

COMPARATIVE ANALYSIS OF LATENT STRUCTURES OF VARIABLES OF PATHOLOGICAL CONNATE CHARACTERISTICS IN CASE OF HANDBALL PLAYERS BELONGING TO DIFFERENT COMPETITION RANKS

Veroljub Stanković¹, Julijan Malacko² and Dragan Doder³

¹ Faculty of Sport and Physical Education, Leposavić

² Faculty of sport and physical education, University of Novi Sad, Serbia

³ Provincial Institute for Sport, Novi Sad, Serbia

Original scientific paper

Abstract

The aim of this research to measure the system containing 12 pathological connate variables on the sample of 180 handball players belonging to the First and Second League as well as the national rank of the Republic of Serbia; then, this research aims to determine their latent structure and conduct the comparative analysis among three groups of athletes (in each sub-sample there are 60 respondents) so the information on the variety of latent structures towards the levels of the quality of athletes in competition ranks will be obtained. The obtained information can be used for the purposes of forming more rational procedures for optimal modelling, diagnosis, programming and controlling the training process as well as for efficient tracking of their development during continual selection and implementation of transforming training process. By applying the factor analysis (direct oblimin) and Kaiser-criterion ($\lambda \geq 1.00$), there are two pathological latent variables (integral neuroticism and asthenic syndrome) detected with the handball players belonging to the First League; the statistically significant connection between these two variables is at the level .00. In case of the handball players belonging to the Second League, two pathological latent variables have been isolated (asthenic-sthenic syndrome and conversion sthenic syndrome); two variables can be found in case of the handball players belonging to the national rank (sthenic-dissociative syndrome and asthenic-conversion syndrome); there are no statistically significant connection in none of these two groups of handball players. The results of comparative analysis show that the group of handball players belonging to the First League characterizes integral neuroticism and anxiety – the decrease of excitation and reduction of adaptation so they show greater ability to adequately model excitatory and inhibition processes; the features of the handball players belonging to the Second League are overt insecurity, slightly increased or decreased excitation and functioning at slightly increased level of tension. In case of the handball players belonging to the national rank, disorders of mechanism for regulating vegetative nervous system and integrative functions (structuring of excitatory and inhibition processes) have been detected.

Key words: handball players, pathological connate variables, factor structure, comparison

Introduction

Today there are a lot of psychological theories attempting to explain the development of personality, basic determiners of activities and relationships as well as the basic structure elements. The complexity of the phenomenon of studying the personality results in numerous theories (Eysenck and Cattell theory on structure of normal connate characteristics, Momirović theory on structure of pathological connate characteristics etc) because various authors approach studying and explaining the personality from different standpoints (Momirović, Wolf & Džamonja 1992). The relevant scientific research of sports activities are not carried out easily without the knowledge of pathological connate characteristics because these characteristics restrict or stimulate human abilities. It is known that some characteristics from connate space restrict efficiency directly in some activities and indirectly in another (for example, due to contaminating effect on other anthropological characteristics). In some activities the same connate characteristics might be viewed as a restrictor, and in another activities they can be stimulator of efficiency, especially if they are part of

the success of certain sports activity (Malacko, 1976). Integral model of connate characteristics means that there is the number of connate regulation mechanisms, which are responsible for human adaptation to various conditions of life and work. According to contemporary theory of learning, which is not contradictory to genetic views on personality, states that variations from the environment almost equally have impact on so-called normal and pathological models of behaviour. This theory implicitly involves the hypothesis that roughly the same mechanisms lie in the basis of normal and pathological connate characteristics (Horga, 1974). The connection between personality and the type of sport may exist at several different levels. The first assumption is about characteristic structure of personality that motivates the individual to choose certain sports discipline, and at the same time it is an important factor of success in this sport. The next assumption says that such structure of connate characteristics does not exist but doing a sports activity brings to modification of structure of certain connate characteristics which are not under significant genetic influence for that sport. The third assumption states that there is so-called "sports

personality" which encourages the initial taking up some sports activities, but by participation and selection within various sports disciplines there is modelling of this activity into the personality characteristic to certain sports discipline (Stanković & Malacko, 2008). As far as pathological connate characteristics are concerned, it is determined that their increased intensity reduces the extent of adaptation, then they create disorders in integration of personality; thus, the balance between processes of irritation and inhibition is disturbed, and it means that there is relative influence of disposition on most particular characteristics or groups of those characteristics, which concretely means that they are largely genetically conditioned (Sabioncello, 1973; Powell & Royce, 1981; Momirović, Wolf & Džamonja, 1992; Stanković, 2000; Malacko & Rađo, 2004; Malacko, 2009).

The aim of the research

The aim of this research is to determine the structure of latent variables of connate characteristics of handball players belonging to the First and Second League and handball players belonging to the national rank of the Republic of Serbia; then, there will be comparative analysis among three groups of athletes in order to get the information about varieties of formed connate latent structures in comparison with the levels of quality of athletes in the competition ranks so more rational procedures for optimal modelling, diagnosis, programming and control of training process can be formed. Likewise it enables efficient tracking of their development during continual selection and implementation of transformation training process.

Methods

Participants

The process of respondent measuring has been conducted on the sample representative for the Republic of Serbia, and it has been carried out in the handball clubs belonging to the First and Second League as well as to the national rank of Serbia. The system of 12 pathological connate variables was applied on the sample of 180 handball players (each sub-sample consists of 60 respondents).

Instruments

In order to assess pathological connate characteristics from the battery 18 PF of K. Momirović (Momirović, Wolf, Džamonja, 1992), the following variables are used and they belong to the first-tier factors (manifest variables), the second-tier factors (syndromes) and cybernetic model of efficiency of regulative systems: *efficiency of the system for regulation and control of defensive reactions* (ALPHA) – 1. anxiety (A1), 2. phobia (F2), 3. hypersensitivity (S5), 4. obsessiveness (O3), efficiency of the system for regulation and control of organic functions (HI) – 5. cardiovascular conversion (K10), 6. inhibitory conversion (I7), 7.

gastrointestinal conversion (G11), 8. hypochondria (H13), *efficiency of the system for regulation and control of attack reaction* (SIGMA)– 9. impulsiveness (N14), 10. aggression (T15) and *efficiency of the system for coordination of regulative functions* (DELTA) – 11. paranoia (P18), 12. depression (D6).

Procedures

The process of determining the latent connate variables is made by factor analysis, by applying oblique transformation (direct oblimin); for the purposes of extracting the number of characteristic roots, Kaiser criterion $\lambda \geq 1.00$ is applied. For all applied variables, component matrix (main components) and communalities (h^2) are calculated so new informatics values have been obtained. The structure of latent connate variables is calculated by pattern matrices which comprise parallel projections of variables onto the factors, then by structure matrices containing orthogonal projections, i.e. correlation of variables and factors as well as by matrices of intercorrelation among latent variables (factors). The data is processed by statistical package SPSS Statistics 17.

Results

Since the latent structure is not determined within factor analysis when it is defined by only one manifest variable, the paper gives an overview of only those latent variables which are defined by at least three manifest variables. Due to the limited space, the interpretation is conducted by oblique transformation (pattern matrix), which contains parallel projections, i.e. the length of vector coordinates in the coordinate system, along with the matrices of intercorrelation among latent variables. In case of handball players belonging to the First League (Table 1), *the third latent variable* (Lv-3) includes the variable of wider range because they are defined by variables from four groups (syndromes) of the second-tier factors and model of regulative systems: the variable O3 – obsessiveness for estimating asthenic (anxiety) syndrome – the regulator of defensive reaction (ALPHA), presumably located in the limbic system, which modulates tonic excitement partly on the basis of the programmes transmitted by genetic code, and partly under the influence of ontogenic development; the variable K10 – cardiovascular conversion and H13 – hypochondria for estimating conversion syndrome – regulator of organic functions (HI) formed by combination of sub-cortical centres for regulation of organic functions, which are especially located in the hypothalamic region and the cortical systems for regulation and control which are superior to them; the variables N14 – impulsiveness and T15 – aggression for estimating sthenic syndrome – regulator of attack reaction (SIGMA), presumably located in the limbic system and, similarly to the centre for regulating defense, modulates tonic excitement but on the basis of the programme for destructive reactions formed either during phylogenetic or ontogenic development; the variable P18 – paranoid features

for estimating dissociative syndrome – the system for coordination of regulative functions (DELTA), which is functionally superior to the regulators of organic functions, attack reactions and defensive reaction, and partly to the regulator of activation and it coordinates the functions of subsystems which are different in terms of function and hierarchy including the functions of cognitive processors and motoric regulators. *The fourth latent variable (Lv-4) is defined by the variable A1 – anxiety, S5 – hypersensitivity and D6 – depression for estimating asthenic (anxiety) syndrome – regulator of defensive reaction (ALPHA).* The matrix of intercorrelation among latent variables shows that there is statistically significant correlation between the third and fourth latent variable, which are considered to be conditioned by presumably hierarchical organization of regulation systems with collateral links of the system of the same hierarchical level, and the efficiency of each depends on the efficiency of all or most of other systems. The communalities of manifest variables are satisfactory and they are in the range from .51 to .89.

Table 1. Pattern matrix for the handball players belonging to the First League

Manifest variables	Lv-1	Lv-2	Lv-3	Lv-4	h ²
A1 - anxiety	.21	.15	.15	-.59*	.75
F2 - phobia	.93*	.00	.01	-.15	.51
S5 - hipersensitivity	.10	-.03	.12	-.77*	.81
O3 - obsessiveness	-.04	.04	.80*	-.15	.74
K10 - cardiovas. conv.	.09	-.28	.32*	-.29	.71
I7 - inhibitor. conver.	-.01	.87*	.16	-.23	.77
G11 - gastroint. conv.	.08	-.03	.01	-.08	.89
H13 - hypochondria	.06	-.03	.78*	.06	.69
N14 - impulsiveness	-.14	-.13	.50*	-.25	.56
T15 - aggression	.00	.15	.52*	-.06	.55
P18 - paranoia	.29	.16	.68*	.23	.72
D6 - depression	.03	.14	-.03	-.75*	.75
Latent variables	Lv-1	Lv-2	Lv-3	Lv-4	
	Lv-1	1.00			
	Lv-2	.07	1.00		
	Lv-3	.42*	.13	1.00	
	Lv-4	-.32*	.03	-.50*	1.00

Lv-1 – the first latent variable Lv-2 – the second latent variable, Lv-3 – the third latent variable, Lv-4 – the fourth latent variable, h² – communalities of variable

In case of the handball players belonging to the Second League (Table 2), *the second latent variable (Lv-2) is defined by variable A1 – anxiety and S5 – hypersensitivity for estimating asthenic (anxiety) syndrome – the regulator of defensive reaction (ALPHA), the variable N14 – the impulsiveness for estimating sthenic syndrome – the regulator of attack reaction (SIGMA) and the variable P18 – paranoid features for estimating dissociative syndrome – the system for coordinating regulative functions (DELTA).* *The third latent variable (Lv-3) is defined by variable I7 – inhibition conversion and H13 – hypochondria for estimating the conversion syndrome – the regulator of organic functions (HI) and variable T15 – aggression for estimating sthenic syndrome – regulator of attack reaction (SIGMA).* The matrix of intercorrelation shows low and/or zero intercorrelation among isolated latent variables which are not statistically significant.

The communalities of manifest variables are satisfactory and they are in the range .53 to .88.

Table 2. Pattern matrix of the handball players belonging to the Second League

Manifest variables	Lv-1	Lv-2	Lv-3	Lv-4	Lv-5	h ²
A1 - anxiety	.14	-.80*	-.13	-.09	.26	.76
F2 - phobia	.07	.03	-.15	.05	.94*	.85
S5 - hipersensitivity	.05	.42*	-.41	.39	-.28	.85
O3 - obsessiveness	.93*	.02	.00	.03	.14	.88
K10 - cardiovas. conv.	.10	-.23	.00	.84*	.01	.83
I7 - inhibitor. conver.	.22	-.08	.78*	.06	-.10	.63
G11 - gastroint. conv.	-.03	.15	.05	.93*	.10	.86
H13 - hypochondria	.14	.22	-.44*	-.13	-.42	.53
N14 - impulsiveness	.30	.86*	-.14	-.12	.20	.87
T15 - aggression	-.03	.39	.72*	-.09	-.06	.70
P18 - paranoia	.17	-.53*	-.21	.10	-.42	.60
D6 - depression	.89*	.00	.18	.02	-.10	.68
Latent variables	Lv-1	Lv-2	Lv-3	Lv-4	Lv-5	
	Lv-1	1.00				
	Lv-2	-.00	1.00			
	Lv-3	-.04	-.00	1.00		
	Lv-4	.16	-.06	-.08	1.00	
	Lv-5	-.07	-.04	.15	-.09	1.00

Table 3. Pattern matrix of the handball players belonging to the national rank of Serbia

Manifest variables	Lv-1	Lv-2	Lv-3	Lv-4	Lv-5	h ²
A1 - anxiety	-.09	-.02	.10	.87*	-.25	.72
F2 - phobia	.00	.04	.12	.50*	.08	.46
S5 - hipersensitivity	.17	.31	-.06	.16	.51*	.72
O3 - obsessiveness	.10	-.11	.95*	-.01	.12	.67
K10 - cardiovas. conv.	.09	-.10	-.08	.36*	.28	.69
I7 - inhibitor. conver.	.01	.10	.31*	.21	-.11	.48
G11 - gastroint. conv.	-.05	.99*	-.02	-.10	-.01	.82
H13 - hypochondria	.90*	.17	.04	.18	-.06	.79
N14 - impulsiveness	-.13	-.04	.10	-.09	.54*	.72
T15 - aggression	.50*	-.06	.13	.05	.24	.65
P18 - paranoia	.24*	.12	.23	.06	.17	.60
D6 - depression	.41*	-.05	.01	-.11	-.12	.82
Latent variables	Lv-1	Lv-2	Lv-3	Lv-4	Lv-5	
	Lv-1	1.00				
	Lv-2	.09	1.00			
	Lv-3	.32*	.13	1.00		
	Lv-4	.17	.16	.32*	1.00	
	Lv-5	.11	.03	.11	.18	1.00

Lv-1 – the first latent variable, Lv-2 – the second latent variable, Lv-3 – the third latent variable, Lv-4 – the fourth latent variable, Lv-5 – the fifth latent variable, h² – communalities of variables

In case of the handball players belonging to the national level of Serbia (Table 3), *the first latent variable (Lv-1) is defined by variable H13 – hypochondria for estimating conversion syndrome – regulator of organic functions (HI), T15 – aggression for estimating sthenic syndrome – the regulator of attack reaction (SIGMA) and P18 – paranoid features for estimating dissociative syndrome – the system for coordinating regulative functions (DELTA).* *The fourth latent variable (Lv-4) is defined by variable A1 – anxiety and F2 – phobia for estimating asthenic (anxiety) syndrome – the regulator of defensive reaction (ALPHA) and K10 – cardiovascular conversion for estimating conversion syndrome – regulator of organic functions (HI).* The matrix of intercorrelation reflects that there is no statistically significant correlation between the first and fourth isolated latent variable. The obtained communality sizes of all variables are relatively high and they are between .46 and .82.

Discussion

The pathological connate characteristics are the personality features where there is significant, and sometimes really high intercorrelation, which is distributed continually, however, not always normally in the population. Their characteristic is that their increased intensity reduces the level of adaptation, which means that if some pathological connate factors are higher, then the possibility of their adaptation is lower, and vice versa. In case of athletes with increased pathological connate characteristics, the adaptation is more difficult so it means that they are not able to optimally use their own potential motoric and/or cognitive abilities. In case of the handball players belonging to the First League, manifest variables of asthenic syndrome (O3 – obsessiveness), conversion syndrome (K10 – cardiovascular conversion and H13 – hypochondria), sthenic syndrome (N14 – impulsiveness and T15 – aggression) and dissociative syndrome (P18 – paranoid features) are grouped in the third latent variable so it can be interpreted as *integral neuroticism*, which is basically physiological factor since its innate quotient is about .82 ($H^2=.82$) which means that players belonging to this rank have more difficulties with adaptation, and the up-to-date therapeutical procedures and methods are not able to reduce it completely (or considerably). Asthenic (anxiety) syndrome reduces the adaptation itself, and thus it reduces adaptation in sport because it deactivates the structures of nervous system responsible for adaptation reactions. The athletes having slightly increased asthenic syndrome are more vulnerable, insecure, afraid and have stage fright; they also find difficult to work under pressure and their working abilities are reduced. Conversion (hysterical) syndrome is usually seen as hysterical condition characterized by problems with control and inhibiting of physiological processes, increased egotism and tendencies to use diffuse symptoms for obtaining real or imaginary benefits. Sthenic (aggressive) syndrome means functioning at the slightly increased level of tension where are excitation and mobilization of energy are predominant, so there is imbalance of functioning of nervous system. More aggressive athletes are more likely to achieve better results, and they have greater stamina. However, they often cause accidents and they are difficult to work with. According to previous experience, it seems that therapy of burdening is the most adequate therapy but the whole amount of energy should be directed into the direction which is socially acceptable. Dissociative syndrome is characterized by imbalance of the process of excitation and inhibition and it is often manifested through disorientation of structure of personality in space and time. Since the structure of the fourth latent variable consists of variable A1 – anxiety, S5 – hypersensitivity and D6 – depression, it can be interpreted as *asthenic (anxiety) syndrome* but in a more complex structure than it was the case of the third latent variable. The structure of the second latent variable of handball players of the Second League consists

of manifest variables of asthenic syndrome (A1 – anxiety, S5 – hypersensitivity and D6 – depression) and of the variable of sthenic syndrome (N14 – impulsiveness) so it can be interpreted as *asthenic-sthenic syndrome*. In case of asthenic reaction there are inhibition processes and functioning is decreased and the feeling of fear is predominant, whereas sthenic syndrome functions at the slightly increased level of tension and excitation and mobilization of energy are predominant which leads to imbalance of functions of nervous system. The third latent variable can be interpreted as *conversive-sthenic syndrome* because it is defined by variables I7 – inhibitory conversion and H13 – hypochondria for estimating conversion syndrome, and T15 – aggression for estimating sthenic syndrome. The conversive syndrome characterizes disorders of mechanisms for regulating functions of vegetative system (hypothalamus and the links with control) and its mutual feature is that primary central disorder of nervous system is manifested in or is converted into the disorders of some organs or organic functions so the person cannot adapt easily.

Since the sthenic (aggressive) syndrome is slightly increased, some better sports achievements might occur. In case of the handball players belonging to the national level, the structure of the first latent variable consists of manifest variables H13 – hypochondria for estimating conversion syndrome, T15 – aggression for estimating sthenic syndrome and P18 – paranoid features for estimating dissociative syndrome, and it can be interpreted as *sthenic-dissociative syndrome*. Sthenic syndrome characterizes slightly increased irritation of the central nervous system and all the variable comprising it are intercorrelated because they all have slightly increased the extent of irritation so the ability to control behaviour is reduced. Dissociative syndrome is characterized by the disorder of integrative functions. The fourth latent variable consists of manifest variable A1 – anxiety and F2 – phobia for estimating asthenic syndrome and K10 – cardiovascular conversion for estimating conversion syndrome so it may be interpreted as latent variable of *asthenic-conversion syndrome*.

Conclusion

On the basis of comparative analysis of sub-sample of handball players belonging to the First League, the handball players belonging to the Second League and the handball players belonging to the national league, it can be concluded that research confirms assumed differences in the factor structures of pathological connate characteristics. The handball players belonging to the First League are characterized by better ability to model excitation and inhibitory processes, so they achieve better results than those playing in the lower competition levels. The handball players belonging to the Second league possess considerable asthenic-sthenic syndrome and conversion-sthenic syndrome so they are more insecure, have slightly increased or decreased excitation and they function

at the level of slightly increased tension, whereas the handball players belonging to the national rank of Serbia suffer from disorders of mechanisms for regulating functions of vegetative nervous system and integrative functions (structuring of excitation and inhibition processes) due to the presence of

sthenic-dissociative syndrome and asthenic-conversion syndrome. Comparing with the handball players belonging to the higher competition ranks, the handball players of the national rank possess reduced excitation in the higher centres for coordination and control.

Literature

- Cattell, R.B. (1956). Validation and interpretation of 16 PF questionnaire. *Journal of Clinical Psychology*, 12, 205-214.
- Horga, S. (1974). Neke relacije između normalnih i patoloških konativnih faktora. [Some relations between normal and pathological personality factors. In Croatian]. *Kineziologija*, 4(2), 6-19.
- Malacko, J. (1976). *Struktura morfoloških, motoričkih, kognitivnih i konativnih dimenzija u dizača tegova* [The structure of morphological, motor, cognitive and connate dimensions of weightlifters. In Serbian.]. Unpublished doctoral dissertation, Belgrade: University of Belgrade, Faculty of Physical Education.
- Malacko, J., & Rađo, I. (2004). *Patološke konativne karakteristike* [Pathological connate characteristics. In Bosnian.]. In Technology of sport and sport training (201-209). Sarajevo: Faculty of Sport and PE.
- Malacko, J. (2009). Interaction between genetic and non-genetic potentials in the function of creation and development of sportsmen individuality. *Sport Science*, 2(2), 36-40.
- Momirović, K., Wolf, B., & Džamonja, Z. (1992). *KON 6 - kibernetička baterija konativnih testova* [KON 6 - cybernetic battery of conative tests. In Serbian.]. Belgrade: Society of Psychologists of Serbia, CAP.
- Powell, A., & Royce, J.R. (1981). An overview of a multifactor - system theory of personality and social differences: The Lv-tor and system models and the hierarchical Lv-tor structure of individuality. *Journal of Personality and Social Psychology*, 41(4), 818-829.
- Sabioncello, N. (1973). *Osnove psihologije sporta* [The basics of sport psychology. In Croatian.]. Zagreb: Higher School for Physical Education in Zagreb, The Republic centre for education.
- Stanković, V. (2000). *Testiranje i primena programa za utvrđivanje strukture i razlika u međusobno povezanim prostorima kod rukometaša u toku jednogodišnjeg trenažnog procesa* [Testing and application of the programs for determining the structure and differences in connected spaces for handball players during one-year training process. In Serbian.]. /Unpublished doctoral dissertation/, Leposavić: Faculty of Physical Education.
- Stanković, V., & Malacko, J. (2008). Relations between systems of motor, cognitive and connate variables of top-class handball players. *Kinesiologija Slovenica*, 3(14), 33-44.

KOMPARATIVNA ANALIZA LATENTNIH FAKTORSKIH STRUKTURA PATOLOŠKIH KONATIVNIH KARAKTERISTIKA RUKOMETASA RAZLIČITIH RANGOVA NATJECANJA

Sažetak

Cilj istraživanja je da se na uzorku 180 rukometaša I i II lige i republičkog ranga Republike Srbije izmjeri sustav 12 patoloških konativnih varijabli, a zatim utvrdi njihova latentna struktura i izvrši komparativna analiza između triju grupacija sportaša (po 60 ispitanika), kako bi se dobile informacije o različitostima latentnih struktura u odnosu na razine kvalitete sportaša u rangovima, radi formiranja što racionalnijih procedura za optimalno modeliranje, dijagnozu, programiranje i kontrolu trenažnog procesa, kao i efikasno praćenje njihovog razvoja u tijeku kontinuirane selekcije isprovođenja transformacijskog trenažnog procesa. Primjenom faktorske analize (direktan oblimin) i Kaiser-kriterija ($\lambda \geq 1.00$), kod rukometaša I lige izolirane su dvije patološke latentne varijable (integralni neurotizam i astenični sindrom) između kojih postoji statistički značajna povezanost na razini .00. Kod rukometaša II lige izolirane su također dvije patološke latentne varijable (astenično-stenični sindrom i konverzivno-stenični sindrom) kao i kod rukometaša republičke lige (stenično-disocijativni sindrom i astenično-konverzivni sindrom) između kojih ne postoji statistički značajna povezanost. Rezultati komparativne analize pokazuju da kod rukometaša I lige egzistira integralni neurotizam i anksioznost - sniženje ekscitacije, smanjenje adaptacije, čime pokazuju veću sposobnost adekvatnog modeliranja ekscitatorno-inhibitornih procesa, kod rukometaša II lige je prisutna nesigurnost, povišena ili snižena ekscitacija i funkcioniranje na povišenoj razini tenzije, a kod rukometaša republičke lige poremećaj mehanizma za regulaciju funkcija vegetativnog nervnog sustava i integrativnih funkcija (strukturiranja ekscitatorno-inhibitornih procesa).

Ključne riječi: rukometaši, patološke konativne varijable, faktorska struktura, komparativna analiza

Received: August 06, 2011

Accepted: December 10, 2011

Correspondence to:

Prof. Julijan Malacko, Ph.D.

University of Novi Sad

Faculty of sport and physical education

Lovčenska 16, 21000 Novi Sad, Serbia

Phone: +381 (0)21 633 1353

E-mail: jmalacko@nspoint.net