between regulation and prosociality is not surprising, since engaging in prosocial actions often requires regulated behavior and emotions, or involves action that helps regulate emotions of others (Bergin, Talley, Hamer 2003). In fact, the degree of regulation is a stronger positive predictor of prosocial behavior of individuals who are prone to negative emotions, such as anger (Eisenberg, Guthrie et al. 1997, Diener, Kim 2004). Well-regulated individuals are able to modulate their mediated excitement and then focus their attention on the emotions and needs of others rather than on their own aversive emotional, substitute emotions (Trommsdorff, Friedlmeier 1999). Gill and Calkins (2003) pointed out that a positive relationship between interest and physiological regulation could develop with age. We cannot state for sure whether the complex picture of the findings is due to age-related factors, differences in rates of prosocial behavior in younger and older children, or other factors.

Gender

Based on stereotypical gender roles, women are generally expected to be more receptive, empathetic and prosocial than men, while men are expected to be relatively independent and results-oriented (Spence, Helmreich, Stapp 1974). It should be mentioned, however, that with the onset of feminism, these stereotypical gender differences are literally blurred. Therefore, their outcome will be much more visible only after several decades within both sexes. Long-term intercultural work of scientists has further verified that the gender gap in the prosocial response is not limited to just a few cultures, but can evolve with age. Whiting and Edwards (1973) found that usefulness and support were generally higher for girls than for boys in six different cultures, although these differences were significant for older children, not for younger children. More recent work confirms that intercultural tendency of girls to be more prosocial than boys (Carlo, Reoesch, Knight, Koller 2001, Russell et al. 2003). Despite the prevailing view that women are more prosocial than men, the findings vary depending on the age of the individuals and the type of prosocial behavior. Eagly and Crowley (1986) performed a meta-analysis of gender differences in the behavior of older adolescents and adults and found that men helped more than women, especially in situations that involve instrumental and gallant, valiant help. Differences between the sexes in terms of helping were inconsistent in the studies and were successfully predicted by different attributes of the studies. Carlo et al. (2003) found that results according to gender vary in proportion to the type of reported prosocial behavior by individuals. Teenage girls exhibited altruistic and emotional prosocial behavior to a greater extent than boys. Boys, on the other hand, were more likely to show prosocial tendencies in public situations. No gender differences were found in situations involving anonymous or compliant prosocial behavior or assisting in adverse circumstances. Becker and Eagly (2004) investigated extreme forms of prosocial behavior – heroism – and thus found that men were overrepresented in some forms of heroism, but also in other heroic actions. The percentage of women was either the same or, in a few cases, even higher than the percentage of men. Such findings suggest that traits associated with different types of prosociality are more likely to explain differences in the tendencies of men and women to participate in prosocial activities, while creating a general model involving gender differences in prosocial personality. Although there are no noticeable differences in prosocial moral reasoning in young children, yet when children later in life start attending primary school (even an environment outside of school), differences become visible – girls use relatively more sophisticated types of prosocial moral reasoning, while boys sometimes verbalize less advanced types of reasoning (Eisenberg, Miller

et al. 1991, Eisenberg, Carlo et al. 1995, Jaffee, Hyde 2000). Moreover, in adolescence, femininity is positively related to internalized prosocial moral reasoning (Carlo et al. 1996). It is not clear to what extent these gender differences are manifested, which are generally less pronounced due to other actual differences in moral justification or differences in the way adolescents (men and women) perceive themselves and want to be seen by others. It may be, therefore, concluded that, although girls appear to be more prosocial than boys, the question of gender differences in the prosocial answer and their origin is by no means answered. It is difficult to determine to what extent the difference between the sexes reflects the difference in their moral or other orientation compared to other factors. It is also unclear whether gender differences are multiplying (changing) with increasing age. Eisenberg et al. (2006) refer to their own study, where age was related to the size of the prosocial effect, there was no effect of age when checking the characteristics of the study. It is, therefore, necessary to better assess the developmental trajectory of gender differences in the future and to examine the origin of gender differences in prosocial behavior. Here the question arises, whether it is right to have such over-feminized collectives in pre-primary education and whether the state of the gender in the profession of kindergarten teacher should also be standardized to some extent, as male actual role model in teaching in Slovakia is absent. Thus, as we may have observed, it is noticeable that prosocial behaviors form from the “birth” of an individual, and it develops, changes during life. It is affected by various determinants, and each of them has a completely different meaning for the individual and interferes with his or her prosocial behavior in different way. The researches we have reported show that a significant proportion of factors, if they function from birth to younger school age, to a large extent shape an individual within his or her prosociality, but subsequently further in life his or her behavior towards others changes to a very small extent.

2 DETERMINATION OF PROSOCIAL BEHAVIOR OF PRESCHOOL-AGED CHILDREN IN THE CONTEXT OF PRESCHOOL EDUCATION (empirical part)

2.1 *Current State of the Researched Issues*

At present, more scientists are engaged in research about prosocial behavior, and this problematics more often permeates into professional and scientific circles, because in many cases it is positively linked to the life of the individual and subsequently to the whole society. Focusing on overcoming obstacles together, and especially the way forward, is not possible without empathy aimed at others, moral reasoning, with an emphasis on others and ultimately prosocial behavior aimed at well-being and good of other individual. Within prosocial behavior, many researches, studies have been conducted, are conducting and will be conducted to unambiguously show the positive impact of this behavior on society as a whole. Prosocial behavior from birth to old age, or even prosocial behavior of animals, has been studied by many scientists from several fields of science, e.g. psychologists, educators, sociologists, theologues, philosophers and others (Erikson 1969, Wispe 1972, Lickona 1976, Lamb 1978, Blum 1980, Rushton 1981, Bar-Tal 1982, Zahn-Waxler, Radke-Yarrow 1982, Kohlberg 1984, Krebs, Miller 1985, Bandura 1986, 1989, 2002, Janssens, Gerris 1992, Batson 1991, Asendorpf, Nunner-Winkler 1992, Knight, Johnson, Carlo, Eisenberg 1994, Penner, Fritzsche, Craiger, Freifeld 1995, Trommsdorff 1995, Gluchman 1997, Heidbrink 1997, Piaget 1997, Nunner-Winkler 1999, Džuka 2000, Hoffman 2000, Caprara et al. 2001, Gilliganová 2001, Bierhoff 2002, Carlo, Randall 2002, Staub 2003, Bánovčinová, Bubeníková 2011, Arsenio, Gold, Adams 2004, Puka 2004, Blasi 2004, Eisenberg 2006, Dvořáková 2008, Vacek 2008, Ráczová, Babinčák 2009, Záškodná, Mlčák 2009, Mlčák 2010, Brestovanský 2014, Mareš 2017). We presume that despite the growing interest of researchers (Weir, Duveen, 1981, Carlo, Eisenberg, Knight, 1992, Penner, Fritzsche, Craiger, Freifeld, 1995, Goodman, 1997, Carlo, Randall, 2002, Caprara, Steca, Zelli, Capanna, 2005, Brazzelli, Farina, Grazzani, Pepe, 2017) about prosocial behavior, especially in the field of psychology, but also pedagogy, sociology and other human sciences, there is a lack of developmental, value and moral-ethical, appropriate and validated instruments for measuring the prosocial behavior of preschool children. These instruments usually detect basic types of prosocial behavior, where they are missing, indicators already

incorporated by us, which are already noticeable at this age. Honesty is positively related to prosocial behavior (Ashton, Lee, 2007, Fang, Dong, Fang, 2019). Humility is a prediction and has a positive connection with prosocial behavior (Ashton, Lee, 2007, Allgaier, Zettlera, Wagnerb, Püttmannb, Trautwein, 2015, Fang, Dong, Fang, 2019). Respect is an important part of morality and is related to prosociality (Dillon, 2018). Finally, even discipline has a clear connection to prosocial behavior in children aged 3 to 5 years (Xiao, 2016).

2.2 Research Problem

Based on the absence of a research instrument to detect prosocial behavior in preschool children that responds to the cracks in society's ethical and moral values, we see the need to identify, create, and verify the factor structure, reliability and validity of the questionnaire with new indicators within prosocial behavior. The research theme of our research is: *prosocial behavior of preschool children in kindergarten conditions from the point of view of a parent and kindergarten teacher*. Based on a given research theme, we set out research problems:

- *What are the factor structure, reliability and validity of QSPBPCH in Slovakia?*
- *What is the factor structure of the Parent model, the Teacher model and the Total QSPBPCH model in Slovakia?*

2.3 Research Objective

The aim of our research we determined: *to create a research instrument for detecting prosocial behavior in preschool children (QSPBPCH) and determine its factor structure, reliability and validity*.

2.4 Research Sample

The research set consisted of preschool children aged 5 (39 children) to 6-year-olds (52) attending kindergarten. This set consisted of a total of 91 preschool children. Of these, 48 were girls and 43 were boys. The children came from several areas of Slovakia (Trnava Region,

Banská Bystrica Region, Nitra Region, Prešov Region, Košice Region). The total number of respondents – kindergarten teachers – was 19, (they were only female teachers). The total number of respondents – parents – was 84.

2.5 Methodology of Research

Our goal was to create a questionnaire for measuring prosocial behavior of preschool children with new indicators, such as *honesty, humility, respect - a discipline* that are being scientifically and professionally discussed by positive psychology in recent years (Weir, Duveen, 1981, Carlo, Eisenberg, Knight, 1992, Carlo, Randall 2002, Eisenberg 2006, Ashton, Lee, 2007, Allgaier, Zettlera, Wagnerb, Püttmannb, Trautwein, 2015, Xiao 2016, Dillon, 2018, Fang, Dong, Fang, 2019). We presume that despite the growing interest of researchers (Penner, Fritzsche, Craiger, Freifeld, 1995, Goodman, 1997, Carlo, Randall, 2002, Caprara, Steca, Zelli, Capanna, 2005, Brazzelli, Farina, Grazzani, Pepe, 2017) about prosocial behavior, especially in the field of psychology, there is a lack of developmental, value and moral-ethical appropriate and validated instruments for measuring the prosocial behavior of preschool children. These instruments usually detect basic types of prosocial behavior. The indicator of honesty is positively related to prosocial behavior (Ashton, Lee, 2007, Fang, Dong, Fang, 2019). Humility is a prediction and has a positive connection with prosocial behavior (Ashton, Lee, 2007, Allgaier, Zettlera, Wagnerb, Püttmannb, Trautwein, 2015, Fang, Dong, Fang, 2019). Respect is an important part of morality and is related to prosociality (Dillon, 2018). Finally, even discipline has a clear association with prosocial behavior even in children aged 3 to 5 years (Xiao, 2016).

The QSPBPCH questionnaire consists of 20 items that evaluate a child's prosocial behavior. The child's prosocial behavior was answered by their kindergarten teacher (they had to be with the child for at least 6 months) and by a parent to each question on the seven-point Likert scale. In this case, the Likert scale has been used: I totally disagree, I agree, I rather agree, I do not know, I rather disagree, I disagree, I totally agree. QSPBPCH provides one overall score with a possible range from 0 (low prosocial behavior), 30 (mean prosocial behavior) to 60 (high prosocial behavior). The degree of prosocial behavior was assessed by averaging all items.

Table 1 Indicators, Focus of Indicators and Dimensions of Prosocial Behaviour in QSPBPCH

Indicators	Focus of Indicators	Dimensions of Prosocial Behavior
1	altruistic prosocial behavior, altruism	Help psychological, physical
2	compliant - required prosocial behavior	Help psychological, physical
3	public prosocial behavior	Help psychological, physical
4	prosocial behavior in crisis, helping others in need	Help psychological, physical
5	emotional prosocial behavior, support	Empathy
6	donation without the right to remuneration, consideration, for the joy, for the pleasure of others	Giving, Sharing
7	empathy, understanding	Empathy
8	know how to share with others	Giving, Sharing
9	benevolence, accepting the success of others without envy	Goodwill – Empathy
10	cooperation, empathy, help	Empathy – Help psychological, physical – Cooperation
11	cooperation	Cooperation
12	honesty, justice, truthfulness/speaking the truth	Honesty
13	mercy, humility, help, empathy	Humility – Empathy – Help psychological, physical
14	humility	Humility – Empathy
15	humility	Humility – Empathy – Honesty
16	respect, discipline	Respect – Discipline
17	discipline	Respect – Discipline
18	empathy, understanding	Empathy – Goodwill
19	truthfulness, honesty	Honesty - Humility
20	reverse to mercy, humility, help	Humility – Empathy – Help psychological, physical

The QSPBPCH questionnaire is based on positive psychology and focuses on the strengths of the individual. Its concept relies on: A) *the division of prosocial behavior according to Carl, Randall (2002) of six types of prosocial behavior*: 1. Altruistic prosocial behavior (altruism) – it is defined as a voluntary assistance motivated primarily by an interest in well-being and needs of others, while it is usually induced by sympathy and internalized norms that are consistent with helping others. It is about helping in situations with little or no potential for direct explicit reward. 2. Compliant – requested prosocial behavior – is defined as helping others that respond to their verbal or non-verbal request. Such behavior usually takes the form of spontaneous assistance and is more common in children than in adolescents. 3. Emotional prosocial behavior – represents a focus on helping others in situations evoking emotions that are strongly emotional loaded. 4. Public prosocial behavior – is a behavior aimed at the benefit

of others, realized in the presence of other persons; it is at least partly motivated by a desire to gain consent, praise and respect in others, thus increasing one's self-worth. 5. Dire prosocial behavior – is helping others in emergencies or crisis situations. 6. Anonymous prosocial behavior – is to help in such a way that it is not known who helps or assists when the helper does not know who they are helping. *B) From the types of behavior that are the essence of prosociality, Eisenberg, Sadovsky (2004) allocates the following types:* 1. Giving someone something without a claim for reward, or counter-service means straining for the benefit of other people. 2. Showing compassion for people who have struggles and worries (empathy). 3. Sacrificing your own life (altruism). 4. Helping people in need in the form of material, financial assistance. 5. Being able to share and receiving success of others without envy. 6. Donating, gratifying or pleasing. *C) Of the forms of prosocial behavior, as stated by Wispé (1972), they are:* 1. donation, 2. help, 3. offer for cooperation, 4. empathy and understanding, 5. support. *D) Of the general personality traits which prosocial behavior has traditionally been associated with, i.e.: honesty, humility, helpfulness, empathy, etc. (Penner, Dovidio, Piliavin, Schroeder 2005).* *E) From partial moral characteristics, in a Christian philosophical tradition also called virtues.* We feature one of the many inventories of virtues, according to Anzenbacher (1994): 1. Cardinal virtues. This includes mildness as an practice-acquired appropriate cooperation of reason and will, strength as a purposeful and persistent activity and resistance to inevitable life shocks, providence as a judgement, understanding of the essence of things, events in many individual contexts and overall, and justice as an effort to know truthfully what belongs to whom and subsequent action accordingly. 2. Personal virtues. These include features that enhance the efficiency of personal functioning: conscientiousness, diligence, thoroughness, humility, moderation, conservation, perseverance, insight, principle, sense of humor. 3. Social virtues. These include qualities that are especially valuable as prosocial: modesty, selflessness, generosity, kindness, mercy, tactfulness, fidelity, dedication, reliability, truthfulness, tolerance. We must not forget to mention that prosocial behavior is based on cooperation, diversity, individuality of each individual. It is also affected by the conditions and the situation of providing help. However, in order to assess specific acts, important precondition for moral evaluation still need to be considered: to know what kind of culture the person is from (for the sake of compatibility of standards), to know it is a person knowing the norms of a given culture, a person intellectually mature enough to understand these norms, a person acting in a situation in which he or she had at least partial freedom of choice (i.e. they did not act out of external pressure). Otherwise, it is very easy to make a mistake.

2.6 Design Research

Table 2 Design Research

Stage	Phase	2018	2019	2020	2021
<i>Theoretical</i>	Information preparation of research	•	•		
	Research area specification		•	•	
	Choice of research methods		•	•	
	Creation of research instruments	•	•	•	
<i>Empirical</i>	Data collection			•	•
	Statistics				•
	Analysis and interpretation of research findings				•
	Conclusions and discussion within the research findings				•

2.7 *Instrument, Procedures and Data Analysis*

The QSPBPOCH questionnaire was created in Google Forms and distributed online to kindergarten teachers and parents of children attending given kindergartens. This questionnaire was completed by the teachers of the given kindergarten children and parents of children attending these kindergartens. This research data was processed in Microsoft Excel. Due to the nature of the data, we used the Kolmogorov-Smirn normality test, the Spearman correlation test for statistical analysis. In the factor analysis, we used Cronbach alpha, Kaiser-Mayer-Olkin statistics, Bartlett sphericity test, Extraction Method: Principal Component Analysis, Varimax method. We carried out the statistical analysis via SPSS 22 program.

3 ANALYSIS AND INTERPRETATION OF RESEARCH FINDINGS

3.1 *Descriptive Statistics*

The research set consisted of preschool children aged 5 to 6 years attending kindergarten. The 5-year-old was 39 and the 6-year-old was 52. This population consisted of a total of 91 preschool children ($N = 91$). Of these, 48 were girls and 43 were boys. Preschool children came from several areas of Slovakia (Trnava Region – 11 children, Banská Bystrica Region – 9 children, Nitra Region – 7 children, Prešov Region – 43 children, Košice region – 21 children). Out of the selected kindergartens for research purposes, 13 of them are located in towns and 2 in municipalities within Slovakia. The total number of respondents – kindergarten teachers – was 19, (they were only female teachers). These teachers work in kindergartens in the areas of Slovakia (Trnava Region – 3 teachers, Banská Bystrica Region – 2 teachers, Nitra Region – 2 teachers, Prešov Region – 8 teachers, Košice Region – 4 teachers). The total number of respondents – parents – was 84. The parents were from the regions of Slovakia (Trnava Region – 11 parents, Banská Bystrica Region – 9 parents, Nitra region – 7 parents, Prešov Region – 39 parents, Košice Region – 18 parents).

3.2 *Results of Research*

3.2.1 *Factor Models*

In the research, we tried to analyze the factor structure of the QSPBPCH questionnaire. For the purposes of analyzing the research instrument, we encoded the individual items as follows (Table 3).

Table 3 Encoding QSPBPCH Entries

Code of Item	Item
POL_01	- The child tries to help immediately and without prompting if someone needs help.
POL_02	- The child helps others only if they ask for it.
POL_03	- The child helps others, only in the presence of other, more people.
POL_04	- If someone gets injured or has a problem, the child tries to help them.
POL_05	- The child tries to calm another if he is crying or angry.
POL_06	- A child is able to give his or her belongings to others, without the right to remuneration, just for pleasure or joy of others. (without expecting anything back).
POL_07	- The child can show compassion (empathy) to those who have difficulties, worries or problems.
POL_08	- The child is willing to share their knowledge, abilities and material things with others.
POL_09	- A child does not envy others if they succeed in something or are more successful, smarter.
POL_10	- The child offers help to others who have difficulties.
POL_11	- The child works well, easily in a group with others.
POL_12	- The child tries to be honest, fair in games and in various activities with others.
POL_13	- The child will help others without being asked, even if the person has hurt him in the past.
POL_14	- The child accepts constructive criticism from others without anger.
POL_15	- The child spontaneously apologizes if he/she makes something wrong.
POL_16	- The child respects others in play and other activities.
POL_17	- The child stops talking immediately when asked to do so.
POL_18	- The child can praise, appreciate the work of others.
POL_19	- If a child commits an offense, he or she confesses and tells the truth, despite losing the benefits, resp. even if aware of possible punishment.
POL_20	- If someone has harmed the child, he / she will not help the person in question, nor will he / she share his / her belongings with him / her.

The term *reliability* means the accuracy and trustworthy of a research instrument. Each research instrument can be accurate and reliable to some extent, but no instrument achieves perfect accuracy and reliability. When being used, certain properties will be manifested that reduce its reliability. The task of the researcher is to acquire (or create) a instrument with the highest possible reliability. This is one of the guarantees that its results will be valuable and well interpretable. A *factor analysis* is a multidimensional statistical method that focuses on the creation of new variables and seeks to reduce the scope (reduction) of data with the least possible loss of information. It is based on the assumption that the dependencies between the observed variables are a consequence of the activity of a certain smaller number of immeasurable quantities, standing in the background, which is referred to as common factors. These common factors are defined as a linear combination of original quantities. The *factor*

analysis directly aims to know and utilize the structure of common factors, which are considered the hidden causes of inter-correlated variables, and wants them to explain and clarify the observed dependencies in the best and simplest way. This means that in the final solution each variable should correlate with a minimum number of factors, while at the same time the number of factors should be as small as possible. The assumptions of the factor analysis are more conceptual than statistical. Abnormality, heteroscedasticity and nonlinearity do not affect the results of the factor analysis enough to pay close attention to them. A certain degree of multicollinearity is even desirable because the objective of the factor analysis is to identify an internally bound, i.e. correlated group of characters.

The basic indicators of the appropriateness of using factor analysis are KMO statistics and Bartlett's sphericity test. Kaiser-Mayer-Olkin's statistics represents an index that compares the size of experimental correlation coefficients against the size of partial correlation coefficients. If the sum of squares of partial correlation coefficients between all pairs of characters is small compared to the sum of squares of paired correlation coefficients, the CSO rate shall be based on statistics close to 1. Small rates of KMO statistics indicate that factor analysis of the original characters will not be a good approach because the correlation between character pairs cannot be explained by other characters. One of the basic tasks of factor analysis is to reduce the original number of characters. The basic criteria for the number of applicable factors, where for a large number of original characters such combination of characters is first obtained that explains the greatest amount of variance and then searches for combinations that are related to less and less variance. There are the following rules:

- *The criterion of custom number* – factors to which a custom number greater than 1 corresponds are considered statistically significant, according to Keiser. Conversely, factors whose own number is less than 1 are statistically insignificant.
- *The criterion of objectivity* – the criterion is based on the fact that the number of factors is taken on the basis of the material and content meaning given in advance and only entered by the user.

The criterion of the percentage of variance – in natural sciences, usually 95% of the variance covered is taken, while in social sciences only 60%. This percentage is estimated according to the meaning of the task.

The factor matrix contains factor loads for each character and in each factor. Non-rotating factor matrix represents the best linear combination of original characters and it does

its best in terms of including as many character variability as possible. The first factor is always the most important because it represents the best linear relationship found in the original characters. The second factor is the second best linear relationship of the original data, but it has a limiting condition, because it must be orthogonal to the first factor. In order to be orthogonal, it must be calculated from the variances remaining after the first factor when the variances of the first factor were removed from the rest of the data. A factor load is an explanation of the role of each original character in defining a common factor. It is actually a correlation coefficient between each original character and factor.

Factor Model – Parent

In the first step, we analyzed the QSPBPCH questionnaire from a reliability perspective. The Cronbach alpha value was 0,757013 for the ***Factor model – Parent***. Removing any variable to increase the alpha value is not necessary because the change would be negligibly small (Table 4). Since the value of Cronbach's alpha exceeds 0,7, we can state that the collected data demonstrates reliability and we can continue to work with it.

Table 4 Results of Cronbach Coefficient For Factor Model – Parent

Variable	Summary for scale: Mean=59,2824 Std.Dv.=10,7964 Valid N:85 (kod_spolu) Cronbach alpha: ,757013 Standardized alpha: ,799661 Average inter-item corr.: ,174995				
	Mean if deleted	Var. if deleted	Stdv. if deleted	Item-Totl Correl.	Alpha if deleted
POL_01	56,68235	100,7815	10,03900	0,477339	0,735018
POL_02	55,08235	122,9697	11,08917	-0,285739	0,801661
POL_03	54,61176	117,0375	10,81839	-0,128165	0,788705
POL_04	57,12941	104,2774	10,21163	0,478613	0,738453
POL_05	57,05882	103,3965	10,16841	0,432536	0,739564
POL_06	56,69412	102,1653	10,10768	0,487084	0,735736
POL_07	57,29412	105,2429	10,25880	0,494274	0,739236
POL_08	56,94118	103,1848	10,15799	0,476712	0,737273
POL_09	56,02353	104,4230	10,21876	0,319293	0,747374
POL_10	56,71765	104,6497	10,22984	0,519513	0,737669
POL_11	56,97647	106,4700	10,31843	0,294599	0,749070
POL_12	56,74118	99,8624	9,99312	0,550271	0,730166
POL_13	55,95294	99,1037	9,95508	0,630476	0,725629
POL_14	55,30588	100,3300	10,01648	0,461156	0,735748
POL_15	56,16471	94,2788	9,70972	0,595511	0,721659
POL_16	56,91765	104,2873	10,21212	0,564207	0,735945
POL_17	55,92941	102,0891	10,10392	0,371504	0,743140

POL_18	57,00000	106,3059	10,31047	0,393370	0,743828
POL_19	56,09412	102,9323	10,14556	0,358976	0,744200
POL_20	55,04706	121,9978	11,04526	-0,290244	0,791260

According to the value of the Keiser-Mayer-Olkin statistics (0,769) of the *factor model – Parent* (Table 5) and by Kaiser’s definition, it can be stated that the choice of factor analysis for the analysis of prosocial behavior of children based on the research instrument used is valid. Bartlett’s sphericity test represents a statistical test of correlation between the original characters. It tests a zero hypothesis: H0: “there is no correlation between characters”, i.e. the correlation matrix is a unit matrix. The achieved value of the materiality of the Bartlett’s sphericity test $p = 0,000$ for the Parent factor model (Table 5) is less than the materiality level $\alpha = 5\%$ chosen by us and therefore we can reject the zero hypothesis that the implementation of a selection correlation matrix with 20 considered variables (*POL_01 – POL_20*) is a unit matrix. Thus, for the introductory part, we can conclude that the factor analysis is suitable for *factor model – Parent* data analysis.

Table 5 KMO and Bartlett’s Test for Factor Model - Parent

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		,769
	<i>Approx. Chi-Square</i>	705,671
<i>Bartlett's Test of Sphericity</i>	<i>df</i>	190
	<i>Sig.</i>	,000

Based on the above-mentioned criteria for selecting the number of factors, from the original character matrix, we extracted 6 factors whose own number is greater than 1 based on the Kaiser criterion of statistical significance, by using the main component method (Table 6). These six significant factors explain 68,049% of the total variance.

Table 6 Custom Numbers Table for Factor Model – Parent

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6,300	31,500	31,500	6,300	31,500	31,500
2	2,177	10,884	42,384	2,177	10,884	42,384
3	1,542	7,709	50,093	1,542	7,709	50,093
4	1,276	6,380	56,472	1,276	6,380	56,472
5	1,198	5,989	62,462	1,198	5,989	62,462
6	1,117	5,587	68,049	1,117	5,587	68,049

Extraction Method: Principal Component Analysis

From the analysis of component scales (Figure 1) of the first two most important factors of the model – Parent, which together explains 42,384% of variability (Table 6), we observe a certain degree of correlation between the *POL_20*, *POL_02* and *POL_03*. The second significant group of inter-correlated questionnaire items represents *POL_19*, *POL_01*, *POL_18*, *POL_10*, *POL_04* and *POL_05*. The two groups are inter-correlated in reverse. The third significant group of inter-correlated questionnaire items represents *POL_06*, *POL_13* and *POL_15*. The last group of inter-correlated questionnaire items represents *POL_09*, *POL_16* and *POL_17*.

**Figure 1** Component Scale Graph and Variance Diagram for the First Two Most Important Factors in the Model – Parent

The choice of significant mutual relations was defined at the level of 0,55. It is clear from Table 4 that for the first extracted significant factor, the factor load values are 0,697541 for *POL_01* and 0,761594 for *POL_11*. From the analysis (Table 7) of the first extracted factor of the *factor model – Parent*, it is clear that 48,6563% of the variability of *POL_01* and 58,0025% of the variability of *POL_11* is explained by the first common factor, thus verifying the guarantee of the practical significance of the factors. After rotation by the Varimax method, the first extracted factor is 2,375906 of total variance, representing 11,8795% for 20 items of the research instrument.

Table 7 Factor Loads of the Factor Model – Parent

Variable	<i>Factor Loadings (Varimax normalized) Extraction: Principal components</i>					
	<i>Factor 1</i>	<i>Factor 2</i>	<i>Factor 3</i>	<i>Factor 4</i>	<i>Factor 5</i>	<i>Factor 6</i>
POL_01	0,697541	0,155806	-0,125937	0,327596	0,284042	0,146401
POL_02	- 0,412400	-0,037340	0,018091	-0,167244	0,021447	-0,763931
POL_03	- 0,053014	0,089700	-0,086420	-0,017020	-0,150821	-0,854231
POL_04	0,491701	0,027680	0,111186	0,291508	0,559313	0,226320
POL_05	0,399825	0,098580	0,251446	-0,078103	0,703801	0,081522
POL_06	0,099931	0,195337	0,001469	0,877718	0,117979	0,033219
POL_07	- 0,061272	0,209081	0,063028	0,285936	0,787929	0,044525
POL_08	0,136966	0,116907	0,205284	0,746827	0,217560	0,138660
POL_09	0,158195	0,463398	0,433657	0,316787	-0,381044	-0,180627
POL_10	0,413746	0,082366	0,154907	0,344870	0,532913	0,226856
POL_11	0,761594	0,067900	0,172039	-0,045429	-0,007580	0,129097
POL_12	0,464255	0,620741	-0,133267	0,293967	-0,083606	0,036182
POL_13	0,492473	0,362232	0,379855	0,181050	0,318315	-0,049014
POL_14	0,082839	0,635965	0,142970	0,159185	-0,023418	-0,006858
POL_15	- 0,000999	0,659483	0,061833	0,187122	0,391635	0,194752
POL_16	0,145361	0,630243	0,305948	0,134683	0,140790	-0,092089
POL_17	0,007341	0,754352	-0,314148	-0,182425	0,222167	0,034162
POL_18	0,024650	0,335478	0,416690	0,069255	0,320203	0,429316
POL_19	- 0,079770	0,341949	0,385299	0,051728	0,372675	0,406793
POL_20	- 0,114065	0,020934	-0,752250	-0,076360	-0,178916	-0,123213
<i>Expl.Var</i>	2,375906	2,917937	1,653584	2,102180	2,628234	1,931979
<i>Prp.Totl</i>	0,118795	0,145897	0,082679	0,105109	0,131412	0,096599

The second extracted significant factor of the factor model – Parent is composed of items *POL_12*, *POL_14*, *POL_15*, *POL_16*, and *POL_17*. Factor load values range from 0,620741 for item *POL_12* to 0,754352 for item *POL_17*. Table 7 for the *second significant factor of the factor model – Parent* clearly shows that 38,532% of the variability of item *POL_12*, 40,445% of the variability of item *POL_14*, 43,492% of the variability of item *POL_15*, 39,721% of the variability of item *POL_16* and 56,905% of the variability of item *POL_17* are explained by the second common factor, thereby verifying the guarantee of the practical significance of the factors. After rotation by the Varimax method, the second extracted factor is 2,917937 of total variance, representing 14,5897% for 20 items of the research instrument. Third extracted significant factor of the *factor model – Parent* is composed of item *POL_20*. The factor load value is -0,752250. Table 7 for the third significant factor of the *factor model – Parent*, shows that 56,588% of the variability of item *POL_20* is explained by the third common factor, thus verifying the practical importance of the factors. After rotation by the Varimax method, the third extracted factor falls to 1,653584 of total variance, representing 8,2697% for 20 items of the research instrument. *Fourth extracted significant factor of the factor model – Parent* is composed of items *POL_06* and *POL_08*. Factor load values are 0,877718 for item *POL_06* and 0,746827 for item *POL_08*. Table 7 for the fourth significant factor of the Parent factor model shows that 77,039% of the variability of item *POL_06* and 55,755% of the variability of item *POL_08* is explained by the fourth common factor, thus verifying the practical relevance of the factors. After rotation by the Varimax method, the fourth extracted factor is 2,102180 of total variance, representing 10,5109% for the 20 items of the research instrument. *Fifth extracted significant factor of the factor model – Parent* is composed of items *POL_04*, *POL_05* and *POL_07*. Factor load values are 0,559313 for item *POL_04*, 0,703801 for item *POL_05* and 0,787929 for item *POL_07*. Table 7 for the fifth significant factor of the Parent factor model shows that 31,283% of the variability of item *POL_04*, 49,534% of the variability of item *POL_05* and 62,083% of the variability of item *POL_07* are explained by the fifth common factor, thus verifying the guarantee of the practical relevance of the factors. After rotation by the Varimax method, the fifth extracted factor is 2,628234 of total variance, which for 20 items of the research instrument represents 13,1412%. *Sixth extracted significant factor of the factor model – Parent* is composed of items *POL_02* and *POL_03*. Factor load values are -0,763931 for item *POL_02* and -0,854231 for item *POL_03*. Table 7 for the fourth significant factor of the Parent factor model shows that 58,359% of the variability of item *POL_02* and 72,971% of the variability of item *POL_03* is explained by the sixth common factor, thus verifying for the guarantee of the practical relevance of the factors. After rotation

by the Varimax method, the sixth extracted factor is 1,931979 of total variance, representing 9,6599% for 20 items of the research instrument. A graphical view of a *factor model – A parent*, including its basic characteristics, is listed in Figure 2.

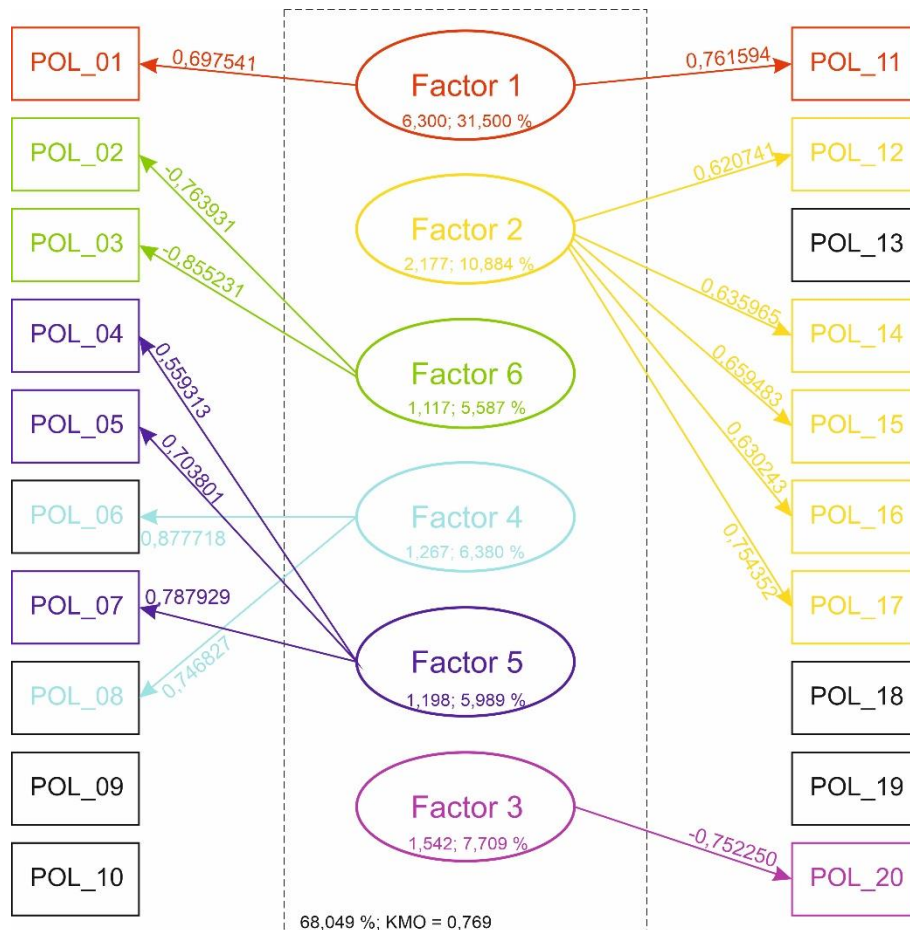


Figure 2 Graphical View of a Factor Model – Parent

Factor model – Teacher

The value of Cronbach's alpha reached 0,889242 for the *factor model – Teacher*. Removing any variable to increase the alpha value is not necessary because the change would be negligibly small (Table 8). Since the value of Cronbach's alpha exceeds 0,7, we can say that the collected data demonstrates reliability and we can continue to work with it.

Table 8 Cronbach's coefficient results for factor model – Teacher

Variable	Summary for scale: Mean=61,0476 Std.Dv.=18,9266 Valid N:84 (kod_spolu) Cronbach alpha: ,889242 Standardized alpha: ,902772 Average inter-item corr.: ,371742				
	Mean if deleted	Var. if deleted	Stdv. if deleted	Itm-Totl Correl.	Alpha if deleted
POL_01	58,17857	312,9086	17,68922	0,693563	0,878558
POL_02	57,01191	382,7498	19,56399	-0,428592	0,914444
POL_03	56,59524	375,7172	19,38342	-0,364105	0,909927
POL_04	58,59524	314,9790	17,74765	0,734547	0,878175
POL_05	58,27381	313,0322	17,69271	0,700488	0,878432
POL_06	57,94048	308,4369	17,56237	0,721812	0,877233
POL_07	58,46429	311,0820	17,63752	0,802509	0,876180
POL_08	58,05952	304,4131	17,44744	0,771724	0,875411
POL_09	58,26191	311,7171	17,65551	0,711385	0,877985
POL_10	58,10714	304,6671	17,45472	0,792908	0,874972
POL_11	58,71429	317,7279	17,82492	0,610562	0,881049
POL_12	58,67857	316,6705	17,79524	0,742063	0,878438
POL_13	57,72619	302,4845	17,39208	0,793298	0,874567
POL_14	57,39286	307,2385	17,52822	0,673602	0,878376
POL_15	57,96429	306,7011	17,51288	0,677823	0,878206
POL_16	58,65476	314,2261	17,72642	0,762396	0,877559
POL_17	58,39286	327,3576	18,09303	0,362936	0,888651
POL_18	58,45238	312,0097	17,66380	0,788543	0,876625
POL_19	57,76191	304,8957	17,46126	0,715415	0,876939
POL_20	56,67857	377,0276	19,41720	-0,371728	0,911125

According to the value of the Keiser-Mayer-Olkin statistics (0,913) of the *factor model – Teacher* (Table 9) and by definition according to Kaiser, it can be stated that the choice of factor analysis for the analysis of prosocial behavior of children based on the research instrument used is valid. Bartlett's sphericity test is a statistical test of correlation between the original characters. It tests a zero hypothesis: H_0 : "there is no correlation between characters", i.e. the correlation matrix is a unit matrix. The achieved materiality value of the Bartlett sphericity test $p = 0,000$ for the *factor model – Teacher* (Table 9) is less than the materiality level $\alpha = 5\%$ chosen by us and therefore we can reject the zero hypothesis that the implementation of a selection correlation matrix with 20 variables considered (*POL_01-POL_20*) is a unit matrix. Thus, for the introductory part we can conclude that the factor analysis is suitable for analyzing the data of the *factor model – Teacher*.

Table 9 KMO a Bartlett's test for factor model – Teacher

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		,913
<i>Bartlett's Test of Sphericity</i>	<i>Approx. Chi-Square</i>	1545,538
	<i>df</i>	190
	<i>Sig.</i>	,000

Based on the above mentioned criteria for selecting the number of factors, we extracted from the original character matrix by the main component method, 4 factors whose own number is greater than 1 based on the Kaiser criterion of statistical significance (Table 10). These four significant factors explain 76,979% of the total variance

Table 10 Custom Numbers Table for Factor Model - Teacher

Component	<i>Initial Eigenvalues</i>			<i>Extraction Sums of Squared Loadings</i>		
	<i>Total</i>	<i>% of Variance</i>	<i>Cumulative %</i>	<i>Total</i>	<i>% of Variance</i>	<i>Cumulative %</i>
1	10,921	54,605	54,605	10,921	54,605	54,605
2	2,099	10,497	65,103	2,099	10,497	65,103
3	1,298	6,489	71,591	1,298	6,489	71,591
4	1,078	5,388	76,979	1,078	5,388	76,979

Extraction Method: Principal Component Analysis

From the analysis of component scales (Figure 3) of the first two most important factors of the model – Parent, which together explains 65,103% variability (Table 10), we observe a certain degree of correlation between questionnaire items *POL_20*, *POL_02* and *POL_03*.

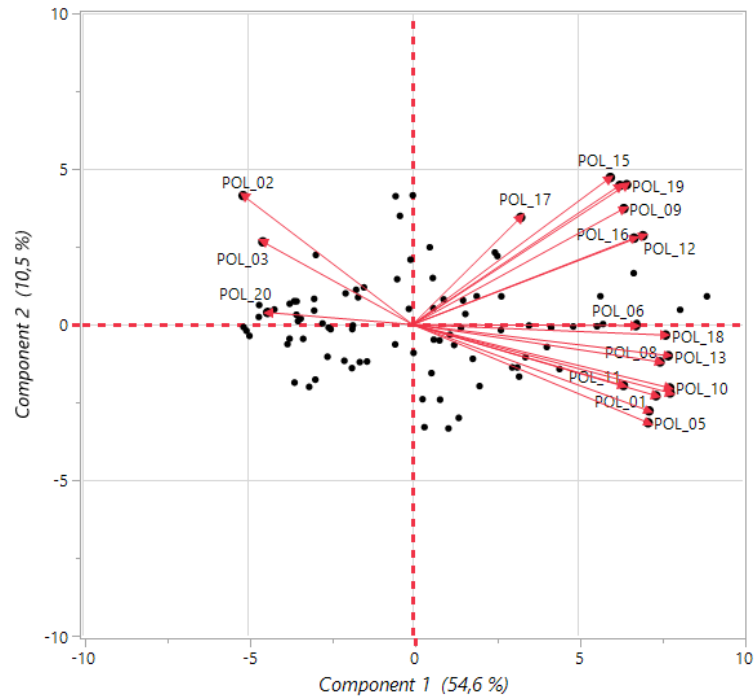


Figure 3 Graph of Component Scale and Variance Diagram for the First Two Most Important Factors of the Model - Teacher

The second significant group of inter-correlated is represented by questionnaire items *POL_05*, *POL_01*, *POL_11*, *POL_10*, *POL_04*, *POL_08*, *POL_13* and *POL_18*. The two groups are correlated with each other in reverse. The third significant inter-correlated is represented by questionnaire items *POL_12*, *POL_16*, *POL_9*, *POL_99*, *POL_15* and *POL_17*. The choice of significant mutual relations was defined at 0,55.

Table 11 Factor Model of Factor Loads – Teacher

Variable	<i>Factor Loadings (Varimax normalized) Extraction: Principal components</i>			
	<i>Factor 1</i>	<i>Factor 2</i>	<i>Factor 3</i>	<i>Factor 4</i>
POL_01	0,803419	0,127131	0,252393	0,159113
POL_02	-0,493552	-0,030159	-0,692228	0,039119
POL_03	-0,275248	0,055932	-0,776369	-0,312433
POL_04	0,806400	0,236490	0,226258	0,093086
POL_05	0,859157	0,146925	0,193696	0,042965
POL_06	0,697431	0,287147	-0,025059	0,280812
POL_07	0,871289	0,168886	0,154452	0,240130
POL_08	0,792004	0,322821	0,119643	0,138351
POL_09	0,360550	0,537749	0,038343	0,539113
POL_10	0,857411	0,209712	0,161660	0,206848
POL_11	0,661974	0,170267	0,264576	0,155939
POL_12	0,420671	0,382464	0,106804	0,660590

POL_13	0,773449	0,393270	0,187422	0,110492
POL_14	0,271029	0,894099	0,030660	0,123944
POL_15	0,250007	0,840461	0,167256	0,228089
POL_16	0,436608	0,444441	0,124578	0,613035
POL_17	0,048677	0,103069	0,033779	0,813699
POL_18	0,688814	0,316370	0,231690	0,348150
POL_19	0,295249	0,833549	0,110337	0,250492
POL_20	-0,127235	-0,445164	-0,762255	0,073167
<i>Expl.Var</i>	7,211425	3,682990	2,109741	2,391577
<i>Prp.Totl</i>	0,360571	0,184149	0,105487	0,119579

Table 11 shows that for the first **extracted significant factor** is composed of items *POL_01*, *POL_04*, *POL_05*, *POL_06*, *POL_07*, *POL_08*, *POL_10*, *POL_11*, *POL_13*, and *POL_18*. Factor loads values range from 0,661974 for item *POL_11* to 0,871289 for item *POL_07* (Table 11). The analysis of Table 11 of the first extracted factor of the **factor model – Teacher** shows that 64,548% of the variability of item *POL_01*, 65,028% of the variability of item *POL_04*, 73,815% of the variability of item *POL_05*, 48,641% of the variability of item *POL_06*, 75,914% variability of item *POL_07*, 62,727% variability of item *POL_08*, 73,515% variability of item *POL_10*, 43,821% variability of item *POL_11*, 59,822% variability of item *POL_13* and 47,446% variability of item *POL_18* is explained by the first common factor, thereby verifying the practical significance of the factors. After rotation by the Varimax method, first extracted factor of 7,211425 total variance, representing 36,0571% for 20 items of the research instrument. *The second extracted significant factor of the factor model – Teacher* is composed of items *POL_14*, *POL_15* and *POL_19*. The factor load values are 0,894099 for item *POL_14*, 0,840461 for item *POL_15* and 0,833549 for item *POL_19*. Table 11 for the second significant factor of the Teacher factor model, shows that 79,941% of the variability of item *POL_14*, 70,637% of the variability of item *POL_15* and 69,480% of the variability of item *POL_19* is explained by the second common factor, thus verifying the guarantee of the practical significance of the factors. After rotation by the Varimax method, the second extracted factor is 3,682990 of total variance, representing 18,4149% for 20 items of the research instrument. The third extracted significant factor of the Teacher factor model is composed of items *POL_02*, *POL_03* and *POL_20*. Factor load values are -0,692228 for item *POL_02*, -0,776369 for item *POL_03* and -0,762255 for item *POL_20*. Table 11 for the third significant factor of the Teacher factor model, shows that 47,918% of the variability of item *POL_02*, 60,275% of the variability of item *POL_03* and 58,103% of the variability of item

POL_20 is explained by the second common factor, thus verifying the guarantee of the practical significance of the factors. After rotation by the Varimax method, the second extracted factor is 2,109741 of total variance, which for 20 items of the research instrument represents 10,5487%. The fourth extracted significant factor of the **factor model – Teacher** is composed of items *POL_12*, *POL_16* and *POL_17*. The factor load values are 0,660590 for item *POL_12*, 0,613035 for item *POL_16* and 0,813699 for item *POL_17* Table 11 for the fourth significant factor of the Teacher factor model, shows that 43,638% of the variability of item *POL_12*, 37,581% of the variability of item *POL_16* and 66,211% of the variability of item *POL_17* is explained by the second common factor, thus verifying the guarantee of the practical significance of the factors. After rotation by the Varimax method, the second extracted factor is 2,391577 of total variance, which for 20 items of the research instrument represents 11,9579. Graphical view of the **factor model - Teacher**, including its basic properties is shown in Figure 4.

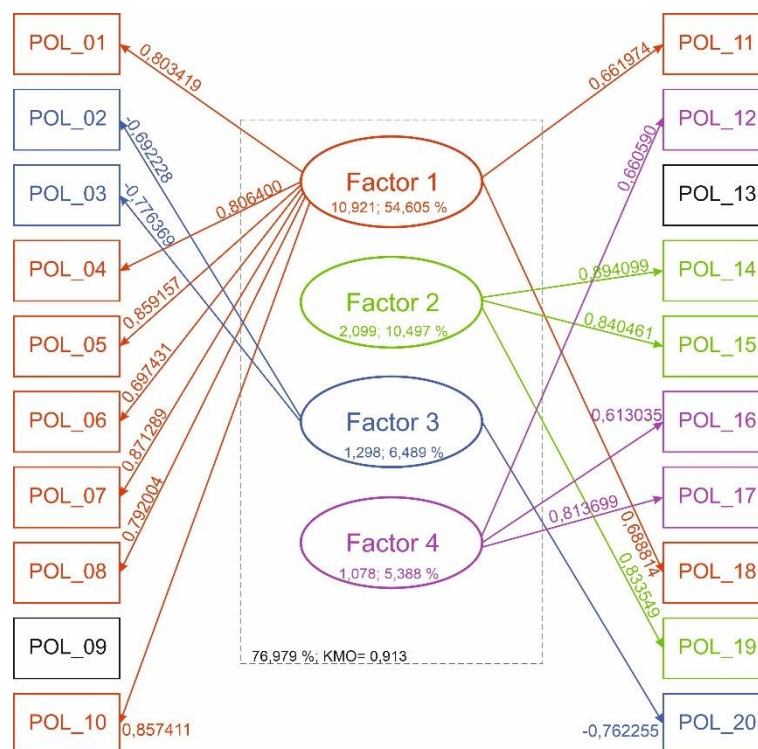


Figure 4 Graphical Display of the Factor Model – Teacher

Factor Model – Total

Value of Cronbach alpha for the **factor model – Total** reached 0,854113. Removing any variable in order to increase the alpha value is not necessary because the change would be

negligibly small (Table 12). Since the value of Cronbach's alpha exceeds 0,7, we can say that the collected data demonstrates reliability and we can continue to work with it.

Table 12 Results of the Cronbach's Coefficient for the Factor Model — Total

Variable	Summary for scale: Mean=60,1598 Std.Dv.=15,3636 Valid N:169 (kod_Spolu) Cronbach alpha: ,854113 Standardized alpha: ,875459 Average inter-item corr.: ,289043				
	Mean if deleted	Var. if deleted	Stdv. if deleted	Itm-Totl Correl.	Alpha if deleted
POL_01	57,42604	206,7771	14,37975	0,614103	0,840503
POL_02	56,04142	253,0220	15,90666	-0,376077	0,884612
POL_03	55,59763	246,5955	15,70336	-0,276422	0,878738
POL_04	57,85799	209,5419	14,47556	0,656727	0,840377
POL_05	57,66272	207,9632	14,42093	0,609004	0,840985
POL_06	57,31361	205,0792	14,32059	0,647984	0,838996
POL_07	57,87574	207,8958	14,41859	0,707280	0,838636
POL_08	57,49704	203,5163	14,26591	0,681450	0,837510
POL_09	57,13609	208,7093	14,44677	0,548475	0,843059
POL_10	57,40828	204,5493	14,30207	0,724758	0,836773
POL_11	57,84024	212,2289	14,56808	0,507384	0,845018
POL_12	57,70414	208,5634	14,44172	0,649157	0,840155
POL_13	56,83432	200,9785	14,17669	0,744420	0,834798
POL_14	56,34320	204,2609	14,29199	0,591697	0,840737
POL_15	57,05917	200,6711	14,16584	0,635434	0,838387
POL_16	57,78107	209,3899	14,47031	0,708072	0,839331
POL_17	57,15385	215,5740	14,68244	0,333089	0,852465
POL_18	57,72189	209,0765	14,45948	0,673391	0,839838
POL_19	56,92308	204,0118	14,28327	0,599575	0,840390
POL_20	55,85799	249,4236	15,79315	-0,342293	0,879190

According to the value of the Keiser-Mayer-Olkin' statistics (0,904) of *the factor model* – **Total** (Table 13) and by definition by Kaiser, it can be said that the choice of factor analysis for the analysis of prosocial behavior of children on the basis of the research instrument used is valid. Bartlett's sphericity test is a statistical test of correlation between the original characters. It tests a zero hypothesis: H0: "there is no correlation between characters", i.e. the correlation matrix is a unit matrix. The materiality value achieved by the Bartlett sphericity test $p = 0,000$ for the total factor model (Table 13) is less than the materiality level $\alpha = 5\%$ chosen by us and therefore we can reject the zero hypothesis that the implementation of a selection correlation

matrix with 20 variables considered (*POL_01* – *POL_20*) is a unit matrix. Thus, for the introductory part, we can conclude that the factor analysis is suitable for analyzing the data of the Total factor model.

Table 13 KMO and Bartlett's Test For Factor Model - Total

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		,904
	<i>Approx. Chi-Square</i>	2252,019
<i>Bartlett's Test of Sphericity</i>	<i>df</i>	190
	<i>Sig.</i>	,000

Based on the above mentioned criteria for selecting the number of factors, we extracted from the original character matrix by the main component method 4 factors whose own number is greater than 1 based on the Kaiser criterion of statistical significance (Table 14). These four significant factors explain 67,939% of the total variance.

Table 14 Custom Numbers Table for Factor Model - Total

Component	<i>Initial Eigenvalues</i>			<i>Extraction Sums of Squared Loadings</i>		
	<i>Total</i>	<i>% of Variance</i>	<i>Cumulative %</i>	<i>Total</i>	<i>% of Variance</i>	<i>Cumulative %</i>
1	9,142	45,712	45,712	9,142	45,712	45,712
2	2,118	10,590	56,302	2,118	10,590	56,302
3	1,283	6,413	62,715	1,283	6,413	62,715
4	1,045	5,225	67,939	1,045	5,225	67,939

Extraction Method: Principal Component Analysis

From the analysis of component scale (Figure 5) of the first two most significant factors of the model - Total, which together represent 65,302% variability (Table 14), we observe a certain degree of correlation between the items of the questionnaire *POL_20*, *POL_02* and *POL_03*.

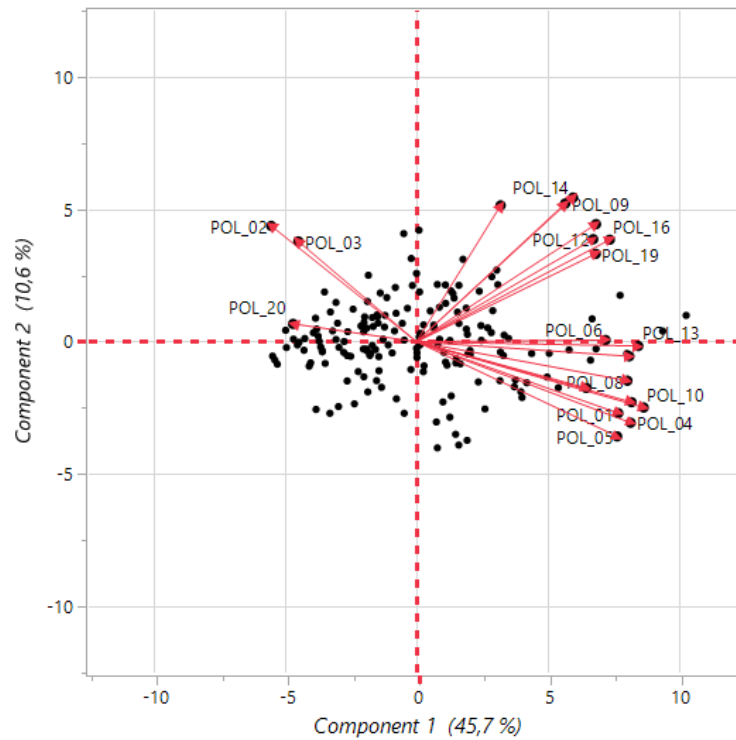


Figure 5 Graph of Component Scale and Variance Diagram for the First Two Most Significant Factors of the Model — Total

The second significant group of inter-correlated questionnaire is represented by items *POL_05*, *POL_01*, *POL_11*, *POL_10*, *POL_04*, *POL_08*, and *POL_18*. The two groups are inter-correlated in reverse. The third significant group of inter-correlated questionnaire is represented by items *POL_12*, *POL_16*, *POL_9*, *POL_99*, *POL_15* and *POL_17*. The choice of significant mutual relations was defined at the level of 0,55.

Table 15 Factor Model of Factor Loads - Total

Variable	<i>Factor Loadings (Varimax normalized) Extraction: Principal components</i>			
	<i>Factor 1</i>	<i>Factor 2</i>	<i>Factor 3</i>	<i>Factor 4</i>
POL_01	0,716392	0,053393	0,311660	0,221893
POL_02	-0,375803	-0,060743	-0,725308	-0,038037
POL_03	-0,201673	-0,036527	-0,807911	-0,098492
POL_04	0,770692	0,202791	0,293353	0,065151
POL_05	0,774889	0,180461	0,253251	-0,024412
POL_06	0,715568	0,216112	-0,098623	0,221391
POL_07	0,823647	0,175504	0,130078	0,123170
POL_08	0,794149	0,266702	0,050079	0,098604
POL_09	0,246846	0,399385	-0,085563	0,590684
POL_10	0,839204	0,146738	0,211951	0,185101
POL_11	0,551544	0,049818	0,301288	0,260991

POL_12	0,356904	0,199672	0,091519	0,742254
POL_13	0,696353	0,369692	0,142589	0,225832
POL_14	0,221304	0,763095	-0,102461	0,302047
POL_15	0,253383	0,738789	0,103063	0,335915
POL_16	0,420504	0,361755	0,046731	0,615672
POL_17	-0,035965	0,086412	0,085939	0,778824
POL_18	0,614036	0,332749	0,281626	0,244684
POL_19	0,287403	0,755174	0,149034	0,201913
POL_20	-0,119986	-0,595384	-0,530135	0,122759
<i>Expl.Var</i>	6,157657	2,892213	2,040253	2,497760
<i>Prp.Totl</i>	0,307883	0,144611	0,102013	0,124888

Table 15 demonstrates that for *the first extracted significant factor* consists of items *POL_01*, *POL_04*, *POL_05*, *POL_06*, *POL_07*, *POL_08*, *POL_10*, *POL_11*, *POL_13* and *POL_18*. Factor loads values range from 0,551544 for item *POL_11* to 0,839204 for *POL_10* (Table 15). Table 15 analysis of *the first extracted factor of the factor model – Total* shows that 51,322% of the variability of item *POL_01*, 59,397% of the variability of item *POL_04*, 60,045 % of the variability of item *POL_05*, 51,204% of the variability of item *POL_06*, 67,839% variability of item *POL_07*, 63,067% variability of item *POL_08*, 70,426% variability of item *POL_10*, 30,420% variability of item *POL_11*, 48,491% variability of item *POL_13* and 37,704 % variability of item *POL_18* is explained by the first common factor, thereby verifying the practical significance of the factors. After rotation by the Varimax method, the first extracted factor is 7,211425 total variance, representing 36,0571% for the 20 items of the research instrument. *Second extracted factor of the factor model – Total* consists of items *POL_14*, *POL_15*, *POL_19* a *POL_20*. The factor load values are 0,763095 for item *POL_14*, 0,738789 for item *POL_15*, 0,755174 for item *POL_19*, and -0,595384 for *POL_20*. Table 15 for *the second significant factor of the factor model — Total* shows that 58,231% of the variability of item *POL_14*, 54,581% of the variability of item *POL_15*, 57,029% of the variability of item *POL_19* and 35,448% of the variability of item *POL_20* are explained by the second common factor, thus verifying the guarantee of the practical significance of the factors. After rotation by the Varimax method, the second extracted factor is 2,892213 of total variance, representing 14,4611% for 20 items of the research instrument. *Third extracted significant factor of the factor model — Total* is composed of items *POL_02* and *POL_03*. Factor load values are - 0,725308 for item *POL_02* and -0,807911 for item *POL_03*. Table 15 for *the third significant factor of the factor model Total* shows that 52,607% of the variability of item *POL_02* and 65,272% of the variability of item *POL_03* are explained by the third common factor, thus

verifying the practical significance of the factors. After rotation by the Varimax method, the second extracted factor is 2,040253 of total variance, representing 10,2013% for 20 items of the research instrument. *Fourth extracted significant factor of the factor model – Total* is composed of items *POL_09*, *POL_12*, *POL_16* and *POL_17*. Factor load values are 0,590684 for *POL_09*, 0,742254 for *POL_12*, 0,615672 for *POL_16* and 0,778824 for *POL_17*. Table 15 for the fourth significant factor of the factor model — Together shows that 34,891% of the variability of item *POL_09*, 55,094% of the variability of item *POL_12*, 37,905% of the variability of item *POL_16* and 60,675% of the variability of item *POL_17* are explained by the second common factor, thus verifying the guarantee of the practical significance of the factors. After rotation by the Varimax method, the second extracted factor is 2,497760 total variance, representing 12,4888% for 20 items of the research instrument.

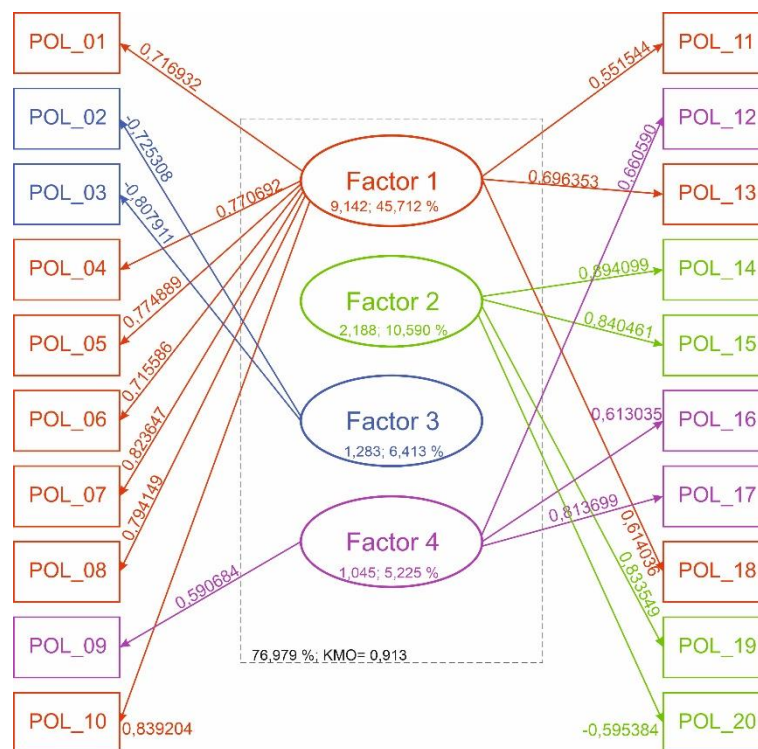


Figure 6 Graphical Display of the Factor Model – Total

4 DISCUSSION AND CONCLUSIONS

The aim of the scientific monograph was to create and verify *QSPBPCH* – *Questionnaire for surveying prosocial behavior of preschool-aged children*, by the author Fedorko in Slovakia. Compared to research studies (Weir, Duveen 1981, Carlo, Eisenberg, Knight 1992, Penner, Fritzsche, Craiger, Freifeld 1995, Carlo, Randall 2002, Goodman 1997, Caprara, Steca, Zelli, Capanna 2005, Brazzelli, Farina, Grazzani, Pepe 2017), which do not mention the indicators added by us in the context of prosocial behavior, may be concluded that QSPBPCH is designed to provide a quick and easy assessment of the positive aspects of interpersonal, social and prosocial behavior of preschool children. The advantage of QSPBPCH is that it is not self-assessed and does not reflect a specific conceptual and empirical approach to assessing of moral identity (Hertz, Krettenauer 2016). The validity of the instrument is thus not limited by its susceptibility to be biased by its own presentation (Hertz, Krettenauer 2016) and the possible pressure on respondents to respond in a socially desirable way (Baker, 2015). Because of the emotional “bias” that may be seen when parents assess their children’s prosocial behavior, it is their teachers in kindergartens that give us a more objective view. Therefore we decided to create the most objective view of the prosocial behavior of a preschool child by average of both parent and teacher’s responses about the child’s prosocial behavior. The QSPBPCH factor analysis confirmed the results of research and theoretical knowledge in this area, namely that prosocial behavior is associated with general personality traits such as honesty, humility, helpfulness, empathy, etc. (Wispé 1972, Carlo, Randall 2002, Penner, Dovidio, Piliavin, Schroeder 2005, Eisenberg 2006, Ashton, Lee 2007, Allgaier, Zettlera, Wagnerb, Püttmannb, Trautwein 2015, Xiao 2016, Dillon, 2018, Fang, Dong, Fang 2019). Within the framework of factor analysis, we see clear correlations between basic types of prosocial behavior and goodness, honesty, humility, respect – discipline and their hierarchization, even in preschool children. Our research revealed a new typology of prosocial behavior that contains new indicators (Figure 7).

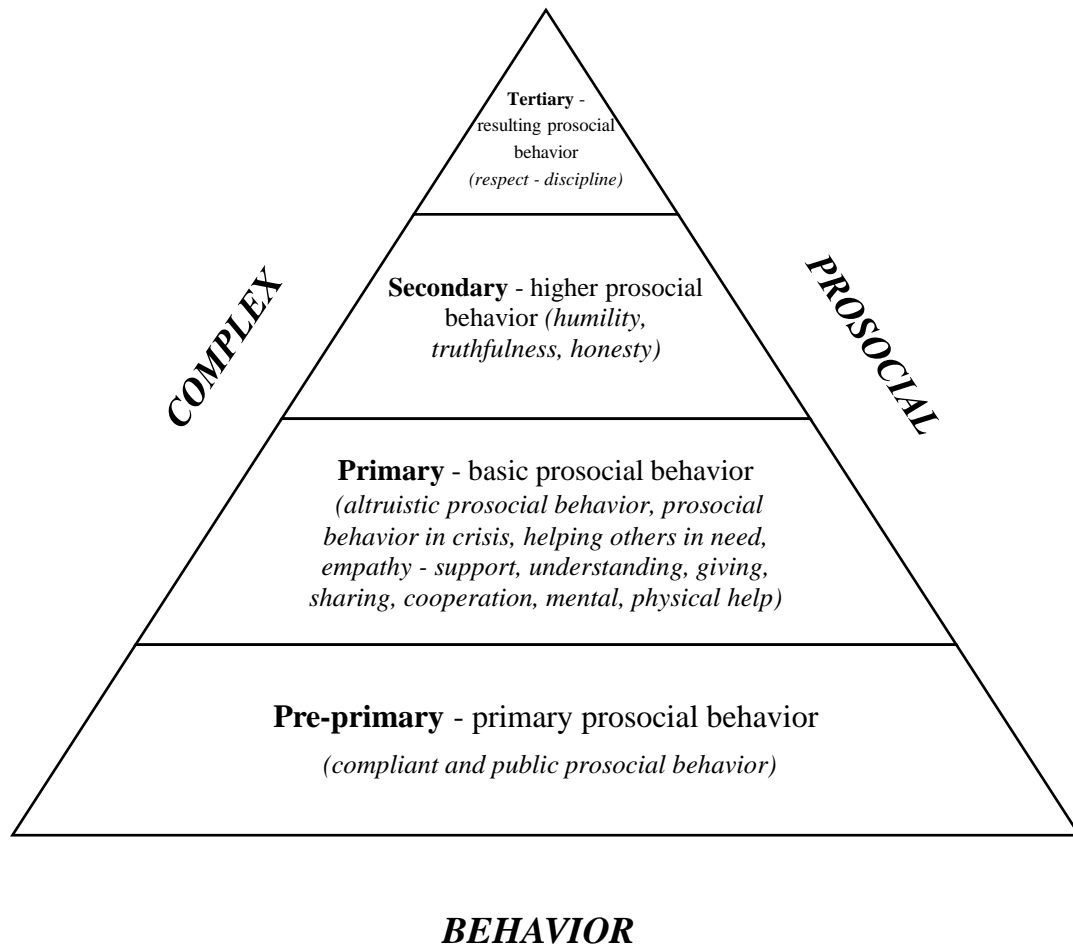


Figure 7 Prosocial Behavior Typology

As demonstrated on the Figure 7, *Factor 1* includes: **primary** – *basic prosocial behavior*, which manifests itself most often in the individual’s normal life and it is formed by: *altruistic prosocial behavior, prosocial behavior in crisis, help others in need, empathy – support, understanding, donation, sharing, cooperation, mental and physical help*. *Factor 2* consists of: **secondary** – higher prosocial behavior, which is already noticeable to a lesser extent in the life of the individual and consists of: *humility, truthfulness, honesty*. *Factor 3* includes pre-stage, **pre-primary** – *initial prosocial behavior*, where the stimulus to prosocial behavior is based on the individual who needs help and not directly from the individual providing prosocial behavior. This behavior consists of: *compliant and public prosocial behavior*. *Factor 4* comprises: **tertiary** – *resulting prosocial behavior*, which is conditioned by the aforementioned previous types of prosocial behavior and consists of: *respect – discipline*. Every kind of prosocial behavior forms a subset of the following prosocial behavior, and they all create complex prosocial behavior.

The submitted scientific monograph represents the research carried out, where the aim was to create and verify *QSPBPCH* in Slovakia. Further verification of the factor structure, validity and reliability on other research files is therefore necessary in the future. In the framework of the verification of *QSPBPCH* by a research file, it was mainly an occasional selection of kindergartens and therefore it is not possible to talk about a representative selection of Slovak preschool children. Smaller number of respondents in the validation file did not enable reliable testing the evidence of validity, which would certainly provide a more comprehensive view of the structural validation of the methodology. However, our results show that *QSPBPCH* is a good valid and reliable methodology that is short, easily administered and usable in practice and research, in the framework of preschool education and preschool psychology.

SUMMARY

In the submitted scientific monograph, we wanted to comprehensively analyze and elucidate prosociality, development and verification of the research instrument *QSPBPCH – Questionnaire for surveying prosocial behavior of preschool-aged children* from different points of view. In conclusion we can state that a preschool child already exhibits a rich and complex range of positive behaviors, attitudes and emotions aimed at others, referred to as *prosocial behavior*, but this is not in the predominant and unambiguous line. Even in preschool children, we see the impact of many factors in consumer society that still do not focus on the good and well-being of the other individual. The prosocial tendency was described as the result of an evolutionary effort to cooperate between members of the group and relatives (Nowak 2006, de Waal 2008), which is slowly disappearing on the basis of the aforementioned influences. It is important to remember that prosociality is a complex multidimensional concept (Padilla-Walker, Carlo 2014). On the affective level, the prosocial repertoire of individuals involves empathy, other-oriented affective tendency to understand and perceive the emotional states of others (Eisenberg et al. 2006). However, different types of prosocial behavior do not always correlate with each other (Bryant, Crockenberg 1980, Knafo et al. 2011). Similarly, prosocial attitudes are associated with prosocial behavior only under certain situational conditions (Anker et al. 2010). However, if different types of prosocial behavior are aggregated, they are still related, in principle, to prosocial values (Bardi, Schwartz 2003). In order to properly develop the ethical and moral values of an individual in general or, in particular, it is the kindergarten teacher who is important in the context of social imitation, the prosocial behavior of patterns in the past is important. Our aim was to create and validate the research instrument *QSPBPCH – Questionnaire for surveying prosocial behavior of preschool-aged children* in the context of pre-school education in Slovakia. In the given context, it is very important to carry out further research on this issue and to focus in particular on: 1) *studying the structure of a wide set of attitudes, behaviors and affectivity of prosociality in preschool children*, 2) *understanding the nature of associations between different aspects of prosociality in preschool children*, 3) *exploring external – marginal and internal – genetic effects on their prosociality*, 4) *investigating the motivation of prosocial behavior in preschool children*. These problem focuses could then bring us closer to the fundamentals of prosocial behavior of men in general, but also specifically in preschool children.

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APPENDIX

APPENDIX A QSPBPCH – Questionnaire for surveying prosocial behavior of preschool-aged children (Fedorko)

APPENDIX A QSPBPCH – Questionnaire for surveying prosocial behavior of preschool-aged children (Fedorko)

Notes on completing the questionnaire

1. The questionnaire contains 20 questions (items) focused on the prosocial behavior of children. It contains situations that the child can experience during a usual day. Based on your real experience and knowledge of the child's behavior in the last period (minimum 6 months), please circle the appropriate answer.
2. Although difficult, please try to answer each question (item) as objectively and as unbiased as possible.
3. When assessing individual items, please do not take into account (consideration) your evaluation of other items. Try to ensure that the general impression does not affect your assessment of specific aspects of the child.
4. To what extent do you agree with the statement that the child is showing signs of behavior described in the question (item), please indicate the option from "strongly agree" to "strongly disagree".
5. If, for various reasons, you have encountered a specific problem in assessing your child, please use the space reserved for notes for describing it.
6. Please make sure you do not miss any questions.

Thank you very much for your cooperation and efforts!

QSPBPCH – Questionnaire for surveying prosocial behavior of preschool-aged children
(Fedorko)

1. The child tries to help immediately and without prompting if someone needs help.	<i>fully disagree</i>	<i>disagree</i>	<i>rather disagree</i>	<i>il don't know</i>	<i>rather agree</i>	<i>agree</i>	<i>fully agree</i>
2. The child helps others only if they ask for it.	<i>fully disagree</i>	<i>disagree</i>	<i>rather disagree</i>	<i>il don't know</i>	<i>rather agree</i>	<i>agree</i>	<i>fully agree</i>
3. The child helps others, only in the presence of other, more people.	<i>fully disagree</i>	<i>disagree</i>	<i>rather disagree</i>	<i>il don't know</i>	<i>rather agree</i>	<i>agree</i>	<i>fully agree</i>
4. If someone gets injured or has a problem, the child tries to help them.	<i>fully disagree</i>	<i>disagree</i>	<i>rather disagree</i>	<i>il don't know</i>	<i>rather agree</i>	<i>agree</i>	<i>fully agree</i>
5. The child tries to calm another if he is crying or angry.	<i>fully disagree</i>	<i>disagree</i>	<i>rather disagree</i>	<i>il don't know</i>	<i>rather agree</i>	<i>agree</i>	<i>fully agree</i>
6. A child is able to give his or her belongings to others, without the right to remuneration, just for pleasure or joy of others (without expecting anything back).	<i>fully disagree</i>	<i>disagree</i>	<i>rather disagree</i>	<i>il don't know</i>	<i>rather agree</i>	<i>agree</i>	<i>fully agree</i>
7. The child can show compassion (empathy) to those who have difficulties, worries or problems.	<i>fully disagree</i>	<i>disagree</i>	<i>rather disagree</i>	<i>il don't know</i>	<i>rather agree</i>	<i>agree</i>	<i>fully agree</i>
8. The child is willing to share their knowledge, abilities and material things with others.	<i>fully disagree</i>	<i>disagree</i>	<i>rather disagree</i>	<i>il don't know</i>	<i>rather agree</i>	<i>agree</i>	<i>fully agree</i>

9. A child does not envy others if they succeed in something or are more successful, smarter.	<i>fully disagree</i>	<i>disagree</i>	<i>rather disagree</i>	<i>il don't know</i>	<i>rather agree</i>	<i>agree</i>	<i>fully agree</i>
10. The child offers help to others who have difficulties.	<i>fully disagree</i>	<i>disagree</i>	<i>rather disagree</i>	<i>il don't know</i>	<i>rather agree</i>	<i>agree</i>	<i>fully agree</i>
11. The child works well, easily in a group with others.	<i>fully disagree</i>	<i>disagree</i>	<i>rather disagree</i>	<i>il don't know</i>	<i>rather agree</i>	<i>agree</i>	<i>fully agree</i>
12. The child tries to be honest, fair in games and in various activities with others.	<i>fully disagree</i>	<i>disagree</i>	<i>rather disagree</i>	<i>il don't know</i>	<i>rather agree</i>	<i>agree</i>	<i>fully agree</i>
13. The child will help others without being asked, even if the person has hurt him in the past.	<i>fully disagree</i>	<i>disagree</i>	<i>rather disagree</i>	<i>il don't know</i>	<i>rather agree</i>	<i>agree</i>	<i>fully agree</i>
14. The child accepts constructive criticism from others without anger.	<i>fully disagree</i>	<i>disagree</i>	<i>rather disagree</i>	<i>il don't know</i>	<i>rather agree</i>	<i>agree</i>	<i>fully agree</i>
15. The child spontaneously apologizes if he/she makes something wrong.	<i>fully disagree</i>	<i>disagree</i>	<i>rather disagree</i>	<i>il don't know</i>	<i>rather agree</i>	<i>agree</i>	<i>fully agree</i>
16. The child respects others in play and other activities.	<i>fully disagree</i>	<i>disagree</i>	<i>rather disagree</i>	<i>il don't know</i>	<i>rather agree</i>	<i>agree</i>	<i>fully agree</i>
17. The child stops talking immediately when asked to do so.	<i>fully disagree</i>	<i>disagree</i>	<i>rather disagree</i>	<i>il don't know</i>	<i>rather agree</i>	<i>agree</i>	<i>fully agree</i>
18. The child can praise, appreciate the work of others.	<i>fully disagree</i>	<i>disagree</i>	<i>rather disagree</i>	<i>il don't know</i>	<i>rather agree</i>	<i>agree</i>	<i>fully agree</i>

19. If a child commits an offense, he or she confesses and tells the truth, despite losing the benefits, resp. even if aware of possible punishment.	<i>fully disagree</i>	<i>disagree</i>	<i>rather disagree</i>	<i>il don't know</i>	<i>rather agree</i>	<i>agree</i>	<i>fully agree</i>
20. If someone has harmed the child, he / she will not help the person in question, nor will he / she share his / her belongings with him / her.	<i>fully disagree</i>	<i>disagree</i>	<i>rather disagree</i>	<i>il don't know</i>	<i>rather agree</i>	<i>agree</i>	<i>fully agree</i>

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