## Factors affecting empathy: theories analysis



Empathy can be described as "taking the role of the other and seeing the other from his or her internal frame of reference" (Eagle & Wolitzky, 2004, p. 217). In recent years, it has been one of the most popular topics in the field of psychology. Empathy is considered to be one of the most important skills in communication, connection and trusting others. To gain better understanding new studies concerning neuroscientific, developmental and social side of empathy were conducted. Empirical evidence showed that empathy is rather a multidimensional construct and can be divided into two concepts: cognitive empathy and affective (emotional) empathy. Cognitive empathy can be subdivided into perspective taking and fantasy as well as affective empathy can be subdivided into empathic concern and personal distress (Davis, 1983). However, as empathy is a quite complex process it has not been fully agreed whether cognitive and affective systems exist at all and if they do whether they interact or work as two separate systems. Despite all the contradictory and confusion concerning empathy it would be impossible to understand what regions of brain are active in the process of empathy, what is the mirror neurons purpose in this, how parenting and personal characteristics affect the development of empathy and how loneliness or personal distress influence empathy if the discipline of psychology didn't pay so much attention to this crucial process.

As it was mentioned before, in the development of empathy parenting and attachment style can be crucial factors which determine how empathic a child will be in later life. Taylor *et al.* (Taylor, Eisenberg, Spinrad, Eggum, & Sulik, 2013) conducted a study to examine how ego-resiliency, parental support of emotional expression and sensitivity to children needs affect

development of empathy in children aged 18-84 months. Moreover, it was expected that increased empathy would have an impact on prosocial behaviour in later childhood. Sample of 242 children were used and it was found that encouragement to express emotions as well as ego-resiliency at 18 months predicts increased empathy at 24 months. Furthermore, researchers found that growth in empathy also increased prosocial behaviour at the 72/84 months. Nevertheless, it is important to mention that only reports were used in the study which makes it less accurate. Also, it is possible that genes have an impact on development of empathy and mother might transfer it to a child. That could explain why mothers who are more empathic, more sensitive and encourages expressing emotions have children who score higher results in empathy tests. Another study partly supporting the previous one was conducted in Netherlands and consisted only of 16-22 months old girls. Researchers examined parental sensitivity, attachment style and its' impact on empathic concern both at home and in the laboratory (Mark, IJzendoorn, & Bakermans-Kranenburg, 2002). Van der Mark et al. (2002) found that empathy towards a mother increased from 16 to 22 months, however, empathic concern towards strangers decreased. Fearfully and insecurely attached girls found to be less empathic later on. Furthermore, this research found that sensitive parenting has no effect upon empathy. It contradicts the study mentioned above as well as a few other investigations which found that parenting is an important part of the development of empathy (Robinson et al., 1994). The confusion might have appeared because of a sensitive development of empathy in this age group. It is important to remember that the study involved only girls and used quite narrow age group which prevents this research to be applied for a wider

population. Taylor et al. (2013) in the previous study found that initially boys are less empathic; however, it increases with time and stabilizes in toddlerhood. Inconsistent finding and specific research sometimes can confuse and rise more questions rather than give answers. For this reason it is possible to find more articles supporting or disproving hypotheses. For instance, another study consisting 678 adolescents and their both parents were conducted in Belgium. Even though this research took a step further and examined older participants, it also took another perspective and looked at how perceived both parents need supportive parenting impacted emotional and cognitive empathy systems (Soenens, Miklikowska, & Duriez, 2011). Soenens et al. (2011) found that father's need support with time affected perspective taking or in other words cognitive empathy in both, boys and girls. On the other hand, it was found that only girls' empathic concern (emotional empathy) were affected by mother's need support. The research shows that supportive parenting is important for development of empathy. Furthermore, Soenens et al. (2011) emphasizes the importance to divide empathy into emotional and cognitive in order to understand better the origins of empathy. Yet, this study didn't include how parents perceived their own parenting style or what people, who know the adolescents, think about their emphatic skills. After all, evidence suggests that sensitive, need supportive parenting, secure attachment and individual characteristics are of great importance to the development of empathy. Even though some finding are inconsistent and contradict the other ones it was proved more than once that parenting has a huge impact on both, cognitive and emotional empathy. However, it is useful to consider neuroscientific part of empathy and how genes or brain injuries can affect development as well as different systems

working in the process of empathy. The field of developmental psychology helped us to understand how important maternal and paternal authority can be but it is not the only area of psychology which improved our understanding of empathy.

Another field, which must be introduced when it is talked about empathy, is neuropsychology. Different areas of brain, mirror neuron system are known to be activated in the process of empathy and have been studied by neuroscientists for guite a long time. Now we can tell why autistic people or those who are diagnosed with schizophrenia have difficulty understanding how another person feels. One study tried to examine what regions of brain are activated in self-orientation and orientation to others and how direct gaze affects empathy (Schulte-Rüther, Markowitsch, Fink, & Piefke, 2007). It was hypothesized that in the task of assigning emotions to yourself and to others Theory of Mind (ToM) mechanism would be activated as well as human Mirror Neuron System (hMNS), however they expected that different parts would be activated on different occasions (attributing emotions to yourself and attributing emotions to another person). Schulte-Rüther et al. (2007) also assumed that direct gaze into a person would trigger empathy. 26 subjects looked at pictures with other people either looking directly to them or looking away and had to tell what they think a person is feeling and what they think they are feeling. Schulte-Rüther et al. (2007) using fMRI found that telling what you feel and what another feels activate brain regions related to emotional processing, hMNS and ToM mechanisms. Furthermore, researchers found that in both tasks Broca's area is activated which is extremely close to mirror neurons. However, human brain is very complex

organ and several different areas can be responsible for the same function, so it is still unclear which areas are responsible for cognitive and which for affective empathy as well as how they communicate to each other. On the other hand, it is not the only research which tries to uncover neurological side of empathy. For instance, Shamay-Tsoory et al. (Shamay-Tsoory, Aharon-Peretz, & Perry, 2009) carried out a research to determine whether emotional and cognitive empathy are two independent systems controlled by different neurological bases. 64 subjects with brain damage in two different brain regions participated in the study. Researchers found that inferior frontal gyrus cortice is responsible for emotional empathy and ventromedial prefrontal cortice, for cognitive empathy. Study results support the research mentioned before on the importance of Broca's area and. It was found that this area is most significant in emotional empathy and it also is essential element of hMNS. Shamay-Tsoory et al. (2009) also found Brodman area 10 (anterior prefrontal cortex) and 11(orbitofrontal area) to be the most crucial in cognitive empathy. Thus, emotional and cognitive empathy are two distinct systems controlled by different brain regions. Nevertheless, it is not clear if those two systems overlap in our brain. Both studies hold strong evidence of mirror neuron system's impact on emotional empathy. However, we cannot forget that there are neural networks and temporal poles involved into the process of empathy.