Rehabilitation pedagogy towards (re)socialization of youth in the “augmented reality” Commentary on the phenomenon of empathy and aggression on the Internet

Abstract: The presented article is an attempt to signal a new problem posing a challenge for contemporary rehabilitation educators. In a rapidly changing social reality, a face to face social interaction is increasingly being reduced in favor of contacts averaged by digital technology. The question arises whether this phenomenon can be used in rehabilitation work with the supervised persons, and above all, if there any prerequisites for carrying out rehabilitation activities in cyberspace, for example using online social media.

Key words: rehabilitation pedagogy, socialization, rehabilitation, aggression, empathy, Internet, “augmented reality”, “virtual world”, empirical research.

Introduction

Searching for effective forms and methods of rehabilitation of social misfits, which are in conflict with the legal norms in force, seems to be the dominant task of rehabilitation pedagogy, which in recent years has clearly marked its presence in the space of contemporary social sciences.

The presented article is an attempt to signal a new problem which is a challenge for contemporary rehabilitation educators and covers wide socialization and education spaces.
In a rapidly changing social reality, a face to face social interaction is increasingly being reduced in favor of contacts averaged by digital technology. This is especially true for the younger generation.

The question arises whether this phenomenon can be used in rehabilitation work with the supervised persons, and above all, are there any prerequisites for carrying out rehabilitation activities in cyberspace, for example using online social media?

A few words about the traditional theoretical foundations of rehabilitation pedagogy

In a nutshell, it can be said that the development of rehabilitation pedagogy was most influenced by two twentieth-century scientific theoretical trends: behaviorism and psychodynamics.

A group of behavioral concepts describes social maladjustment as socially disturbed forms of behavior that are averse and troublesome for the social environment and, consequently, for those who manifest them. These are forms of behavior which remain in the statistical minority (symptomatic theories refer to the notion of a statistical norm) and which destroy the established social order and complicate interpersonal relations. This group of behaviors also includes self-destructive behaviors, causing suffering and danger to other people. Behavioral concepts of social maladjustment are basically based on theories of “learning”, especially its contemporary variations related to theories of behavior and social learning concepts (Malewski 1964).

Behavioral theories recognize that a human being in the course of his/her personal and social development learns forms of behavior and reactions. This learning is subject to a process of psychological enhancement, which means that the more frequent or stronger the psychological rewarding of these behaviors is, the more likely they are to occur and persist. Thus, in principle, any human behavior is a behavior acquired through learning as a result of positive or negative stimuli. Similarly, our behavioral interpersonal and social relationships are the result of the same process. Negative human reactions, which are considered to be the “product” of the socialization process, are thus subject to change according to this concept, which consists in “training” new behaviors and socially approved reactions.

The rehabilitation will therefore consist in finding a repertoire of stimuli that can extinguish pathological forms of behavior, and through a system of positive enhancements, and instead introducing new socially acceptable forms. This kind of rehabilitation is mainly based on the use of training methods (psychological training) and systems of institutional measures are based on the so-called “point economy” (Pospiszyl 1998).
Behavioral theories are aimed at explaining external forms of behavior of social misfits, and their entire conceptual and methodological apparatus analyses, evaluates and corrects all that is noticeable and recognizable. It can be assumed that this group of theories deals with the diagnosis and therapy of social misfits primarily from an external cognitive perspective.

The psychodynamic concepts have their origins in Freudian psychoanalysis and later neopsychoanalysis. Their essence is to perceive human behavior primarily from the perspective of one’s experiences from early childhood, and especially the quality of relations with one’s mother. The dominant meaning of three human spheres can be distinguished here: id, ego, and super ego, i.e. the subconscious, consciousness, and superconsciousness (moral controller). The distorted energy balance between them is the cause of human behavior disorders. The psychodynamic trend has introduced various forms of psychotherapy into the rehabilitation practice, such as individual, group, psychodrama or sociodrama psychotherapy.

Contemporary research on the theoretical basis of rehabilitation pedagogy is basically oriented towards sociological-psychological-criminological approaches, with particular attention paid to the possibilities of correction and repair of disturbed functions.

The ‘corrective and repair’ tendency of the rehabilitation activity is firmly established in the educational practice and results, on the one hand, from the university educational content models and, on the other hand, from many years of experience of Polish institutional rehabilitation systems.

**Towards the network – new directions of assumptions of rehabilitation theories**

The changing social reality requires the search for new solutions in the field of rehabilitation and, above all, the search for scientific evidence to create a theoretical basis for more effective methodological actions. At the turn of the 20th and 21st century, rehabilitation educators accepted and adapted another two visions to their activities: the cognitive and interactive trend, which turned out to be inspiring in designing rehabilitation methodological interactions (Konopczyński 2007, 2014).

In the assumptions of contemporary rehabilitation pedagogy, the phenomenon of the emergence of criminal behaviors and the possibilities of counteracting them is to a lesser extent the subject of analyses resulting from the already classic behavioral and psychodynamic approach, although their elements are still used in designing methods of interaction.

Two theoretical trends, characterized by a similar pedagogical reflection, are becoming more and more important. What I mean here are interactive concepts,
closely related to symbolic interactionism (Goffman 2005), and cognitive concepts with a special focus on cognitive personality theory (Kelly 1963).

Interaction concepts that have their origin in symbolic interactionism, which assumes an important role of the meaning of symbols in human actions. Human contacts are interpreted as the exchange and co-creation of symbolic meanings that are evoked by interactions, stimulating and modifying interactions. The consequence of these processes is to shape the personality of partners to the interaction and create opportunities for functioning in social groups. The categories of analysis in interactionism are as follows: Mind – understood as a process of thinking in terms of alternative possibilities of action, Self – awareness of one’s own individuality, Interaction – mutual interaction between two or more individuals, consisting in influencing one another’s behavior, Society – a form of collective life of people, based on interactions between individuals who form a self-sufficient community (Goffman 2011).

An example of an interactive vision used in the methodology of rehabilitation interactions is the concept of “a man in the theater of everyday life” by Erving Goffman (Goffman 2011).

Cognitive concepts having their origins in cognitive psychology, especially cognitive personality theory (Kelly 1963). The theory assumes that human mental and social activity consists in the creation of representations and the construction of reality, and this allows us to transform ourselves through constructs (information resources) created through comparisons, consisting in perceiving similarities and differences between events. These differences in construction systems are the very ones that cause problems in social interaction and interpersonal communication. Personality is an individual system of structured information, i.e. unique, personal experiences, and entering into deeper interaction with another person requires the knowledge and acceptance of the system of his/her constructs (cognitive scripts and attributions). The system of scripts and attribution does not force people to be helplessly subjected to the pressure of events, but allows them to decide on their importance, because there is no way of making choices outside the world of alternatives that they have built themselves” (Kelly 1963).

Both interactive and cognitive concepts expose the concept of human identity and give it a clearly regulatory character. This means that both the category of identity and the mechanisms of its construction can be an interesting subject of consideration in contemporary rehabilitation pedagogy. Therefore, scientists (including sociologists, anthropologists, psychologists and pedagogues) become more and more often focused on empirical research on the educational and socializing function of the Internet. It seems that the time has come to look at such research from the perspective of rehabilitation pedagogy and try to determine the rehabilitation power parameters of so-called “augmented reality”.

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(Re)socialization power of the Internet based on empirical research

According to a scientific study commissioned by the Children’s Ombudsman and NASK and conducted on a representative sample of students of Polish middle schools and secondary schools (1,235 students) selected by stratified drawing sampling, it results that in the young generation the use of the Internet has even become a social norm from the youngest years of teenagers’ lives – regardless of gender or school type.

The vast majority (86.2%) declare that they use the Internet on a daily basis, and 43.2% of respondents are continuously “online” (mainly because they use mobile devices – smartphones primarily). The inclination of young people to stay “online” increases significantly with age, while respondents from secondary schools declare their availability “online” much more often. Only a few students reported occasional use of the Internet (“several times a month” or “less than once a month”).

The average time of using the Internet for youth is approximately 3 hours and 40 minutes per day (median = 3.0 hours). The median is similar among both middle and upper school students and among girls and boys, but the arithmetic mean is higher among middle school teenagers and among boys, which indicates an increasing prevalence of people in these groups who spend much more time on the Internet than the average.

The research shows that currently the average age of Internet initiation in Poland is 9 years and 8 months (median = 10 years). What is more, the age of Internet use is decreasing. Today’s middle school students started using the Internet on average (median) at the age of 9. In contrast, current secondary school students started using the Internet on average (median) at the age of 10. There is no gender differentiation.

Definitely the most popular devices for communication with the Internet among young people (both middle high and secondary school) are: smartphone (54.3%), laptop (53.5%) and desktop computer (51.8%). In terms of gender, there is a difference only in the case of a desktop computer.

Boys use the desktop computer much more often than girls, probably due to slightly different usage strategies: boys use the desktop computer much more often as a gaming platform. The high position in the “ranking” of mobile devices (smartphone) indicates a change in the usability and importance of the Internet among young people. The Internet has become a permanent element of personal space or social interaction, and access to the “virtual web” determines the teenager’s position in the hierarchy of peers and can also influence his/her self-esteem.
According to the respondents’ statements, the Internet is treated primarily as a source of knowledge needed for school, for extracurricular activities or hobbies (68.6%), a place of entertainment (67.1%), a way of contact with others (62.1%). Slightly less frequently, the respondents described the Internet as a place to obtain current information (52.5%), and least frequently as a way to do shopping and other day-to-day business.

Social interaction and entertainment are the basic content of the “virtual world” of teenagers, so it should not come as a surprise that the vast majority use social networking sites several times a day (62.2%) and every fifth (21.3%) once a day. In this respect, no differences in the frequency of use were observed between students from middle and secondary schools. However, such differences exist between boys and girls – the latter are more often social networking users. Teenagers who use these services represent a very small margin of population (3.8%).

As it can be seen, daily use from social networking sites is dominant. Average statistics show the habit or even dependence of some teenagers on social networking sites, the average number of logins for daily users is 11.23 times a day. In addition, the average increases with age and affects more boys than girls.

The most frequently used social networking sites by teenagers are Facebook (96.9%) and YouTube (86.9%). These turnouts apply to a similar extent to both middle and secondary school students, regardless of gender.

Teenagers declare that they most often publish on social networking sites links to movies/photos on other sites (54.1%), their photos (47.5%), their own comments/stories (24.0%) and links to articles on other sites (19.8%). The frequency of editing their photos (and links to films and photos from other portals) in the network increases significantly in secondary school, while the number of comments is decreasing. It is worth noting that activity on social networking sites is slightly different among boys than among girls. Girls are much more likely than boys to post photos of themselves and their friends online.

The “virtual world” for teenagers consists of two areas of social interaction: people known in person and people known only through the Internet. The first area is the sphere of virtual interactions built on problems related mainly to education (35.9%) and to a lesser extent on personal (28.0%) and technical (25.7%) problems. The second area of virtual interaction is definitely the domain of technical (58.2%) and educational (24.8%) issues.

The “real world” is also made up of two types of interaction: peers, friends and colleagues and adults with whom the teenagers have a direct relationship (parents, teachers, etc.). The former is the sphere of interaction based on problems of personal life (62.7%) and school life (33.6%), while the latter is the sphere of interaction related to education (41.0%) and, to a lesser extent, to personal life (26.1%) and computer, telephone, etc. (26.0%).

The results indicate that the spheres of direct interactions are still very important in the lives of adolescents and there has not yet been a clear transfer
of interactions from real life to virtual life. New technologies in the case of the examined adolescents support or co-exist with direct social interactions. There are also no clear premises to request the migration of personal life to an anonymous virtual space. Personal life, as research has shown, is still a domain of interaction with people from real life, mainly peers. The research confirmed – by the way – the already observed tendency of decreasing importance of adults (including parents) in the social space of the young generation.

Teenagers’ knowledge of online safety is relatively good, most of the questions that test their knowledge of online safety were answered correctly, and they were particularly good at questions concerning: personal data, anonymity or reliability of information from the “virtual world”. However, the knowledge of teenagers has some clear shortcomings: some of the test questions were answered incorrectly by nearly half of the respondents. These questions included knowledge of information protection in e-mail services and copyrights on social networking sites.

A significantly worse result among middle school students is noticeable in the research. There was also some variation between girls and boys. The latter more often responded correctly to the anonymity of information on e-mail services, but much more often than girls declared their faith in the truthfulness of the content you see on websites.

The knowledge of online safety does not fully correspond to the behavior of teenagers. One in five respondents (21.1%) answered that all content they post on social networking sites is profiled as available to every web user and one in seven (14.6%) that they make it available to all or a selection depending on the situation. Additionally, in the surveyed population, as many as one in twenty (4.4%) claims that they do not see any need to restrict access to their personal data by other users.

After counting all the respondents whose profiles are available to other users for different reasons and to different degrees, we will obtain a percentage of 41.0%, which shows a fairly high “nonchalance” of the young generation in their approach to protecting their personal data online. When profiling the respondents by gender, on the other hand, a relatively better knowledge of the anonymity of content on e-mail services can be seen in boys, but at the same time they have greater faith in the truthfulness of the content on the Internet.

The diagnosed “nonchalance” in the activity on the Internet is further strengthened by the fact that teenagers are very trustworthy and honest in providing information about themselves on the Internet – as many as 57.9% of the respondents give their personal data truthfully every time, and 39.8% do so selectively. Only two people in a hundred (2.3%) have never published real personal data. Interestingly, this “nonchalance”, as the study results show, is more prevalent among secondary school students compared to middle school students and more often among girls than among boys.

Another type of risky behavior noted in the study is openness to direct interactions with adults met in the “virtual world”. Every tenth (10.6%) teenager
admitted to such an interaction, but when asked “Did any of your friends under 15 years of age, happen to meet an adult (an adult) he/she met on the Internet?”, where the percentage of affirmative answers was twice as high (20.5%). Therefore, the value obtained in the question (10.6%) is probably underestimated, and the real percentage of teenagers meeting directly with an adult they have met on the Internet is much higher.

In addition, it should be mentioned that, what is worse, almost every third (28.7%) of those who went to such a meeting did not inform anyone from their surroundings about it. If they, however, inform someone, it is usually a colleague (49.2%). Only one in three respondents – those who tell others about this fact – informed their parents (32.0%).

The tendency to not to inform about direct meeting with an adult met on the Internet is greater among secondary school students than among middle school students and among boys than girls. The risky behavior recorded is all the more surprising, as the vast majority (78.5%) of the respondents themselves declare that such meetings can be dangerous.

The Internet often proves to be a dangerous place for the young generation. As the results show, a teenager is clearly exposed to the risk of sexting. One in four (25.6%) respondents admitted that they have received intimate pictures over the Internet (by e-mail, chat, etc.). It is much more frequently admitted by boys (33.6%) than girls (17.9%).

The above percentages are probably underestimated due to the sensitivity of the survey question. Such a conclusion is induced by the distribution of answers to the projection question (projection of one’s own experiences to other people) “Do you know people who happened to send their intimate pictures to people they met on the Internet?”. The percentage of ‘yes’ answers in this case is clearly higher (30.0%), and especially higher among the girls surveyed (25.4%).

Teenagers are not only victims of sexting, but unfortunately they are also often the perpetrators. Although in the questionnaire question about sending one’s intimate pictures to other people met on the Internet or relatives, the percentage of ‘yes’ answers is very low (to people met on the Internet – 4.4% and to relatives – 7.9%), in the projection question the percentage of such answers is incomparably high, regardless of the type of school (30.0%). In the projection question, boys answered ‘yes’ (35.1%) more often than girls (25.4%), which allows us to hypothesize that the perpetrators of this type of pathology are more often male.

A separate type of Internet communication tool that poses a threat to a young person is Internet video communication. Of all the respondents, nearly 1/3 use this medium (32.0%) for video calls with strangers (see Table 29). However, only one in eight of all respondents (12.3%) received proposals from a stranger to appear without clothing during such video calls.

The percentage of respondents who responded positively to such a proposal was 1.9%. It should be remembered, however, that similarly to the previous
questions (concerning meetings with strangers, intimate photographs), the scores
received may be underestimated, but due to the relatively lower availability of
this type of (video) communication, these values are hypothetically lower than in
the case of intimate photographs.

The assessment of their parents’ IT competence among the surveyed teenagers
was relatively good, most often for both parents the teenagers indicated the
categories “Good – uses quite often, but sometimes asks me for help” – 67.2%
and “Very good – uses often and without problems” – 51.5%. It is no surprise
that the answer “good” is more common in teenagers from middle schools than
in secondary school students. The latter are also more likely to declare that no
parent (guardian) uses the Internet.

The above percentage differences between respondents from middle and
secondary schools show that parents’ digital competences depend on their age –
the higher the parent’s age, the worse the competences and the less frequent the
use. It should be predicted that every next generation of parents will be more and
more efficient in the use of the computer and the Internet.

It is also no surprise that the respondents assess the competence of their
fathers better than their mothers. This is due to the statistically significant diversity
of interests and frequency of Internet use between men and women. Nevertheless,
if it is worth noting that the differences in the assessment of these competences are
not dramatic, which allows to conclude that digital technologies are becoming
a common attribute, not differentiated by individual gender.

Despite the good digital competence of parents (subjectively assessed by
the respondents), the quality of parental control over their children’s Internet
activity is definitely negative. More than half of the adolescents surveyed (55.6%)
declared that their parents are not interested in what they do on the Internet,
39.3% said that parents try to control, but it is not full or effective control. Only
one in twenty respondents (5.1%) replied that parents have full control over their
activity on the network or computer.

The lack of parental control or its poor quality correlates with the type of
school. Parents of high school students have less control over their children’s
virtual activity and more often use ineffective control. The explanation for this
phenomenon should be sought in the parents’ lower digital competence, which
in turn affects their ability to apply supervision, but also (and perhaps most
importantly) their awareness of the need for such supervision.

The dominant method of parental control turns out to be indirect control,
i.e. talking to the child (62.3%) or viewing profiles on social networking sites
(17.0%). Relatively few parents use direct technical control: signal transfer
devices (13.2%), parental filter (2.3%), different ways without the child’s
knowledge and consent (10.6%). A higher percentage of direct technical control
is observed among parents of middle school children, which is probably due to
their better digital competence and risk awareness. Gender also differentiates
the type of control: girls’ parents prefer indirect control (conversation, insight into profiles).

There is no doubt that the effectiveness of such parental control is very limited. This is confirmed by the declarations of the teenagers themselves, whose opinions are unequivocal in this respect. The young generation is active in the “virtual world” without any or under the ineffective control of a parent or guardian. Therefore, digital threats cease to be threats and increasingly become real tragedies or injuries to the young generation.

The presented research results show the situation of “virtualized” life of Polish youth. They also show the helplessness of the adult world, including teachers and educators in the face of growing (re)socialization and educational problems of students and pupils.

A “real” and “virtual” identity may be subject to the same rules and mechanisms of creation, functioning and transformation. The difference between them lies in the existing levels of distortion of the quality of thinking about oneself, which also includes self-esteem, and the range between the ‘real self’ and the ‘ideal self’ and the resulting choices of priorities, as well as the levels of qualitative perception and identification of social contexts, and the types and levels of structural characteristics of the human ‘self’.

**Empathy and aggression in the space of virtual (re)socialization**

In the deliberations on selected identity consequences of (re)socialization mechanisms in the so-called “virtual reality”, based on empirical research, two of its effects seem particularly interesting in the context of the increasingly common functioning of children and young people in the “Internet space”.

One of them is the understatement of the level of empathy and its (re)socialization conditions, while the other is the problem of the increase in aggression and its identity contexts. Both of these dimensions generally cause numerous adaptation and deviation problems of a resocialization nature (Konopczyński 2007, 2014).

The problem of empathy has been first addressed by the psychoanalytical concept of personality (Wojciszke 2004; Aronson 2000; Reykowski 1979). Empathy was included in it in terms of a factor that regulates the behavior of an individual towards the object of identification. Another way to understand empathy is to reflect on what Jean Piaget’s statements about the degree of maturity and organization of cognitive structures considered in terms of the ability to take on the role of another person have inspired.

The traditional approach distinguishes between emotional, cognitive and emotional-cognitive empathy. The main criterion of division is the genesis of the
types of empathy, not the quality or sequence of mental processes or differences in their mechanisms. (Wojcieszke 2004; Reykowski 1979). In the position represented by Janusz Reykowski (1979), emotional empathy is understood as an emotional reaction, caused by perceiving someone else's feelings, leading to: experiencing someone else's emotions as one's own, co-feeling, i.e. transferring someone else's emotions onto oneself; compassion, i.e. an emotional reaction to the feelings of another person, but not necessarily the same as the emotions of that person, although taking into account their condition and oriented towards them. Cognitive empathy, on the other hand, is the process of putting oneself in somebody's position, and therefore, of seeing somebody else's reactions correctly. Cognitive empathy is sometimes identified with the ability to enter the cognitive situation and social role of another person and with interpersonal accuracy.

The genesis of empathy is seen in the difficult to specify mechanisms of human functioning in connection with his/her hereditary equipment. This hypothesis interprets the emergence and operation of empathy as a condition of human existence and adaptation to the social environment (Reykowski 1979). In the search for the origins of cognitive empathy, it is assumed that it is the result of experiences associated with other people and is created with the creation of cognitive structures and their hierarchization in the cognitive network. In the traditional approach to empathy (differentiated into emotional and cognitive or mixed), attempts are made to determine what are its relationships with other personality traits.

Emotional empathy is a concept in which “pure” emotional reactions dominate, expressed in the body’s direct response to a given stimulus. This kind of empathy appears at the earliest in human life. It is believed that it is related to one's hereditary equipment, understood as an inborn preference for one type of stimulus of social origin and the avoidance of others, which have no value either because of the individual's behavior in life or his mental development. This mechanism of empathy was dealt with by Freud, Rank, and Sullivan (Szmukier 1989), among others. Rank and Sullivan intuitively accepted the role of primary contact between mother and child in the formation of emotional empathy.

The very early existence of emotional empathy is shown by Schaffer (Szmukier 1989) based on the conclusions from experiments with newborns and infants. He concludes that the formation of the primary emotional bond (called attachment) and appearing around the ninth month of a child’s life is preceded by many processes related to the so-called training of feeling close, satisfying the most important emotional needs of the child (i.e. empathic reaction).

In Scheller’s works there is also a concept of intuitive understanding of the other person. It is described as the “primary relationship”, “you and I”, the “primary function” of the mind consisting in “abstracting oneself from oneself in order to be able to properly feel someone else's psyche”. Scheller emphasizes the “genetic programming of interpersonal relationships” by defining this type of primary
relationship between two persons as a “specific resonance” and assigning to it the function of communication between the subconscious of the interaction partners.

Freud assumed that empathy requires identification, although it is not identification. Identification is an unconscious mental activity expressed in a tendency to have an emotional connection with others. (Wojciszke 2004; Aronson 2000; Grzywacz-Kaczyńska 1971).

The biological nature of identification manifests itself in introjection, i.e. the originally conditioned tendency for the physical incorporation of others. The result of its mechanism is the inclusion of other objects into the human mental life (Nęcka 2005; Wojciszke 2004). Reik (Eliasz 1980) thought the same. He identified empathy with the unconscious mechanism of introjection (understood as taking on the mental states of another person).

Empathy is often associated with the process of induction of emotional states of one person to another. In the approach of psychoanalysts, there is a common tendency to treat empathy as a mechanism that works automatically, unconsciously fulfilling the function of direct communication with the possibility of mutual taking over of emotional states.

Sullivan explains the phenomenon of empathy at the level of the most primitive, reflex-like, unconscious, automatic, direct human mechanisms Sullivan 1957). This kind of empathy can also be called “experience at the level of feeling”. The changes in the body of the empathizing person are then of particular importance, and only secondary importance is attached to their consciousness (Szmukier 1989). It follows that the experience itself can be realized or verbalized. “In this respect, empathy is in itself an emotional process in which the emotional reactions experienced by one person are reflected in and responded to by the emotional reactions experienced by the partner” (Szmukier 1989).

Emotional and cognitive empathy is the first and primary level of the body’s inner emotional experience. It is an experience on the level of feeling – otherwise called emotional empathy. The second level of experience is the symbolic level – thanks to it a change in consciousness occurred (after the empathic experience). So emotional and cognitive empathy combines these two components. The advantage of one of them may determine the quality of this process and its regulatory role. With emotional and cognitive empathy, experience at the level of feeling is secondary and appears as a result of conscious control in this direction.

In order to induce or maintain empathic contact, a technique called “reflection” is used (consciously). It consists in putting your body in a state reflecting the muscle reactions of your partner, who is simultaneously experiencing emotions (such as: characteristic movements, gestures). Cognitive empathy is a process that does not involve emotions, but leads to the understanding of another person in terms of their emotions. The lack of a basic component of empathy (i.e. emotional involvement) calls into question the equal treatment of this type of empathy with others in which there is an emotional factor.
There are many synonyms of the concept of cognitive empathy in literature, which the authors sometimes use interchangeably. “Social insight” is one of the most frequently used. It is the ability to define a given social situation in terms of behavior that is ascribed to other people, and not to one’s own individual feelings towards them (Nęcka 2005; Wojciszke 2004). “Insight” is a reaction between the self image and what someone else thinks about us. “Interpersonal accuracy” is a concept that also identifies with cognitive empathy. It is understood as the accurate perception of other people (including their feelings and emotional states, thoughts, attitudes, views) in accordance with reality (Aronson 2000).

Sigmund Freud (1976) claimed that the basic psychological effect of identification is a subjective feeling of similarity between oneself and others. He treated the ability to identify with the other person as a developmental premise of empathy and at the same time as a necessary condition for empathy. He defined empathy as “understanding the mechanism by which we are able to interact with another person’s mental life. Empathy plays a fundamental role in understanding what is actually alien to us in other people.” Therefore, it should be understood that empathy is treated as a cognitive process in which an individual retains a sense of his or her own identity when evaluating another person’s experiences.

A similar point of view is presented by Reik (Katz 1963). In his view, empathy is also a cognitive process in which an individual, by engaging in intellectual activities, analyses the information obtained. However, this process has the opposite order to that proposed by Freud. Reik believes that the empathic process begins with “projecting one’s own personality” onto others. Then the individual incorporates the experiences of others and only then gains an intellectual distance to the combination of these two categories of information.

Katz (1963) introduces to the understanding of empathy a factor of loss of self identification. He believes that identification with another person is possible by projecting one’s own experiences onto another. During contacts with another person, the subject assimilates more and more knowledge about him or her, both informative and emotional. This can lead to emotional arousal, as a result of which the subject loses consciousness of being himself.

In the classical methodological concepts dealing with the rehabilitation interactions, the problem of empathy correction is strongly emphasized. Empathy, however, is understood here as a process of gradual identification with another person, including both the type of their experiences and the emotions accompanying them. However, it is noted that maintaining a sense of identity is a prerequisite for an effective empathic process. Perceiving the internal system of reference to another person in an accurate way, taking into account the emotional components and meanings it has, as if one were the other person, but without losing one’s sense of self (Konopczyński 1996, 2007, 2014; Reykowski 1979).

For the first time in the history of psychology, the concept of taking on the role of another person was presented by Georg Mead (1975). He defined this...
phenomenon as the ability to think and feel what another person may think and feel. Mead believed that this skill is acquired through the process of socialization, through assimilation of “social images and symbols”. He treated this ability as a condition for the development of one’s own self, as well as the basis of interpersonal communication.

R. Ianotti (Konopczyński 1996) in his theory of empathy points out that the basic determinants of empathic reaction are: the type of attitude towards a situation (egocentric or decentralized) and the nature of reaction to a situation (cognitive or emotional). The author considers a mature form of empathy to be one in which an individual is able to put oneself in another person’s situation (decentralized type of attitude) and at the same time is able to react emotionally to this situation as if it was his or her own.

A. Frączek (1975, 1977, 1993) presents a different way of understanding this phenomenon. According to him, empathy is triggered by informational properties. He draws attention to the subjective nature of empathy. Frączek’s standpoint suggests understanding empathy as a process of internal activity, triggered in situations where the emotional meaning of the situation is similar to permanently formed structures.

The problem of empathy is also raised by Kochańska (1976). She tells about the ability to notice other people’s needs, treating this ability as a learner in the process of social development and positively correlated with age. In general, one can say that empathy is treated as a reaction to the situation of another person. This reaction is triggered by the perception of signals indicating the social importance of interaction (or imagining oneself in such a social situation).

The mechanism mediating the formation of empathic arousal is the process of recognizing and understanding the situation of another person (the so-called entering the role). The theory of empathy also attempts to formulate theories about its regulatory function for human social behaviors and its role in creating identity determinants of interpersonal contacts.

The (re)socialization mechanisms also have a measurable impact on the development of aggressive behaviors and on the quality and trends of aggression. The boundary parameters of social roles filled with identity content have a specific and socially acceptable framework for human behavior. Interpersonal aggression beyond this framework is an important social problem, and the rehabilitation process is largely set on its elimination.

The most common and most capacious definition of aggression by Baron (1977) states that aggression is a behavior aimed at inflicting suffering on another person, who is motivated to avoid that suffering. Biological concepts of human seek the sources of aggression in the dynamic forces inherent in human nature.

These theories treat aggressive behavior and the associated experience of anger as a symptom of an innate fighting instinct. Such a view was shared by William MacDougall (Aronson, Wilson, Akert 1997), who claimed that human
behavior is guided by many instincts, one of the most important being the instinct to fight. It is a source of feelings of anger, which are an impulse for aggressive behavior.

According to MacDougall, the anger that arises on the basis of this instinct is a positive phenomenon from a biological point of view, as it stimulates the individual to acquire items needed to satisfy his or her needs, induces him or her to defend themselves against attacks, and makes it possible to maintain the current state of possession. Anger can be triggered by many different stimuli related to the experienced failures which become an impulse for aggressive behaviors.

Pierre Bovet (1928) also treated aggressive behaviors as a symptom of fighting instinct. In his opinion, this is one of the driving forces of human action. As a result of inhibitors, this instinct may not manifest itself directly in the form of an attack or assault, but may undergo various transformations (socialization, deviation, intellectualization, objectification of the fighting instinct).

S. Freud (1999) based his theory of aggression on psychoanalytical assumptions. He believed that human personality consists of three components: “id”, “ego” and “superego”. Conflicts arising between these components are the cause of frustration, which encourages aggression against people or objects. In the final phase of his scientific activity, Freud dealt mainly with the instinct of life and the instinct of death. He considered the contradiction between these instincts as a source of aggressive behaviors.

Representatives of the psychoanalytical approach to aggression (Adler, among others) also assumed the existence of an innate, genetically conditioned instinct of aggression, which occurs independently and alongside the sexual instinct is an essential driving force of human action. The tendency to aggression potentially lies in the body, while frustration can only create conditions conducive to its liberation and manifestation outside.

Those supporters of psychoanalysis who reject the existence of an innate instinct of aggression and claim that man is dominated by innate social instincts have a slightly different opinion on aggression. Aggression manifests itself when social instincts are inhibited, when for some reasons they cannot be satisfied. (Aronson, Wilson, Akert 1997).

The physiological theory of aggression attaches particular importance to both the hypothalamus and cerebral cortex. These two parts of the brain function antagonistically. The stimulating effect of processes taking place in the hypothalamus plays an important role in the formation of anger and the accompanying aggressive behavior, while cortical inhibiting processes can neutralize the state of stimulation created in the hypothalamus. Stimulation of the sympathetic system and relevant internal organs is secondary in nature and is the result of nerve impulses coming from the peripheral nervous system, which do not arise spontaneously, but are a consequence of the impact of certain external stimuli on the organism (Aronson, Wilson, Akert 1997).
Behavioral studies of aggression concern behaviors that can be included in a stimulus-response pattern. Rewarded aggressive reactions perpetuate, which results in the formation of appropriate aggressive behavioral habits, whereas if aggressive reactions are punished, they are halted and die out. The acquisition of new life experiences leads to a gradual differentiation of stimuli, with the result that only strictly defined (not similar) types of rewards and penalties begin to stimulate or inhibit aggressive behavior.

Behaviorists have also shown that aggressive behavior is dependent on certain environmental conditions. It was found that the patterns of aggressive behavior of group members and the anonymity of an individual acting in a group have a stimulating effect on the occurrence of aggressive behaviors. An entity behaves aggressively when acting together with a group that provides him/her with patterns of such behavior, approves them, and ensures anonymity.

Social factors can also counteract aggression, for example non-aggressive behavior patterns in the environment and the disapproval of aggression expressed by group members. Behaviorists have also recognized the existence of innate factors that can influence the intensity and frequency of aggressive reactions.

These factors are certain characteristics of temperament: impulsiveness, level of activity, reaction intensity and independence. Impulsiveness is based on the lack of developed inhibitors against aggressive behavior, combined with a lack of patience and a low threshold of tolerance to frustration. Little children show a high level of impulsiveness. The level of activity manifests itself in general mobility. A busy and energetic individual establishes more social contacts than a passive individual, which creates more opportunities for aggressive behaviors. The intensity of reaction depends on emotional excitability. Independence is a tendency to succumb to pressure from the group or its members, which often leads to various conflicts (Aronson 2000).

These temperamental properties may give rise to individual differences, manifested in the intensity and frequency of aggressive reactions. Behaviorists have explained the existence of these behavioral differences by the learning process and the influence of innate factors related to the type of nervous system and functioning of the endocrine glands. Although these characteristics of temperament are to a certain extent innate, they do not necessarily cause aggressive behaviors. They only create a state of some readiness for aggression, which is updated by the functioning of certain external stimuli.

Research on the genesis of aggression was also conducted by psychologists dealing with the influence of frustration on human behavior. John Dollard (Krahe 2005) claimed that frustration causes emotional stimulation in the form of anger, irritation or hostility, which is an internal impulse for aggression. This only happens in some frustrating situations. Emotional arousal created under the influence of frustration can take the form of anger, irritation, hostility, envy, as well as fear, anxiety, shame or feeling of inferiority.
The frustration-aggression theory by Dollard et al. (Dollard, Miller 1967) is an attempt to explain the complex mechanisms of social adaptation disorders in the context of faulty socialization mechanisms. It is based on an attempt to combine psychoanalytical concepts with behavioral concepts, and its main concepts assume that: the appearance of aggression always comes from frustration, and every frustration leads to some form of aggression.

Adam Frączek (Frączek, Kofta 1975; Frączek 1993) lists three meanings of the word “frustration”. The first one treats frustration as an obstacle that appears on the way to achieving a goal. These are therefore external factors linked to an objectively existing situation in which an entity performs certain activities in pursuit of a goal.

The second one captures frustration as an interruption of a sequence of activities aimed at achieving a goal. In this most common understanding, the term frustration means a certain objective effect of an obstacle. The third way of understanding frustration, popular in common language, refers to unpleasant emotions, which are the mental consequence of blocking the activities aimed at achieving a goal.

John Dollard and his colleagues, as the authors of the frustration-aggression theory, used the term frustration in the first and second meaning. The term “aggression”, on the other hand, is understood by them as an action aimed at causing damage to a person or object against which it is directed.

Frustration arouses aggression. The force of aggressive arousal, caused by frustration, depends on the force of the drive conditioning the blocked activity, on the weight of the obstacle blocking the way to achieve the goal and on the amount of frustration previously experienced. The inability to discharge the aggressive arousal causes additional frustration.

Dollard and his colleagues considered that in every crime there is aggression because the fact that a given behavior is punishable by law indicates that the act causes damage to a social group or its members (Dollard, Miller 1967). Therefore, crime has to have its condition in frustration. In this theory, the authors also take into account an additional psychological factor, which is anticipation of punishment. Whether a crime occurs and what form it takes depends on the relationship between the force of anticipation of punishment and the force of frustration.

However, research shows that frustration does not always lead to aggression, and not every type and form of aggression is the result of frustration (Aronson, Wilson, Akert 1997; Reykowski 1966; Frączek 1993). Aggression can result from assimilating aggressive behavior patterns. There are also grounds for assuming that in people who have had a particularly large number of frustrating experiences and were strong, the mechanism of aggressiveness is significantly expanded, and aggressive actions have a very high rewarding value.

We can assume that aggressive behaviors are a likely but avoidable consequence of frustration. They can be generated by signals in the social environment that
activate the cognitive patterns associated with aggression and thus stimulate aggressive reactions in their various forms. There is a likelihood of the existence of personal propensity related to the phenomenon of aggression. These tendencies can be described as: level of excitability, emotional susceptibility, level of distraction and rumination, hostile attribution style, acceptance of perspective, level of self-esteem and level of self-control.

The level of excitability can be defined as a habitual tendency to trigger impulsive provocative reactions. It has clear correlations with the level of frustration and affects the quality of interpersonal contacts. The symptoms of the syndrome of increased level of excitability are noticeable in people who are not socially adapted and influence the level of their aggressive behaviors. Emotional susceptibility can be described as an individual's tendency to experience discomfort and helplessness (Krahe 2005). It also indicates a lower threshold for responding to aggressive behaviors, especially in the dimension of affective aggression.

People with a low level of rumination (high level of distraction) have a low threshold of aggressive arousal. This means that they do not succumb significantly to stimuli and situational experiences associated with negative interactions. On the other hand, people with a high level of rumination are statistically more likely to retaliate and their cognitive structures are often geared to experiencing hostility. Hostile attribution style means a tendency to interpret various stimuli as categories of aggression directed to a person presenting this style of cognitive disposition. It is characteristic of certain personal types of socially unadjusted pupils, in whom the socially hostile knowledge structures developed lead to the interpretation of situational stimuli in terms of aggressiveness and hostility.

Accepting a perspective understood as the subject’s ability to present an orientation that is not egocentric towards another person's point of view consists in lowering the tendency to react and act aggressively in social interactions. It is conditioned by socializing influences, similarly to the previously mentioned constructs, and may also be subject to educational modifications.

Self-esteem is related to the level of aggressive behaviors. It is traditionally believed that a low level of self-esteem increases the likelihood of interpersonal aggression. Studies by Baumeister and Boden (1986) indicate an opposite correlation. Individuals with a high level of self-esteem are more inclined to present aggressive behaviors as a reaction to the threat of lowering that value. The level of self-control means the degree of functioning of the internal inhibitors that prevent aggressive reactions from being triggered. A low level of self-control can be considered to have a significant impact on the occurrence of pathological and criminal behaviors (Krahe 2005). This phenomenon may be characteristic of the Internet space of “augmented reality”, which is partly confirmed by the empirical research presented above.
(Re)socialization on the web as a challenge for rehabilitation pedagogy

The effects of socialization influences presented from a theoretical perspective, with particular emphasis on the role of (re)socialization mechanisms in shaping the parameters of social and personal human profile in the “real world”, which can also occur with a high degree of probability in the “virtual world”, make us aware of the importance of these processes in shaping identity parameters, and thus in creating various “real” and “virtual” social roles.

These influences cannot be overestimated, as they are common and ubiquitous. They are in constant dialog with educational influences, intertwining in scope and quality. Therefore, human identities in the course of their qualitative development are conditioned by the aforementioned influences, and their sum determines to a large extent the level of functionality of their parameters in both dimensions: individual and social, both in the real social reality and the “Internet reality”.

The mechanism of socializing influences as one of the basic factors shaping human identity has been a source of controversy and dispute for years. They concern both the scope of its impact as well as its quality and permanence. The latter issue, in particular, is of decisive importance in planning all methodological forms of rehabilitation impacts.

One of the most interesting concepts, inspiring in terms of rehabilitation and showing the quality and permanence of socialization mechanisms determining human social development, was developed by C.E. Sullivan and M.Q. Grant (1957). Its basic assumption is that a person, in the course of his or her socializing growth, reaches higher and higher levels of interpersonal maturity, and thus enters higher and higher stages of acquiring the competences of social coexistence with other people. According to the authors, from the moment of birth every human being comes into permanent contact with his or her environment, thus reducing internal tensions and meeting one's needs. The quality of these contacts is determined by the individual drive and emotional potential. The effect of the human body’s contacts with the multifaceted signals of the socializing environment is the process of differentiation of stimuli and individualization of reactions to these stimuli.

In the course of one’s development, a human being organizes and integrates the stimuli and reactions provided to them by the socializing environment into specific information structures. These structures are crucial in future interpersonal contacts and have the character of elementary cognitive, emotional and behavioral structures.

In the course of acquiring socialization experiences, human differentiates and integrates stimulus signals, creating a cognitive representation of himself, as well as other people and phenomena. It is more than likely that such a representation...
may also arise as a result of human activity in the space of “digital reality”. It is known that not all stimuli existing in this space affect an individual equally. The permanence and depth of their influence depends on many factors of an economic, psychological, social, etc. nature (Goldman 2001; Giddens 2006).

However, it should be remembered that all our previous knowledge about mutual relations between people in virtual space is based only on the relative knowledge of the coexistence of certain relations. They concern specific physiological and psychological characteristics and their correlation with environmental elements.

Therefore, we can only present these influences in terms of likelihood. In rehabilitation pedagogy, whenever we talk about the environment, we always emphasize its social character. We then mainly refer to the broad set of interactions in which an individual remains in his or her environment, the influences he or she experiences or is the source of, and the roles he or she plays. Each interaction has specific effects that are sometimes difficult to verify empirically.

The impact of the “augmented reality” environment on human can be twofold. Firstly, it can be a physical impact, usually with physical effects (fatigue, tearing, muscle or eye pain or headache),

Secondly, these are interactions by means of verbal messages, controlling the activity of an individual. The latter type is the most common stimulator of all social activities and events, including socializing ones (Pytka 2005).

In a broad sense, socialization is the process of development and formation of behavioral patterns in children and young people, constituting identity parameters, consisting in assimilating values, norms and models of behavior, as well as a resource of knowledge of the surrounding world. This process traditionally takes place within social environments such as family, school, peer environment, workplace, etc. It consists in communication, i.e. the exchange of signals between the social environment, which determines socialization, and a given individual. Antonina Kłoskowska (1972) believes that the transmitters of the messages are people representing a larger social group, and that the content of the message consists of: ways of behavior, norms and models, and a resource of knowledge about reality.

In the process of both traditional and virtual socialization, one of the most important roles is played by language as the basic formula of interpersonal communication and the foundation of individual and social identity.

According to Bernstein’s theory (Grabias 2019; Miller 1981), one of the stimulators, or even the necessary conditions, of the socialization process is language, which is defined as a system that exists objectively and represents the world. Speech, on the other hand, depends on existing circumstances and, under the influence of social conditions, symbolizes certain, and not other, fragments of reality. Using speech, an individual selects its components at both a structural and dictionary level, according to the rules provided by the specific social group.
Between language and speech, according to Bernstein, there is a social structure that determines what can be said. The author introduces the concept of two linguistic codes: developed and limited. In the developed code system, there is a wide range of linguistic solutions to choose from and the choice depends on the individual. In the limited system, however, these choices are reduced and the syntax is predetermined. The answer to a question can be guessed with a high degree of probability. The developed code allows an individual to express intentions, situations, presumptions in a verbalized and unique (individual) form. The limited code, on the other hand, inhibits individual expressions and rather stimulates non-verbal emotions (gestures, movements, etc.). Differences in the way both codes are absorbed should be sought in the environmental determinants of this process.

According to Bernstein, the limited code is characteristic of closed groups and communities, such as peers, etc. Generally speaking, it is characteristic of people with a lower level of education, lower cultural and economic level, etc. It is assumed that in the lexical sphere, language codes certain types of experience in more detail than in other fields. Generally, it can be assumed that language affects the cognition and evaluation of reality only when there is a linguistic coding, that is, when every stimulus has its verbal representation (Bruner 1978). This would mean that, with the development of intellectual messages, which cause the development of their verbal designators, the level of cognition and evaluation of specific phenomena, including social phenomena, increases.

According to Bruner, some environments stimulate cognitive development earlier, better and longer than others. When there is some kind of intellectual training in a particular environment and if language is not used in its pragmatic function of thought control, we are dealing exclusively with forms of evaluation functioning only in relation to specific phenomena. It is then difficult to talk about thinking that requires abstract notions.

We can distinguish three types of messages used in the transmission of information (Łukaszewski 1984). The first group are the so-called controlling messages. In a more or less categorical form, they recommend the recipient to perform a task, or stop him/her from certain behaviors (for example: “take an umbrella because it’s raining” or “don’t go out dressed like that because it’s cold”).

The second group of messages consists of the so-called announcing messages, i.e. those transferring news about events, situations, etc. These messages do not contain intentions to control other people’s behavior, but only inform about the results of cognition (for example: “it’s raining” or “it’s cold”). Finally, the third group of messages are the so-called pseudo-announcing contents. These messages, given in the form of an announcing information, have implicit control intentions. These are concealed controlling messages (for example “when it rains, people take umbrellas” or “when it’s cold, people dress warmly”).

All these types of messages are dealt with in the process of virtual socialization. Of course, depending on a number of factors, such as: education, cultural level of
the transmitters, life experience, intentionality of the message, etc., the proportion of types of messages will vary (for example, among transmitters representing a higher level of education, culture, announcing and pseudo-announcing messages will prevail, while among lower-level transmitters – controlling messages will prevail).

The messages received by children and adolescents are, next to their own observations, the basis for their formulation of specific perceptive judgments which, after generalization and systematization, lead to the formation of the so-called belief opinions. Then a specific cognitive attitude is created, which is one of the components of the attitude towards a given phenomenon or object. The changing environment in which an individual’s socialization is taking place makes it increasingly difficult for him or her to organize information coming from different sources. This is one of the main reasons for the disruption of the socialization process in modern societies.

The messages received by children and young people, emitted either by individuals from their environment or groups of people, have a decisive influence on the course and results of their socialization process. The internalization of these messages, which may have verbal or non-verbal forms, depends on many elements.

One of them is the readiness of the transmitter to skillfully convey to the recipient the rules and norms that organize human behavior and unify human activity. It is about creating certain standards leading to the construction of a structure – “Myself” and a “network of values”, i.e. structures through which a person can, as a certain individual, function in society. A question arises here whether this also directly translates into “augmented reality”?

It can be stated with a certain degree of probability that (re)socialization in virtual space is a broadly understood entry of an individual into the culture of the network, which at the same time shapes his or her social personality in this space. Shaping social personality parameters enables an individual to play a variety of social roles in the Internet reality and, as research indicates, in the reality of the real social world.

The effects a person’s confrontation with a set of stimuli sent by other people in the real world are, among other things, the most important mechanisms for the socialization process: identification and internalization, as well as imitation. They play a decisive role in creating identity parameters and enable interpersonal relations (Wojciszke 2004; Goodman 2001; Aronson 2000; Giddens 2006).

The first one consists in identifying one’s own interests and values with those of the group and in complying with the requirements of the group. During this process, an individual identifies himself/herself with a particular group, taking its values, patterns, norms, as well as assessment and valuation methods as his/her own. The mechanism of internalization, on the other hand, is like a state of identification with the values preferred by the group. This phenomenon can also be seen in the Internet space of “augmented reality”.
If we assume that the first concept is a sociological term, the second, in this context, should be understood as psychological. The mechanism of internalization is closely linked to the so-called social perception, which leads not only to the perception of simple phenomena and structures by a given person, but also to the understanding by the perceiving person his or her own social situation and the resulting consequences for his or her behavior (Aronson 2000). This perception undoubtedly takes place in the virtual reality.

In today’s “virtualized world”, a peculiar mixing of two realities takes place: the social – real one and the social – virtual one. These realities have more similarities than differences, as these analyses show.

Therefore, the question posed in the introduction about the possibility of carrying out rehabilitation activities in cyberspace is an open question. And this seems to be the most interesting challenge for contemporary rehabilitation pedagogy.

References