Maria Kliś, Joanna Kossewska

STUDIES ON EMPATHY

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Introduction

For the last decade we have observed changes in the educational systems in many countries. One of the symptoms of these changes is the new approach to learners. The learners have become the focus of attention in the educational process. This tendency has considerably modified the function of a teacher. A teacher's role has been changing:

– from that of an uncreative one in relation to obligatory educational programmes to a more creative one, allowing the teacher to construct his/her own educational programmes and methods of teaching,

– from presenting detailed, particular, encyclopaedic knowledge to organizing the pupils' learning process and helping them to combine different information from a variety of sources,

– from concentrating on training children primarily by rote learning and forming their personalities by patterning to stimulating their psychological development (cognition, affects, personality, and social skills) by taking into account their individuality. Such personal approach to learners supports the process of individual identification and develops responsibility for the effects (Kwiatkowska, 1990).

Treating the pupils in a more individual way requires a great intellectual and emotional effort from the teachers and their authentic engagement in the educational process. It seems, therefore, that contemporary teachers should be characterized by special personality features and attitudes which would help them to achieve these goals.

One of the main features of the teacher which seems to be of great importance to the educational process, is empathy. Empathy is the attitude of personality involving the capacity to respond emotionally and cognitively to other persons without the loss of objectivity (Berger, 1987, in: Williams, 1989).

Empathy characterizes human relations in different situations. Empathy is linked to helping behaviour and to more effective professional functioning and it is, therefore, nearly universally valued for helping professions (Williams, 1989). Empathy is very important for a positive course in human interactions in many teacher–pupil situations (Grzywak-Kaczyńska, 1971), especially when a pupil is exceptional in some way (under or above the intellectual, social or emotional norms) and must receive special treatment from teachers. So we started to investigate the phenomenon of empathy in relation to individual differences, social interactions, and professional accomplishment of teachers.

Taking into consideration the new socio-political situation in Poland, we started to be interested in the empathy of managers who are now the most important professionals in industry management and modern economy. We were also interested in relations between empathy level and functioning of children and adolescents.

This book presents a collection of studies on empathy concerning the three fields of our interests. The presented studies offer many practical conclusions and we hope that the material discussed would broaden the reader's knowledge of empathy.

In the first three introductory chapters the definitions and theories of empathy have been described as well as the importance of teachers' empathy in education and the methods of empathy measurement.

The following chapters (4, 5, 6) are specially devoted to the teachers of exceptional children. The main objective of our studies presented in these chapters was to find the differences in empathy level among teachers working in different types of schools: primary school, secondary school and special school. The term "special school" was used in the text in the meaning of "school for mentally retarded and disabled children". The other aim was to investigate the prosocial attitudes and attitudes towards mainstreaming in teachers and students of special education. It was also important to define the role of empathy in predicting these attitudes.

Chapters 7 and 8 concern the psycho-social and professional functioning of teachers. The aim of these studies was to focus on the relation between empathy and personality and between temperament characteristics of teachers and a mediating role of empathy in burnout prevention.

The next chapter (9) shows the differences in empathy level between teachers and managers as well as the patterns of empathy – personality relations dependent on professional experience.

Chapters 10 and 11 present the studies on children, are close this study review. Chapter 10 deals with the value of empathy in prevention of depressive stages in pre-school children. In chapter 11 the relation between empathy level and school functioning of early adolescents is discussed.

Chapter 12 contains the summary of conclusions and practical instructions regarding empathy training in teachers and students.

I

The concept of empathy

The concept of empathy is generally used by psychologists but they have not produced a coherent and unambiguous definition of the term. The idea of empathy in current us comes from the 18th century systems of ethics devised by Hume and Smith, in which "empathy" meant the sharing of an emotion by two persons; and from German aesthetics, in which the term *Einfuhlung* stood for the observer's tendency to identify with the object observed (Davis, 1999). In 1909 Tichener put forward the translation "empathy" for the German term and ever since the idea of "empathy" has been prevalent in psychology, winning a large group of supporters and enthusiasts for itself. Theorists and practicians observe empathy from different angles, and different sources of reference offer various theoretical and operational definitions. Over the decades, empathy has been defined in a variety of ways, but it is true that the concept of empathy has at least three main meanings in psychological literature.

I. Firstly, empathy is conceived as an affective process. In recent years many theorists have defined empathy in more affective terms (Katz, 1963; Hoffman, 1977; Mehrabian & Epstain, 1972); it is in general understood as an affective responsiveness to another person's emotions. This point of view is characteristic of the psychoanalytic school. Emotional empathy could be described as:

– experiencing emotional states and feelings of other people in response to their facial expression or emotional behaviour (Aronfreed, 1968; Scotland, 1969);

– sensitiveness to another person's feelings (Rogers, 1975);

– the ability to share another person's emotions (Cronbach, 1955);

– a momentary identification with another person's status without losing one's identity or breaking the boundaries of self (Schafer, 1959).

II. Secondly, according to cognitive psychology, which is closely related to the theories of learning psychology and role theory, empathy is conceived as a cognitive process, often linked to:

– the ability to adopt somebody's role, and to reproduce patterns of his/her reactions (Dymond, 1949; Mead, 1975; Borke, 1971),

– the capacity to take another person's perspective (Feffer, 1959).

Some theorists have viewed empathy as social insight (Dymond, 1949), but others have defined empathy as the ability to comprehend the affective (and sometimes cognitive) status of another person, or cognitive accomplishment (Borke, 1971; Hogan, 1969). Recently the ability to comprehend others' affective states has been called affective role taking, whereas the ability to understand someone's cognitive status has been labelled as cognitive role taking (Underwood & Moore, 1982).

Cognitive decentration is a prerequisite condition for the occurrence of the ability to take another person's point of view and to reinterpret a situation from the other person's perspective. Conceptually, according to Moore (1990), the referents for perspective taking can be organized into three distinct categories:

a) perceptual – to predict the literal and visual perspective of another person,

b) socio-cognitive – to identify another person's thoughts, intentions, motives or social behaviour,

c) affective – to infer the other's feelings, reactions, or concerns. The adoption of another person's point of view and an identification with his/her role, are presuppositions to an understanding of that person's emotions and state of life, and also to an accurate prediction of their thoughts, feelings, and actions.

III. Finally, for the last few years it has been attempted to conceptualize the phenomenon of empathy as a complex cognitive and affective process. It has been argued that empathy may be considered to be a set of related constructs, including both emotional and nonemotional components. This view expresses a multidimensional approach to empathy (Davis, 1980, 1983a; Hoffman, 1975; Williams, 1990). Relative proportion between components of empathy is varying, and is emphasized by different theoretical frameworks. Gender of empathy depends on the superiority of components: affective vs. cognitive, and on the succession of their activation (Szmukier, 1989). So we can distinguish a cognitive-affective empathy or an affective-cognitive one. Feshbach (1975) ascertains empathy to be the skill of vicarious experiences, the positions of which are in harmony with understanding events in society. This author offers a conceptual model of empathy that includes both components: an emotional component and a cognitive one, which is the basis for emotional receptiveness and has two levels: – a primitive one – the ability to discriminate among affective states of others, and a mature one – the capacity to assume and understand the perspective and the role of another person. So Feshbach states the importance of three aspects of empathy:

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- emotional responsiveness,
- the ability to recognize and discriminate affective stages of others,
- the ability to name emotional states.

The next point of view worth presentation was introduced by Rogers (1980) who developed humanistic psychology and described empathy as having two basic characteristics:

- the ability to adopt a patient's frame of reference, to observe the world from the patient's perspective,
- communication of empathetic understanding and knowledge.

Despite much uniformity of opinion regarding the significance of empathy in everyday and professional life, there is much controversy as to the mechanisms of empathy and the definitions of this phenomenon have been confusing and contradictory. One of the contemporary theories of empathy, which defines this phenomenon in a very broad way has been proposed by Kalliopuska. In Kalliopuska's (1983, 1993, 1995) theoretical model based on combined theoretical views (egopsychology, object relation theory, humanistic psychology, social learning theory) and empirical results, empathy is conceived as a holistic process of the human organism that has a positive influence on the quality of life. In the empathy process several components are present: physiological, kinaesthetic, affective and cognitive as well as motivational and communicative. Cognitive and affective processes are particularly emphasized, while the physiological and kinaesthetic ones remain in the background (Kalliopuska, 1983; Kalliopuska & Ruokonen, 1986). Sensitivity is the main affective component of empathy. It helps to temporarily identify identification with another person and to share his/her ideas and emotions. Cognitive components mean the identification and evaluation of emotions, and the capacity to take another person's role or point of view. The kinaesthetic factors are, among others, mimics, gestures, body movements, voice modulation (Kalliopuska, 1983, 1992a). Empathy is not only sharing various emotions with another person. It is important to find resonance on the same wavelength and keep it. Empathy includes also several cognitive components. Taking another person's role and finding his/her point of view are essential factors. The empathetic process is evidently indicated by a neural activation of the limbic system which reflects the stimulus to other areas of the brain and simultaneously both hemispheres start to act in the empathetic process.

Kalliopuska's holistic theory of empathy has practical implications for development and education of holistic empathy during one's life-span in the context of environmental influence (Kalliopuska, 1993). The idea of holistic empathy development by Kalliopuska is based on Bronfenbrenner's (1981) ecological model of development, in which he emphasized the importance of different environmental levels of the development of personality (see figure 1). In psychology,

ecology has become to refer to the range of situations in which people act, the role they play, the predicaments they encounter, and the conse-quences of those encounters. The basic idea of ecological approaches to development assumed that children develop in relation to the nested contexts of their environments. This approach gives us a sense of the whole child development and the many factors that act on the child.

*Figure 1.* Ecological approach to development (after Bronfenbrenner, 1981)
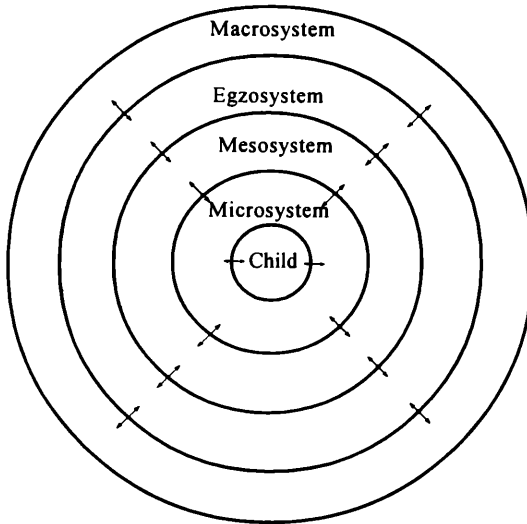
Note: The concentric circles with the child at the centre illustrate the basic idea of ecological approach to development in relation to the range of environment.

Each relationship in the model is reciprocal. Children are influenced by parents, and in turn, they also influence their parents. Children's lives are profoundly influenced by events that occur in the world outside of their homes, because parents' behavior at home is also influenced by the experiences parents have at work and in their communities, while society, of which the community is a part, both shapes and is shaped by its members. Kalliopuska (1992) suggests that empathy should be developed and trained on the personal level, family level, kindergarten and school level, on professional level (teachers, artists, nurses, doctors, dentists, psychologists, social workers, leaders, etc.) as well as on the community (municipal) and governmental level. The development of empathy should be also continued on the continental level in macrosystems, where it is expressed in human rights and obligations, and in world, nature and humane

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images, in which there is respect for life. It is most advantageous for both society and the individual when empathy is learned at an early age. But the influence of kindergarten and school cannot be compared to that of home. On the other hand, the school should co-operate with home in developing empathy in children. Empathy should be seen as a natural form of personal development, which begins at an early age at home and continues later in other formal groups and outside-home environment. Empathy should be the philosophy of human life because empathy leads to humanity. So, it should be developed not only in Microsystems, namely in families, at schools, in churches, in friendships, but also in Mesosystems, on the level of relation between formal and informal social groups, that is to say home–school relations, home–church relations, school–church relations, home–hobby clubs relations, school–hobby clubs relations, school–health-care relations, etc. Holistic empathy development and education should be done also in Exosystems via local laws dealing with schooling or with improving humanity at the municipal level (Kalliopuska, 1992a). The grafic presentation of a holistic empathy model is presented in figure 2.

Figure 2. Grafic presentation of Kalliopuska's model of holistic empathy development and education
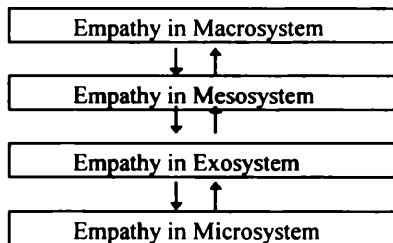
The development of empathy is connected with the development of personality and with process of socialization (Mehrabian, Epstain, 1972; Mehrabian, 1976; Eisenberg-Berg, Mussen, 1978). Many studies show that empathy can be an inhibitor of aggression; it is related to the level of moral reasoning and helping behaviour, and the affiliative orientation towards others (Hoffman, 1975, 1981; Richrdson et al., 1994). According to several studies (see Kalliopuska, 1992a) empathy is a characteristic of a healthy personality and is negatively correlated to anxiety. An empathic person has been noticed to be tolerant, human, psychically balanced and to have control over his/her impulses. The person has a healthy self-image and can analyse accurately his/her own emotions and the emotions being observed in others. An empathetic person makes sensitive evaluations of both their own and other people's desires. High empathy level is a step towards positive attitudes, values and emotions. In Kalliopuska's (1993) opinion empathy seems to correlate positively with mental health and positive self-esteem.

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For the last few years the understanding of empathy has changed from being considered an intra-psychical ability of personality to a form of inter-personal communication, which could be noticed in interpersonal relationships (Williams, 1990; Kalliopuska, 1993). Empathy is a multidimensional phenomenon influenced by a social context or situation and by both persons involved in the relationship. A very interesting multidimensional model of empathy was constructed by Williams (1990). The model presented in figure 3 is the synthesized view of empathy. The model is relatively complex, however, it still cannot describe the full construct of empathy, because of the influence of interpersonal relations.

The main reason why the study of the problems involving empathy should be continued is a result of the function which empathy may play in the social contexts of everyday life (Kliś, 1998). Empathy seems to play a role in therapy, communication, education, and social life. Its regulative role is influenced by the complex character of this phenomenon. Although empathy is a phenomenon difficult to conceptualize and to study, some psychologists are still interested in it because it has great implications for social interactions in human life. Empathy is linked to helping behaviour and to more effective professional functioning and it is, therefore, nearly universally valued in helping professions, such as nurse, psychotherapeutist, teacher, etc. (Williams, 1989). Perspective taking, i.e. the cognitive component of empathy seems to relate most clearly to the inhibition of aggressive behaviour (Richardson et al., 1994). An empathetic individual begins with taking another person's role and thinks of the potential harm and pain which may be caused to another person. This prevents him from acting aggressively as he has felt vicariously the harm and distress. Sometimes relations between empathy and aggression are more complicated and dependent on the temperamental trait of reactivity and the level of anxiety (Eliasz, 1980). According to the results of the experiments done by Eliasz, low reactivity increases and high anxiety level decreases the intensity of aggression after having induced the empathic reaction. Empathy promotes co-operative and prosocial attitudes as well. It plays an important role in bonding and transmitting socially relevant information (Bonino, 1993, 1994).

Empathy is a necessary prerequisite to altruistic behaviour and is positively related to co-operation, and it is a mediator of prosocial response (Aronfreed, 1968, 1970). If empathetic relation depends on affects, our behaviour is more univocal and predictable. Affective response is viewed as the primary mediator of prosocial intervention (Hoffman, 1975; Feshbach, 1975; Reykowski, 1986), so empathy plays an essential role in social and moral life. Different kinds of reactions are typically exerted by the cognitive and affective facets of empathy. The influence of individual differences within emotional empathy on behaviour is typically immediate, direct, and involuntary, as well as largely unaffected by deliberate and conscious processes. In contrast, the cognitive empathy typically affects behaviour through a more conscious and deliberate effort (Davis 1983a;

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Figure 3. A multidimensional model of empathy by Williams (1990)

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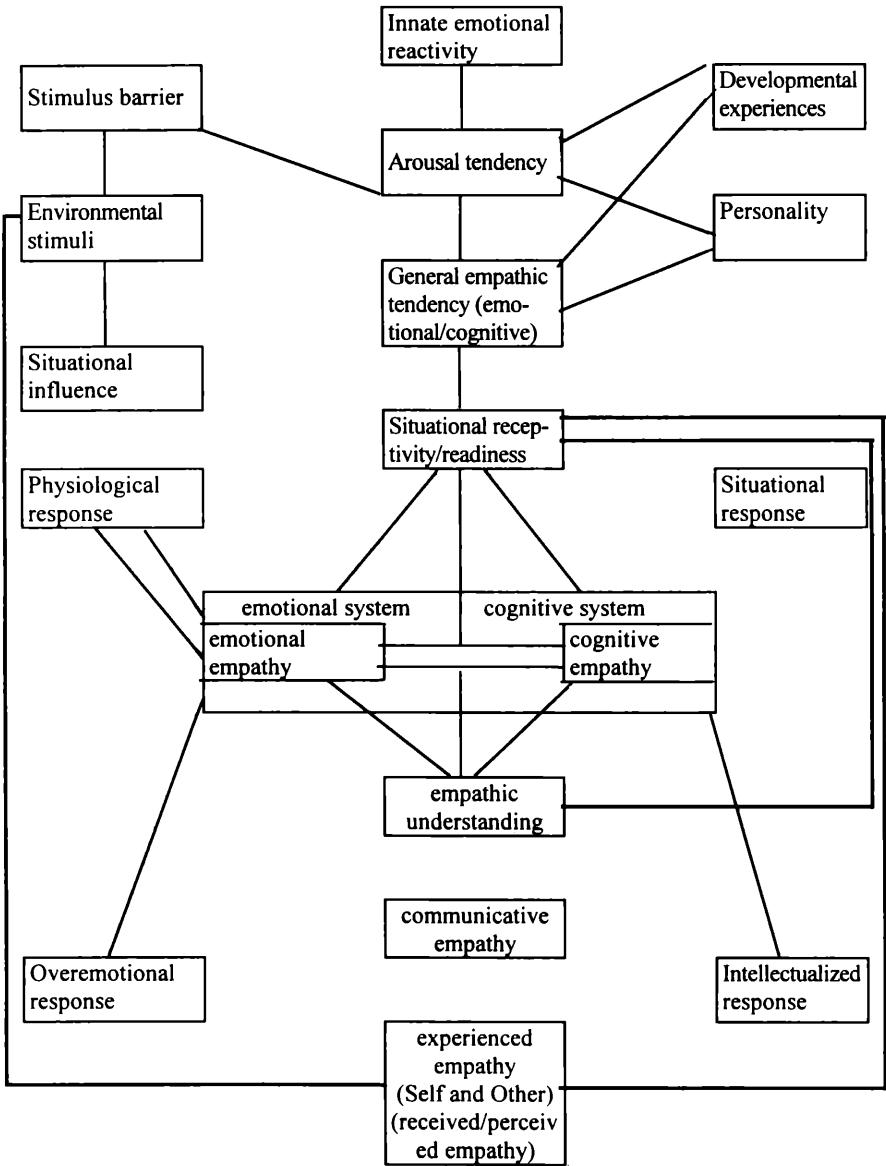
Szmukier 1989). According to Ķalliopuska (1993) empathy leads either to helping others or taking them into consideration. It is important also for developing tolerance and respect and acceptance for oneself and other people. Accepting and appreciating oneself leads to the respect of life and other people and to tolerance towards diversity. Empathy plays an essential role in emotional and moral education and in education towards peace and international understanding.

Mussen (1990) maintains that the construction of theory in the area of empathy is very limited and no grand theory of structure and development of empathy exists. This is because the phenomena which constitute empathy-feelings, emotions, and concurrent overt reactions are extraordinarily complicated and undoubtedly infuenced by multiple interrelated biological, socio-cultural, and personal factors. This does not mean that research on empathy should wait until such a theory will be developed. Instead, the research process should designate questions for further research on the basis of what has already been discovered.

A relatively broad review of research concerning empathy has been done by Davis (1999). Davis points out that the very nature of empathy is a bone of contention among the interested researchers. In his opinion several problems emerge in studies of empathy. Firstly the term 'empathy' is charged with an excess of meaning: it is used to define both cognitive and affective, active and passive phenomena. Secondly, it is identified with 'empathy' in the sense of a process and 'empathy' in the sense of the effect of a process. According to Davis, the different meanings of 'empathy' in the theory call for precise distinction. Such a distinction is important because a process, the objective of which is to adopt another person's cognitive point of view, is quite different from the outcome of such a process. The observer's emotional reactions, or his reaching an understanding of another person's situation, may be the effects of such a process. According to Davis, the absence of a clear distinction between these concepts is due to the lack of a clearly formulated research scheme for the phenomenon of empathy.

In his endeavour to differentiate between the various concepts associated with empathy, Davis has suggested a research scheme which, he believes, entails all the hitherto existing theoretical constructs regarding empathy. In his scheme he enumerates *the conditions preceding* the process of empathy characteristic of the observer (viz. his potential and inclination to empathise, behave empathetically), of the observed persons, and of the situation in which the process of empathy ensues; the *processes of empathising*, in the sense of the mechanisms, thanks to which affective and non-affective *intrapersonal outcomes* are evoked *in the observer*, and *the interpersonal outcomes* relating to the behavioural reactions addressed to the person observed. In the construction of his research scheme for empathy Davis assumes the existence of links between arbitrary elements of his scheme.

Davis (1999) analyses a variety of phenomena relating to empathy which occur in the literature and which make up the constituents of his model. He puts forward an extended theoretical and research approach to the phenomenon of empathy; he assesses his research scheme; and he makes suggestions for further study of empathy.

Davis' research model is made complete by the episode of empathising, the components of which he describes as the individual and situational conditions preceding empathising, the empathising process which is more or less cognitive in character, the affective and non-affective inner effects (components) of empathising, and a series of potential interpersonal outcomes (structures) of the process. His analyses lead him to a concluding observation that the processes of empathising and their inner (intrapsychological) effects manifest links with the interpersonal effects, e.g the stronger the subject's disposition to empathise the clearer the links it has with less aggressive behaviour towards other persons.

In Davis' opinion, an important result of his research model for empathy studies and the analyses he conducted of the component parts of his model has been the discovery of new, hitherto unexamined aspects of empathy. He lists these new fields as the hypothetical links which may ensue between associative processes and the effects of empathising; the affective results of instructions of the 'imagine someone like' or 'imagine yourself' type; the relationships between the conditions preceding the process of empathising and the process itself, and the links between various types of empathising.

He envisages the utility of his research scheme in the construction of a general framework which assists the conceptualisation and analysis of a large number of studies of empathy deriving from a variety of theoretical and methodological approaches.

Some of the empirical studies Davis analyses confirm his proposals that there are closer links between the adjacent components of his model than there are between parts more remote with respect to each other. But it turns out that sometimes interpersonal behaviour (assistance, aggression, social behaviour) is important, and connected with the most distant part of the model, dispositional empathy. Another advantage of Davis' model is that it clearly shows the various potential dependences between the different parts of the empathising episode. This has been made possible thanks to the manifestation of the variety of components making up the empathising episode.

One of the limitations of the model which Davis himself points out is its unidirectional nature (the cause-and-effect relations analysed in it are aligned in the direction from the observer to the observed person only), while recent research shows that there is a possibility for impact in the opposite direction, viz. that the effects of behaviour oriented towards the observed person may also have

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an impact on the observer's condition and processes. It seems necessary, then, to bring studies of this interaction type into the model.

Davids' idea of empathy will undoubtedly trigger new approaches to this phenomen but a Polish translation of his book has just been published – unfortunately, however, after our research project had been completed.

In our project the chief concern was teachers' level of empathy, as it is well known teachers should display an attitude of willingness to help with respect to their pupils and charges. We were aslo interested in the empathy levels of student teachers training for the profession, as well as pre-school and school pupils.

II
Empathy in education

Renewed emphasis on the psychosocial development of children has led to a greater interest in the personality, attitudes, and affective qualities of teachers. Teachers should create a climate of warmth, trust, and understanding in keeping the channels of communication between children and themselves open. Successful and friendly interpersonal learner-teacher relations are important components of the learning process in the classroom. The effective teacher must be able to perceive the needs of children and predict how they will react in a variety of situations. Teachers in general – and especially when working with exceptional children – should be therapists rather than educators. That represents some evidence that empathy is not less important for teachers than it is for therapists, as there are many similarities between therapy and teaching, especially when teaching concerns exceptional children (see Grzywak-Kaczyńska, 1971; Rogers, 1980).

Many studies show the positive influence of empathetic teachers on pupils' development (Morgan, 1979; Scheurer, 1971; Wakefield, Crowl, 1974). They are able to get behind the children's defences and know the real meaning of their behaviour (Rembowski, 1989) – they can also easily communicate their own feelings (Morgan, 1984). Combs (1972, in: Morgan, 1979) suggests that "good" teachers are empathetic teachers concerned with understanding how children think and feel. Pupils of empathetic teachers have fewer problems with motivation and discipline and are more successful in carrying out their assigned tasks. Empathetic teachers find it easy to understand their pupils and people in general and, as a result, they have good teaching results and social relationships with the students. Empathetic teachers also appreciate indirect verbal teaching methods and accept emotions in a teaching situation.
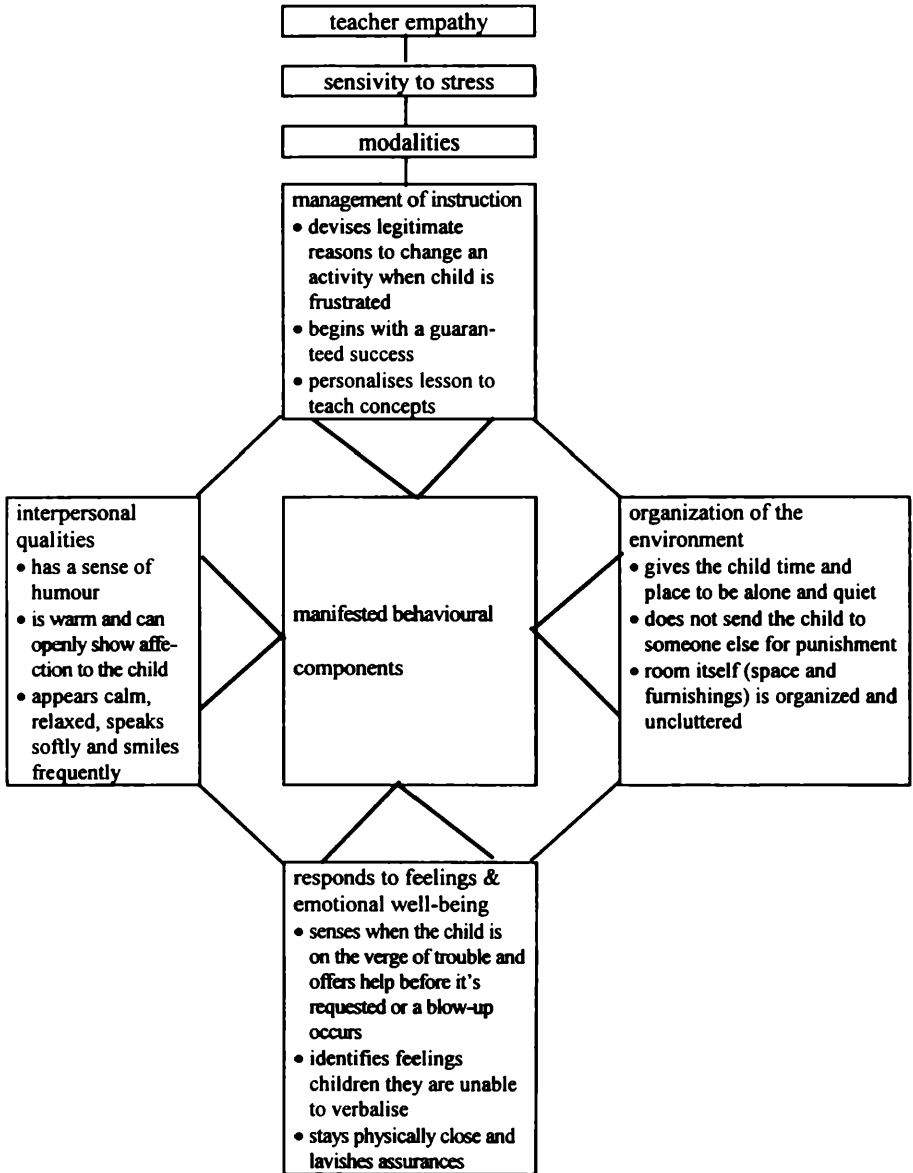
As we expect teachers should teach children empathy, but according to Feshbach & Feshbach (1982) and Bonino (1993) they can do it only on condition

that their own empathy feelings are developed enough and mature. Several attempts have been made to demonstrate that the level of teacher empathy presented in a classroom is interrelated with social gain and academic achievement. High teacher empathy was found to be related to a lower truancy rate, fewer behavioural problems, less confusion, higher academic grades, better reading scores, and greater achievement motivation (Scheurer, 1971; Morgan, 1979).

It seems that empathy should play an essential role in emotional and moral education. The problem of children empathy development seems to be very topical when in many countries aggressive and even criminal behaviour is spreading among young people and adolescents. In this situation the question arises whether developing of empathy among children and adolescents could be an alternative for feelings of loneliness, abandonment, alienation and frustration signalized by adolescents, which generate aggressive behaviour. But developing and modelling of empathy could be proceeded by recognition of some mechanisms, factors and regularity which favour the development of this area of personality. Some authors as Feshbach (1975, 1979), Bonino (1993), Kalliopuska (1993, 1995) indicate that the beginning of empathy development starts at an early age and is continued during the school age, so empathy develops from early infancy to adulthood, from primitive forms of emotional contagion to other forms characterized by cognitive processes, and a more clear differentiation of the Self. On the other hand, Bonino (1993) pointed out that sometimes emotional contagion – as a primitive form of empathy, does not disappear during one's development, when more differentiated and cognitively mediated forms of empathy appear.

In literature on the subject we can find some studies related to the problem of teacher's empathy. Morgan (1979), for example, postulated that the effective teacher must be able to perceive the needs of children and predict how they will react in a variety of situations. Morgan points out that normal children would describe their teacher more often in terms of his/her skills, strength and ability to make academic work more interesting and understandable. The teacher-child relationship is important for these children, but it remains more of a professional association. Disturbed children, on the other hand, attend predominantly to the affective skills of teachers and their ability to give the pupils' the feeling of internal comfort. For emotionally disturbed children the teacher plays the role of a therapist and a surrogate parent, being the model of an adult, as well as the real life teacher. It appears that teachers working with exceptional children should be more therapists, who understand how children think and feel, than educators. The author points out that empathy helps teachers to act in such a way that he minimizes social conflicts and disruption. In Poland, Grzywak-Kaczyńska (1971) thought that empathy was a very important factor in many teacher–pupil interactions, especially when the pupil is exceptional in some way (below or above the intellectual, social or emotional norms) and requires special treatment from teachers.

teacher empathy

sensivity to stress

modalities

management of instruction
- devises legitimate reasons to change an activity when child is frustrated
- begins with a guaranteed success
- personalises lesson to teach concepts

interpersonal qualities
- has a sense of humour
- is warm and can openly show affection to the child
- appears calm, relaxed, speaks softly and smiles frequently

manifested behavioural

components

organization of the environment
- gives the child time and place to be alone and quiet
- does not send the child to someone else for punishment
- room itself (space and furnishings) is organized and uncluttered

responds to feelings & emotional well-being
- senses when the child is on the verge of trouble and offers help before it's requested or a blow-up occurs
- identifies feelings children they are unable to verbalise
- stays physically close and lavishes assurances

Morgan (1979) also constructed a model of empathy for teachers of disturbed children. According to this model, a teacher expresses empathy in four ways: 1) through the management of instruction, 2) by the organization of the environment, 3) with verbal responses and actions that show understanding and caring for the child's feelings and emotional well-being, and 4) employing his/her own human, interpersonal qualities as part of the programme for the child. The training of empathy should lead to the development of these special mobilities and behaviour teachers need in their performance, especially working with exceptional children (see figure 4).

Morgan (1983) measured empathy in disturbed children attending psycho-correction classes where special teachers were teaching. In these classes there was a warmer and safer atmosphere than in classes without special educators. This had a positive influence on the pupils' empathy and their prosocial behaviour (assistance, helping, self control, responsibility). The development of empathy also increases prosociability.

Numerous investigations show that empathy is a motivational factor in prosocial behaviour (Mehrabian & Epstein, 1972; Kalliopuska, 1992a, 1992b). They emphasize the fact that high empathy level is a step towards positive attitudes, values, and emotions and it prevents people from acting aggressively.

The studies mentioned above show that empathy is a very important process in education. It is also very important to design a training program for students of teacher training faculties to improve their empathy level. Our study is aimed at establishing the empirical background for such a program.

III
Measurement of empathy

It is not only very difficult to define empathy and make it operational, but also to measure it. While the concept of empathy is, as a term, familiar to and frequently used by psychologists, its observation, value, and its reliable measurement have so far been only of secondary importance to psychology. According to the holistic theory of empathy, it can be measured by psychological means which survey certain aspects of this phenomenon, including physiological, kinaesthetic, affective and cognitive elements.

It is very difficult to construct a good method for empathy measurement. Though questionnaire answers seem to be declarable, experiments are unnatural, and projection methods are not objective. Nevertheless, they are usually used for empathy studies.

We can also use physiological methods in control laboratory. Physiological changes (such as sweating hands, palpitation, blood pressure changes and contraction or distension in the vascular system) take place in our body when we feel empathy. But physiological indicators are not specific reactions and they can be related either to empathy or to other emotional states.

There are many questionnaires surveying empathy which are dependent on the theory they are based on. For example, Dymond based his questionnaire on the role theory (1949). Identifying with another person's role on the level of cognitive processes, emotions and action requires the capacity of insight. Insight related to empathy is an essential prerequisite for understanding of different roles and behaviour. According to Dymond, empathy is defined as the accuracy of prediction based on insight into another person. The Dymond's scale is based on six characteristics of personality which are evaluated in oneself and the

counterpart. These characteristics are: self-confidence, feeling of superiority/inferiority, selfishness/unselfishness, friendliness/unfriendliness, leadership/submission, and sense of humour. These features are evaluated on the scale from one to five, from very little to very much. The smaller the differences in the evaluation scores, the more favourable are the results from the empathetic aspect. This method is an excellent indicator of the capacity to take another person's role.

In our study, the Mehrabian's & Epstein's Emotional Empathy Scale was used. This Scale is the best known method for measuring the emotional empathy. In Poland, the Scale was translated by Prof. J. Rembowski (1989) and it was used in most of the studies presented in this book, so it is significant to present the procedure before the beginning of the empirical results presentation. The Mehrabian's and Epstein's (1972) Emotional Empathy Scale of 33 items measures related aspects of emotional empathy. The range of possible answers is very wide (-4 = completely disagree to $+4$ = completely agree). The split-half reliability of the empathy scale was 0.84 for N = 202 adults. There are seven subscales: 1) susceptibility to emotional contagion, 2) appreciation of the feelings of unfamiliar and distant people, 3) extreme emotional responsiveness, 4) tendency to be moved by other people's positive emotional experience, 5) tendency to be moved by other people's negative emotional experience, 6) sympathetic tendency, 7) willingness to be in contact with other people who have problems.

The other method, which was used in the studies presented in this book and which proved very useful for empathy measurment, was the Questionnaire of Empathetic Understanding of Other People constructed by the Polish author Węgliński (1983). The Węgliński (1983) inventory of 33 items measures in general a cognitive component of empathy. The possible answers range from 4 = yes to 0 = no. Its reliability as measured with the Spearman-Brown method was 0.90 for 200 people.

Projective methods are also suitable for measuring empathy. The best known is Borke's (1971, 1973) Interpersonal Awareness Test (IAT), used in the study. The Polish adaptation of Borke's test was done by Rembowski (1989). This is a two-part empathy test for pre-school children. The first part is composed of eleven picture-stories, which describe some situations evoking children's feelings of joy, fear, sadness and anger. The second part is composed of twelve picture-stories in which some situations are described where another child is experiencing the emotions mentioned above. The children's task was to describe what the feelings of the children who went into different social interactions presented in the picture-stories were.

IV

Empathy in teachers of disabled children

It is of great advantage to society and individuals alike when empathy is learned at an early age. It is important that teachers should co-operate with parents in developing empathy in children. Empathy is one of the social competencies that can be trained at school, but it is also a main competence of teachers of exceptional children. The purpose of the study was to investigate the differences in affective and cognitive empathy between teachers of children from regular primary schools and those from schools for disabled children (Kliś, Kossewska, 1993). We also investigated the relationship between empathy and individual differences in temperamental traits (the strength of excitation of the nervous processes, their strength of inhibition, and the mobility of behaviour). The theoretical background was based on the Strelau's regulative theory of temperament (1983). In this theory temperament is understood as an energetic level of behaviour based on the innate physiological mechanism.

Subjects

170 people were divided in four sub-groups; two groups of teachers, and two other – of Academy of Education students:

1) primary school teachers aged 22 to 51 (mean = 36.7) (N = 29),

2) teachers from a special school for mentally retarded and handicapped children aged 25 to 57 (mean = 35.9) (N = 44),

3) students of the Teaching Faculties aged 19 to 20 years (N = 50),

4) students of the Special Education Department aged 19 to 20 years (N = 47).

Methods

Empathy of teachers tested was measured using the Mehrabian's and Epstein's Emotional Empathy Scale (see: p. 18). The Questionnaire of Temperament by Strelau (1983) was used for measuring individual differences in temperament between students and teachers and relationship between empathy and temperament. The Questionnaire of Temperament, consisting of 134 items, measures three temperamental traits: strength of excitation of the nervous system, the strength of inhibition of the nervous system, and mobility of behaviour. The strength of excitation is, according to the regulative theory of temperament by Strelau, the reverse (reciprocal) of reactivity at the level of physiological indexes.

Results

Factor analysis was used for the results of the Mehrabian's and Epstein's Emotional Empathy Scale, because the subscales cannot be obtained by statistical criteria. The screen test was used to find general factors. The method is based on a graphic presentation: latent roots are plotted against the factor number in the order of extraction. The point at which the curve straightens out is used as the maximum number to be extracted. We were able to differentiate five factors (emotional receptiveness, readiness to identify oneself with others, hardened feelings, ability to harmonize with others, rejection of feelings) based on the orthogonal solution by Principal axis factoring and Varimax rotation. The items of 0.30 or higher factor loading on at least one factor were taken into consideration. The items of less than 0.30 factor loading were omitted.

The following (table 1) is a presentation of the five factors we have investigated, and their interpretation.

The five factors in our study explain 34.6% of the variance of the 33 variables (three factors 27.8%) and they are a little bit different from those in Kalliopuska's study (1983). Kalliopuska in her study of 338 subjects who represented the population of the city Helsinki also distinguished five factors of Mehrabian's & Epstein's Emotional Empathy Scale and she named them as follows: emotional receptiveness, hardened feelings, liability of control, complete rejection of feelings, and readiness to identify oneself with others. In her study of 338 persons represented the population of the city of Helsinki.

Table 1. Factor loadings for items of Mehrabian's & Epstain's Emotional Empathy Scale, Varimax Rotation, Analysis – Kaiser Normalisation. Rotated Factor Matrix

No.	Questions in Mehrabian's & Epstein's Emotional Empathy Scale	Fac 1	Fac 2	Fac 3	Fac 4	Fac 5
27	I am very upset when I see an animal in pain.	0.68				
9	I get very angry when I see someone being ill-treated.	0.67				
25	I cannot continue to feel OK if people around me are depressed.	0.59				
9	I tend to lose control when I am bringing bad news to people.	0.55				
16	Seeing people cry upsets me.	0.48				
5	I become nervous if others around me seem to be nervous.	−0.42				
14	I like to watch people open presents.	0.36				
18	I really get involved with the feelings of the characters in a novel.		0.69			
31	I become very involved when I watch a movie.		0.67			
17	Some songs make me happy.		0.54			
8	Sometimes the words of a love song can move me deeply.		0.43			
10	Environment has a deep influence on my mood.		0.32			
28	It is ridiculous to be moved by contents of a novel or films.			0.61		
21	When a friend starts to talk about his problem, I try to steer the conversation to something else.			0.57		
23	It is the cry and sob of spectators that make me laugh in the cinema.			0.54		
22	I don't share other persons' laugh.			0.48		
11	Most foreigners I have met seem cool and unemotional.			0.46		
6	I find it silly for people to cry out of happiness.			0.39		
15	Lonely people are probably unfriendly.			0.36		
2	People exaggerate when talking about animals' sensibility and feelings.			0.34		
1	It is the sight of a lonely person that makes me sad.				0.69	
30	I become more irritated than sympathetic when I see someone's tears.				0.41	
29	It upsets me to see helpless old people.				0.41	
7	I am inclined to be affectedly engaged in my relatives' problems.				0.40	
12	I would rather work in the social service than in a factory.				0.32	
33	Little children sometimes cry for no apparent reason.				0.31	
20	I am able to remain calm even though those around me worry.					0.67
32	I often find that I can remain cool in spite of the excitement around.					0.56
24	I am able to make decisions without being influenced by people feelings.					−0.49
13	I am not moved by my friends becoming nervous.					0.33

Note:
Fac 1 – EMOTIONAL RECEPTIVENESS
Fac 2 – READINESS TO IDENTIFY ONESELF WITH OTHERS
Fac 3 – HARDENED FEELINGS
Fac 4 – ABILITY TO HARMONIZE WITH OTHERS
Fac 5 – REJECTION OF FEELINGS

Factor I explains 16.6% of the variance and 49.5% of the common impact of the five factors. This factor could be called **emotional receptiveness**. It is almost the same as factor I in the analysis made by Kalliopuska, which explained 8.7% of variance in the Finnish sample. This factor could be similar to the sympathetic tendency and the tendency to be moved by the positive and negative emotional experiences of others, which were mentioned by Mehrabian and Epstein (1972). It also includes sensitiveness to another person's feelings that was supported by previous theoretical views (Rogers, 1980).

Factor II explains 6.9% of the variable variance and 19.2% of the explanatory impact of the five factors. This factor is similar to factor V in the Kalliopuska's analysis, and it could be called **readiness to identify oneself with others**. In this factor positive loading is obtained for the temporary identification with the role of another person so that one can better understand the person's thoughts, feelings, and needs. This factor explained 3.4% of the variance in Finland (Kalliopuska, 1983).

Factor III explains 4.3% of the variance and 12.1% of the common impact of the five factors. This factor could be named **hardened feelings**. It is similar to factor II distinguished by Kalliopuska, which explained 7.1% of the variance in her study. This factor appears explicitly to contain a cynical attitude to persons different from oneself.

Factor IV explains 3.5% of the variance and 10.1% of the common impact of the five factors. It could be called **ability to harmonize with others**. It includes the tendency to emotional sensibility. This factor could also be similar to the tendency to be moved by the positive and negative emotional experiences of others, which were mentioned by Mehrabian and Epstein (1972).

Factor V explains 3.3% of the variance and 9.1% of the common impact of the five factors. It could be called **rejection of feelings**. This factor contains the capacity to reject another person's feelings and self-control. Matters concerning people evoke an attitude of rejection and self-control which makes someone cold and rational. This factor include items from Kalliopuska's factor III and IV.

The most interesting finding was whether the level of emotional or cognitive empathy differentiates our subgroups. One-way analysis of variance and tests for homogeneity of variances were conducted. It was found that pairs of groups significantly differed at the 0.05 level in emotional empathy measured by Mehrabian's and Epstein's Emotional Empathy Scale (see table 2).

As we can see in table 2, there are some significant differences among the subgroups tested.

1. Students of special education are more empathetic than the teachers of both groups (primary school and special school) ($F_{3,166} = 5.09$, $p = 0.002$).

Table 2. Arithmetic means and significant differences between the groups of teachers and students tested in the domains of emotional empathy measured by One-way analysis of variance

Mehrabian's and Epstein's Scale of Emotional Empathy	group 1 mean	group 2 mean	group 3 mean	group 4 mean	F	df	p
Global result of emotional empathy	178	183	186	199	5.09	3	0.002
sub 3 – extreme emotional responsiveness	10.2	11.6	10.5	12.8	4.27	3	0.006
sub 4 – tendency to be moved by others' positive emotional experience	10.5	12.2	12.3	12.8	3.29	3	0.02
sub 5 – tendency to be moved by others' negative experiences	12.6	13.3	13.6	14.7	3.32	3	0.02
sub 7 – willingness to be in contact with others who have problems	11.0	12.2	12.2	14.1	4.81	3	0.003

Note:
group 1 – teachers of primary school (N = 29)
group 2 – teachers of special school (N = 44)
group 3 – students of Teaching Faculties (N = 50)
group 4 – students of Special Education Department (N = 47)

2. There are significant differences at the 0.05 level in Mehrabian's and Epstein's subscale No. 3 measuring extreme emotional responsiveness between two pairs of groups. The students of special education are more responsive than other students and primary school teachers ($F_{3,166} = 4.27$, p. = 0.006).

3. There is a significant difference at the 0.05 level in subscale No. 4 measuring the tendency to be moved by other people's positive emotional experience in students of special education and teachers working with disabled children. Students of special education are more inclined to share the other people's positive feelings than teachers working with handicapped children ($F_{3,166} = 3.29$, p=0.02);

4. Students of special education have also a greater tendency to be moved by others' negative experiences (subscale No. 5) than the primary school teachers ($F_{3,166} = 3.32$, p = 0.02);

5. Students of special education are also significantly different at the 0.05 level from the primary school teachers as determined from Mehrabian and Epstein

subscale No. 7, that means the students are more willing to be in contact with other people who have problems ($F_3, _{166} = 4.81$, $p = 0.003$).

One-way analysis of variance did not show any differences between the groups in cognitive empathy or in the results of our factor analysis.

Students of special education are the most empathetic subgroup of all groups tested. It seems that the level of their empathy development could be more mature and they choose their study according to their potentials. Empathetic tendency in relation to other people seems to be a good predictor for the future occupation of teaching handicapped children.

Some interesting differences could be seen when we compared the empathy level of the teachers working in three types of school (a special school for disabled children, a regular primary school, and a secondary school). The teachers ($N = 98$) aged 25 to 56 years participated in that study, and One-way analysis of variance and tests for homogeneity of variances were conducted to find differences between the mentioned groups of teachers in the level of empathy. The levels both of emotional as well as cognitive empathy of special educators were significantly higher than those of the secondary school teachers ($F_{2,95} = 13.8$, $p = 0.001$; $F_{2,95} = 17.4$, $p = 0.001$), but the empathy level of the teachers working in special schools was not significantly higher than that of primary school teachers (Kliś, Kossewska, 1994b).

The analysis of variance was used to find interactions between independent variables and their influence on empathy. One interaction was found between the kind of subgroup and age in the influence on the factor IV measuring ability to harmonise with others ($F_{1,71} = 4.61$, $p = 0.035$). The older primary school teachers and the younger teachers of disabled children are better able to harmonise with others than the younger primary school teachers and the older teachers of disabled children. We try to explain this fact as follows: the ability to harmonise with others includes the tendency to develop emotional sensibility and emotional contagion. This means meeting another person halfway without self-differentiation. Emotional contagion, however, may be dangerous because of emotional arousability that makes socially friendly attitudes and readiness to help impossible. According to Bonino (1993) emotional contagion is a less mature form of empathy and its positive role is limited to the family, and to the small closely-related groups. Perhaps the older primary school teachers who have been exposed to more professional stress than their younger colleagues, become unable to maintain the caring attitudes and the commitment that they initially brought to the job, and thus the process of 'burnout' begins, making them lose the more mature form of empa-thy. For this reason the development mechanisms of coping with increasing needs to harmonise with others throughout the teachers' professional life-span in favour of more mature, based on mental representation forms of empathy may be an advantage for their psychological welfare, as well as their professional performance. This may protect them against emotional exhaustion that is a one of

the symptoms of burnout syndrome. As for the younger teachers of disabled children, they are exposed to professional stress much more than their colleagues from primary schools, so their more mature forms of empathy are probably less developed and they stay only with ability to harmonise with others. But during their professional life-span those teachers can develop mechanisms of coping with stress, and a more mature form of empathy may be developed in them after some years. It seems to be also possible that the teachers of species used to choose their profession in a more determined and consious way, be profesionally well prepared and these helps them to reduce the tendency to harmonise with others and develop mature forms of empathy.

As an effect of the Pearson's correlation (see table 3) we confirmed some interesting results, presented below.

Table 3. Pearson's correlation coefficients between empathy components and temperamental traits of people tested

Empathy components	AGE	Temperamental Traits		
		strength of excitation	strength of inhibition	mobility of behaviour
cognitive empathy	−0.07	0.17	**0.19***	**0.25****
emotional empathy	**−0.26****	−0.17	−0.11	−0.03
sub 1 – susceptibility to emotional contagion	-0.08	**0.31****	−0.16	−0.05
sub 2 – appreciation of the feelings of unfamiliar and distant people	−0.17	−0.08	−0.01	−0.11
sub 3 – extreme emotional responsiveness	**−0.21***	−0.10	−0.09	0.01
sub 4 – tendency to be moved by the positive emotional experience of other	**−0.21***	−0.12	**−0.18***	0.07
sub 5 – tendency to be moved by the negative emotional experience of others	**−0.21***	−0.16	−0.06	−0.04
sub 6 – sympathetic tendency	0.08	0.08	0.01	0.05
sub 7 – willingness to be in contact with others who have problems	**−0.21***	−0.01	0.03	0.08
Fac 1 – emotional receptiveness	**−0.23***	−0.17	−0.01	−0.09
Fac 2 - readiness to identify oneself with others	−0.07	−0.16	−0.09	−0.08
Fac 3 – hardened feelings	**−0.31****	−0.01	−0.04	0.03
Fac 4 – ability to harmonise with others	−0.04	−0.01	−0.06	0.03
Fac 5 – rejection of feelings	−0.05	**−0.30****	**−0.21***	−0.03

Note:
* p < 0.05, ** p < 0.001
sub 1 to sub 7 = subscales of Mehrabian's & Epstein's Emotional Empathy Scale
Fac 1 to Fac 5 = results of our factor analysis

In the group of 170 people tested a significant correlation between the emotional and cognitive aspects of empathy was found (r = 0.409, p = 0.001). This confirms the

fact that empathy is an emotional-cognitive phenomenon. This positive correlation between emotional and cognitive aspects of empathy may be interpreted in two ways:

– emotional and cognitive aspects of empathy exist simultaneously. If someone is able to take another person's perspective he is also able to share his/her emotional states. The opposite relation will also apply;

– Mehrabian's and Epstein's Emotional Empathy Scale as well as the Węgliński Questionnaire could be repleted with (filled in) the same factors in spite of their authors' assumptions that the methods measure quite different aspects of empathy. But this interpretation does not seem to be possible, because the results of the measures mentioned above are correlated with the temperament traits of our subjects in a completely different ways.

A negative correlation between the emotional aspect of empathy and the age of the teachers tested was found: ($r = -0.265$, $p = 0.001$). This means that emotional empathy of teachers tested decreases with age. This relation appeared clearly in the subgroup of primary school teachers ($r = -0.469$, $p = 0.05$). It seems that it could be explained by the burnout syndrome that is often present in helping professions (Williams, 1989). Stress, overwork, poor relationships with colleagues and headmasters make the teachers burn out. The burnout syndrome is a multidimensional phenomenon characterised by emotional exhaustion, depersonalisation of the people and a lack of personal accomplishment (Maslach, 1976, 1981, 1993). We suppose that some negative professional experiences that happen relatively frequently in a group of primary school teachers might led to reduction of their empathy. In the group of teachers of disabled children however, the level of emotional empathy has not changed with teachers' age: ($r = 0.04$, $p > 0.05$). This might be seen in the process of acquiring occupational experiences or might be caused by a more aware and more responsible decision to work with disabled children that usually used to make teachers of disabled children.

The following correlations were found between empathy and temperament:

a) a negative correlation between the strength of excitation of nervous processes and Mehrabian's & Epstein's subscale No. 1 measuring susceptibility to emotional contagion ($r = -0.315$, $p = 0.001$) and also between the strength of excitation and our factor V measuring rejection of feelings ($r = -0.298$, $p = 0.001$); We have also found a negative correlation between the strength of excitation of nervous processes, Mehrabian's & Epstein's subscale No. 1 measuring susceptibility to emotional contagion, and our factor V measuring rejection of feelings. This could mean that people with a low level of excitation are more inclined to share only the positive emotions of others, than people with a high level of excitation. People with a low level of excitation are more introvertive and more neurotic (their nervous system is more labile) than people with a high level of excitation (Strelau, 1983). So people with a high level of neuroticism have a low level of sensation-seeking and want to

avoid risk even though they have great affiliation needs and require satisfaction of their social feelings more than people with a low level of neuroticism;

b) a low negative correlation between the strength of inhibition of the nervous processes and Mehrabian's & Epstein's subscale No. 4 measuring the tendency to be moved by the positive emotional experience of other (r = –0.184, p = 0.05) and also between the strength of inhibition of the nervous processes (our factor V called rejection of feelings) (r = –0.213, p = 0.05); low negative correlation between the strength of inhibition of the nervous processes and the tendency to be moved by the positive emotional experience of others (subscale No. 4) and our factor V called Rejection of Feelings, were found. The strength of inhibition is a type of emotional control. People with a high level of emotional control are not moved by the positive emotional experiences of others as strongly as people with a low level of self-control;

c) positive correlation between the cognitive aspect of empathy and the mobility of behaviour (r = 0.255, p = 0.001) and also between the cognitive aspect of empathy and the strength of the inhibition of nervous processes (r = 0.198, p = 0.05). The cognitive aspect of empathy is in a positive correlation with the mobility of behaviour. If people's behaviour is more flexible, they can easily understand other people's point of view. A higher level of the strength of inhibition is also positively correlated with cognitive empathy. Increasing the emotional control level gives more possibilities in understanding another person's point of view and identifying with somebody's social role.

Conclusions

Our study led us to the following conclusions:

1. There were no significant differences in emotional and cognitive empathy between primary school teachers and teachers of disabled children.

2. Emotional empathy decreases with the age of teachers. This may be explained by the burnout syndrome. Prevention treatment should be carried out for teachers to protect them against the negative influence of this syndrome.

3. There were significant differences in emotional and cognitive empathy between students of special education and students of other faculties and teachers of different types of school. Students of special education showed a significantly higher level of emotional empathy (measured by Mehrabian's & Epstein's Emotional Empathy Scale) than teachers of disabled children and primary school teachers.

4. Further study could investigate whether this higher level of student empathy depends only on their declarative attitudes, which were the results of willingness to make a positive impression during the first year of their study.

5. Emotional and cognitive aspects of empathy are correlated with various temperamental traits of subjects.

V

The value of empathy in social interactions and prosocial attitudes of students of special education

Taking into consideration the holistic character of the empathy process, it seems that empathy is a very important phenomenon in different interpersonal relations. Still today we can observe that interpersonal relationships become more inhumane. People seem to grumble about the lack of close, informal relations with others, particularly with regard to exceptional people, whereas, the attitude towards individuals with exceptional needs was traditionally the measure of the level of humanity within society.

The contemporary concept of equal educational opportunities for exceptional children has become a dominant notion in education. It has also provided teachers with new challenges and assigned them new roles. According to the Convention of Children's Law, each child should be given the opportunity to develop his/her mental and emotional potential. This could be done only in mainstreaming education.

The relation with an exceptional person, who expresses special needs, is a specific social situation. The mature personality, which can be characterized by grownup empathy is a condition to accept and understand the exceptional people's needs. It seems to be undoubtful that empathy should be developed in students preparing for helping professions (students of medicine, psychology, education, special education). Before arranging an empathy training for students we should measure their actual level of empathy development and prosocial attitudes. The following study is an attempt to solve this theoretical problem, which will lead us to some practical outcome.

The main aim of the study presented was to discover whether empathy in any way affects prosocial attitudes towards exceptional people. A prosocial attitude is a disposition which embraces cognitive, emotional and behavioural components.

Taking into account the idea of holistic empathy, we put the following question: Are the components of empathy completely specific for this phenomenon or are they also common to other psychological phenomena such as prosocial attitudes? We were seeking answers to the following particular questions.

1. Is the level of emotional empathy related to positive attitudes towards exceptional people?

2. Does an extended social interaction with exceptional children modify the level of empathy?

3. Is there any link between the level of empathy and the durability of social contact with exceptional individuals or do these two variables function independently as far as the influence on the attitudes is concerned?

Subjects

A group of 121 current students of Special Education Department aged 18 to 20 were tested (117 girls, and 4 boys). According to students' anwers, the frequency of their contacts with exceptional children was estimated. On that basis there were found three subgroups in the whole group tested differing in their contact with exceptional children:

I – students without any contact with exceptional children (N = 21),

II – students with limited or occasional contact with exceptional children (N = 51),

III – students with an extended, rather long contact with these children. These students took care of the children during holidays, working at kindergartens, had a physically or mentally disabled child in the family (N = 49).

Methods

Empathy was measured by Mehrabian's & Epstain's Emotional Empathy Scale (see chapter 3).

Prosocial attitudes were measured using the Questionnaire of Prosocial Attitudes by Kliś, Kossewska (1992). The Questionnaire was composed of 30 items divided into three main parts: a) the first part measured the image of an "ideal" teacher of exceptional children. It was assumed that, on one hand, every student of Special Education has the imagination of the best, ideal teacher, and on the other hand, that students of Special Education identify themselves with the mental representation of an ideal teacher, and this helps them to develop their professional competences and skills. The first part of the Questionnaire measured

our subjects' projective attitudes towards exceptional children (12 items); b) the second part measured the general attitudes of the subjects towards exceptional people (9 items), and c) the third part – attitudes of the subjects towards an integration or inclusion of exceptional people in education and social life (9 items). The answer range was very wide (0 = completely disagree to 7 = completely agree). The split-half reliability of the Questionnaire was 0.727 for N = 121 people, Cronbach's alpha coefficient was 0.668.

Results

The results of the Attitudes Questionnaire show that there are three areas of prosocial attitudes a) attitudes of the students tested towards a disabled person, b) attitudes of an "ideal" teacher towards disabled children, c) attitudes of students tested towards social and school integration of disabled children. Students of special education showed the following aspects of attitudes towards disabled children (table 4):

Table 4. Aspects of attitudes towards a disabled person by students of special education

Attitude components	Mean	Stand.Dev.	Rank ordering*
sympathy	4.80	1.93	8
willingness to help	6.46	1.10	3
anxiety	5.72	1.62	6
mercy	5.04	2.06	7
aversion	6.89	0.34	2
disgust	6.92	0.29	1
curiosity	1.83	1.90	9
willingness to understand other people situation	5.98	1.35	4
need for contact with disabled people	5.92	1.32	5
total result of attitude towards disabled people	49.59	11.90	

* Rank ordering according to self-evaluation of attitudes towards disabled person by students of special education

In general, students of special education presented positive prosocial attitudes towards disabled people. They expressed the need for contact with disabled people, declared feelings of sympathy towards them, they were also willing to help and to understand those people's situation. These students who had extended contact with exceptional children (subgroup III) presented more positive attitudes towards exceptional people's than those who had limited contact (sub-

group II) ($F_{2,118} = -3.03$, $p = 0.05$). The period of time when the students had contact with exceptional children, differentiates their feelings towards disabled people. The next step of our analysis showed that those students who had never had any contact with exceptional children felt more aversion ($F_{2,188} = 3.17$, $p = 0.045$), and more disgust towards disabled people ($F_{2,118} = 3.68$, $p = 0.03$), than students in comparative groups.

Testing attitudes of an "ideal" teacher towards disabled children we obtained a picture of an "ideal" teacher as imagined by our students (table 5). The image of an "ideal" teacher of disabled children is a projection of students' feelings and attitudes towards them.

Table 5. Attitudes of an imagined "ideal" teacher towards disabled children in the perception of special education students

Attitude components	Mean	Stand.Dev.	Rank ordering*
lenience	6.33	0.93	5
patience	6.88	0.37	1
cordiality	6.55	0.81	4
understanding of the needs of others	6.47	0.80	6
optimism	6.08	1.14	9
ability to identify with the feelings of others	5.97	1.23	10
tolerance	6.12	1.19	8
professionalism in teachers' work	5.83	1.24	11
willingness to help	6.59	0.89	2
keeping emotional distance to others	4.23	2.07	12
stress resistance	6.16	1.22	7
ability to control himself	6.58	0.77	3
total result of "ideal" teachers' attitude towards disabled children	73.79	12.66	

* Rank ordering according to students' perception of attitudes of an „ideal teacher" towards disabled children

In the opinion of all special education students, the main features of an "ideal" teacher of disabled children were: patience, willingness to help other people, ability to control himself. In the opinion of students tested, good professional competence was not so important in working with disabled children as other features of teachers' personality especially prosocial and emotional skills. This conclusion is conformable to the results of Morgan (1979), though he analysed this problem in the group of emotionally disturbed children.

Only one significant difference between the groups of students tested was found. This difference concerns the tolerance as a feature of an "ideal" teacher. Students who had had no contact with exceptional children before thought that an

"ideal" teacher of disabled children should be less tolerant than he was considered to be in the opinion of comparative student groups ($F_{2,118} = 3.72$, $p = 0.03$). Students who had had neither any practice nor experience in taking care on exceptional persons thought that it was possible to be more restrictive in the teacher–pupil relationship than students who had some experience.

There was no agreement among students tested whether keeping emotional distance to disabled children was important for an "ideal" teacher or not. It depended on the interaction between the duration of contact with disabled children and the level of emotional empathy. Students characterized by a high level of empathy who had no extended contact with exceptional children declared that an "ideal" teacher of these children should reveal high emotional distance towards them: ($F_{2,118} = 3.192$, $p = 0.045$). In the case when the level of students' empathy was high and the period of their contact with disabled children was long, they declared that an "ideal" teacher of exceptional children should have lower emotional distance to them. However, when the level of emotional empathy was low, though the students had a lot of contact with handicapped children, in the students' opinion an "ideal" teacher should have high emotional distance.

An emotional distance to another person may be caused by the intellectual reflection (insight, analysis, comparison, etc.) on the situation of this person. But the ability of emotional identification with somebody requires some recognition of his/her situation. People with a low level of emotional empathy are not sensitive to other people's feelings. They have a defensive tendency to keep cool in social interactions, so more frequent contacts with exceptional people make them feel uncomfortable and endangered during these contacts. They believe that an emotional distance to exceptional children is needed in a pupil–teacher relationship. On the other hand, during their contacting with exceptional people, students with a high level of empathy learn how to identify their feelings, and to take into account their perspective. This knowledge and understanding makes them more relaxed during the contact with exceptional children, so they do not express the need of emotional distance to these children, and they think that a high emotional distance is unnecessary in the pupil–teacher relationship.

Students of special education also expressed generally positive attitudes towards education and social integration of exceptional children, but these atti-tudes were not so emphatic as the attitudes towards disabled children (table 6). Most of the students agreed that disabled children should be in a mixed class, and that disabled people should work with nondisabled people and function actively within society.

Generally speaking, students of special education declared positive attitudes towards integration of exceptional people. They agreed that integration in education and social life was a very good experience for disabled people which helped them to function properly in society. However, our students were aware

that mainstreaming might cause some difficulties and problems not only for disabled and nondisabled children but also for their teachers and parents.

Table 6. Attitudes of students of special education towards the integration of exceptional people

Attitudes component	Mean	Stand. Dev.	Rank ordering*
learning with nondisabled children	5.52	1.64	2
working with nondisabled people	3.56	3.47	4
active participation within society	5.89	1.35	1
having special privileges	4.17	2.49	3
total result of students' attitudes towards mainstreaming of exceptional people	45.21	15.24	

* Rank ordering according to the students' accepting attitudes towards exceptional people integration

Students of special education thought that disabled people should not have any special privileges. Such an attitude could be the result of thinking about disabled people as similar to others. On the other hand, the students tested might be yet unaware of the special needs of disabled people and their difficult situation in our country.

One-way analysis of variance and tests for homogeneity of variances showed pairs of groups significantly differing at the 0.05 level in students' attitudes towards integration of exceptional people with nonexceptional people at work ($F_{2,118} = 6.58$, $p = 0.002$). Students having an extended contact (our subgroup III) (taking care during holidays, working at kindergarten, having a disabled child in the family) and those having a rare contact with exceptional children (subgroup II) had significantly more positive attitude towards integration of exceptional people with nonexceptional people at work, than students who had no contact with children of special needs.

Closer and extended contacts with exceptional children gives the opportunity to get acquainted with their lives, their specific needs, consequently facilitating the development of positive emotions towards them. It can also reduce anxiety, which may appear in contacts with disabled people. When students have the contact with exceptional children the level of their emotional responsiveness decreases. This could be caused by the process of maturity of this component of empathy that is based on developing the capacity of cognitive understanding of another person's needs (Bonino, 1993). Mature empathy is related to the cognitive ability to represent the perspective of the other and to share the emotions of others, even if different from one's own in similar situation and also to the development of the Self.

On the basis of Pearson's correlations we have found some interesting correlations between the prosocial attitudes of the students tested and the total

score of their empathy, subscales of empathy and factors obtained in factor analysis with varimax rotation of the Emotional Empathy Scale (analysed in the previous chapter). We have obtained five empathy factors called: factor I – *emotional receptiveness*, factor II – *readiness to identify oneself with others*, factor III – *hardened feelings*, factor IV – *ability to harmonize with others,* factor V – *rejection of feelings* (Kliś, Kossewska, 1994).

As we can see in table 7, the total score of Emotional Empathy Scale and two factors of empathy (factors I and II) were in positive correlations with the attitudes towards exceptional people among the students of special education.

Table 7. Correlations between empathy and prosocial attitudes

Correlated variables	ATT	P1	P2	P4	P6	P13	P14	P17	P18
Emotional Empathy	0.18	0.21	0.08	**0.29****	0.12	**0.28****	0.16	–0.15	–0.13
sub 2 – appreciation of the feelings of unfamiliar and distant people	0.11	–0.04	–0.05	0.12	0.21	0.07	–0.06	–0.10	–0.10
sub 3 – extreme emotional respon- siveness	0.07	**0.26***	0.23	0.27	0.13	0.14	0.20	–0.06	–0.03
sub 5 – tendency to be moved by others' negative emotional experience	0.13	**0.22***	0.15	**0.32****	0.15	**0.25***	**0.21***	–0.17	–0.19
sub 7 – willingness to be in contact with others who have problems	0.16	0.19	–0.06	0.19	0.16	–0.00	0.12	–0.15	–0.08
Fac 1 – emotional receptiveness	**0.36***	**0.34****	0.08	**0.24***	0.01	**0.33****	**0.21***	**-0.25***	**-0.36****
Fac 2 – readiness to identity oneself with others	**0.34***	**0.34****	0.25	**0.37****	**0.23**	0.19	**0.34***	-0.02	0.05

Note: ATT – global result of prosocial attitudes; P1 – lenience, P13 – sympathy; P2 – patience, P14 – willingness to help; p4 – understanding of other people's needs, P17 – aversion; P6 – ability to identify with other people's feelings, P18 – disgust

* p = 0.05, ** p = 0.01

The prosocial attitudes of special education students were positively corre- lated with the total result of their emotional empathy and with some particular components of empathy. On the basis of our data we can say that students with a higher level of empathy showed a more positive attitude towards exceptional people than the less empathetic students. More empathetic students felt more

sympathy for disabled people than the students with a low level of empathy, and they thought that an "ideal" teacher of exceptional children should be more able to identify himself with other people's feelings. Such components of emotional empathy as emotional receptiveness, tendency to be moved by other people's negative emotional experience, willingness to be in contact with others having problems, and readiness to identify oneself with others were positively correlated with such components of prosocial attitudes as willingness to help, and the opinion that an "ideal" teacher should understand other people's needs.

We have also found some interesting differences in empathy level and prosocial attitudes between students whose frequency of contact with disabled children was various.

The students who had an extended contact with exceptional children (subgroup III) showed lower emotional responsiveness in real-life situations in comparison with the students who had no interaction with disabled children (subgroup I) ($F_{1,119} = 3.03$, $p = 0.05$).

The ANOVA analysis of variance was used to determine interactions between independent variables in their influence on prosocial attitudes. Two statistically significant interactions were found between the duration of contact and the level of emotional empathy which influenced some aspects of the students' prosocial attitudes. The students with a high level of empathy, who had an extended contact with exceptional children also showed a higher level of curiosity towards people with special needs, than the students less empathetic and with no contact with such children ($F_{2,118} = 3.147$, $p = 0.05$). The ANOVA results confirm the idea that a higher level of empathy and an extended contact with children of special needs cause a decrease in the emotional distance between these children and their teachers. The interaction between the level of empathy and the duration of contact with exceptional children have some positive influence on students' attitudes towards these children .

Conclusions

There are the following results of our study:

1. The level of emotional empathy positively influences students' prosocial attitudes towards exceptional children.

2. The prosocial attitudes towards exceptional children depend on the level of empathy as well as on the previous experience in the contact with children of special needs. These two variables interact in their influence on prosocial attitudes of the students tested.

3. The results of our research show that developing empathy in students of special education can be a very significant factor in their future professional career. For this reason, teaching empathy should be one of the main goals of these students' education.

VI

Empathy as a predictor of teachers' attitudes towards mainstreaming of exceptional children

The previous study concerned the attitude towards disabled people presented by special education students. The present study was designed to examine whether any individual differences determine the attitudes of teachers towards mainstreaming. This aim was selected because this problem seems to be not only very important but not recognized as well. Some preliminary findings were related to empathy as a factor of positive attitudes towards exceptional people and their school integration (Kliś, Kossewska, 1994b).

Mainstreaming is a way of teaching exceptional students in an environment that does not restrict their educational potential, including placing disabled students in the regular classroom with their nonhandicapped peers. In Poland, mainstreaming is becoming the reality of today's educational system though many efforts must still be made to create school integration as the educational standard.

It is well known that the numerous benefits of the mainstreaming efforts are realized by exceptional students, as well as by regular students and teachers. All pupils, especially those exceptional, need to feel well about themselves just as other people do. Exceptional children assigned to regular classes experience successful personal and learning adjustments. Placement in regular classes also appears to contribute positively to students' self-concept (Winzer, 1987). But the positive or negative effects of mainstreaming are related to the attitudes towards school and the social integration of exceptional children in teachers, and peers, and administrators. The key to successful mainstreaming is also the attitude of the teachers towards the child who is different. In addition to the teacher's own attitude, he/she is responsible for developing appropriate peer attitudes in the classroom, because children usually follow the example of the significant adults.

Setting the stage for mainstreaming is important for a successful outcome. The attitudes of administrators, regular and special teachers, and regular and special students, their parents, and the whole society towards the inclusive education and exceptional students are significant for the success or failure of school integration. Studies directed towards predictors of mainstreaming attitudes have investigated the influence of such teacher variables as sex, age, years of experience, grade level taught, geographical location, status, qualification (Donaldson, Martinson, 1977; Smith, 1979; Winzer, 1987, 1994). There is a lack of research based on the assumption that empathy may be a factor of positive attitudes towards exceptional children and their school integration, though it seems to be true. In this situation we suppose that the variety of emotional empathy should take part in the development of proper attitudes towards exceptional people.

In Poland, there are still different types of schools – primary and secondary schools and special schools for mentally retarded and disabled children. Teachers working in these schools have different work experience, so it was assumed that the type of school differentiated the attitudes towards mainstreaming. Three types of schools were selected for the investigation: special schools, primary schools, and secondary schools. Two control groups were also included: managers – who have rare and formal contact with exceptional people according to the idea of social integration and life normalisation, and medical staff who have contact with exceptional children all the time.

Subjects

The five groups surveyed included 40 teachers of special schools, 40 teachers of primary schools, 40 teachers of secondary schools, 40 members of medical staff, and 40 managers. The total sample included 200 participants aged from 23 years to 60 years. Their work experience varied from 1 year to 35 years.

Methods

Empathy was measured by Mehrabian's & Epstain's Emotional Empathy Scale and Węgliński Questionnaire of Empathetic Understanding of Other People (see chapter 3). The participants completed a 20-question Likert-type Scale of Attitudes Towards the Mainstreaming of Exceptional Children by Winzer (Chow, Winzer, 1992) translated and adapted by Pilecka and Kossewska. The Scale comprises two dimensions: A, the positive effects of mainstreaming on children, both exceptional and normal, and B, expected negative effect of mainstreaming as

a cost of school integration, on teachers, as well as, pupils. The items in dimension B was coded in a way that higher scores meant higher positive attitude and perception of fewer negative effects of mainstreaming. The reliability of the Polish translation of the Scale of Attitudes Towards the Mainstreaming of Exceptional Children was computed to find that Cronbach alpha coefficient was 0.76, and Guttman split-half reliability coefficient was 0.73. Attitudes towards mainstreaming measured by the full scale exist as a continuum from low scores meaning negative attitudes to high scores meaning positive attitudes.

Individual differences were measured by different standardized methods.

Temperament was measured by Questionnaire of Temperament (Strelau, 1983) measuring: strength of excitation, strength of inhibition, and mobility of behaviour.

Loneliness was measured by UCLA Loneliness Scale developed by Russel, Peplau and Ferguson (1978). The UCLA Scale (University of California and Los Angeles) measures the extent to which a person is currently lonely in light of present interpersonal experiences. The scale has 20 statements with four possible answers: often (4 points), sometimes, seldom, and never (1 point). The scale measures three aspects of the feelings of loneliness: a) lack of intimate relations with others (Lon 1), b) tendency to break off relations with others (Lon 2), and c) feeling of lack of belonging to a group and lack of affiliation (Lon 3). The reliability of the original version of the scale was 0.96 measured by Cronbach alpha (Russel, Peplau and Ferguson, 1978).

Burnout Syndrome was measured by the Maslach Burnout Inventory (1986), measuring three symptoms (emotional exhaustion, depersonalization of other people in professional contacts, and the lack of personal accomplishment).

Self-esteem was measured by Self-esteem Scale (Battle, 1981), extracting self-esteem related to various fields of personal functioning. Self-esteem refers to the perception by the individual of his/her own worth. Self-esteem was measured by Battle inventory form for adults which contains 40 items, which can be answered by yes or no. This form is divided into four subtests. The measured components of self-esteem are general, social, and personal. General self-esteem (16 items) is an aspect of self-esteem that refers to one's overall perception of one's worth. Social self-esteem (8 items) is an aspect of self-esteem that refers to one's perception of the quality of one's relationships with peers. Personal self-esteem (8 items) is this aspect of self-esteem that refers to one's most intimate perception of self-worth. The inventory has also a lie scale (8 items) that shows defensiveness. The reliability of AD Form of self-esteem Inventory is high, alpha Cronbach measuring internal consistency revealed 0.85. Test-retest reliability was 0.81 (Battle, 1990).

Internal vs. external locus of control was measured by Locus of Control Measure (Rotter, 1966). Rotter's construct of internal-external locus of control of

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reinforcement showed explicitly that this type of behaviour always occurs in some social context. Internal-External Control Scale (Rotter, 1966) contains 29 pairs of sentences regarding the control in different situations. A subject has to choose one sentence in each pair which he/she considers to be more probable. High result on the scale is related to an external locus of control, low - internal. Reliability coefficient was satisfactory. Half-reliability coefficient was 0.65 and 0.79 (Rotter, 1966).

Neuroticism and extraversion were measured by Minnesota Personality Inventory by Eysenck MPI Inventory (Eysenck, Eysenck, 1975).

Results

One-way analysis of variance (ANOVA) was computed to determine the existence of subgroup differences. On the basis of one-way analysis of variance some differences between the subgroups tested were found in their attitudes towards mainstreaming. The data were examined in regard to teacher-related characteristics: type of school, gender, years of teaching experience. Table 8 presents the summary statistics.

Table 8. Significant differences between subgroups tested

Variables	Positive effect		Negative effect		Full scale	
	F	p	F	p	F	p
Education	7.02	0.001	5.11	0.01	4.06	0.01
Profession	1.05	0.35	4.25	0.01	0.16	0.85
Type of school	6.26	0.01	7.29	0.001	11.84	0.0001
Period of work experiences	0.85	0.43	6.60	0.002	3.98	0.02
Gender	−3.95	0.001	−0.50	0.62	−3.06	0.002

The results show that attitudes towards mainstreaming are related to the educational and individual variables mentioned above. The main cause of sub-group differences in attitudes towards exceptional children mainstreaming was the type of school a teacher worked in.

The results show that there are no differences between teachers, managers and members of the medical staff in a general attitude towards mainstreaming and perception of its positive effects and advantages. However, teachers perceive negative effects and disadvantages of school integration significantly better than people of other professions. Still some differences between teachers working in differents type of schools and control subgroups of medical staff and managers were found. *Post hoc* LSD statistical procedures show that teachers working in secondary schools were less positive in their attitudes towards mainstreaming than all other subgroups. The most positive effects of mainstreaming were perceived by primary school teachers in comparison to secondary school teachers and

managers. The most negative effects were expected by secondary school teachers in comparison to other teachers and managers, who perceived the least negative effects of all the groups tested.

Teachers of secondary schools who had neither contact with exceptional children nor training in special education expressed less positive attitudes towards mainstreaming and were more afraid of negative effects for teachers and both exceptional and regular pupils. Closer and extended contacts with exceptional children gives the opportunity to get acquainted with their lives, their specific needs, consequently facilitating the development of positive emotions towards them. It can also reduce anxiety, which may appear in contacts with these people.

There were no differences in perception of positive effects of mainstreaming between employees differing in the duration of work experience (less than 10 years, 10 to 20 years, more than 20 years). But *post hoc* LSD statistical procedures showed that teachers working at school for 10 to 20 years manifested less positive attitudes than other teachers and they also expected more negative effects of mainstreaming for teachers as well as pupils.

There was no difference between males and females in the perception of the negative effects of integration. But women perceived more positive effects of mainstreaming than men did.

Because the previous results showed that there were no differences between teachers, managers and members of the medical staff in a general attitude towards mainstreaming, a linear correlation was calculed for the whole group tested. On the basis of Pearson's correlations we have found many interesting correlations between attitudes towards mainstreaming and individual differences (table 9).

Table 9. Pearson correlations between the attitudes towards mainstreaming of exceptional children and individual differences of people tested

Variable	Attitudes Full Scale	Positive effect of mainstreaming	Negative effect of mainstreaming
Neuroticism	−0.06	−0.15	0.07
Extraversion	0.36 *	0.23 *	−0.36 *
Strength of Excitation	0.18 *	0.19 *	0.09
Strength of Inhibition	0.22 *	0.23 *	0.11
Mobility of Behaviour	0.31 *	0.22 *	−0.28 *
Cognitive Empathy	0.25 *	0.31 *	0.07
Social Self-Esteem	0.22 *	0.15	−0.20 *
Lack of Belonging and Affilation	−0.22 *	−0.18 *	0.16
Emotional Exhaustion	−0.24 *	−0.14	0.24 *
Lack of Accomplishment	−0.31 *	−0.23 *	0.26 *

Note:
* $p < 0.05$

The acceptance of the mainstreaming idea was correlated with individual differences in temperament and personality of the people tested. Extraversion and such temperamental traits as excitation, inhibition, mobility of behaviour, cognitive empathy, self-esteem, the feeling of lack of belonging and affiliation and symptoms of burnout syndrome were significant correlates of the attitude towards mainstreaming.

Hierarchical multiple regression analysis with a forward stepwise procedure was used to assess the personality predictors of attitudes towards exceptional children in mainstreaming. The results showed that the attitudes towards mainstreaming of people tested were related to extraversion, strength of inhibition, neuroticism, cognitive empathy, and a lack of intimate relations with others. These variables explained 29% of variance of the attitudes ($F = 7.31$, $df = 8$, $p < 0.001$, Multiple $R = 53.8$). Perception of the positive effects of mainstreaming was related to cognitive empathy, mobility of behaviour and extraversion. These individual traits explained 21% of variance of the positive effects of mainstreaming ($F = 6.55$, $df = 6$, $p < 0.001$, Multiple $R = 46.1$). Extraversion, neuroticism, emotional exhaustion and personal self-esteem were associated with the perception of negative effects of school integration. They explained 34% of variance, ($F = 6.58$, $df = 11$, $p < 0.001$, Multiple $R = 58.1$).

There were found different patterns of correlation between attitudes towards mainstreaming and psychosocial variable in subgroups tested. So hierarchical multiple regression analysis with a forward stepwise procedure was used to assess the predictors of attitudes towards mainstreaming of exceptional children in subgroups tested. These results are presented in figure 5.

Results presented above showed that teachers' perception of positive effects of mainstreaming is related to the type of school teachers work in, low level of neuroticism and reactivity. These variables explained 13% of variance of attitudes ($F = 7.76$, $p < 0.001$, Multiple $R = 0.36$). Perception of negative effects of mainstreaming was related to low level of emotional exhaustion, extraversion, lack of the feeling of breaking off the relationships with other people, type of school the teachers work in, and internal locus of control. These variables explained 24% of variance of negative effects of mainstreaming ($F = 9.5$, $p < 0.001$, Multiple $R = 0.49$).

The best predictors of attitudes towards mainstreaming in managers were: firstly, for seeing possitive effects of mainstreaming – personal accomplishment and cognitive empathy. These variables explained 12% of variance of attitudes ($F = 12.4$, $p < 0.001$, Multiple $R = 0.35$), secondly, for seeing negative effects of mainstreaming – short period of work experience. This aspect of managers' attitudes was explained in 5% of its' variance ($F = 4.7$, $p < 0.05$, Multiple $R = 0.23$).

Figure 5. Predictors of attitudes towards mainstreaming of exceptional children in professional subgroups
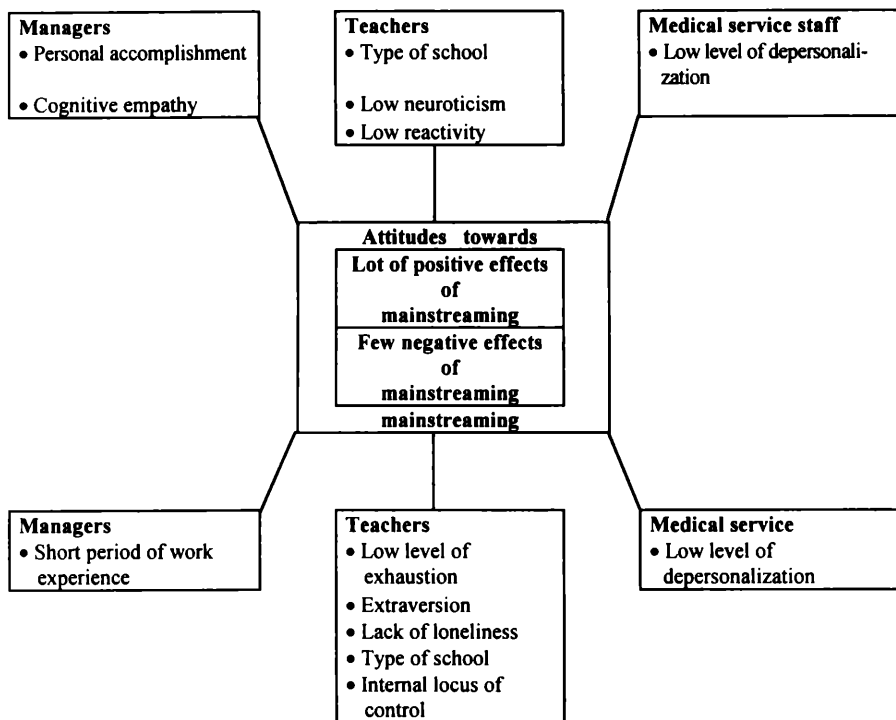
The best predictors of attitudes towards mainstreaming in medical service staff in both aspects of attitudes: seeing positive as well as negative effects of mainstreaming was low level of depersonalization. These variable explained 14% of variance of positive aspects of attitudes ($F = 6.2$, $p < 0.05$, Multiple $R = 0.37$), and 11% of variance of negative aspects of attitudes ($F = 4.8$, $p < 0.05$, Multiple $R = 0.33$).

Polish teachers taken into consideration in this study and two control groups had generally positive attitude, but related to different patterns of independent variables. The percent of variance explained by controled variables was rather small, so the model of independent variables influencing the attitudes towards mainstreaming could be widened by different other variables which were not taken into consideration yet. But it is worth noticing that introvertive, and neurotic people, who feel emotional exhaustion and have a low level of personal self-esteem are more afraid of negative effects connected with teaching exceptional students in regular classes. They have a defensive tendency to keep cool in social interactions, so more frequent contacts with exceptional people make them feel uncomfortable.

The best predictors of positive attitudes towards mainstreaming in teachers are: low neuroticism, low reactivity, low level of emotional exhaustion, and extraversion. These personality dimensions are closely related one to another. Extraversion is positively correlated with low level of reactivity and high level of strength of nervous excitation (Strelau, 1983). It was also found that that extroverts were invulnerable to professional burnout (Łącała, Noworol, 1990). In studies of stress, low extraversion was found as related to using less effective coping strategies (McCrae, Costa, 1986) (i.e. less rational, less positive thinking), so introverts are less able to cope with overstimulation related to inclusive education.

The other important personality traits was internal locus of control. Internal locus of control appeared in positive relation with willingness to be in contact with people who have problems (Kliś, Kossewska, 1996). When the persons feel that they can control their behaviour and environment, they feel themselves more independent of social environment and do not aspire to close personal relations. But when somebody has relatively lower level of internal control they could feel themselves more dependent on social environment, could tend to be in closer relations with people and be more ready to help others. So internal locus of control appeared as a factor of few negative effects of mainstreaming perception in teachers.

Conclusions

The study presented brings some practical implications:

1. Teachers' attitudes towards school integration of exceptional children are influenced by many factors such as temperamental and personality traits as well as type of school, experience, and age.

2. Cognitive empathy is one of the significant predictors of the perception of positive effects of mainstreaming in managers.

3. An education program for teachers in Poland should be based on training of prosocial attitudes and competence. Despite numerous efforts to promote mainstreaming, negative effects of mainstreaming are still perceived by many teachers.

4. More precise selection among the candidates for educational study and a lot of training developing positive self-esteem, as well as empathetic understanding reducing fear and neuroticism will help a teacher to accept exceptional children and the mainstreaming.

VII

Empathy and individual differences
of personality and temperament in teachers

Since empathy is described as a multifacial and multidimensional phenomenon and it seems to play a very important role in a teacher's professional career, in this study we will try to check what the relationship between empathy and other traits of teachers' personality is. This question seems to have some theoretical and practical aspects. When we find the relationship between empathy and other personality traits we will be able to better recognize the psychological and physiological mechanisms underlying the empathy phenomenon. Discovering these personality traits which can possibly influence empathy or which can be influenced by empathy may be helpful in organizing some training of teacher's empathy by developing the personality traits connected with it (Kliś, 1997).

Taking into consideration the possible relations between empathy and other personality and temperamental dimensions, we put forward the following questions:

1. What are the relations between the emotional and cognitive components of empathy and such dimensions of personality as extraversion, neuroticism, locus of control, self-esteem, and such temperamental traits as strength of excitation, strength of inhibition and mobility of behaviour?

2. What are the common, basic mechanisms underlying the emotional and cognitive empathy and selected personality traits?

Subjects

One hundred and thirty teachers aged 22 to 56 years were tested, the average age being 33.2. There were 35 men and 95 women in the group, 44 teachers

worked in special schools for disabled children, 48 teachers taught in regular primary schools, and 38 teachers worked in secondary schools.

Measures

We used the Battle Self-Esteem Scale, Eysenck Personality Inventory, Strelau Questionnaire of Temperament, and Rotter Measure of Locus of Control (see the previous chapter).

Results

The data analysis based on Pearson correlations showed many different relations between cognitive and emotional facets of empathy and dimensions of personality of the teachers tested (table 10).

Table 10. Correlations between empathy and dimensions of personality of teachers tested

Var	COG EMP	EMO EMP	sub 1	sub 2	sub 3	sub 4	sub 5	sub 6	sub 7
NEU	0.13	–0.13	0.06	0.07	–0.02	–0.03	0.04	-0.29*	0.03
EKS	0.23*	0.14	–0.02	–0.12	0.12	0.21	0.01	0.04	0.10
ROT	–0.04	–0.20	–0.02	–0.03	–0.14	–0.02	–0.09	-0.18	–0.32**
GEN	0.05	0.26*	–0.10	0.12	0.15	0.11	0.08	0.23*	0.21
SOC	0.14	0.09	–0.07	–0.05	0.16	–0.01	0.13	0.08	0.16
PER	–0.22*	0.10	–0.29*	0.01	0.01	0.11	–0.03	0.01	0.05
EXC	0.07	0.06	–0.08	0.07	0.30*	–0.08	–0.02	0.13	0.02
INH	0.06	0.05	0.02	0.08	0.03	–0.08	–0.06	0.18	0.02
MOB	0.28*	0.18	0.11	0.20	0.26*	0.09	0.03	0.07	0.01

Note:
* – $p < 0.05$, ** – $p < 0.01$
NEU – neuroticism   COG EMP – cognitive empathy
EKS – extraversion   EMO EMP – emotional empathy
sub 1 to sub 7 – subscales of Emotional Empathy Scale
ROT – locus of control
GEN – general self-esteem   EXC – strength of excitation
SOC – social self-esteem   INH – strength of inhibition
PER – personal self-esteem   MOB – mobility of behaviour

The following findings were significant:

1. Cognitive component of empathy was positively related to extraversion, and mobility of behaviour, but negatively to personal self-esteem.

2. Emotional component of empathy was positively correlated with general self-esteem.

3. Such facet of emotional empathy as susceptibility to emotional contagion (subscale 1) was negatively connected with personal self-esteem.

4. Extreme emotional responsiveness (subscale 3) as a component of emotional empathy was positively correlated with strength of excitation and mobility of behaviour.

5. Sympathetic tendency (subscale 6) was negatively connected with neuroticism but positively with general self-esteem.

6 Willingness to be in contact with other people who have problems (subscale 7) was related to internal locus of control.

As we can see, emotional as well as cognitive components of empathy go into different relations with various personality traits of teachers tested. Apart from looking for some detailed patterns of these dependences at the moment, we can see that there are some relations which seem to be very important for the teachers' professional performance. According to our results, components of empathy are related to such temperamental traits as strength of excitation and mobility of behaviour, in the meaning of Strelau's theory (1983) and also with Eysenck's dimensions of hierarchical personality structure: extraversion and neuroticism (Eysenck, 1970). These dimensions have common arousability components. Arousability is a measure of how much one is affected emotionally by complex, unusual or varied, unexpected events. Empathetic tendency is in part a subcategory of arousability (Mehrabian et al. 1988) and the mechanism underlying the development of these dimensions could be partly common to the physiological mechanism related to the functioning of the nervous system. The level of empathy is related to physiological correlates – heartrate and skin conductance as well as to the facial expression of the emotional reactions of the people observed (Mehrabian, 1977). High-empathy people tended to respond with matching facial expressions more often than low empathy subjects. They were called "expressers" in opposition to "inhibitors". Arousability is the basis of all the differences mentioned above and is also related to stimulus screening – the cognitive counterpart of arousability. Arousable persons (nonscreeners) do not hierarchize stimulus components with respect to their importance and attend more to less relevant components in comparison to unarousable people (screeners). According to Mehrabian (1976, in: Mehrabian et al., 1988) emotional empathy is positively related to arousability but negatively to stimulus screening. This result is similar to the one presented in our study, that strength of excitation correlates with extreme emotional responsiveness.

The fact that cognitive empathy was in positive relation with extraversion seems to be clear. For extraverts who like to be in many personal relationships

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with others, taking another person's role seems to be easy. Extraversion is connected with a high level of sensation-seeking (Eysenck, Zuckermann, 1978), and also with mobility of behaviour and with a low level of neuroticism (Strelau, 1983). For these reasons extraversive people are ready to have many various contacts with other people. At the same time extraverts are able to understand others and they are resistant to emotional contagion.

Cognitive empathy, as well as such an aspect of emotional empathy as extreme emotional responsiveness, were also in positive correlation with such temperamental traits of teachers as mobility of behaviour and strength of the excitation of the nervous system. As the behaviour of the people with a high level of mobility is more fluent and more flexible in comparison with the people who have a low level of mobility, we suggest that a higher level of mobility of behaviour can facilitate the development and functioning of cognitive empathy and extreme emotional responsiveness, which plays a crucial role in teacher's professional performance.

As far as the relation between excitation of the nervous system and extreme emotional responsiveness as a component of emotional empathy is concerned, it seems that these two personal traits underlie the same, common mechanism of arousability. So, it seems clear that the higher the level of excitation of the nervous system is, the higher is also the level of extreme emotional responsiveness, which can be important for a teacher in some professional circumstances.

Our findings show that the decrease of sympathetic tendency follows a higher level of neuroticism. Self-concentration and the feelings of fear and insecurity make sympathy for others impossible because neurotic people want to avoid emotional risk connected with social interactions.

The level of self-esteem is also related to empathy. General self-esteem involves emotional sensitivity and sympathetic tendency towards other people, but high level of personal self-esteem is followed by the decrease of cognitive empathy and emotional contagion. People with a low level of personal self-esteem look for an identity group so they are willing to understand others and share their emotions. Emotional empathy has also appeared to be in positive relation to general self-esteem of teachers. This fact could be helpful in teachers' professional performance in a similar way as the proper, adequate personal accomplishment level of teachers. General self-esteem level involves a factor of emotional sensitivity to other people, so a high level of personal self-esteem is followed by the increase of emotional empathy and sympathetic tendency level. What seems interesting in our results is that both aspects of empathy (emotional and cognitive) were in negative correlation with personal self-esteem of teachers. We do not have any simple explanation of this fact. Maybe an excessively high level of personal self-esteem

is similar to some egocentric or narcissistic feelings, which distract empathy feelings. But this explanation should be tested in some further study.

As far as the correlation between internal locus of control and willingness to be in contact with others is concerned, it seems possible that people with internal locus of control could be sensitive to emotional contagion and in this way they are sometimes ready to be with others. But, on the other hand, locus of control, as well as self-esteem mechanism, are developed in social functioning. So the common mechanism forming the base for the development of these personal dimensions and empathy could be social in character and could be based on mechanism of social learning and imitation (Miller, Dollard, 1941; Rotter, 1966; Bandura, 1977). Internal locus of control appeared in positive relation to willingness to be in contact with people who have problems. This result is similar to those of Phares (1976). When people feel that they can control their behaviour and environment, they themselves feel more independent of social environment and are ready to help others because helping others makes the helper himself feel strong and competent. When a person feels that he can control the environment and his own behaviour he is more ready to help other people, because he can find many different solutions to their problems. But when somebody has a relatively lower level of internal control and is more dependent on social environment, he/she can be less willing to come into close relations with people and is less ready to help others, because he/she himself/herself needs help in many real-life situations and requires some external control of his activity.

Such dimensions of personality as self-esteem and locus of control are developed through functioning in a society so the common mechanism underlying the development of these dimensions and empathy can have a social character and can be based on the mechanism of social learning and imitation (Miller, Dollard, 1941; Rotter, 1966; Bandura, 1977).

Conclusions

The study presented led us to the following conclusions:

1. Emotional and cognitive components of empathy are related to such dimensions of personality as extraversion, neuroticism, locus of control, self-esteem, and such temperamental traits as strength of excitatation and mobility of behaviour.

2. The mechanisms underlying the development of empathetic components and dimensions of personality can be both physiological and social in character.

VIII

The value of empathy in accomplishment of teachers profession and burnout prevention

The idea of burnout has been discussed in the relevant literature since the early 1970s. The idea has been developed by different authors in a different way. Maslach (1979, 1981, 1993) for example, pointed out that burnout was not simply an idiosyncratic response to stress but it was a syndrome with some identifiable regularities. She defined burnout as a syndrome of emotional exhaustion, depersonalisation of people in professional relationships, and reduced personal accomplishment that can occur among individuals who do "people work" of some kind, (Maslach and Jackson, 1986). Maslach prepared also the first questionnaire for the self-assessment of burnout (Maslach and Jackson, 1981a, 1981b). The currently used Maslach Burnout Inventory (MBI) (Maslach and Jackson, 1986) is a measuring tool assessing the three components of the burnout syndrome: Emotional Exhaustion (EE), Depersonalization (DP), and reduced Personal Accomplishment (PA). There are 22 items which constitute three subscales of the Inventory.

Freudenberger (1974) described burnout as an extreme state of exhaustion caused by excessive demands on one's energy and resources. Khan (1978) defines burnout as "a syndrome of inappropriate attitudes towards clients and self, often associated with uncomfortable physical and emotional symptoms".

It is a well known fact that because of lack of preparation for coping with the unique emotional stresses caused by their work and the circumstances, many teachers are unable to maintain the caring attitude and the commitment that they initally brought to the job and thus the process of "burnout" begins. Burnout causes their loss of concern for the people they are working with. In addition to

physical exhaustion (sometime illness), burnout is characterized by emotional exhaustion in which the professional has no longer any positive feelings, sympathy, or respect for clients or patients. The professional who burns out is unable to deal successfuly with the overwhelming emotional stresses caused by the job, and this failure to cope can be manifested in different ways. Burnout is correlated with various symptoms of personal stress. There are the reasons for which it is very important to investigate the burnout syndrome process and its correlates in teachers because it has the potential to affect negatively the quality of care and teaching the children receive.

Firstly, according to Pines and Maslach (1980) the environment has a predominant role in the development of burnout syndrome. Later, the personality was identified as an important factor (Buss, Plomin, 1984; McCrae, Costa, 1986). Recent work on burnout, however, indicated that both the individual characteristics and environment, play important, contributing roles in burnout process (Schaufeli, Maslach, Marek, 1993). Our work continues to examine the role of both internal and external correlates of the burnout syndrome.

The main assumption of our study was that the symptoms of burnout may be related to different personality variables (biologically or socially determined), which are at different levels of personality organization, as well as to some environmental factors.

The burnout syndrome is a multidimensional concept, so each of its symptoms (depersonalization, exhaustion, and lack of personal accomplishment) may be related to different levels of personality organization. In particular, we assumed that depersonalization of other people and lack of personal accomplishment are related to higher levels of personality organization. Yet, emotional exhaustion may be more related to local stress and behavioural coping, and it is dependent on the features of the nervous processes such as, for example, strength of excitation. We tried to find out which personality dimensions are related to different symptoms of burnout.

Searching for some personality correlates of burnout it seems interesting to learn whether empathy could mediate between the three facets of burnout and some personality traits which have been hypothesised on account of theoretical reasons, that they might be related to the burnout syndrome in teachers.

In contemporary psychology empathy is seen as a multifaceted, multidimensional phenomenon which can influence people's attitudes and behaviour. Some authors stress that empathy is associated with a wide variety of altruistic behaviours, (Hoffman, 1981; Williams, 1989), promotes co-operative and pro-social attitudes, and plays a role in bonding and in transmitting socially relevant information (Bonino, 1993). In such a context the question arises whether empathy may play a preventing role against development of the burnout syndromes.

The other question was whether such environmental factors as type of school and period of teachers' employment might also be related to burnout symptoms in teachers.

The second aim of our study was to detect the burnout levels of Polish sample of teachers of primary and secondary schools, as well as teachers of disabled children, and compare them with similar results obtained by teachers from other countries.

Having in mind the above theoretical consideration and empirical data we can asked the following questions:

1. What are the relations between components of burnout and such dimensions of personality as extraversion, neuroticism, locus of control, self-esteem, empathy, feeling of loneliness and such temperamental traits as strength of excitation, strength of inhibition, and mobility of behaviour?

2. Can empathy play a preventing role in the development of burnout syndrome in teachers?

3. What are the differences in the level of burnout between Polish teachers working in different types of schools ?

4. What are the differences in the level of burnout between teachers working in different types of schools in Polish and other countries ?

Subjects

A group of teachers (N = 195) aged 21 to 55 years were tested, the average age being 33.2 years. There were 55 men and 140 women in the group. 70 teachers worked in primary special schools for disabled children, 56 teachers taught in primary regular schools, and 69 teachers worked in secondary schools.

Measures

In the study we used: the Maslach Burnout Inventory (1986), which can measure three facets of the burnout syndrome (i.e. emotional exhaustion, depersonalization of other people, and lack of personal accomplishment). We also used: the Mehrabian's & Epstein's Emotional Empathy Scale and the Węgliński Questionnaire of Empathetic Understanding of Other People, the Battle Self--Esteem Scale, Form AD of 40 items (1981), the Eysenck & Eysenck (1975) Personality Invento-ry MPI, the Strelau Questionnaire of Temperament (Strelau, 1983), the UCLA Loneliness Scale with 20 statements by Russell, Peplau, Ferguson (1978) in which three subscales are extracted: lack of intimate relations with others (Lon 1), tendency to break off relations with others (Lon 2), and feeling of lack of belonging to a group and lack of affiliation (Lon 3), the Rotter Measure of Locus of Control (Rotter, 1966) – see previous chapter.

Results

In the first step of our analysis we detected the level of burnout in three subgroups of teachers who differ in work experience, and we compared it with the results obtained from other countries.

One-way analysis of variance and tests for homogeneity of variances were conducted to find differences in the level of burnout between subgroups of Polish teachers working in different types of schools. Comparing the three burnout facets in the subgroups tested, we can see that only the symptom of depersonalization of other people was on significantly lower level in teachers of special schools than in secondary school teachers ($F = 6.208$, $df = 2$, $p = 0.003$), whereas the two other facets of burnout (i.e. emotional exhaustion and lack of personal accomplishment) were on similar levels in three subgroups of teachers tested.

Comparing the mean scores of our sample with a Greek study (Kantas, Vassilaki, 1995), we found that Polish secondary and primary school teachers had significantly higher mean scores in the depersonalization scale than Greek teachers working in similar schools ($t = 2.78$, $p < 0.01$; $t = 2.1$, $p < 0.05$). Polish secondary school teachers had also significantly lower level of personal accomplishment than Greek teachers ($t = 10.4$, $p < 0.001$) (see table 11).

Table 11. The mean and standard deviations of the three facets of the burnout syndrome in different groups of Greek, Polish and Chinese teachers

Country	Type of school	Facets of burnout syndrome					
		exhaustion		accomplishment		depersonalization	
		mean	sd	mean	sd	mean	sd
Greek	primary school	18.3	9.9	39.8	6.1	3.4	3.7
	secondary school	20.5	9.9	37.1	8.7	4.9	4.6
Polish	special school	17.6	8.1	31.3	9.8	5.8	3.3
	primary school	19.4	7.5	31.4	7.2	7.2	3.2
	secondary school	20.9	10.9	27.8	10.3	8.3	5.6
Chinese	secondary school	21.9	9.8	24.7	7.5	6.7	4.7

Polish secondary school teachers were rather similar to Chinese secondary school teachers from Hong Kong in the level of the three facets of the burnout syndrome (Chan, Hui, 1995).

Comparing the levels of the three burnout components in subgroups of teachers working in three different types of schools we can see that only such a facet of the burnout syndrome as depersonalization of other people was on significantly lower level in special school teachers than in secondary school teachers. This result may be explained by the fact that teachers who work with exceptional children usually choose their profession in a more responsible way

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than other teachers do. In order to be successful in their professional performance, teachers of disabled children should be in helpful relations with pupils, sharing their emotions and point of view. Their respectable relation with pupils seems to help them avoid depersonalization feelings.

With reference to the level of self-reported burnout of Polish and Greek teachers our results showed that such a symptom of burnout as emotional exhaustion was on a similar level in teachers of both nations, whereas the lack of personal accomplishment and depersonalization of other people were on a higher level in the Polish sample. This fact seems to be caused by the relatively more difficult circumstances in which teachers in Poland practice their profession in comparison to the Greek teachers. Polish teachers work with very large classes, they get relatively low salaries and most of them have to work overtime.

Secondly, the relationships between the three burnout facets and individual differences in the group of teachers were tested.

In order to obtain some relation between the three burnout symptoms and some personality dimensions in the group of teachers tested, Person's correlation was calculated. As a result of this analysis the following significant correlations were found (see table 12).

The most relationships appeared between *the lack of personal accompli-shment* and some individual traits. There also were some negative correlations between *the emotional exhaustion* and:
- extraversion ($r = -0.42$, $p < 0.05$),
- social aspect of self-esteem ($r = -0.33$, $p < 0.05$),
- strength of excitation of nervous system ($r = -0.24$, $p < 0.05$),
- mobility of behaviour ($r = -0.23$, $p < 0.05$),
- and such aspect of empathy as willingness to be in contact with others who have problems (subscale 7) ($r = -0.28$, $p < 0.05$).

Some positive correlations were found between *the emotional exhaustion* and two facets of the feeling of the loneliness, i.e.:
- tendency to break off relationships with others (Lon 2) ($r = 0.23$, $p < 0.05$),
- feeling of lack of belonging to a group and lack of affiliation (Lon 3) ($r = 0.40$, $p < 0.05$).

The large number of significant correlations was revealed between *the lack of personal accomplishment* and individual traits of teachers tested. The following positive correlations were found:
- external locus of control ($r = 0.24$, $p < 0.05$),
- lack of intimate relations with others (Lon 1) ($r = 0.32$, $p < 0.05$),
- tendency to break off relations with others (Lon 2) ($r = 0.54$, $p < 0.05$),
- feeling of lack of belonging to a group and lack of affiliation (Lon 3) ($r = 0.50$, $p < 0.05$).

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Table 12. Pearson's correlation between the burnout syndrome and personality dimensions in teachers tested

Personality variables of teachers tested	Facets of the burnout syndrome		
	emotional exhaustion	lack of personal accomplishment	depersonali-zation
age of teachers tested	0.08	0.08	−0.12
neuroticism	0.19	0.13	0.06
extraversion	**−0.42***	**−0.45***	−0.18
external locus of control	0.09	**0.24***	0.20
general self-esteem	−0.02	−0.17	0.07
social self-esteem	**−0.33***	**−0.23***	−0.15
personal self-esteem	−0.04	−0.01	0.03
excitation of nervous system	**−0.24***	**−0.31***	0.10
inhibition of nervous system	−0.09	−0.18	−0.09
mobility of behaviour	**−0.23***	−0.20	0.19
lon 1 – lack of intimate relations with others	0.13	**0.32***	0.03
lon 2 – tendency to break off relations with others	**0.23***	**0.54***	**0.31***
lon 3 – feeling of lack of belonging to a group and lack of affiliation	**0.40***	**0.50***	**0.38***
cognitive empathy	−0.18	**−0.38***	−0.17
emotional empathy	−0.17	**−0.27***	−0.03
sub 1– susceptibility to emotional contagion	−0.08	−0.10	**−0.23***
sub 2 – appreciation of the feelings of unfamiliar and distant people	0.05	0.10	**0.24***
sub 3 – extreme emotional responsiveness	−0.11	−0.12	−0.00
sub 4 – tendency to be moved by the positive emotional experience of others	0.04	−0.18	0.06
sub 5 – tendency to be moved by the negative emotional experience of others	−0.22	−0.18	−0.11
sub 6 – sympathetic tendency	−0.01	−0.00	−0.03
sub 7 – willingness to be in contact with other people who have problems	**−0.28***	**−0.52***	−0.10

Note:

* p < 0.05

Some negative relations were also found between *the lack of personal accomplishment* and:

- extraversion (r = −0.45, p < 0.05),
- social aspect of self-esteem (r = −0.23, p < 0.05),
- strength of excitation of nervous system (r = −0.31, p < 0.05),

- cognitive empathy ($r = -0.38$, $p < 0.05$),
- global result of emotional empathy ($r = -0.27$, $p < 0.05$),
- and such aspect of emotional empathy as willingness to be in contact with other people who have problems (subscale 7) ($r = -0.52$, $p < 0.05$).

Sympton of *depersonalization of other people* was in negative relation with:

- such a component of emotional empathy as susceptibility to emotional contagion (sub 1) ($r = -0.23$, $p < 0.05$).

Depersonalization of other people was also in positive relation to two facets of the feelings of loneliness as well as to the emotional component of empathy, i.e.:

- tendency to break off relations with others (Lon 2) ($r = 0.38$, $p < 0.05$),
- feeling of lack of belonging to a group and lack of affiliation (Lon 3) ($r = 0.38$, $p < 0.05$),
- appreciation of the feelings of unfamiliar and distant people (sub 2) ($r = 0.24$, $p < 0.05$).

Multiple regression analysis showed a negative relation (independent of other personal variables) between the extraversion and *the emotional exhaustion*: (r-partial $= -0.48$, $p = 0.01$). Such component of empathy as willingness to be in contact with people who have problems (sub 7) was negatively associated with the *lack of personal accomplishment*: (r-partial $= -0.61$, $p = 0.00$). Willingness to be in contact with people who have problems was negatively correlated with the *emotional exhaustion* in teachers: (r-partial $= -0.32$, $p = 0.05$). Emotional and cognitive empathy was related to high *personal accomplishment,* r-partial $= 0.37$, $p = 0.05$, and r-partial $= 0.31$, $p = 0.05$, respectively. That suggests that the teachers who find more satisfaction in their work are more empathetic, maybe owing to the fact that they choose their profession in a more determined and conscious way.

The lack of personal accomplishment was also negatively related to emotional empathy: (r-partial $= -0.43$, $p = 0.01$), and positively to the tendency to break off relationship with others (Lon 2) (r-partial $= 0.31$, $p = 0.02$). *Depersonalization of other people*, as one aspect of burnout, was negatively related to extraversion: (r-partial $= -0.42$, $p = 0.02$) and to empathy feeling such as susceptibility to emotional contagion (sub 1): (r-partial $= -0.32$, $p = 0.02$).

Comparing the result of multiple regression with the result of Pearson correlation (i.e. lack of linear negative significant correlation between extraversion and *depersonalization*), we can see that this relation was masked by loneliness, as well as empathetic susceptibility to emotional contagion and appreciation of the feelings of unfamiliar and distant people.

As a result of our analysis we can see that contrary to the most studies which showed the impact of particular environmental variables on the burnout syndrome

(Pines, Maslach, 1980) our study revealed some relationships between the three dimensions of burnout and some individual traits of teachers tested. Most of the observed relationships were between individual variables of teachers tested and such burnout symptom as *lack of personal accomplishment.* This means that *the lack of personal accomplishment* is mainly determined by individual traits of teachers tested. Multiple regression analysis showed a positive association between both emotional empathy and the lack of tendency to break off relations with others (as main predictors) and *teachers' accomplishment level.* This relation may be explained by the fact that, as teachers must go into many personal interactions during their professional life, a sufficiently high level of their empathetic tendency may be propitious for their proper accomplishment level.

The symptom of *emotional exhaustion* was also related to many different individual traits of teachers tested, whereas multiple regression analysis showed extraversion as the main predictor of this symptom. Extraversion is positively correlated with a low level of reactivity and a high level of strength of nervous excitation (Strelau, 1983). Our conclusion concerning the relation between *emotional exhaustion* and characteristics of the nervous processes (strength of nervous excitation) was similar to the findings of Łącała and Noworol (1990), who found that extraverts were invulnerable to professional burnout.

The symptom of *depersonalization* of other people in professional relationships was mainly positively related to feelings of loneliness and ambivalently to empathy feelings. That means that people who feel lonely keep distance when performing their professional duties. This is a kind of their defensive mechanisms. For the same reasons people who are characterized by low susceptibility to emotional contagion, and at the same time they declare appreciation of the feelings of unfamiliar and distant people, they experience a strong feeling of depersonalization of people being in professional relationships with them (e.i. pupils, colleagues). However, multiple regression analysis showed that these variables masked the influence of extraversion which, in fact, is associated with the depersonalization symptom.

The study presented showed the importance of the extraversion dimension in the burnout syndrome in teachers tested. Low extraversion was related to symptoms of burnout, because introvertive people tend to be unsociable and shy (Buss, Plomin, 1984), so they are less resistant to burnout syndrome in the aspect of depersonalization feelings related to their professional relationships (with pupils, parents, colleagues). Constant contact and interaction with others constitute an integral part of child teaching, so introvertive teachers are more likely to use depersonalization as a defensive mechanism. In some studies of stress, low extraversion was found as related to using less effective coping strategies (McCrae, Costa, 1986) (i.e. less rational, less positive thinking), so introverts are less able to cope with the burnout process. In such a situation depersonalization of

other people, especially children in teaching situations might have been one of the strategies which introverts used to cope with stress related to their work.

With the inspiration from the burnout syndrome idea (Maslach and Jackson, 1986) and some concerning its individual correlates (Schaufeli, Maslach, Marek, 1993), in the third step of our analysis we asked about the cause – and – effect relations between the components of burnout and certain personality dimensions, and also whether empathy could play a preventive role in the development ot the burnout syndrome in teachers. To answer the question we applied a method of path analysis using LISREL 7 software (Joreskog, Sorbom, 1989). LISREL is a statistical technique for analyzing linear structural relationships among quantita-tive variables. The method estimates unknown coefficients in a set of linear structural equations. It assumes that a causal structure exists in a set of latent constructs, and that the observed variables are symptoms or indicators of these constructs (Joreskog, Sorbom, 1988). With this method we were able to develop an empirical model of direct and indirect relation-ships between personality traits, empathy components (cognitive and emotional), and symptoms of a professional burnout syndrome in the teachers tested (see: figure 6).

As we can see in figure 6, the symptom of *emotional exhaustion* in the entire group of teachers tested was directly effected by the feelings of loneliness resulting from the absence of close relations to other persons (Lon 1), as well as by the lack of the feelings of affiliation to a reference group (Lon 3) and by the biologically predetermined trait of introvertion. The trait of introvertion cannot be significantly modified during an individual's life, but the feelings of loneliness can be reduced during one's life in many different ways, for example, through social support or through interpersonal training sessions during which, among other things, an ability to cope with stress can be developed (Krawulska-Ptaszyńska, 1992). Taking into account the direct impact of *emotional exhaustion* on the two remaining symptoms of professional burnout (i.e. *the lack of professional accomplishment* and *the tendency to depersonalize other people)*, counteracting the symptom of *emotional exhaustion* can play a significant role in protecting teachers against the generalized syndrome of professional burnout regardless of the fact that the particular symptoms of professional burnout can also develop independently of one another (Noworol, Marek, 1993).

As regards *the lack of personal accomplishment* in the teachers tested, it is affected directly by biologically predetermined personality traits such as introversion and strength of inhibition of nervous processes as well as socially predetermined tendency to break off relations with others (Lon 2). Two previous traits are modified to during an individual's life span a very small degree, if at all; thus those individual traits must be taken into account whilst arranging the teachers work place; this is more important that the teacher's sense of accomp-lishment plays an important part in his/her performance, particulary when the profession is poorly rewarded in financial terms.

Figure 6. Direct effect of personality traits. Empathy as mediator between burnout syndrome and personality traits of teachers tested. Path analysis
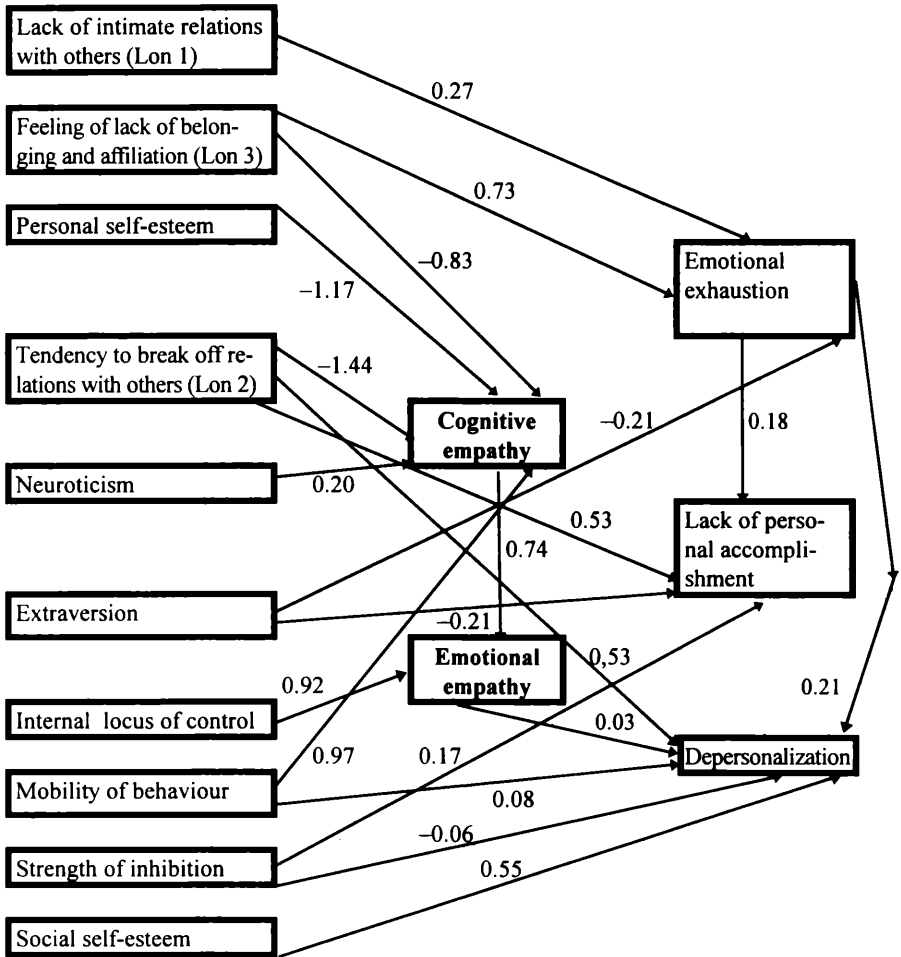
As for *the symptom of depersonalization of others* (appearing when teachers professionaly contact other people), it was directly affected by the following individual traits: biologically predetermined temperamental variables (strength of inhibition of nervous processes and mobility of behaviour), and socially conditioned variables such as social self-esteem, a tendency to break off relations with others (Lon 2), and it was also affected by emotional empathy and *emotional exhaustion.*

Indirect dependence exists between the *symptom of depersonalization* (develope owing to the *symptom of emotional exhaustion),* the feelings of loneliness resulting from the absence of close relationships with other people (Lon 1), and the feeling of lack belonging to a group and lack of affiliation (Lon 3). This indicates that developing social skills to protect teachers against the feeling of loneliness should also be considered as a method to counteract the development of the burnout syndrome.

In our study the cognitive as well as emotional empathy are a go-between medium in the cause – and – effect relationships between the symptom of people's depersonalization and such traits as: feeling of loneliness consisting of two components: lack of affiliation to a group (Lon 3) and a tendency to break relationships with other people (Lon 2); personal self-esteem; neurocisism; internal locus of control; and mobility of behaviour. The investigation results evidenced that the variable of empathy, the subject of our particular interest, is an intermediating link in the cause – and – effect relationships existing between personality traits and professional burnout syndrome of teachers tested. The cognitive component of empathy influences, through emotional aspects of empathy, the symptom of depersonalization of other persons. This means that the role played by empathy – this is decreasing symptom of the depersonalization of other people – can be masked by the influence of personality traits related to the emotional as well as cognitive factors of empathy. This fact suggests that there is a need to train the ability to control and adjust the intensity of the teachers' empathic sensitivity, and such training should be accomplished so that the intensity level of this particular trait favours the performance of professional activities and reduces, at the same time, the growth in the intensity of the burnout symptoms.

Our research was focused on the subjective correlates of the syndrome of teachers' professional burnout. The investigation results proved that the personality traits, both the biologically predetermined, (such as: extraversion, neuroticism, and temperamental traits) and those developed during the process of social inter-influencing and social learning, influence on three symptoms of teachers' professional burnout as indicated by Maslach and Jackson (1986). This information is very important for both the representatives of this profession and all other organisers of school education. This information shows that there is

a need to undertake prophylactic actions to protect teachers against the symptoms of professional burnout, and such actions should be adjusted to the individual traits of a teacher's personality. Our investigations also showed that separate symptoms of the teachers' professional burnout are interrelated with various individual traits of persons tested. This means that the syndrome of professional burnout is more heterogenic than homogenic, and this fact has been already emphasized by such authors as Łącała and Noworol (in printing), and by Krawulska-Ptaszyńska (1992).

Our findings showed that both aspects of empathy (emotional as well as cognitive), are factors that may play a preventive role against the development of burnout symptoms development. As for the cognitive component of empathy it also comes into negative relations with two kinds of feelings of loneliness, but the emotional one has an indirect effect as well. It means that empathy really seems to protect teachers against the feelings of loneliness, which could disturb their professional work.

As was mentioned earlier, Morgan (1979, 1984) showed that empathy plays a very important role in teachers-learner relations especially in the case of exceptional children. Staying in helpful relations with pupils, showing sensitivity to their problems, sharing their emotions and their points of view, seem to help teachers to avoid emotional exhaustion and depersonalization of other people, which are often experienced by teachers.

Both aspects of empathy effect the depersonalization aspect of burnout. The emotional empathy has an direct effect whereas the cognitive one – an indirect effect through the emotional one. We claim that teachers with a higher level of empathy may be more friendly and they very seldom used to depersonalize other persons as a coping with stress strategy. They also find more satisfaction in their professional work in comparison with their colleagues having a low empathy level. (To be sure, this path was not found in our empirical model, but it might be possible as well). It is also possible that more empathetic teachers choose their profession in a more responsible and more determined way and for this reason they do not use depersonalization as a coping with stress strategy.

The relations revealed between empathy and temperamental, as well as personality variables suggest that empathy could be interpreted as one of the primary dimensions related to the functioning of the nervous system. Certain relations between empathy and feelings of loneliness and burnout might suggest that empathy, as related to the content aspect of human behaviour, may be used to predict teachers' good relationships with other people and also to protect them against the burnout syndrome.

In the presented study simple, one-way relations between the variables tested have been analysed. In a further study it is important to look for more complicated

mutual interactions between empathy and temperamental, as well as personality dimensions in teachers.

Conclusions

1. Comparing the professional burnout syndrome of Polish, Greek and Chinese teachers we can see that Polish, in comparison to Greek teachers, present a lower level of personal accomplishment and a higher level of depersonalization of other people in professional relationships which could be caused by relatively more difficult circumstances of their professional work, but the level of burnout syndrome of Polish secondary school teachers is similar to Chinese secondary school teachers in Hong Kong. The interpretation of this fact may be carried out in a further study.

2. The results of our study indicate that the three symptoms of burnout syndrome in teachers are related not only to environmental variables (which was indicated in a previous study) but also to certain personality traits of teachers tested.

3. It appeared that the main personal factors related to the burnout syndrome in teachers are introvertion, empathy, self-esteem, self-control and temperamental traits.

4. Cognitive and emotional empathy processes were found to be a mediator between burnout syndrome and other personality traits in teachers tested. This means that empathy is an important factor in burnout preventions in teachers.

5. Extraversion is related to the emotional exhaustion as well as personal accomplishment symptoms of burnout, which suggests, that extraversion could be the main determinant of the burnout syndrome conditioned by features of the nervous system, whereas the depersonalization of other people seems to be related to a low level of empathy and to the feelings of loneliness, which are rather socially conditioned.

6. As the components of empathy may play a mediating role between the burnout symptoms and some of personality traits of teachers, empathy should get special prominence in training teacher coping with stress strategy.

IX

Empathy in relation to individual differences in temperament and personality and its role in manager profession

The political, economic, and social transformation in Poland should be based on well educated and trained human resources, capable of delivering the performance the speedy reform requiring and making the increase in living standards possible. Thinking about future prosperity, and about continuation of the social-economical reform, we need leaders, managers and creative government officials as well as high level executives in business and industry, public domains, education and science.

The success of the reform depends on the knowledge, skills and personal features of many people. One of the most important professions is management because restructuring of the Polish economy needs professional knowledge and people who can properly administer institutions and firms. Managers have to organize and administer the institutions in a new political environment. This specific professional group has many interpersonal contacts and interactions with other people (customers, associates, partners, staff). Thus, a manager (director) should realize the structural tasks of the institution he is administering, and be able to deal with interpersonal or subjective conflicts and problems arising among the staff.

For many years scientists dealing with social psychology and psychology of management and organization have been looking into the main features (attributes) of managers, the ones which determine their efficiency.

The theory of features was one of the first propositions (Pietrasiński, 1962). Many different lists of important personality traits, which determine manager efficiency and success, were found, but sometimes they were reciprocally

efficiency and success, were found, but sometimes they were reciprocally contradictory. According to Stogdill (1974) who analysed many different characteristics of managers the effective manager is a person characterized by above average intelligence, knowledge, responsibility, activity, social and economical status. It is absolutely true that the relation between a manager's personality and his effeciency and success at work is more complicated and includes intermediary influence of organization structure.

The next proposition of psychology was the situation theory of management by Fiedler (1983). This theory analysed a wider list of determinants of a manager's effeciency rather than classical lists of personality attributes. In the situational theory management competence is related to patterns of leadership (democratic vs. autocratic) and the status (group = internal vs. Organization = external) of a manager in the organizational structure. Fiedler's study (Fiedler, 1983) showed that a pattern of leadership (democratic or autocratic) should not be stable but should be dependent on:

• the relations between the manager and members of staff he works with,

• the objective structure of the organization tasks (open or closed problems),

• the knowledge of the manager and his status (internal vs. external) in the organizational structure.

The main conclusion of the study is that successful managment style is dependent on the proper analysis of the tasks and the status of the manager in the organization. Realization of these two levels of analysis is possible owing to some characteristics of personality (Dymkowski, Nosal, Piskorz, 1993). There are three groups of personality determinants:

1. Intellectual competence, conditioning the accurate assessment of the tasks and dimensions of organizational situations. Within this group the function of such variables as knowledge, intellectual level, predominant cognitive style, type of mind, and creative ability is important,

2. Interpersonal competence – the next group of determinants is connected with the development of positive image of oneself, self-esteem and manager's aspiration towards creating favourable psychological climate in the staff, as well as dimensions which shape a personality effective in interpersonal relations,

3. A third group of determinants is related to cognitive and emotional control of behaviour, locus of control and temperamental traits.

The effective manager has to find a compromise between different aspects of management roles (related to organizing, administering and controlling) as well as harmonous relations with subordinates and within the staff. Extraversion is the personality dimension which is the frame of harmonous and nonconflict relations with others. Empathy and interpersonal decentration are very important capacities facilitating the fulfilment of a manager's duties. Empathy is a personal and

professional attribute which has been widely associated with effective interpersonal performance. Empathetic individuals are far better in a variety of interpersonal relations, whether professional, familial, or with friends. Empathy means the experience of understanding and the emotional and intellectual sharing of another person's situation. It is generally accepted that empathy is a holistic internal process.

The elements of self-esteem and self-acceptance are also the regulators of relations with others. Effective management is related to a high level of cognitive and emotional control as well as resistance to stressful situations. Cognitive control refers to locus of control (Rotter, 1966) and concerns reflective vs. impulsive style of control, decision making and problem solving. It also concerns dimensions of stiffness vs. flexibility of changing the fixed programs of control. Locus of control is regarded as a relatively stable propensity of people to view causality for outcomes generally stemming from either themselves or from environmental events such as luck, chance, or others in power (Levenson, 1974; Rotter, 1966). The effective manager has internal locus of control, and he/she generally views oneself as causal agent, independent of the situation. The other aspect of control refers to emotional control of behaviour, which is determined, as stress resistance is, by temperamental traits.

Reactivity is the main dimension of temperament in the regulative theory of Strelau (1983), influencing the energy level of activity and mobility of behaviour, characteristic of the temporal properties of reactions.

As mentioned above, empathy is a very important interpersonal skill for managers. In industrial management, in personnel' management, and customer services the importance of empathy is emphasised. In this decade more attention has been paid to the empathy of managers, their capacity to foresee problems, anticipate trends and have visions of the future. The empathetic manager is flexible and willing to adapt his/her view to the situation. Empathy is one of the dimensions of personality that is important in social interactions to meet another person halfway, and to increase prosociability in human relations. It serves as a foundation for relationships and also provides a basis for coping with stress and resolving conflicts. For this reason, empathy is valued along with reality testing, intelligence, and creativity, for its preventive potential in preserving emotional health.

According to Kalliopuska (1992a), an effective and efficient manager or director should be a friendly person who has time to listen to the others, and who cares for even the most insignificant employees of the company – so using one word – a person who is empathetic. Many studies showed the influence and importance of this capacity for successful management. It is helpful in successful negotiations with clients and staff. The empathetic manager is gradually capable to create an atmosphere where his employees enjoy working. Many studies

showed the meaning of empathy in manager performance. The level of a leader's empathy influences the level of empathy within staff members (Lang and Schulz, 1973, in: Kalliopuska, 1992a). People working under a more empathetic manager were also more empathetic and introspective in interpersonal relations. In the opinion of staff members, managers who had good administrative skills proved to be also the most empathetic ones (Lewis, 1975, in: Kalliopuska, 1992a). Another study showed that success in work co-operation was related to the characteristics of the manager, who expressed empathy and respect for others. The manager was considered by the staff as competent and personally concerned about the staff members, instead of being indifferent and authoritarian (Thiel & Rossman, 1981, in: Kalliopuska, 1992a). Empathy is a characteristic of personality and the way of behaviour, which makes the manager able to create an atmosphere where their staff enjoy working. In an empathetic atmosphere relations between staff members can be discussed and interpersonal problems solved. Positive human relationships at work are the basis for finding creative problem solutions and their optimal application.

Considering the importance of empathy as one of the important personality dimensions in manager performance, the presented study was carried out either to find the differences in the level of empathy between teachers and managers, or to investigate the relations between empathy and other personality dimensions such as extraversion, neuroticism, locus of control, self-esteem and also burnout syndrome and feeling of loneliness as the results of weak resistance to stress situations, the managers could very often face at their work. Nowadays more and more people experience the feeling of loneliness. It is experienced not only when there is lack of human relations but also when these relations are abundant but unsatisfactory. Negatively experienced loneliness may provoke depression, anxiety, neuroticism, and may also induce disturbances of self-esteem.

Burnout is a work-related stress syndrome characterized by depersonalization, emotional exhaustion, and loss of personal accomplishment (Maslach, Jackson, 1986; Maslach, 1993) Burnout is connected with professional and organizational stress. So burnout and empathy are both critically important concepts for any study concerning stressful professions. In contemporary theories empathy is understood as a multidimensional concept (Williams, 1990) or process (Kalliopuska, 1983) involving biopsychosocial components. The genetic roots of empathy lie in an innate biological tendency to react emotionally to other people's emotions and are related to the physiological functioning of the nervous system. So it was assumed that manager's level of empathy is also linkled with such temperamental traits as strength of excitation, strength of inhibition, and mobility of behaviour.

Subjects

A group of managers (N = 100) participated in the study. There were 75 male and 25 female managers at the age of 23 to 50, working in command positions in different sectors of the economy. The control group was composed of teachers (N = 195) aged 21 to 55 years, the average age being 33.2 years. There were 55 men and 140 women in the group. Respondents anonymously filled out the questionnaires.

Measures

Empathy was measured with Scale of Emotional Empathy by Mehrabian & Epstein and Questionnaire of Empathetic Understanding of Other People by Węgliński (see chapter 3).

The following methods were used to measure personality and temperament: the Battle Self-Esteem Scale, Form AD of 40 items (Battle, 1981), Eysenck's Personality Inventory IMP, Strelau's Temperament Inventory (Strelau, 1983). Loneliness was measured by the UCLA 20-items Loneliness Scale by Russell, Peplan, Ferguson (1978). Burnout syndrome was measured by Maslach Burnout Inventory (Maslach, Jackson, 1986). We also used Rotter's Measure of Locus of Control (Rotter, 1966) (see previous chapter).

Results

We found significant differences between teachers and managers in the level of cognitive and emotional empathy (table 14).

Teachers were characterized by a significantly higher level of emotional and cognitive empathy, especially they were more susceptible to emotional contagion, appreciative of the feelings of unfamiliar and distant people, emotionally responsive, sympathetic, and willing to be in contact with other people who have problems. So teachers are able both to understand other people's feelings and their point of view and to feel emotional empathy better than managers do.

There were few significant correlations between empathy and personality dimensions and temperamental traits in managers expressed by Pearson coefficient (table 15).

Table 14. Differences between teachers and managers in cognitive and emotional empathy

Empathy components	teachers		managers		difference	
	$\bar{x}$	sd	mean	sd	t	p
cognitive empathy	69.17	13.08	61.29	8.94	4.99	0.00
emotional empathy	174.95	23.51	167.74	25.17	2.05	0.04
sub 1 – susceptibility to emotional contagion	9.79	3.34	8.49	4.05	5.45	0.02
sub 2 – appreciation of the feelings of unfamiliar and distant people	10.25	3.80	8.65	3.89	2.86	0.00
sub 3 – extreme emotional responsiveness	11.65	3.09	9.90	4.19	3.33	0.00
sub 4 – tendency to be moved by others' positive emotional experience	11.33	4.11	12.20	3.44	–1.58	0.12
sub 5 – tendency to be moved by others' negative emotional experience	13.23	3.23	12.52	3.28	1.49	0.14
sub 6 – sympathetic tendency	5.93	4.03	4.44	3.44	2.71	0.01
sub 7 – willingness to be in contact with others who have problems	11.55	4.37	9.64	3.90	3.15	0.00

The following significant associations (see table 15) were found in managers tested:

• cognitive empathy was related to introversion and low personal self-esteem;

• emotional empathy in the aspect of tendency to be moved by others' negative emotional experience (sub 5) was in negative correlation with mobility of behaviour;

• such component of emotional empathy as sympathetic tendency (sub 6) was in negative correlation with both social and personal self-esteem.

There were no correlations between empathy and neuroticism, general self-esteem, locus of control, strength of excitation, and strength of inhibition.

Personality / Empathy	neuro-ticism	extra-version	self-esteem			temperamental traits			locus of control
			general	social	personal	excitation	inhibition	mobility	
cognitive	0.20	**−0.37***	−0.11	0.12	**−0.37***	−0.15	0.04	0.00	−0.12
emotional	−0.09	−0.25	−0.11	−0.00	−0.19	−0.07	−0.10	−0.20	−0.12
sub 1	0.16	−0.06	−0.26	−0.02	−0.18	−0.26	−0.23	−0.03	0.11
sub 2	0.29	−0.20	−0.17	0.05	−0.22	−0.27	−0.02	−0.06	−0.25
sub 3	−0.06	−0.09	0.02	−0.04	−0.18	−0.06	−0.09	−0.08	−0.02
sub 4	0.03	−0.16	−0.07	0.17	−0.20	0.03	0.09	0.04	0.11
sub 5	−0.17	−0.30	−0.08	−0.07	0.09	−0.04	−0.09	**−0.33***	−0.18
sub 6	0.19	−0.09	−0.30	**−0.37***	**−0.41***	0.00	−0.03	0.00	−0.07
sub 7	−0.03	−0.12	0.23	0.26	0.13	−0.04	0.05	−0.09	0.12

Note:

* $p < 0.05$

subs 1 to 7 are subscales of the Emotional Empathy Scale:

sub 1= Susceptibility to Emotional Contagion;

sub 2 = Appreciation of the Feelings of Unfamiliar and Distant People;

sub 3 = Extreme Emotional Responsiveness;

sub 4 = Tendency to be Moved by the Positive Emotional Experience of Others;

sub 5 = Tendency to be Moved by the Negative Emotional Experience of Others;

sub 6 = Sympathetic Tendency;

sub 7 = Willingness to Be in Contact With Other People Who Have Problems.

In the study presented, empathy in managers was related to such dimensions of personality as extraversion and mobility of behaviour, which are connected with the level of sensation-seeking (Eysenck, Zuckerman, 1978). Many studies have showed that they are also related together (Strelau, 1983). Extravertive people are ready to be in many different relations with other people but these relations are neither very close nor intimate. So their level of empathetic understanding for other people's situations and points of view is lower than in introverts. Introverts are sensitive to other people's problems and more willing to understand their feelings, emotions, and situations. Such result found in the group of managers is similar to the study of Rim (1974).

It was found that a low level of mobility of behaviour was related to the increase of the tendency to be moved by the negative experiences of others. It means that this energetic aspect of temperament and the low level of sensation seeking facilitate the responsiveness to other people's feelings in negative situations. Managers whose behaviour is less flexible and more stable have either

more time to be in personal relations with others, or they are more responsive and thus more likely to be moved by the feelings which these people experience.

The level of self-esteem is related to empathy in managers. A low level of personal self-esteem is followed by an increase in cognitive empathy and a sympathetic tendency. But a low level of self-esteem causes seeking on identity group, so people characterized by a low level of self-esteem are willing to understand others and they feel more sympathy for others.

Such dimensions of personality as self-esteem develop in social interactions functioning, so the common mechanism underlying the development of this dimension and empathy could have social character and could be based on a mechanism of social learning and imitation (Miller, Dollard, 1941; Rotter, 1966; Bandura, 1977). Cooper (1970) suggested a developmental model relating empathy to other affective and cognitive skills which evolve over the course of a life span. In this approach empathy is understood as developing simultaneously to cognition and moral maturity. It suggests that there is a natural potential for empathy which may originate from the environment.

No connection between empathy and strength of excitation (reactivity) has been found though both have an arousability component, and many studies have shown this relation (Mehrabian, O'Reilly, 1980). The lack of such a relation might be specific for managers, but this result should be carefully verified, because a such a relation was present in the group of teachers (see previous chapter).

The findings presented proved no relation between neuroticism and extreme emotional responsiveness, though many studies have showen such a positive relation (Rim, 1974, Mehrabian, O'Reilly, 1980). In managers neuroticism is a disadvantageous feature, so to be effective at their work, they are low neurotic. It might be suggested that the relation between empathy and neuroticism can depend on the level of neuroticism or may be modified by the influence of other variables. That is why we did not obtain any correlation between these dimensions of a manager's personality.

In the study presented, the relation between internal locus of control and empathy was not found though it was mentioned in many studies (Rim, 1974; Phares, 1976). It might have been caused by the fact that managers tend to have internal locus of control, whereas empathy is related to external locus of control.

Managers differ from teachers in personality dimensions. Higher scores in extravertion, general and social self-esteem, excitation of the nervous system, and mobility of behaviour have been found in managers rather than in teachers, but they showed a lower level of the feeling of loneliness than teachers in the aspect of a lack of intimate relations with others (Kliś, Kossewska, 1995).

Comparing the results of teachers and managers we can notice that there are many correlations between empathy and personality, but the pattern is different in both groups (see previous study). The following significant associations were found: cognitive empathy in teachers, was positively related to extraversion, though in managers who had relatively higher level of extraversion, we obtained the opposite relation. In spite of the associations mentioned above, different patterns of correlations for both groups were found. It seems that the main relations of these are: correlation between Extreme Emotional Responsiveness and excitation of the nervous system in teachers and correlation between Extreme Emotional Responsiveness and mobility of behaviour in managers.

Also in teachers cognitive empathy was positively related to mobility of behaviour, but negatively to personal self-esteem; in managers there were no such associations. Emotional empathy in teachers was positively related to general self-esteem (see chapter 4).

The level of self-esteem is related to empathy in both groups, but in a different way. In teachers, but not in managers, the general self-esteem involves emotional sensitivity and sympathetic tendency towards other people. In both groups high level of personal self-esteem is followed by a decrease in cognitive empathy. High level of general self-esteem helps teachers to be in empathetic relations with others, but a low level of personal self-esteem causes seeking an identity group, so teachers characterized by a low level of personal self-esteem are willing to understand others and share their emotions.

There were only few significant correlations between empathy and the feeling of loneliness in managers and teachers. Comparing the patterns of correlations between empathy and loneliness we can see that this pattern depends on professional experiences (table 16).

Empathy and its components were also significantly correlated with the feeling of loneliness in teachers and managers tested. At the same time components of cognitive and emotional empathy were negatively correlated with the feelings of loneliness. Staying in helpful contacts with other people, sensitivity, ability of sharing other people emotions and points of view seems to help to avoid the feeling of loneliness in profesionals tested, but the pattern of relation was different (table 16).

Firstly, we will analize the results of teachers tested:

1. Loneliness in the aspect a of lack of intimate relations with others was negatively correlated with a high level of tendency to be moved by others' positive emotional experiences (sub 4) and willingness to be in contact with others who have problems (sub 7). This aspect of loneliness is also related to introversion and low level of general self-esteem.

Table 16. Correlations between empathy and loneliness in managers and teachers

Personality variable	Loneliness feeling in teachers			Loneliness feeling in managers		
	lack of intimate relations with others	tendency to beak off relationships with others	lack of belonging and affiliation	lack of intimate relation with others	tendency to break off relationships with others	lack of belonging and affiliation
cognitive empathy	–0.07	**–0.51****	**–0.57****	–0.04	–0.14	–0.10
emotional empathy	–0.06	**–0.40****	**–0.33****	–0.19	–0.08	**–0.36***
sub 1	0.04	**–0.25***	–0.09	0.02	0.26	–0.05
sub 2	0.01	–0.01	0.03	–0.14	–0.23	**–0.34***
sub 3	0.12	–0.15	–0.15	0.08	0.00	–0.10
sub 4	**–0.24***	–0.16	–0.11	–0.07	–0.03	–0.15
sub 5	–0.04	**–0.32****	**–0.33****	–0.29	–0.18	**–0.47***
sub 6	–0.15	–0.07	–0.18	0.18	**0.35***	0.30
sub 7	**–0.25***	**–0.36****	**–0.35****	–0.11	–0.25	–0.13

Note:
* $p < 0.05$, ** $p < 0.01$
COG EMP = cognitive empathy;
EMO EMP = emotional empathy;
subs 1 to 7 are subscales of the Emotional Empathy Scale:
sub 1 = Susceptibility to Emotional Contagion;
sub 2 = Appreciation of the Feelings of Unfamiliar and Distant People;
sub 3 = Extreme Emotional Responsiveness;
sub 4 = Tendency to be Moved by the Positive Emotional Experience of the Others;
sub 5 = Tendency to be Moved by the Negative Emotional Experience of the Others;
sub 6 = Sympathetic Tendency;
sub 7 = Willingness to Be in Contact with Other People Who Have Problems.

2. Loneliness in the aspect of a tendency to break off relationships with others was negatively correlated with the cognitive aspect of empathy and such components of emotional empathy as susceptibility to emotional contagion (subscale 1), tendency to be moved by others' negative experience (sub 5) and willingness to be in contact with others who have problems (sub 7). This component of loneliness is also related to a high level of neuroticism and low general self-esteem.

3. Loneliness in the aspect of a lack of belonging and affiliation is related to both components of empathy (cognitive as well as emotional), and especially to such aspects of emotional empathy as the tendency to be moved by others' negative emotional experience (sub 5), and willingness to be in contact with others who have problems (sub 7). The feeling of a lack of belonging and

affiliation is related to high neuroticism, external locus of control and low self-
-esteem (general, social, and personal).

The following relations were found between empathy and loneliness in managers:

• emotional empathy was in a negative correlation with the feeling of loneliness in the aspect of a lack of belonging and affiliation (Lon 3);

• such a component of emotional empathy as appreciation of the feelings of unfamiliar and distant people (sub 2) was negatively correlated with the feelings of loneliness in the aspect of a lack of belonging and affiliation (Lon 3);

• such a component of emotional empathy as the tendency to be moved by negative emotional experience of others (sub 5) was in a negative correlation with the lack of belonging and affiliation (Lon 3);

• such a component of emotional empathy as the sympathetic tendency (sub 6) was positively correlated with the tendency to break off relationships with others (Lon 2).

The lack of loneliness in the aspect of belonging and affiliation was a very important variable in managers. Managers whose needs of belonging and affiliation are provided in intimate interpersonal relationships were more empathetic, were characterized by appreciation of the feelings of unfamiliar and distant people and a tendency to be moved by the negative experiences of others, but the higher level of sympathetic tendency was connected with a tendency to break off relations with others. This result is consistent with Mehrabian conclusions (1976, in: Mehrabian, Young, Sato, 1988) who found that affiliative persons who are warm and fiendly towards others, and are willing to initiate and maintain positive exchanges, are more likely to empathise with other people's emotions no matter, whether the emotions are of positive or negative quality. In the other study (Mehrabian, O'Reilly, 1980, in: Mehrabian, Young, Sato, 1988) it was concluded that more empathetic persons were more affiliative and interpersonally oriented and more dependent on interpersonal relationships.

The next step of our analises was to find relation between empathy and burnout syndrome in managers. There was no significant correlation found between empathy and burnout in managers (table 17).

Comparing the patterns of correlations between empathy, burnout and loneliness in teachers and managers we can see that this pattern depends on professional experiences. In teachers cognitive empathy was positively related to personal accomplishment, and negatively to the lack of belonging and affiliation (see the previous chapter), whereas in managers there were no such associations.

Table 17. Correlation between empathy and burnout in managers

Variables	Burnout Symptoms		
	emotional exhaustion	personal accomplishment	depersonalization
cognitive empathy	–0.14	–0.04	–0.04
emotional empathy	–0.07	–0.06	–0.06
sub 1	–0.18	0.25	–0.28
sub 2	0.10	–0.20	–0.12
sub 3	0.01	–0.21	–0.12
sub 4	0.17	–0.19	0.32
sub 5	–0.06	–0.05	–0.02
sub 6	0.04	–0.04	–0.12
sub 7	0.00	–0.08	0.16

Note:
* $p < 0.05$, ** $p < 0.01$
subs 1 to 7 are subscales of the Emotional Empathy Scale:
sub 1= Susceptibility to Emotional Contagion;
sub 2 = Appreciation of the Feelings of Unfamiliar and Distant People;
sub 3 = Extreme Emotional Responsiveness;
sub 4 = Tendency to be Moved by the Positive Emotional Experience of the Others;
sub 5 = Tendency to be Moved by the Negative Emotional Experience of the Others;
sub 6 = Sympathetic Tendency;
sub 7 = Willingness to Be in Contact with Other People Who Have Problems.

Emotional empathy in teachers was positively related to personal accomplishment, and negatively to the feelings of loneliness (tendency to break off relationships with others, and lack of belonging and affiliation), but in managers emotional empathy was related only to the lack of belonging and affiliation.

The study found no relation between empathy and multidimensional structure of burnout described by Maslach (1993), though it was predicted. Burnout syndrome is influenced by professional stress. It concerns especially the helping professionals (Williams, 1989). We thought that the work of managers was so stressful that they would also experience the symptoms of burnout syndrome. However it was found that the group of managers tested had a very low level of burnout syndrome symptoms in relation to teachers (Kliś, Kossewska, 1995), so we could not find correlations between these symptoms and empathy. Cognitive and emotional components of empathy are related to professional accomplishment in teachers. That suggests that the teachers who feel more satisfaction in their work are more empathetic. It might be true because empathetic teachers choose their profession in a more conscious way. Our findings show that empathy might be an important variable in the burnout syndrome development in teachers. Personal accomplishment in managers is not related to empathy, because their success does not depend on a close relation with the people they work with.

The study presented showed interesting associations between empathy and personality in managers. This pattern may be specific to their profession. A further study should concentrate on finding differences between male and female managers, though finding such differences would be very difficult, because the management is still a male-dominated profession in Poland (and not only in Poland). The further study should answer the question, if the relation between empathy and personality is the result of professional experience or it is specific for people who choose this profession.

Conclusions

The presented study led to the following conclusions:

1. In managers empathy has few simple correlations with dimensions of personality and temperament (such as extraversion, mobility of behaviour, self--esteem) though many studies have underlined the importance of the empathy phenomenon in management of this profession.

2. Belonging and affiliation are the feelings which are strongly related to emotional empathy in managers.

3. Managers differ from teachers in the level of cognitive and emotional empathy.

A future study should be aimed at the following questions:

1. Is the pattern of the empathy-personality relation specific to managers?

2. What are the differences between male and female managers in the empathy-personality relations?

X

Function of empathy and other personality dimensions in depressive disorders of pre-school children

Research onto the nature and causes of children's depressive disorders has increased over the last two decades or so. Contrary to the opinions held twenty years ago that children's depression does not exist, and to some opinions from the sixties, when it was thought that children's depression did exist but in a masked form, on the turn of the seventies and the eighties it became evident, that children's depression does exist and that its symptoms are similar to those found in adults. There was also an agreement that some symptoms of depression typical of the developmental age can also be observed (Cantwell, Carlson, 1983; Rutter, Izaard, Read, 1986). Diagnostic criteria of depression were described in 1987 in Diagnostic and Statistical Manual of Mental Disorders DSM-III-R of the American Psychiatric Association and they are the same for children, adolescents and adults. Since then some interdisciplinary studies connected with children's depression have been conducted in many scientific centres.

In Poland the problem of children's depression is not viewed in a very wide spectrum, in spite of many parents' and teachers' opinions that the rate of depressive disorders among young children has increased during the past few years. Those opinions[*] seems to have been confirmed in some research work. For example, Bomba et al. (1986) in the study of the epidemiology of depression among children and adolescents of an untreated population found depression in

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[*] Data supporting this opinion were collected by the students of the Pedagogical University in Cracow registered in 1994 for the master's degree.

6.66% of children aged 5, whereas Kliś (1996, 1997) in the study of a group of 230 six-year-old preschool children found that 10% to 14% of the tested group was in a depression mood. In such a situation the problem of depressive disorders among young children seems to be very timely and looking for the causes of children's depressive disorders seems to be an important task.

Many scientists who have been researching the pathogenesis of depression point out that environmental and social stressors associated with the origin and the maintaining of depression are connected with the low level of social activities of depressive people. It is thought, for example, that depressive people are socially rejected and isolated because of their lack of social skills. According to Blöschl (1990), depressive dissordes should be seen as the result of socio-environmental interactions and psycho-biological conditions.

As for childrens' depression, in psycho-clinical studies there are shown three groups of factors causing childrens' depressive disorders. They are as follows: socio-environmental, socio-behavioral, and cognitive-psychological factors.

Reviewing the studies concerning three groups of factors associated with childrens' depressive disorders we can see that behaviour oriented clinicians (Johnson, 1986; Goodyer, 1990) emphasize that the lack of social attachment plays a crucial role in the development of childrens' depressive disturbances. As it occured, depressive children are frequently in erroneous relations with their parents and families (Reynolds, 1985; Stark at al., 1990). They are also less popular in the peer groups and they have only few friends (Ederer, 1990).

Clinical psychologists, (Blöschl, 1984, 1987; Wierzbicki and McCabe, 1988; Ederer, 1990), suggest that the lack of social support, characteristic of depressive children is one of the most important factors causing psychological disorders. Consequently, in some deficitency of social support results lack of social interactions of depressive children which in turn stems from a low level of social skills and deficit in social activities. A kind of a negative feed-back mechanism seems to be established between socio-emotional conditions and social habits of depressive children. What is also stressed is that the feelings of lonelinees that accompany depression may be associated with a low level of social skills in depressive people (Blöschl, 1984).

What cognitive oriented therapeutists (Beck, 1970; Seligman, 1974, 1986) is crucial for the cognitive processes such as perception, thinking, processing of information, affect people's emotions and behaviour. According to Beck (1970) the essence of development of depression stays in distorted cognitive schemes which cause a faulty interpretation of information perceived. Deformed cognitive patterns may cause a false interpretation of reality, and lead to negative vision of the world, self-concept, and the future. Seligman (1986) maintains that development of depression is caused by learned helplessness, i.e. by a generalised opinion

that a person is unable to keep important events in his/her life under control. There is some evidence that even school aged children may manifest such a kind of functioning (Asarnow, Carslon, Guthier, 1987; Kaslow et al., 1988).

Most of the research mentioned above, however, has concentrated on school--aged children and adolescents while the corresponding research in preschool children has been less intense. In the presented study we tried, on the ground of theoretical considerations and empirical results mentioned above, to find some relations between depressive disorders of preschool children and such personality dimensions as: feelings of loneliness resulting from insufficient relations with families and peers, and those cognitive skills that are measured with J.C. Raven's Coloured Matrix for Children.

Researching some individual correlates of depressive disorders of pre-school children we took into account Strelau's regulative theory of temperament (Strelau, 1983). In his theory the author showed that a high level of reactivity (understood by Strelau as a temperamental trait) may be associated with tiredness and vegetative problems. It is a well-known fact that frequent symptoms of tiredness and vegetative problems are one of the main symptoms of depression in children. Therefore, it seems quite reasonable to look for the relationships between reactivity and depressive disorders in pre-school children.

At the same time, however, considering the personality variables hipothetically connected with the development of the depressive disorders in young children, we would also like to consider the role of empathy as a factor preventing children from depressive disorders.

The essence of empathy is sharing the emotional states and feelings of another person in response to their facial expression or emotional behaviour (Aronfreed, 1970; Stotland, 1969). Some authors (Hoffman, 1977, 1981; Bonino, 1993) point out that empathy is closely related to altruistic behaviour and to more effective social performance of people. In such a context we assumed that well developed empathy feelings could protect children from depressive disorders. However, the question arises, whether the feelings of empathy are possible in very young children. According to Piaget (1967), a child is primarily egocentric and incapable of taking another person's point of view. This is still typical of children aged 5 to 12. Many psychologists hold this opinion. However, other psychologists (Borke, 1971, 1973; Kalliopuska, 1992) for example, argue that even very young children are able to understand some perspectives of other people. Borke (1971, 1973) indicates that pre-school children are aware of other people's feelings and they try to understand those feelings. A solution of the discrepancy between those two different ideas concerning the development of childrens' empathy can be seen in Bonino's concept of empathy. Bonino (1993), following Feshbach (1975),

maintains that empathy requires emotional, social, and cognitive abilities. The essential components of empathy can be summarised as follows:

a) recognition and discrimination of his/her own emotional feeling,

b) the ability to take other people's perspectives and roles into consideration,

c) emotional responsiveness, that is the ability of sharing the emotions of other people without fear of losing one's identity.

According to Bonino (1993), the two first components of empathy do not fulfil this phenomenon in a complete and mature way. (It is even possible that they do not lead to sharing emotions, for example, for defensive reasons). At the same time, however, those two components of empathy seem to be characteristic of children's experiencing of empathy feelings. Borke (1971) showed, that even 3-year-old children were able to feel empathy, for example, they could differentiate between somebody's satisfaction and dissatisfaction. Therefore, in the context of Borke's (1971) research, the question concerning the problem whether children's forms of empathy may protect children from the depressive disorders seems to be well-founded.

We have tried to find the answers to the questions mentioned above in our study.

Subjects

Thirty nursery school children aged 6.1 to 6.10 were tested. There were 15 boys and 15 girls. The children were assessed by their teachers as manifesting depression disorders in the pre-test study. The teachers had been working with each of the children tested from one to three years.

Methods

1. The level of the depressive disorders in children tested was measured with two different tests:

– "The Children's Depression Inventory" (CDI) by M. Kovacs (1985),

– "Depression Test for Children" (DTC) by P. Rossmann (1990, 1991), version for 6-year-aged children, which was adapted in Poland by Kliś (1995, 1996).

"The Children's Depression Inventory" by (Kovacs, 1985) is a 27-item, self--report, symptom-oriented scale that was designed for school-aged children and adolescents. The instrument quantifies a range of depressive symptoms including disturbances in mood, hedonic capacity, vegetative functions, self-evaluation and interpersonal behaviour. Several items refer to the consequences of depression in contexts that are specifically relevant to the school environment. In our study

these items were changed in such a way that they became adequate to pre-school environment. Each CDI item consists of three choices, keyed from 0 to 2 in the direction of increasing severity. The total score can range from 0 to 54.

"The Depression Test for Children" by P. Rossmann was designed by the author for 9 to 13 year-old-children, but in a preliminary study conducted by Kliś (1995) it proved suitable for 6-year-old Polish children. The items of this test were empirically divided by Rossmann into three correlating scales:

I – depression mood and low self-esteem,

II – agitation behaviour and problems of norm integration,

III – psychosomatic problems and tiredness (Rossmann, 1990, 1991).

2. The level of empathy was measured with "Interpersonal Awareness Test" (IAT) by Borke (1971, 1973), Polish adaptation by Rembowski (1989) (see: chapter 3 this book).

This is a two-part empathy test for pre-school children. The first part is composed of eleven picture stories, which describe some situations evoking children's feelings of joy, fear, sadness and anger. The second part is composed of twelve picture stories depicting some situations where another child is feeling emotions mentioned above. The children's task was to describe the feelings of people who were involved in various social interactions, presented in the picture-stories.

3. The feelings of loneliness in the children tested, caused by their insufficient social relations with their peers, parents, and other important persons, were measured by Syracuse-Amsterdam-Groningen Sociometric Scale (SAGS) by Defares, Kema, and Werff (1971), Polish adaptation of the Scale by Rembowski (1992).

The SAGS is a self-report scale consisting of 28 items which are divided into three factors: a) the first, related to peer relationships, b) the second to relations with parents, and c) the third to relations with other important persons. Each item is evaluated on a scale from 0 to 4.

4. The reactivity level was measured with "Reactivity Scale for Pre-school Children" by E. Friedensberg (1983).

5. The level of intelligence was measured with J.C. Raven's Coloured Matrix for Children.

Results

The data analysis based on Pearsons correlations revealed relations between depressive disorders and personal dimensions in the children tested. The correlations between the scores obtained by children tested within the two various Depression Tests were also computed. As a results of the analysis we found the following significant correlations between the two different Depression Tests (see table 18).

Table 18. Pearson's correlation between the depression disorders measured by two different depression tests in the group of 30 six-year-old children

The Depression Test for Children (DTC) by P. Rossmann	The Children Depression Inventory (CDI) by M. Kovacs (the global result of the test)
Subscale I (Depression mood & low self-esteem)	r = 0.66 p = 0.001
Subscale II (Agitation behaviour & problem with norm integration)	r = 0.46 p = 0.002
Subscale III (Psychosomatic problems & tiredness)	ns.

Positive and rather high correlation between the global result of "Children's Depression Inventory" (CDI) by Kovacs and the scores of *the subscale I (depression mood and low self-esteem)* of the "Depression Test for Children" (DTC) by Rossmann: r = 0.66, p = 0.001, as well as between the global result of CDI and *the subscale II (agitation behaviour and problems with norm integration)* of the DTC: (r = 0.44, p = 0.01). There was no significant correlation between *the subscale III (psychosomatic problems and tiredness)* of the DTC and the global result of the (CDI). The results obtained show, that subscales I and II of the "Depression Test for Children" by Rossmann and the "Children's Depression Inventory" by Kovacs, measure partly the same range of depression symptoms of six-year-old children. Only the symptoms measured by *the subscale III (psychosomatic problems and tiredness)* of the "Depression Test for Children" by Rossmann proved specific for this test.

The significant correlations between the depression symptoms (measured by two different Depression Tests for Children) and personality dimensions of children tested can be seen in table 19. They are as follows:

1. The depression level measured by the global result of the CDI by Kovacs was negatively correlated with the empathy level measured by the I AT of Borke (r = −0.60, p = 0.002). *Subscale I (depression mood and low self-esteem)* of the DTC by Rossmann was also in negative correlation with the empathy level of children tested: (r = −0.66, p = 0.001). These results show that the depressive states of children tested and their empathetic sensitivity do not coincide, on the contrary, the higher the empathy level, the lower are depressive symptoms of children tested.

Table 19. Pearsons correlation between the depressive disorders measured by two different Depression Tests for children and some personality variables (empathy, feelings of loneliness, reactivity, intelligence) in the group of 30 six-year-old children

Symptoms of depression measured by two different Tests	Personality variables of children tested			
	IAT (empathy)	SAGS (feelings of loneliness)	SOR (reactivity)	Raven (intelligence)
CDI by Kovacs	r = –0.60 p = 0.002	r = 0.72 p = 0.000	r = 0.66 p = 0.001	r = –0.43 p = 0.02
DTC by Rossmann subscale I (depression mood & low self-esteem)	r = –0.66 p = 0.001	r = 0.66 p = 0.001	r = 0.41 p = 0.03	ns.
DTC by Rossmann subscale II (agitation behaviour and problems of norm integration)	ns.	ns.	r = 0.38 p = 0.04	ns.
DTC by Rossmann subscale III (psychosomatic problems & tiredness)	ns.	ns.	ns.	ns.

CDI – "The Children's Depression Inventory" by M. Kovacs,

DTC (I–III) – Three subscales of the "The Depression Test for Children" by P. Rossmann,

IAT – "Interpersonal Awareness Test" of H. Borke (it measures children's empathy feelings),

SAGS – Syracuse-Amsterdam-Groningen Sociometric Scale of Defares et al. (it measures feelings of loneliness),

SOR – Reactivity Scale for Pre-school Children of E. Friedensber,

Raven – J.C. Raven's Coloured Matrix for Children.

At the same time we realised that empathy (measured with IAT) was in a high, negative correlation with loneliness feelings of children tested (r = –0.64, p = 0.001). This means that empathy does not occur together with the feelings of loneliness of depressive children.

2. We can also see a high, positive correlation between the global results of the CDI and feelings of loneliness of children tested (r = 0.72, p = 0.000), as well as a positive correlation between *subscale I (depression mood and low self-esteem)* of DTC and the feelings of loneliness (SAGS) (r = 0.66, p = 0.001).

3. As far as the reactivity factor (measured by SOR) is concerned, it was in a positive correlation with both the global result of CDI by Kovacs (r = 0.66, p = 0.001), and with *subscales I* (r = 0.41, p = 0.03), and *II* (r = 0.38, p = 0.04) of the DTC by Rossmann. (On the other hand, however, the reactivity was in a negative correlation with the empathy measure: (r = –0.38, p= 0.04), and with the feelings of loneliness of the children tested : (r = –0.55, p = 0.006).

4. We have found also a negative correlation between Raven's Coloured Matrix and the global result of the CDI (r = –0.43, p = 0.02).

The results obtained show that the two different depression tests: the "Children's Depression Inventory" by Kovacs and the "Depression Test for Children" by Rossmann, measure partly the same range of children's depressive symptoms, such as *depression mood, low self-esteem, agitation behaviour and problems of norm integration*. This result means that a diagnostic value both of the depression tests used in our study is similar. Only *the symptoms of psychosomatic problems and tiredness* measured with *the subscale III* of the "Depression Test for Children" by P. Rossmann seem to be specific for this Test. In the light of this fact, we shoud not be surprised that the correlations obtained between a global result of the CDI by Kovasc and such personality dimensions of children tested as empathy, feelings of loneliness, and reactivity, were very similar to the correlations obtained between the subscales I and II of DTC by Rossmann and the personality dimensions mentioned above.

Considering the positive correlations between the depressive symptoms measured with the global result of the CDT by Kovacs, as well as by the subscale I and II of the DTC by Rossmann and the reactivity level of the children tested, we should remember that, according to Strelau's (1983) regulative theory of temperament, the reactivity is related to the characteristics of the nervous processes. A low level of reactivity is associated with a strong type of nervous system, while a high level of reactivity is associated with a weak type of nervous system (in the Pavlovian idea of the nervous processes). Therefore, our results may indirectly indicate the connections between the type of nervous processes and the depressive disorders of preschool children. In other words, the results obtained seem to reveal the significance of the biological factor in the etiology of depressive disorders of preschool children. According to Strelau (1983), people with a low level of reactivity (i.e. with a strength excitation of the nervous processes) need more stimlation for the optimal functioning of their nervous processes, compared with people of a high reactivity level. For this reason the low-reactivity persons like a stronger stimulation of the nervous processes much more than the high-reactivity persons. In this way people with a low level of reactivity like to search for new impressions and new experiences, unlike people with a high level of reactivity, who do not like to engage themselves in many social interactions which might provide them with some social support and this way protect them against certain everyday stresses. The accumulation of stresses could lead them to the depressive disorders. People who tend to search for the new impressions are also able to build proper and more interesting representation of the world, than people who do not like to search for news. A proper representation of the world facilitates, among other things, the development of adequate social orientation, which in turn, facilitates coping with everyday stresses, which could provoke depressive disorders. As the reactivity is based on

the nervous processes whose characteristic traits cannot be easily changed in the course of a person's life, we have to protect high-reactivity children against pathogenic stressors causing depressive disorders. Children with a weak type of nervous system need much more optimum circumstances in order to avoid depressive disorders than their low-reactivity peers.

The results obtained in the study also showed the coincidence of children's depressive disorders with the feelings of loneliness resulting from insufficient relations with parents and peers. Our results are in agreement with those obtained by Ederer (1989), and they show the importance of proper relations with family and peers in prevention of depressive disorders in pre-school children.

The negative correlation between the global result of CDI and the intelligence of children tested points out the cognitive factor in the etiology of depressive disorders of preschool children and it stays in agreement with the cognitive approach to depression (Beck, 1970; Seligman, 1975; Bandura, 1986). We cannot forget, however, that the depressive disorders of children may cause a decrease of their cognitive skills. This may be a kind of a feed-back mechanism.

As far as the role of empathy in protecting children against depressive disorders is concerned, it can be seen that the higher the empathy level is, the lower is the level of depressive disorders of children tested. This means that even not sufficiently developed forms of children's empathy are in negative relations with depressive moods, low self-esteem, and other symptoms of depressive disorders of children tested. This result encourages us to further studies on the dependences using a more sophisticated statistics methods. Interpreting the negative correlation between empathy and children's depressive disorders we suggest that feelings of empathy may facilitate the processes of social interactions of children which, in turn, enable them to build a positive social network providing children with some positive social reinforcements. As a result of this, children can build their positive self-esteem and self-image which facilitate their coping with everyday stressors. The results obtained indicate a positive role which empathy seems to play in preventing pre-school children from depressive disorders, and thus suggest the need of developing of empthy feelings at very early stages of ontogeny of children.

Conclusion

Concluding our study we can say that:

1. Two different tests for measuring depressive disorders in children, i.e.: Kovacs' "Inventory of Depression" and Rossmann's "Depression Test for Children", quantified a range of similar symptoms of depression in 6-year-old

children. For this reasons they can by used interchangeably in diagnosing depressive states in preschool children.

2. It appears that children's forms of empathy seem to protect children against some depressive symptoms such as: depressed mood and low self-esteem, as well as all depression symptoms measured with the "Children's Depression Inventory" by Kovacs. This means that empathy should be developed among pre-school children.

3. On the other hand, a high level of reactivity (i.e. a weak type of nervous system), as well as loneliness feelings resulting from children's poor relations with their parents, peers and other important people, can intensify children's depressive disorders. This obliges us to protect children against everyday stressor and to facilitate the development of their social relationships.

XI

The role of empathy in school performance of early adolescents

In contemporary psychology empathy is viewed as a multifacial, multidimensional phenomenon which can influence people's attitudes and behaviour. According to Kalliopuska (1983, 1990) empathy means a holistic (coherent) process in an organism, in which physiological kinaesthetic, together with affective and cognitive components have been distinguished. Many other authors (Hoffman, 1975; Eliasz, 1975; Mehrabian & Epstein, 1972; Feshbach, 1979; Feshbach & Feshbach, 1982) define empathy as the capacity to understand and share other people's emotions without losing awareness of one's own emotions. Sensitivity is the main affective component of empathy in which a person temporarily identifies oneself with another person's life and shares his/her ideas and emotions. Cognitive components mean the capacity to take another person's role or point of view. Physiological reactions connected with affective processes could also be regarded as a physiological factor of empathy (Kalliopuska, 1983, 1992a).

Some theoretical considerations and empirical findings indicate the functions which empathy can play. Perspective taking, i.e. the cognitive component of empathy seems to be related most clearly to the inhibition of agressive behaviour (Richardson et al., 1994). Empathy promotes co-operative and pro-social attitudes. It also plays an important role in bonding and transmitting socially relevant information (Bonino, 1993). Some other functions of empathy are indicated by socio-oriented researchers, who use the concept of empathy to explain a wide variety of altruistic behaviour. Hoffman (1981), for example, pointed out that empathy is closely related to moral principles as well as to moral judgement and reasoning. In psychotherapy empathy is regarded as a source of self-concept and

self-expansion. From the developmental perspective, empathy is a source of links between people, which leads to a positive mode of relating to others. Empathy is also linked to helping behaviour and to more efficient professional performance and it is, therefore, almost universally valued in the helping professions such as nursing, psychotherapy and teaching (Williams, 1989). For these and many other reasons empathy seems to be a very interesting phenomenon to study. The majority of the studies on empathy are, however, focused on adults or on the early developmental stages of empathy. There are very few studies concerned with empathy in adolescents, though it is a very special stage in human life and in building-up of family relationships. Adolescents aspire to become more independent, whereas parents want to be still the leaders on their children's way to maturity. According to Ericson (1959) this period of family life is experienced as a crisis in family relationships. In many families empathetic communication between parents and children is broken at that time. On the other hand, parental attitudes seem to play a crucial role in creating an emotional atmosphere in the family which, in turn, may influence the children's empathetic sensitivity (Dymond, 1950). It should be stressed that Ausubel et al. (1954) assumed that the perception of parental behaviour by the children influences more profoundly and directly the children's personal development than that behaviour itself. Taking into consideration the complexity of the relationships between empathy in adolescents and the emotional atmosphere in the family, which is created predominantly by parental attitudes, we may formulate the following questions:

1. What are the relations between empathetic sensivity of adolescents and their perception of parental attitudes of their parents?

As it was mentioned above, empathy can play many positive functions in human activities. The basic form of young adolescent activity is school performance. This kind of activity involves learning as well as social interactions. The success in school performance depends both on achievement and on social activities of learners. The adolescents go into quite a new kind of personal relationships with their peers than younger children do, and empathy seems to be a factor which may facilitate social interactions of adolescents, as well as their interactions with adults, and thus may help them to take on their school role.

In such a context the following specific question arises:

2. Is empathy related to school performance of adolescents, i.e. their school motivation and going into social interactions at school?

The tendency to become independent of parents, to break off close relationships with family, as well as occasional lack of intimate relations with others, can cause adolescents to signalise feelings of loneliness, abandonment and alienation, which, in turn, can generate frustration and aggressive behaviour. Loneliness is experienced not only when there is a lack of human relations but

also when these relations are abundant but unsatisfactory. The experience of loneliness may provoke anxiety, disturbance of self-esteem, neuroticism, depression. As a rule, it also provokes some disturbances in learning activities and school performance in pupils.

In this situation another question is posed:

3. Can empathy, i.e. the ability to understand and share other people's emotions without losing awareness of one's own feelings, protect adolescents against experiencing loneliness and thus facilitate school performance of pupils?

Subjects

35 8th-grade school children were tested, 20 girls and 15 boys.

Methods

Empathy was measured using the Scale of Emotional Empathy by Mehrabian and Epstein Questionnaire of Empathetic Understanding of Other People by Węgliński (1983) (see chapter 3).

Parental attitudes were measured using a Parent-Child Relations Questionnaire by Roe and Siegelman (1963). This Questionnaire measured parents' attitudes towards their young children as perceived by the children themselves. The Questionnaire is composed of 50 items, in versions: "My Mother" and "My Father", which describe five parental attitudes: love, rejection, demand, casual, attention.

The level of loneliness of children tested was measured with the University of California Los Angeles Scale (UCLA) by Russel, Peplau, Ferguson, (1978). This Scale is composed of 20 items and there are three factors of it: lack of intimate relation with others, tendency to breaking off relationships with others, lack of belonging and affiliation.

The level of school performance functioning of children tested was measured with the Questionnaire of School Functioning by Markowska (Markowska & Szafraniec, 1980), which is composed of five factors: school motivation, antisocial behaviour, inhibition, which is the main component of neurotic behaviour, socialisation, interest in sex.

Results

The data analysis based on Pearson's correlations showed some relations between empathy and perception of parental attitudes by adolescents tested (table 20 and table 21).

Table 20. Correlation coefficients between perception of parental attitudes of the mother and some components of the children's emotional empathy

Subscales of Emotional Empathy Scale	Attitude of Love	Attitude of Demand	Attitude of Attention	Attitude of Rejection	Attitude of Casual
sub 1 – susceptibility to emotional contagion	0.15	–0.28	0.08	–0.22	–0.07
sub 2 – appreciation of the feelings of unfamiliar and distant people	0.06	**–0.34***	0.13	–0.29	0.09
sub 3 – extreme emotional responsiveness	**0.33***	–0.30	0.26	–0.06	0.18
sub 4 – tendency to be moved by others' positive emotional experience	0.17	0.28	0.16	–0.11	–0.15
sub 5 – tendency to be moved by others' negative emotional experience	0.23	–0.19	0.08	–0.23	0.06
sub 6 – sympathetic tendency	–0.18	–0.10	–0.06	–0.05	–0.14
sub 7 – willingness to be in contact with others who have problems	0.23	–0.12	–0.06	–0.07	0.01
total results of emotional empathy	0.12	–0.13	**–0.36****	0.16	–0.06

Note:
$* = p < 0.05$, $** = p < 0.001$

The following significant correlations were found:
– perception of mother's love attitude was positively correlated with the extreme emotional responsiveness (subscale 3) of tested adolescents ($r = 0.3286$, $p < 0.05$),
– perception of mother's demand attitudes was negatively correlated with appreciation of the feelings of unfamiliar and distant people (subscale 2 of Empathy Scale) ($r = –0.3351$, $p < 0.05$),

Table 21. Correlation coefficients between perception of parental attitudes of the father and some components of the children's emotional empathy

Subscales of Emotional Empathy Scale	Attitude of Love	Attitude of Demand	Attitude of Attention	Attitude of Rejection	Attitude of Casual
sub 1 – susceptibility to emotional contagion	0.17	–0.04	0.07	–0.27	–0.23
sub 2 – appreciation of the feelings of unfamiliar and distant people	–0.05	–0.10	0.14	–0.26	–0.19
sub 3 – extreme emotional responsiveness	0.27	–0.27	–0.01	–0.10	0.14
sub 4 – tendency to be moved by others' positive emotional experience	0.06	–0.04	0.17	–0.06	–0.22
sub 5 – tendency to be moved by others' negative emotional experience	0.00	–0.30	–0.15	–0.24	0.20
sub 6 – sympathetic tendency	–0.24	–0.28	–0.13	0.13	**–0.40***
sub 7 – willingness to be in contact with others who have problems	–0.12	–0.19	–0.29	–0.19	0.02
total results of emotional empathy	0.04	**–0.29***	**–0.31***	–0.05	–0.08

Note:

* = p < 0.05, ** = p < 0.001

– negative correlation between perception of mother's attention attitude and the global result of Empathy Scale ($r = –0.3616$, $p < 0.01$).

– perception of father's demand attitude and the global result of Emotional Empathy Scale of children tested were also negatively related ($r = –0.2853$, $p < 0.05$),

– perception of attention attitude of father and the global result of Emotional Empathy Scale of the children tested were negatively correlated ($r = –0.3149$, $p < 0.05$).

There were no significant correlations between cognitive empathy and children's perception of parental attitudes.

As we can see, only the love attitudes of mothers towards adolescents tested was positively related to such an important aspect of empathy of adolescents as extreme emotional responsiveness, whereas perception of the mother's and father's demand attitude, as well as the mother's and father's attention attitude

were negatively correlated with the global result of emotional empathy and such aspect of emotional empathy as appreciation of the feelings of unfamiliar and distant people. These results seem to be generated by the features of the parental attitudes mentioned above. The love attitude consists in devoting time and attention to children and helping them, yet without excessive interference in the children's affairs, it also involves methods of persuasion and a climate of confidence and trust in relations with children. Such features can facilitate the development of emotional empathy in children. On the contrary, the features characteristic of the parental attention attitude are manifested by concentration on the interest in children's needs, granting a child special privileges, but at the same time, however, the child is isolated from peers and protected against experiences which could bring disappointment, bad disposition, anxiety or harm. As for the demand attitude, high requirements for success in various fields required of a child, are typical of this parental attitude. Demanding parents, on the other hand, impose many restrictions on their children and expect obedience from them. Such parents use many forms of punishment, and do not attempt to understand children's emotions and thoughts. They manifest a tendency to be dominant and despotic. In the emotional climate which demanding and protective parents create in their families, empathetic responsiveness cannot be developed properly in their children.

Taking into consideration the relations between empathy and school performance of children tested, we have found a significant correlation (see table 22):

– positive correlation between tendency to be moved by other people's negative experience (subscale 5) and school motivation (Factor I in Questionnaire of School Functioning) ($r = 0.3626$, $p < 0.05$),

– positive correlation between susceptibility to emotional contagion (subscale 1) and neurotic inhibition of tested people (factor III) ($r = 0.4257$, $p = 0.01$),

– positive correlation between willingness to be in contact with other people who have problems (subscale 6) and neurotic inhibition (factor III) ($r = 0.4624$, $p < 0.01$),

– appreciation of the feelings of unfamiliar and distant people (subscale 2) was negatively correlated with neurotic inhibition (factor III) ($r = -0.3315$, $p < 0.05$),

– tendency to be moved by other people's negative experience (subscale 5) and neurotic inhibition (factor III) were also negatively correlated ($r = -0.3538$, $p < 0.05$),

– extreme emotional responsiveness (subscale 3) was in a positive relation with social responsiveness of adolescents tested (factor IV) ($r = 0.5651$, $p < 0.001$),

– tendency to be moved by other people's negative experiences (subscale 5) was in a negative relation with sexual interests of adolescents tested (factor V of the Questionnaire) ($r = -0.3996$, $p < 0.05$) (see table 22).

There was no significant correlation between the cognitive component of empathy and school performance of children tested.

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Table 22. Correlation coefficients between some components of emotional empathy and school performance of the 8th grade children, tested by the Questionnaire of School Functioning by Markowska

Subscales of Emotional Empathy Scale	School Functioning of Children				
	F1 **School Motivation**	**F2** **Antisocial Behaviour**	**F3** **Inhibition (Neurotic behaviour)**	**F4** **Sociali-zation**	**F5** **Sexual Interest**
sub 1– susceptibility to emotional contagion	−0.05	−0.02	**0.43****	0.21	−0.13
sub 2 – appreciation of the feelings of unfamiliar and distant people	0.23	−0.30	**−0.33***	0.14	−0.16
sub 3 – extreme emotional responsiveness	0.29	−0.27	−0.32	**0.57****	−0.02
sub 4 – tendency to be moved by others' positive emotional experience	0.07	−0.06	0.07	−0.16	−0.13
sub 5 – tendency to be moved by others' negative emotional experience	**0.36****	−0.24	**−0.35***	0.17	**−0.40***
sub 6 – sympathetic tendency	−0.21	0.21	**0.46****	−0.28	−0.11
sub 7 – willingness to be in contact with others who have problems	0.22	−0.09	−0.05	0.17	−0.18
total results of emotional empathy					

Note:
* = $p < 0.05$, ** $p < 0.001$

Regarding relations between empathy and school performance of children tested we should remember that the "Questionnaire of School Functioning of Children", which was used in our study, measured two main aspects of social adaptation of pupils: 1) pupils' capacity of achievement depending on their diligence, persistence, task concentration (factor I) and 2) pupils' co-operative, altruistic social relations (factor IV). The questionnaire also allowed us to estimate this kind of social disturbances, which was expressed by impulsive, uncontrolled, aggressive behaviour (factor II) or in the form of excessively inhibited total activity and hesitant reactions (factor III). According to Markowska (1980), this Questionnaire can be useful in the assessment of global social maturity of adolescents. The first part of the Questionnaire, which was used in our

study contains 50 characteristics typical of school behaviour, which are assessed using a 5-point scale. According to Bronfenbrener and Ricciutin (1970), these characteristics might be understood as tendencies to behave in a particular way in certain circumstances.

In our study we found some positive correlations between the tendency to be moved by other people's negative emotional experience (subscale 5) and school-achievement motivation of adolescents tested. It may suggest that children who are sensitive to other people's negative experiences do not disappoint their parents with the lack of school achievement. School success is a way to avoid punishment and negative emotions in parents. Following Rosen and D'Andrade, Markowska (1980) maintains that school achievement motivation is related to personality characteristics of pupils rather than to their cognitive abilities. In such a situation we assume that empathetic tendency in pupils may foster development of school motivation in children.

Positive correlations between empathetic susceptibility to emotional contagion as well as sympathetic tendency and neurotic inhibition may act as a feedback mechanism. Neurotic children who have experienced some emotional disturbances, may identify themselves with other people's negative experiences (Hoffman, 1975; Aleksandrowicz, 1988), however strong excitation by emotional contagion may intensify neurotic inhibition of children. Neurotic inhibition of adolescents tested was also negatively correlated with the empathetic appreciation of the feelings of unfamiliar and distant people and with the tendency to be moved by other people's negative experiences. Although simple correlations do not justify cause-and-effect reasoning, we assume that neurotic inhibition is the factor which either masks or makes the functioning of empathetic abilities mentioned above difficult. It seems that the common mechanism underlying neurotic inhibition as well as empathetic tendencies (abilities) may be rooted in temperamental characteristics. This mechanism seems to protect neurotic children against strong stimulation aroused by negative emotional experiences.

Positive correlation between extreme emotional responsiveness of adolescents tested and their social abilities seems to prove the existence of a common mechanism underlying these two personal features (characteristics). According to Markowska, social skills are similar to empathetic responsiveness, as understood by Epstein and Mehrabian (1972). Markowska believes, that social abilities of children are closely related to their friendly attitudes towards other people, and that they are conditioned by their capacity for "warm", interpersonal reactions, full of friendliness and tolerance.

In order to investigate the true nature of relationships between empathy and school performance of adolescents a further study using more precise statistical methods becomes necessary. It would allow us to better understand the cause-and-

effect relationships between the variables described. It may also be worthwhile to define the role of empathy in the school performance of well-adapted children and of the socially disturbed, neurotic and inhibited ones.

Table 23. Correlation coefficients between emotional empathy and the feeling of loneliness of 8th grade children, measured by the UCLA Loneliness Scale

| Subscales of Emotional Empathy Scale | Loneliness feelings | | | |
	Lon 1 Lack of intimate relations with others	Lon 2 Tendency to beak off relationships with others	Lon 3 Lack of belonging and affiliation	Total Lon
sub 1– susceptibility to emotional contagion	−0.31	−0.29	−0.09	−0.24
sub 2 – appreciation of the feelings of unfamiliar and distant people	−0.20	−0.01	−0.02	−0.11
sub 3 – extreme emotional responsiveness	−0.18	**−0.38***	−0.12	−0.19
sub 4 – tendency to be moved by others' positive emotional experience	**−0.33***	−0.09	−0.22	−0.28
sub 5 – tendency to be moved by others' negative emotional experience	−0.08	−0.39*	−0.07	−0.12
sub 6 – sympathetic tendency	0.17	0.11	**0.34***	0.24
sub 7 – willingness to be in contact with others who have problems	−0.05	0.01	−0.08	−0.09

Note:
* = $p < 0.05$, ** $p < 0.001$

Regarding relations between empathy and loneliness feelings of children tested (see table 23) we have found that:

1. Tendency to be moved by other people's positive emotional experiences (subscale 4) was in a negative correlation with the Lack of intimate relations with others (Lon 1 of UCLA Scale) ($r = −0.3319$, $p < 0.05$),

2. Extreme emotional responsiveness (subscale 3) was in a negative correlation with the Tendency to break off relationships with others (Lon 2 of UCLA Scale) ($r = −0.3771$, $p < 0.05$),

3. Tendency to be moved by other people's negative experiences (subscale 5) was negatively correlated with the Tendency to break off relationships with others (Lon 2 of UCLA Scale) ($r = −0.3929$, $p < 0.05$),

4. There was a positive correlation between Sympathetic tendency (subscale 5) and Belonging and affiliation feelings (Lon 3 of UCLA Scale) (r = 0.3377, p < 0.05).

As regards the negative relationships which were found between some aspects of empathy and different feelings of loneliness of adolescents tested, it is generally assumed, that some components of emotional empathy may protect children against such feelings of loneliness as: lack of intimate relations with other people, tendency to break off relationships with others, lack of belonging and affiliation. Children with feelings of loneliness have a lower level of school achievement when compared to their socially well-adapted peers. They also function less effectively in the peer groups. As empathy could protect children against loneliness, we would like to postulate some empathy training developing children's empathetic capacity.

Conclusions

The study presented allows us to draw the following conclusions:

1. Perception of love attitude of mother is positively related to such a basic empathetic ability as extreme emotional responsiveness, whereas demand and attention attitudes of both parents are negatively related to the global emotional empathy and to some of its components.

2. Empathetic abilities are positively correlated to school achievement motivation and to social performance in peer groups. It seems that there might be a common mechanism underlying the development of empathetic abilities and social adaptation skills and it is probably based on temperamental charecteristics.

3. Certain components of empathy seem to protect adolescents against feelings of loneliness which are detrimental to their school performance.

XII

Final conclusions

The idea of empathy has gained many enthusiasts since its appearance in psychology in 1909. Although empathy is a difficult object to study, both for theoretical and methodological reasons, it has been studied by psychologists for many years. There are many reasons why the study of the problems involving empathy should be continued. The main ones are a result of the function which the human capacity for sympathy and the understanding of other people's emotional states may play in the social contexts of everyday life. Some of the major functions of empathy are to make the start of co-operation easier, to put readiness to help and socially friendly attitudes into practice, and to curb aggressive tendencies and behaviour. Empathy also plays a role in bonding and transmitting socially relevant information, not only during the years of personality development but also in adulthood. All close interpersonal relations seem to need empathy. Therefore, Kalliopuska (1995) postulates that empathy should be seen as a natural form of personal development which begins at an early age at home and continues later at school. From the developmental perspective, empathy is a source of connection between people that leads to a positive mode of relating to others. In psychotherapy empathy is viewed as a source of self-concept and self-expansion. Some socio-oriented researchers have used the concept of empathy to explain a wide variety of altruistic behaviours. Hoffman (1981), for example, points out that empathy is closely related to most moral principles and moral judgement and reasoning. The same author admits, however, that his opinion is based mainly on some theoretical considerations of how empathetic and sympa-thetic distress and empathetic anger affect one's receptivity to certain moral principles, as well as to moral reasoning and judgement used in applying these principles.

There is also a problem with the precise definition of empathy. Since its introduction to psychology, the concept of empathy has evolved as described in Chapter II of this book. Most of the psychologists currently interested in the subject perceive empathy a multifacial, multidimensional phenomenon which can influence human attitudes and behaviour. According to Kalliopuska (1983, 1990), for example, empathy is a holistic process in which physiological, kinaesthetic, affective and cognitive components can be distinguished. But such a broad definition of empathy raises the question whether empathy exists as a specific phenomenon, or if it shares common mechanisms underlying other personality dimensions. In our research we endeavoured to find an answer to this question.

Many authors (Mussen, 1990; Bonino, 1993; Davis, 1999) have noted the difficulties in giving an unambiguous definition of empathy. Mussen in 1990 wrote, that no "grand" theory of structure and development of empathy existed (Mussen, 1990, p. 186). According to Mussen, the phenomena constituting empathy – feelings, emotions, and concurrent overtreactions – are extraordinarily complicated and undoubtedly influenced by multiple interacting biological, socio-cultural, and personal factors. But, although a comprehensive model of the development of empathy over the life span is desired, according to Mussen (1990), research cannot wait until it is developed. Instead, the research process should design questions for further research, on the basis of what has already been discovered, and undertake insightful psychological and social analyses of the components of empathy (Mussen, 1990).

According to Davis (1999) the very nature of empathy is an obstacle to a clear-cut definition, giving rise to the lack of consensus among the researchers working on this issue. The problem comes from an inability to distinguish clearly between two phenomena, cognitive role-assumption from affective reaction to other people's situation. This, in turn, is an outcome of an overestimation of the meaning of the term "empathy", which is used to describe both cognitive and affective, and active vs. passive phenomena. A second reason why the term "empa-thy" is not very clear is the confussion of the process of empathy, with empathy the end-result of the process. Hence researchers conducting analyses of different fields of the phenomenon use the same term to describe them. Davis has sug-gested that these difficulties may be surmounted through his research scheme, which entails a variety of theoretical constructs associated with empathy. A fuller account of this is to be found in chapter 2 of this book. As for Davis' book (1999), which will indoubtedly trigger new approaches to empathy and new research method to deal with, it has just been published in a Polish translation – unfortunately, however, after our research project had been completed. It seems that the ideas put forward by Davis may give rise to hopes for a re-formulation of the general idea of empathy, describing the structure and development of the phenomenon.

Another problem are the methodological difficulties prevalent in the studies of empathy. Just like other phenomena involving the emotions, empathy cannot be examined readily in experimental conditions. Neither is it easy to analyse instances of empathy in natural conditions; while the opinion-poll, questionnaire and survey type of research is liable to carry the drawbacks generally associated with such studies, including respodents' tendency to give a favourable, declarative image of themselves.

Nevertheless, in spite of the numerous problems in theory and methodology, studies of empathy continue to be pursued throughout the world, enriching information available on the subject.

The studies presented in our book seem to meet Mussen's (1990) idea half-way. We wanted to find answers to several questions concerning empathy. First of all, we were interested whether empathy exists as a specific phenomenon, or whether it has the same mechanisms that underly other personality dimensions. As a result of our studies we can say that emotional and cognitive components of empathy are related to such dimensions of personality as extraversion, neuro-ticism, locus of control, self-esteem, and such temperamental traits as reactivity and mobility of behaviour (in Strelau's sens of these terms, Strelau, 1983). It seems that the mechanisms underlying the development of empathetic components are the same as mechanisms of personality dimensions, both physiologically and socially. This is the most significant conclusion of our studies, and it has some important practical implications concerning training in the development of empathetic sensitivity.

The final result of our studies we propose is an empirical model of relations between empathy and some basic, biological, as well as socially acquired personality dimensions. These relations are presented in figure 7. The model presented in figure 7 includes also the positive output of developed empathy. We suggest that there could be certain common mechanisms underlying the development of empathy and other personality dimensions, which seems to be a significant conclusion of our studies. The nature of these mechanisms will be a subject of a more precise futher research.

In the view of the differences in outlook on the development of empathy, and the absence of clear distinctions as to the age-groups in which empathy could be observed already in children in the pre-school and school-age groups, we endeavoured to find whether empathy could be observed already in children in the pre-school and school-age groups.

Figure7. The model of empathy-personality relations and empathy output
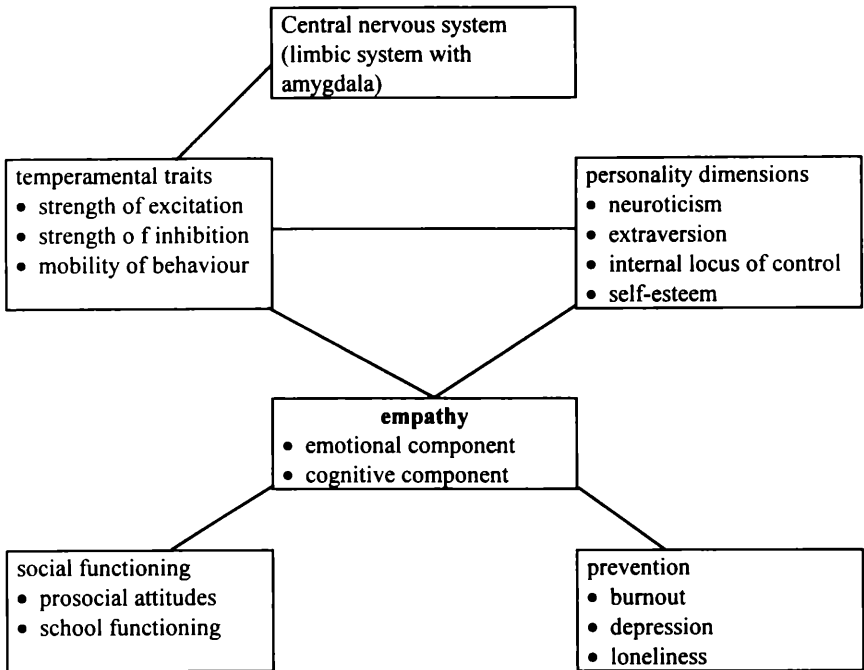
Our chief concern was the teachers' level of empathy, and the role empathy plays in the teaching profession, as it is well known teachers should display an attitude of willingness to help with respect to their pupils and charges. We were also interested in the empathy levels of student teachers training for the profession.

The results of our research project are presented in the successive chapters of this book. They may be summarised in the following way:

Firstly, we can see that empathy appears during the course of entire life. We have observed its symptoms in pre-school children, 8th grade adolescents, students, as well as in teachers aged from 21 to 57. Our results allowed us to agree with the idea of Kalliopuska (1995) who postulates that empathy is a natural form of personal development, which begins at an early developmental stage and continues throughout human life.

Secondly, it appears that empathy can play significant functions in many fields of people's activity at different stages of human life. For example, it can protect pre-school children against depressive mood, low self-esteem, and other depressive symptoms. Empathetic abilities are positively correlated with school

achievement motivation and social performance of 8th-grade adolescents. Certain components of empathy seem to protect adolescents against the feeling of loneliness, detrimental to their school performance. A sufficiently developed level of emotional empathy positively influences prosocial attitudes towards exceptional children in students of special education. As far as teachers from different types of schools are concerned, empathy seems to protect them against the burnout syndrome and the feeling of loneliness as it was mentioned above. These reasons seem to be sufficient to postulate some form of empathy training for teachers, in particular, for teachers of exceptional children, as well as for students who are preparing for a job in modern schools.

The fact that empathy can play a mediative role between burnout syndrome and feelings of loneliness in teachers, as well as their personality characteristic seems particularly interesting. It can be exploited in managing some activities preventing teachers against the burnout syndrome, as well as in managing some therapeutic activities for teachers who experience some symptoms of the burnout syndrome. The provided trainings should help teachers to cope with professional stress and avoid the burnout syndrome.

We did not find any significant differences in empathy level among teachers working in different types of schools, whereas, we found significant differences in empathy level between teachers and students of special education. Not judging whether students' responses in the empathy scales were more or less declarative in their character, we can conclude, that teachers' empathy decreases with age.

Finally, our study brings us to some more practical results which, at the same time, may broaden our knowledge concerning the phenomenon of empathy.

We should, therefore, consider how to develop and train empathy. We postulate to affect all empathetic components: emotional and cognitive, as well as motivational and communicative skills. The empathy training program should be based on systematic lectures on empathy and its positive influence on human well-being as well as on individual and group skills training.

The following techniques might be used for training the components of empathy:

– Emotional component:

• recognizing one's own and other people's emotions,

• identifying one's and other people's thoughts, emotions, physiological states, and outcoming stimuli,

• recognizing one's and other people's emotions,

• exercising by nonverbal expressions and drama movements which is an important human behaviour imitation.

– Cognitive component:

• teaching how to make observation of the psychological state of another person and introspective examination of one's own experiences,

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- understanding the subjective state of another person,
- understanding and interpreting of verbal and nonverbal communication,
- training temporary identification with another person's situation,
- creating mental representation of events and the representation of another person's perspective.

Empathy might be trained by training skills of problem solving in practical problem situations and in human relationships, using the following techniques:

- model learning,
- role playing and role exchange in games- testing all possible roles – to be a child, adolescent, adult, as well as an elderly person; playing alone, playing side by side, playing together; being disabled – deaf, blind, in a wheel-chair,
- positive reinforcement strategies.

Understanding of other people motivation:

- being conscious of one's own and other people's psychological needs,
- understanding the needs being the background motives of human behaviour.

Communicative skills:

- training the capacity to speak about oneself and one's own concerns,
- introducing one's positive and negative features,
- using nonverbal communication (expression, gestures, tone of voice have to be relevant to the verbal channel of conversation).

We can use music as nonverbal communication – receptive and active musical training is very useful – playing instrument as a dialogue, listening to illustrative musical pieces.

Developing empathy is important for teachers because it might prevent them from the burnout syndrome stemming from occupational stress. Nowadays in Poland more attention should be paid to empathy education of teachers because the transformation of the whole educational system is undoubtedly a very stressful undertaking.

We agree with Davis (1999), in whose opinion empathy holds a strategic position in contemporary psychology. It is a phenomenon perched on the border separating off, or perhaps linking, the individual with other individuals, the ego with the alter. The empathetic ability to cast off one's egocentric anxieties and look at things from another person's point of view serves as a kind of bridge building up contacts between individuals, who without the skills of empathy would remain in mutual isolation. Even if having the skills of empathy does not mean that our behaviour is fully disinterested, it will nevertheless make magnanimity a possibility. This seems to make further study of empathy a serious consideration for contemporary psychology.

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Contents

The book is pioneering in its character because of its universality and good methodological approach. Its highlight are its cognitive value, consisting of the verification of various theoretical models of empathy, as well as the practical importance of suggested empathy training, deemed as a way to prevent the psychical destructive effects of burnout syndrome – especially in jobs involving social stress of high intensity.

Review by Janusz Czapiński

The book is concise and pithy. It studies empathy as a phenomenon related to social interactions of students studying at the faculty of special education; the role of empathy as a predictor of attitudes towards the mainstreaming of exceptional children; the relation between empathy and a burnout syndrome in teachers, as well as their individual temperamental and personality differences. In those chapters, the authors refer to their own studies. The relationship between empathy and depressive states in pre-school children, the issues of how teenagers perform their school roles, and the role of empathy in managers' professional accomplishments are discussed in separate chapters.

In my opinion, this work is really worth continuation. I would also like to strongly emphasis that studies and theoretical considerations of empathy offer a very encouraging perspective.

Review by Krzysztof Klimasiński