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Convictions which Impede the Social Adaptation of Minors – a New Tool in their Assessment and Analysis: Non-Adaptive Convictions Scale (NCS)

■ Introduction

The aim of this article is to present the theoretical assumptions, psychometric properties and the practical applications behind the Non-adaptive Convictions Scale (henceforth SPN from the Polish *Skala Przekonań Nieadaptacyjnych*), as used in the diagnosis and analysis of socially maladjusted minors' main convictions concerning themselves, the world and their own future.

The group of socially maladjusted minors is decidedly different to a population of well-adjusted individuals as regards the quality of intellectual and social functioning, within a variety of parameters. The crucial element in test studies is intellectual capability, which is a serious impediment to this type of research in socially maladjusted minors. Hence the need to create a tool which, while remaining reliable and accurate, can be adjusted to the cognitive abilities of the group in question. The questionnaire presented was standardised on a sample of 820 people between the ages of 16 to 20 and in its final form contains 36 statements. By means of factor analysis two main indicators for characterising the minors' way of thinking have been isolated.

The systematically growing number of crimes committed by minors calls for in-depth research into the issue, and in particular its etiology, which would help open up ways of organising appropriate prophylactic and

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rehabilitative actions. Modern rehabilitation philosophy has, beyond doubt, been influenced to a great degree by cognitive psychology and humanistic concepts, which stress the individual's ability to undergo positive change, his or her motivation and the importance of knowledge generated as a result of earlier experiences. Socially maladjusted individuals very often erroneously perceive and interpret events in the reality around them, leading frequently to aggressive reactions, disproportionate to the stimulus which triggers them, and, most importantly, incompatible with social expectations.

■ Theoretical Basis of NCS

Modern research on juvenile delinquency takes the form of a dynamic model, involving a number of factors which play on each other. One example is Glenn Walters' concept that argues that criminality is the product of three groups of variables at work: conditions, choice and the cognitive system. The first two groups, by influencing each other, bring about the third i.e. the individual's cognitive style of functioning (Rode, Rode, 2010). The cognitive system of a socially maladjusted individual has been shaped in the course of previous experiences in a way that justifies and upholds the individual's negative anti-social behaviours. The role of the tool presented in this article is to point out the dominant attitudes inexorably linked to the minors' maladjusted functioning. This in turn leads to further rehabilitative actions, including therapy, aimed at tackling the most dysfunctional attitudes to oneself and the world, and then introducing new adaptative attitudes in line with the thesis that any change in behaviour calls for prior cognitive change.

Modern cognitive social psychology assumes that the perception of people is the source and the process of discovering others. This approach remains faithful to the assumptions of J. Piaget's theory which states that social cognition is made up of knowledge and the ability to function socially (Stanik 2013, p. 339) whereas social cognition is the ability to understand other people, while acknowledging their emotional reactions and to solve problems in social situations.

■ Non-adaptive convictions vs. emotional intelligence

We have formulated a hypothesis that the lower the level of empathy and emotional intelligence, the stronger the conviction that there is no point in

making an effort to better one's own situation (hypothesis 1) and the stronger the belief that the world is bad and that bad behaviour is provoked by the actions of others (hypothesis 2).

■ Non-adaptive convictions vs. impulsiveness and tendency to take risks

The greater the impulsiveness, the stronger the non-adaptive dysfunctional convictions; with the individual not being able to 'cool off', to reduce their own emotional tension and then analyse information and subsequently integrate it into their own cognisance of the social reality around them (hypotheses 3 and 4).

The greater the tendency to take risks, the weaker the conviction that it is not worth making an effort (hypothesis 5). Cognitive psychology understands man as a creative individual who directs their thoughts and actions towards sustaining their existence and honing their psychophysical powers in order to assume the best position in the natural world and the social hierarchy (Urban, 2012, p. 11). In contrast to individuals with a high level of impulsiveness, people prone to risk-taking tend to look for new challenges and to act recklessly while taking the possible results of their behaviour into consideration.

The above thesis may refer to well-adjusted individuals, whereas in a group of socially maladjusted minors the tendency to take risks equates with more impromptu and rash behaviours, often carried out under the influence of third parties, and undertaken as a result of minimal knowledge concerning a given situation.

■ Non-adaptive convictions vs. aggression and criminal behaviours

The stronger the conviction that the world is bad and the reason for one's bad behaviour lies in the actions of others, the stronger the tendency to exhibit verbal (hypothesis 6) and physical (hypothesis 7) aggressive behaviour.

When compared to their secondary school peers, the residents of the juvenile education centre, having had experience of criminal acts, present stronger convictions as to the futility of making an effort towards improving

their own situation (hypothesis 8) and as to the fact that the world is bad and that the reason for their bad behaviour lies in other people's actions (hypothesis 9). Cognitive theory assumes that aggressive individuals display specific interpretations of the behaviours and intentions of others, to whom they assign mainly hostile and harmful intentions. This phenomenon, defined as the 'hostile attribution bias', activates aggressive scripts and the preparedness for aggressive reactions (Urban, 2012, p. 25).

■ The stages of constructing the Non-adaptive Convictions Scale (NCS)

Stage 0 – Devising the theoretical concept of the destructive convictions which have an influence on the manifestation of criminal behaviours: formulating the assumptions and definitions of four convictions which impede the adaptation of youth.

Stage 1 – Devising 70 test units for four dimensions; competent arbiters were asked to assess the face validity – as a result, the content of the statements which received the lowest assessment from these arbiters was adjusted.

Stage 2 – The analysis of the reliability of the positions initially assigned to each of the four scales on the basis of study 1 ($N = 820$, secondary school students): the positions which proved to have lowest reliability were crossed out and two scales were removed ('I can count only on myself' and 'I have no influence on the course of events') – these scales did not meet the required level of reliability (*Cronbach's* $\alpha < 0.6$). Finally, 36 statements were selected for further analysis, consisting of two convictions which impede social adaptation a) 'it is not worth making an effort' (16 statements, including, for example, 'I think you should not become attached to people because they leave you quickly anyway', 'whatever I do or say is going to be criticised anyway' or 'I very often experience a feeling of indifference') and b) 'the world is bad and it others who provoke me into bad behaviour' (20 statements including, for example, 'my negative behaviour is the result of other people talking me into it', 'attack is the best form of defence' or 'my teachers and tutors do not see my positive behaviour').

Stage 3 – Confirmatory factor analysis (CFA). In order to confirm the tool's assumed factor structure, research results from three different samples were analysed with the aid of the new scale: sample 1 ($N = 820$) – secondary school students; sample 2 ($N = 100$) – residents of the juvenile education centre;

sample 3 ($N = 100$) – secondary school students. The results of the analyses allow for the adoption of a two-factor model. The data collected has additionally allowed for a final assessment of the test reliability of both subscales.

Stage 4 – Devising psychometric properties concerning the tool's external validity. The analysis of the results of the research (sample 2 and 3) with the application of the new tool (SPN) and other tests measuring: emotional intelligence (DINEMO), impulsiveness, the tendency towards risk-taking and empathy (IVE) as well as the tendency to display aggressive behaviours (with the situation assessment test employed). The research conducted helped in gathering proof for the tool's convergent and discriminant validity. Additionally, the theoretical validity of SPN was tested, with the results of particular subscales in two groups compared: secondary-school students with no behavioral problems and residents of a juvenile education centre.

■ Factor structure and the reliability of NCS subscales

Confirmatory factor analysis.

In order to verify the factor structure and reliability of NCS subscales, statistical analyses were carried out on the results gathered from 1,020 testees: secondary school youth ($N = 920$) and residents of the Juvenile Education Centre ($N = 100$). The construction of the Non-adaptive Convictions Scale was based on the assumption that it consisted of two subscales: 1) *it is not worth making an effort, I'm not going to achieve anything anyway*; 2) *the world is bad, you have to defend yourself against it and it is others who provoke me into bad behaviour*. The factor validity of the questionnaire structure thus defined was verified with the application of the confirmatory factor analysis (CFA), devised in the R version 2.15.2 programme (R Development Core Team, 2012) with the use of the lavaan package (Rosseel, 2012). A two-factor model was tested (see Picture 1) and compared to a single-factor model. The affinity indicators of both models in relation to the data are illustrated below in Table 1.

Table 1. Confirmatory factor analysis – two types of models

Model	MFTS (χ^2)	df	p <	χ^2/df	CFI	TLI	RMSEA
2-factors	1543.04	593	0.01	2.6	0.941	0.937	0.040 (0.037–0.042)
1-factor	2315.82	594	0.01	3.9	0.893	0.887	0.053 (0.051–0.056)

Subscale Reliability.

The measurement reliability of subscales was established by calculating the internal validity coefficients of the test positions. The reliability indicators for both samples were respectively: a) *it is not worth making an effort* (16 statements; *Cronbach's* $\alpha = 0.785$) and b) *the world is bad and it is others who provoke me into bad behaviour* (20 statements; *Cronbach's* $\alpha = 0.842$).

Table 2. Descriptive statistics of subscales of SPN and the correlation between subscales

Subscale NCS	M	SD	1.	2.
1. it is not worth making an effort	2.41	0.53	1	
2. the world is bad, you have to defend yourself against...	2.57	0.60	0.443**	1

N = 1020; **. $p < 0,01$;

■ External validity of NCS

■ Method

Individuals tested and procedure

In order to verify the hypotheses concerning the validity of NCS, a quasi-experimental study in two groups was conducted: 1) residents of the Juvenile Education Centre No. 1 in Malbork ($N = 100$) and 2) students of Secondary Comprehensive School No. 1 in Malbork ($N = 100$). The first group was made up entirely of boys aged 13–18 ($M = 15.76$; $SD = 1.18$), the second of 74 girls and 26 boys aged 16–18 ($M = 16.81$; $SD = 0.44$). The group of residents is characterised by lower intellectual capability, evident signs of demoralisation through an inability to comply with the demands of compulsory education, criminal acts (mainly theft, mugging or burglary), a number of high-risk activities such as the use of psychoactive substances or alcohol. The individuals taking part in the study were asked to provide answers to the questions contained in the questionnaire. In the case of the residents, and given their cognitive and emotional deficits, the study was on an individual basis with the researcher assisting them, for example by reading the questions to them or explaining the instructions. The same group of testees required additional encouragement to maintain the motivation to complete the study and to pre-empt their giving up half-way through (e.g. the question required them to think over and analyse specific situations from their own lives).

The tools employed

Non-adaptive Convictions Scale. The questionnaire comprised 36 statements testing two convictions which impede social adaptation: "It is not worth making an effort" and "The world is bad and it is others who provoke me into bad behaviour". The structure as well as psychometric properties of this tool are described in this article.

DINEMO – Two-Dimensional Inventory of Emotional Intelligence. The test is made up of 33 multiple-choice questions. Each question contains a description of a situation and four answers, of which only one is correct and indicates an accurate identification and understanding of one's own and others' emotions. The tool allows for the testing of two dimensions of emotional intelligence: * *Myself* (a sample question: "You return to work after a longer illness. Your colleague asks you how you're feeling. You think she a) is well-mannered, b) likes you, c) is nosey, d) clearly wants something from you"; ** *Others* (a sample question: "You did not stick to a promise given to your friend a) you think it can happen to anybody, b) you feel embarrassed, c) you avoid the friend hoping he/she is going to forget about the whole thing, d) you're angry with yourself for rashly promising something". For the secondary school students, the reliability of both scales measured as follows: females *Cronbach's* $\alpha = 0.58$, males *Cronbach's* $\alpha = 0.66$; (for the subscale *Myself*) females *Cronbach's* $\alpha = 0.72$, and males: 0.64 (for the subscale *Others*). The reliability indicators are similar to those referred to by the authors (Jaworowska, Matczak, 2006).

IVE. A questionnaire comprising 54 statements which test three traits: **Impulsiveness** (sample statements: 'Do you often buy things on impulse?', "Do you often become involved in things which you'd like to back out of later?"), **Tendency to take risks** (sample statements: "Do you like jumping from a high diving board?", "Do you sometimes do things which might be a little scary?"), **Empathy** (sample statements: "Do you easily become nervous when others around you seem nervous too?", "Are you very touched when you see someone cry?"). The person tested is required to answer each question with a YES or a NO. The reliability of particular scales in the study measured: for the group of females aged 16–30 *Cronbach's* $\alpha = 0.80$, for the group of males aged 16–30 0.81 (for the subscale *Impulsiveness*) and *Cronbach's* α females: 0.79 and males 0.73 (for the subscale *Tendency to take risks*), as well as *Cronbach's* $\alpha = 0.66$ for females and males (for the subscale *Empathy*). The reliability indicators are similar to those referred to by the authors (Jaworowska, 2011).

Aggressive Behaviours. A situation assessment test comprising descriptions of nine difficult events in which the subject could potentially be involved. Each situation has been assigned four possible behaviours as a reaction to the situations described. The subject is expected to select the behaviour closest to their own. For each question two answers describe aggressive behaviour: one relating to physical aggression (sample answer: "During a break a student from an older class bumps into you in the corridor and hits you painfully in the arm. You a) do nothing because you think it was just an accident and the boy did not mean to do it – an answer devoid of aggression; b) address a few severe words in his direction – an answer containing verbal aggression; c) hit him back as hard as he hit you –an answer containing physical aggression; d) hit a nearby object instead of the boy – an answer containing displaced aggression").

The aggressive behaviour indicator is the number of aggressive behaviours selected. Two independent indicators are calculated: physical aggression (*Cronbach's* $\alpha = 0.711$) and verbal aggression (*Cronbach's* $\alpha = 0.571$).

■ Results

The stronger the conviction that the world is bad and that the reason for bad behaviour lies in the actions of other people, the stronger the tendency to display verbal aggressive behaviour ($\beta = 0.273$; $p < 0.01$) $F(1.93) = 7.400$; $p < 0.01$; $R^2 = 0.07$. Moreover, the results of the analyses allow for the confirmation of the connection between non-adaptive convictions and tendencies to display physical aggression. In this case, it transpired that both convictions play a substantial part. The model which assumes the influence of the convictions 'it is not worth making an effort' and 'the world is bad' is well suited to the data $F(2.93) = 10.791$; $p < 0.01$ and explains the slightly over 17 % variance in the tendency for physical aggression (*Adjusted* $R^2 = 0.17$). The results confirm that the stronger the conviction as to the lack of sense of making an effort to improve one's situation ($\beta = 0.272$; $p < 0.05$) and the stronger the conviction that the world is bad and the reason for bad behaviour lies in the actions of others ($\beta = 0.226$; $p < 0.05$), the stronger the tendencies to display physical aggression². The graphic representation of the result described is presented in Figure 3.

² Because both convictions are significantly correlated, the colinearity statistics of the model were verified. Indicator VIF=1.42 – did not therefore exceed the acceptable figure of 2.0 (see Bedyńska, Książek 2013).

As expected, residents of the Juvenile Education Centre display a higher level of the 'it is not worth making an effort' conviction ($M = 2.60$; $SD = 0.52$) and it is a conviction definitely more deeply rooted than that of the comprehensive school students – properly adjusted ($M = 2.29$; $SD = 0.50$) ($t = 4.264$; $p < 0.01$). The same applies to the conviction that “the world is bad and it is others who provoke me into bad behaviour”, with the Juvenile Centre’s residents displaying a higher level of convictions which impede adaptation ($M = 2.83$; $SD = 0.65$) when contrasted with secondary school students ($M = 2.18$; $SD = 0.48$) ($t = 8.047$; $p < 0.01$). The differences are presented in Figure 2.

The period of adolescence is a phase of dynamic change when it comes to the formation of personality, in particular: the search for an identity, a sense of belonging, one’s place in life, the shaping of the sense of control and one’s own effectiveness. In a group of socially maladjusted minors these processes become distorted, with the personality developing in the wrong direction, but at the same time, there is still a chance to introduce change and rectification in this area.

■ Discussion of results

The results of the study form the basis for the confirmation of all the hypotheses posited, which means that the thesis may be adopted (while bearing in mind theories of the multifactorial determinants of juvenile delinquency) that one of the most crucial elements in determining whether an individual will become involved in criminal activity or not is the manner in which they perceive the reality around them, i.e. the key convictions they hold on this subject. Specialist literature has widely described the determinants of juvenile crime (Ostrowska 2008, Opora 2009, Urban 2000, Siemionow 2011), and for this reason the present article passes over this question. With reference to one of the most recent psychological and cognitive approaches to criminal personality, i.e. G.D. Walters’s theory of criminal lifestyle and thinking (1990), it should be stressed that this particular lifestyle is based on a specific system and thinking styles. In order to fully understand the results presented above and their implication for rehabilitation practice, three fundamental principles of Walters’ theory must be considered. Firstly, criminal lifestyle is characterised by four behavioural traits: 1) extreme irresponsibility, 2) leniency towards oneself, 3) audacity and arrogance in interpersonal communication

and 4) habitual violation of social norms and the rules of law (Stanik, 2013, p. 347). Another assumption points to the fact that a socially maladjusted individual with a criminal lifestyle, despite many possibilities to choose a certain behaviour (of course also dependent on situation, apart from personality-related conditions), exhibits a constant readiness to engage in negative behaviours, undesirable from the point of view of law and order. The third assumption, of most significance to the current study, states that the choices made are performed through cognitive structures (Stanik, *ibid.*). The result of this assumption is the line of reasoning according to which successful rehabilitation intervention is possible only when appropriate changes to the maladjusted individual's cognitive system are introduced. For this reason therefore, effective rehabilitation is a combination of pre-planned and well-timed activities, which, apart from working on the behavioural level, also consider work based on the "individual's cognitive resources". By the term 'resources' I mean embedded dysfunctional convictions which, as a result of psychocorrective actions preceded by an appropriate diagnosis, will lead to a partial change, at least, in the most dysfunctional convictions and will introduce new, more adaptive alternatives in their place. The tool presented in this article is a suggestion which might be used in the diagnosis of these types of convictions and its employment allows for the effective use of rehabilitation. Moreover, the Non-adaptive Convictions Scale takes into account the specifics of the cognitive functioning of socially maladjusted minors, which also increases its reliability.

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Appendix 1. Non-adaptive Convictions Scale

QUESTIONNAIRE: WHAT ARE MY CONVICTIONS?

Instruction

Carefully read all the statements below and for each of them mark to what extent it refers to your way of thinking and behaving. There are no right or wrong answers, what is important is that the answers are a true reflection of you. **For each answer, circle the right number.**

Example: sometimes I deliberately mislead people **1 2 3 4 5**

1 – definitely not (**absolutely inaccurate** statement as far as I am concerned)

2 – rather not (**inaccurate**, I might at times happen to think that way)

3 – yes and no (equally **accurate** and **inaccurate**, half and half)

4 – rather yes (**accurate**, describes my way of thinking well)

5 – definitely yes (**absolutely accurate**, in line with my way of thinking)

No.	Statement	Definitely not	Rather not	Yes and No	Rather yes	Definitely yes
1	2	3	4	5	6	7
1	I think that everything that happens to me happens independently of me.	1	2	3	4	5
2	I think that most of the people I know do not care about me.	1	2	3	4	5
3	I often experience a feeling of indifference.	1	2	3	4	5
4	I am in the education centre as a result of other people's bad decisions.	1	2	3	4	5
5	I think that life is hard and full of negative events.	1	2	3	4	5
6	I think that you cannot get attached to people because they will soon leave you anyway.	1	2	3	4	5
7	When I take a risky action, I don't think of the consequences.	1	2	3	4	5

1	2	3	4	5	6	7
8	Teachers and tutors don't see my positive behaviour.	1	2	3	4	5
9	If someone hurts me, I'll pay them back the same way.	1	2	3	4	5
10	My negative behaviour is the result of pressure from others.	1	2	3	4	5
11	I don't think it's worth making an effort because nothing is going to work for me anyway.	1	2	3	4	5
12	Generally, others have a hostile attitude towards me.	1	2	3	4	5
13	I generally expect an unpleasant attitude from those I meet.	1	2	3	4	5
14	I am often unfairly judged by my teachers.	1	2	3	4	5
15	I am frequently held accountable for things I haven't done.	1	2	3	4	5
16	My words are often misunderstood.	1	2	3	4	5
17	Whatever I do or say is always met with criticism.	1	2	3	4	5
18	One small failure can knock me off balance for a long time.	1	2	3	4	5
19	Difficult circumstances can justify committing a crime.	1	2	3	4	5
20	The police and the courts are institutions which make people's lives difficult.	1	2	3	4	5
21	To justify my own behaviour I adopt the theory that there are people who commit worse crimes.	1	2	3	4	5
22	Situations and the people involved in them can only be controlled by force.	1	2	3	4	5
23	Nothing can be done to improve the way I feel in the education centre.	1	2	3	4	5
24	I must pay others back for the wrongs they have done to me.	1	2	3	4	5
25	Attack is the best form of defence.	1	2	3	4	5
26	My problems are always an unfortunate combination of things, so-called bad luck.	1	2	3	4	5

27	I never say 'no' to my friends, even if what they suggest is criminal.	1	2	3	4	5
28	What is most important for me is that any behaviour on my part which violates the centre's regulations is not discovered.	1	2	3	4	5
29	I think that, by and large, I have no influence over what happens in my life.	1	2	3	4	5
30	No matter what I do, I don't care about the consequences.	1	2	3	4	5
31	The comments I receive from my teachers are unfair and groundless.	1	2	3	4	5
32	From those who in my opinion don't like me, I expect only unpleasant and negative situations.	1	2	3	4	5
33	I wouldn't be where I am now if it hadn't be for a series of coincidences, over which I had no control.	1	2	3	4	5
34	An unpleasant situation at the beginning of the day condemns the day to failure from the outset.	1	2	3	4	5
35	If someone or something knocks me off balance, I cannot control myself any longer.	1	2	3	4	5
36	I take various decisions when I'm angry.	1	2	3	4	5