

TYPES OF DELINQUENTS IN THE SPACE OF CONATIVE FUNCTIONING

Goran Knežević
Borislav Radović

Institute for Criminological and Sociological Research, Belgrade

A set of instruments for the evaluation of conative functioning (basic conative regulators, global social attitudes, procriminal values, and aggressiveness) was given to a sample of 314 male delinquents from several correctional institutions in Serbia. The aim of the research was to discern types of delinquents within the space of conative functioning. A taxonomic analysis of personality traits has revealed the existence of five types of delinquents. The positions of isolated clusters of delinquents on the discriminative dimensions, as well as their positions on the original variables, have enabled us to define and describe these clusters in the following way:

- a) Cluster I (13%) extremely aggressive, violent, nonanxious, machiavelistic individuals*
- b) Cluster II (15%) individuals suffering from a drastic general conative malfunction, which is extravertly modulated*
- c) Cluster III (11%) generally sane and balanced conative structures, slightly introvertly modulated*
- d) Cluster IV (31%) neurotic, analaggressive and authoritarian structures*
- e) Cluster V (30%) moderately dysfunctional conative type.*

It was demonstrated that these personality types maintain significant relations to various characteristics of criminal behavior, such as recidivism, criminal conviction in youth, specialization for a particular type of criminal activity and usage of crime as a regular source of income.

Key words: *Delinquents, taxonomy, personality types, conative functioning.*

A number of studies whose goal was to determine personality types of variously defined criminal groups was selected upon the review of accessible relevant domestic and foreign literature. We considered only empirically obtained and confirmed personality types. Therefore, we have neglected all theoretical, intuitive, or a priori classifications without empirical corroboration.

As far as we know, in Yugoslavia was conducted only one study that aimed to discern personality types among criminals. Leposava Kron (1993), in her cluster analysis of the MMPI profiles of 142 "normal" and "abnormal" male homicides, has isolated five clusters. The author used hierarchical cluster analysis which optimized Ward's criterion of the minimal sum of squares between the groups obtained. The profile of the respondents from Cluster I (6.37%) was labelled neurotic. The respondents forming Cluster II (28.17%) were named paranoid. The third Cluster (12.68%) consisted of the respondents who had a simulative profile. The fourth Cluster (23.94%) included depressed respondents. The profile of subjects in Cluster V (28.27%) was basically normal and mildly dissimulative.

R. Blackburn (1986) dealt with personality disorders among violent offenders; he was inspired by Megargee's explanation of the possibility that typically mild-mannered persons could commit acts of extreme violence, such as homicide, for example. According to Megargee (1966), violence occurs when the intensity of a stimulus to aggression (i.e. the intensity of a situation provoking strong feelings of anger) surpasses the usual individual strength of control of hostile feelings and aggression. Thus, an overcontrolled person could commit acts of extreme violence, if the stimulus becomes too strong or if frustration, accumulated over time, breaks the wall of self-control. In other words, very controlled individuals would rarely engage in acts of violence, but if that happens, these acts would assume extreme forms. On the other hand, the theory predicts that overcontrolled individuals will not be found among the criminals whose behavior is characterized by frequent and moderate use of violence. Blackburn's sample consisted of 300 male prisoners from two forensic psychiatric institutions for special treatment of persons with violent and dangerous propensities. Their personality was assessed by Special Hospital Assessment of Personality and Socialization (SHAPS). Cluster analysis of respondents was effectuated through two types of hierarchical clustering (Ward's method and hierarchical centroid method). Four clusters were isolated. The profile of respondents from the first cluster (N=49) was named primary psychopathic. Group 2 (N=90) was labelled as secondary psychopathic. Group 3 (N=84) consisted of the respondents whose profile was labelled as controlled. The fourth group (N=59) was named inhibited. The author mentions a survey that Lorr, Bishop and McNair carried out on a sample of non-psychotic patients whose interpersonal styles were rated by therapists. Four clusters were ob-

tained: a) dominant, competitive, hostile, b) hostile, mistrusting, detached, c) agreeable, nurturing, sociable, d) inhibited, submissive, abasive.

McGurk, Ewan and Graham (1981) studied a sample of 315 juvenile delinquents from the Center in Durham, where they served prison sentences ranging from three to six months. The sample was given the following personality tests: the Hostility and Direction of Hostility Questionnaire; the Psychological Screening Inventory, and the 16 Personality Factor Questionnaire (Form E). Cluster analysis was done by Ward's method. The analysis has isolated four groups: Type 1 (N=115; 36,5%) contained the respondents who were intro-punitive, hostile, shy, conformist, trusting and anxious. The group was labelled anxious. Type 2 was the smallest group (N=25; 7,9%). The respondents from this group were the least hostile of all respondents. They were reserved, emotionally stable, humble, controlled, relaxed and had the most normal PSI profile. This group was labelled as normal. Type 3 (N=68; 21,6%) possessed the highest level of general hostility. The subjects belonging to this group were unstable, anxious and tense and had the greatest score on the PSI alienation scale – showing their similarity to psychiatric patients. This group had the highest level of disturbance, and was labelled as disturbed. Type 4 (N=107; 34%) had the highest level of extra-punitive hostility. Its members were assertive, careless, suspicious, group-dependent, non-conformist and extrovert. They were labelled as truculent.

Blackburn's study (1971) was effected on 56 homicides from Broadmore, a maximum security hospital for psychiatric offenders. The respondents were tested by the MMPI-scale. The method of analysis was the clustering technique developed by Lorr and McNair. The analysis has given four clusters, described as follows: the respondents from Type I (N=17; 30%) were conformist and very controlled, revealing no hostile or aggressive tendencies with tendency to repress or deny negative emotions. The author called this group the overcontrolled-repressor type. Type 2 (N=13; 23%) represented the most disturbed of all groups. Its members had high scores on the scales of the "psychotic triad"; i.e. they scored high on the Depression, Hypochondria and Psychopathic Deviate scales. When compared to the members of other clusters, their anxiety and hostility ranked as the highest. The respondents from this group were impulsive, but also socially anxious and somewhat introverted. The author called this group paranoid-aggressive type. Type 3 (N=8; 14%) was the most depressed and the most introverted type, with a high level of impulse control. The members of this group were anxious and revealed a mild hostility, predominantly directed against the self. The author called this group depressed-inhibited type. Type 4 (N=4; 13%) showed absence of neurotic and psychotic symptoms, poor socialization, impulsiveness, ex-

troversion, lack of social anxiety and a high hostility level, predominantly directed outward. This was psychopathic type.

Monika Henderson (1982) analyzed a sample of 105 prisoners convicted for violent crimes (at least one current or previous conviction for violent acts, ranging from assault to murder). The respondents were given eight scales derived from the MMPI: Psychoticism, Neuroticism, Manifest Hostility, Overcontrolled Hostility, Dominance, Empathy, Extraversion and Delinquency. The sample was analyzed by Ward's method of hierarchical cluster analysis and hierarchical mode analysis. Again, four clusters were isolated. The respondents belonging to Cluster 1 (N=26) were described as disturbed-hostile. The profile of the respondents from Cluster 2 (N=26) was called extrovert-hostile. The respondents from Cluster 3 (N=12) were described as inhibited, while the subjects from Cluster 4 were called controlled.

McGurk (1978) analyses 40 "normal" homicides by the WAIS and the MMPI card-form, with six additional scales: Anxiety, Repression, Extraversion, Denial, General Hostility and the Direction of Hostility. The method of analysis was Ward's method of hierarchical cluster analysis. Five clusters were isolated: Cluster 1 profile (N=6; 15%) – described as over-controlled. Cluster 2a (N=3; 7,5%) – called "paranoid-aggressive type". Cluster 2b (N=14; 35%) – labelled as disturbed-aggressive type. Cluster 3 (N=4; 10%) – described as depressed-inhibited type while Cluster 4 (N=13; 32,5%) was called psychopathic.

In their study of 110 convicted homicides, Anderson and Holcomb (1983) have isolated five clusters of MMPI personality types: Cluster 1 – characterized by pathological peaks on the scales of Schizophrenia, Paranoia and Psychasthenia, followed by significant scores on the F-scale; Cluster 2 – defined by extremely high scores on the same scales; Cluster 3 – a basically normal type; Cluster 4 – described by high scores on the scales of Psychopathic Deviate, Paranoia and Schizophrenia (which indicated the presence of the paranoid or psychopathic structure with impaired judgement) and Cluster 5 – characterized by high scores of psychopathic deviation and schizophrenia.

Kalichman (1988) made a cluster analysis of the MMPI protocols of a sample of 118 homicides. He has also isolated four groups: Group 1 was labelled the "normal" MMPI profile. Group 2 was defined by higher scores on the scales of Psychopathic Deviations and Mania with tendency to impulsive behavior and acting out. Group 3 revealed moderately high scores on Psychopathic Deviations and very low scores of social introversion (i.e. some sociopathic characteristics mainly immune to therapeutic intervention and change). Group IV demonstrated the highest MMPI scores and a marked tendency to violent behavior and abuse of alcohol and drugs.

McGurk and McGurk (1979) have analyzed a sample of 70 prisoners from an English prison. According to the type of the offense committed, the sample was divided in the following way: property

offenses (N=44), drug-related crimes (N=4), sexual offenses (N=4) and violent crimes (N=8). The MMPI scores were analyzed by Ward's technique of hierarchical clustering. Three clusters of prisoners were isolated: The first type (N=10; 16,6%) was mainly normal. It revealed few psychopathic or neurotic symptoms, a low level of anxiety and hostility, a high level of defensiveness and a high level of impulse control. The cluster was called over-controlled repressor group. The second type (N=28; 46,67%) had high scores on the psychotic triad. The subjects from this group had a weak impulse control and were depressed, immature, highly anxious and hostile. This is aggressive-paranoid group. The third type (N=22; 36,67%) showed high psychopathy and mania. The respondents from this group were irresponsible, had a weak impulse control and revealed a moderate hostility, which was always directed towards others. This type was called psychopathic type. The McGurks believe that the last two groups, in fact, represent Megargee's concept of the "under-controlled personality". Finally, commenting on their own typology the McGurks stated the following: "The most striking feature of the results from the prisoner group is the emergence of profiles very similar to those obtained from abnormal homicide and normal homicide samples. The three prisoner types were similar to three of the four abnormal homicide types and to three of the five normal homicide types" (McGurk and McGurk, 1979, 44).

Goals of the research

• **Goals of the research were the following:**

1. To determine personality types among criminals, in respect to their conative characteristics.
2. To determine forms and characteristics of the criminal behavior of the respondents belonging to different conative types.

Methods

• **Variables**

The concepts of each model of conative functioning used here were operationalized through precisely defined variables and the scales of corresponding tests used to measure these variables. All variables, instruments used to measure them with some of their basic metric characteristics are detailed here.

In this survey, the results on each of the scales are expressed as factorial scores of the first principal subject of measurement. The

factorial scores at the first principal component of each of the scales thus represent measures of the intensity of presence of the variables for measurement of which they are designed.

Reliability of the scales is expressed by Cronbach-Kaiser-Caffrey coefficients of reliability.

Table 2.1.1. Names of the scales, their reliability coefficients and the main objects of measurement

Variables	The Main Object of Measurement	Reliability (standardized sample or some previous studies)	Reliability obtained in our research
The cybernetic model of conative functioning			
ε	Regulation of activity	0.96	0.91
χ	Regulation of organic functions	0.97	0.94
α	Regulation of defensive reactions	0.96	0.93
σ	Regulation of reactions of attack	0.95	0.91
δ	Coordination of regulative functions	0.98	0.94
η	Integration of regulative functions	0.97	0.94
Scales of aggressiveness			
$\sigma 1$	Psychopathic aggressiveness	0.81	0.86
$\sigma 2$	Anal aggressiveness	0.89	0.89
$\sigma 3$	Oral aggressiveness	0.86	0.90
Criminogenic value orientations			
MAK	Machiavelism	0.91	0.93
SKN	Subculture of violence	0.87	0.91
HIP	Hiperindividualism	0.90	0.91
HED	Hedonism	0.79	0.92
MAC	Machismo	0.91	0.93
General social attitudes			
C	Conformism	0.88	0.90
A	Authoritarianism	0.83	0.86
K	Conservatism	0.70	0.83
BESK	Conservatism	0.90	0.92

The domain of conative functioning is operationalized through the concepts of the cybernetic model of conative functioning, the concepts of psychopathic, anal and oral aggressiveness, the concepts of the so-called criminogenic values, and the concepts of general social attitudes. The names of the scales, the main objects of measurement and reliability coefficients of the scales, are given in Table 2.1.1.

The sample

The sample consisted of 314 male delinquents, sentenced to prison terms in several correctional institutions in Serbia (Sremska Mitrovica, Požarevac, Niš). The respondents were aged from 21 to 55 years, clinically healthy at the time of the research, and having a good command of Serbian language. The respondents were convicted for all kinds of criminal activities, except political crimes. The sample was selected in two stages. First, out of the prisons population three prisons with the optimum allocation were selected. Then, the randomly chosen number of convicts in each of the prisons was tested. The data were gathered during the winter, 1993.

Methods of data analysis

The first principal components were isolated for the items constituting the above mentioned scales. All subsequent analyses were done on the factorial scores of the first principal components.

1. The first goal of our survey was achieved owing to the usage of the following analysis:

a) Cluster analysis of respondents, in respect to their conative functioning. Clustering of the respondents was done by utilization of an algorithm based on a method of non-hierarchical clustering, known as the method of dynamic clouds.

b) Canonical discriminative analysis, which was used to aid deciding on the number of real and natural groupings of respondents, and facilitate more detailed description of the obtained clusters.

c) Projection of the clusters within the space defined by the original variables of conative functioning (in order to describe the obtained clusters).

d) Multivariate analysis of the congruence between the matrices of variances-covariances of the variables within the isolated groups (taxons). The aim of this analysis was to (i) enable observation of the possible qualitative differences in the conative functioning of respondents belonging to different clusters and (ii) assist in making decision on the number of significant functions which differ among various groups. For this purpose, we have used Box's M-test, i.e. a multivariate test of the homogeneity of the matrices of variances-covariances.

2. The achievement of the second goal of this research was made possible by analysis of the contingency tables obtained by crossing of different types of criminals with various kinds of criminal behavior.

Results

A typology of convicts in respect to the variables of conative functioning

A clustering of convicts, in respect to all described variables of conative functioning, was done through taxonomic analysis (the method of dynamic clouds). We begun with two given clusters and then proceeded with three, four, five, six, seven and eight clusters. On the basis of the results obtained, we have decided to retain the five-cluster solution. For solutions containing more than five clusters, it was not possible to produce a sufficient number of linear combinations of the conative variables which could efficiently discriminate among the groups. In other words, some of the groups could not be efficiently distinguished from other groups within the space of the variables of conative functioning, so that their real existence was doubtful. Each subsequent increase of the number of clusters within the procedure of discriminative analysis, generated at least one insignificant discriminative function, proving that the isolated clusters were probably only statistical artifacts. Thus, the five-cluster solution was retained as the "natural", genuine grouping of convicts in respect to their conative functioning. We assume that these groupings have "real" existence and therefore can be clearly isolated and described within the space of the composite variables of conative functioning which maximize the distance between them.

Box' M-test of the homogeneity of the matrices of variances-covariances has demonstrated that the matrices of variances-covariances among groups are nonhomogeneous (Box $M=1197.82$; F-test with 684 DF was greater than 1.48; $p < 0.0000$). We have obtained the following determinants (and logarithmized determinants) for the matrices of variances-covariances within each of the clusters: *Cluster 1* – $\det=5.193 \times 10^{-10}$, $\ln \det=-21.378$; *Cluster 2* – $\det=11.950 \times 10^{-10}$, $\ln \det=-20.545$; *Cluster 3* – $\det=0.074 \times 10^{-10}$, $\ln \det=-25.63$; *Cluster 4* – $\det=4.141 \times 10^{-10}$, $\ln \det=-21.605$; *Cluster 5* – $\det=0.813 \times 10^{-10}$, $\ln \det=-23.233$). The results clearly show that the generalized variance was biggest for Cluster 2 and smallest for Cluster 3. Qualitatively, Cluster 2 differs radically from other clusters, especially Clusters 3 and 5. This means that the respondents from Cluster 2 share a conative space which is qualitatively different from the space(s) occupied by the respondents from Cluster 3 and Cluster 5 (and possibly Clusters 1 and 4). The respondents from Cluster 2 demonstrated the biggest internal hetero-

geneity, in terms of the variables of aggressiveness (psychopathic, anal and oral), as well as in terms of their acquiescence to some particular systems of evaluation. As our results demonstrated, the respondents from Clusters 1 and 4 share a common space (which is also possibly occupied by Cluster 2). There is a significant dispersal of the respondents from the Cluster 1 within that space, especially in respect to the basic regulators of the conative functioning. Clusters 3 and 5 probably define a separate space of the conative functioning, although it is quite possible that these spaces are qualitatively different among themselves. The respondents from Cluster 3 are very homogenous, in respect to the functioning of the basic regulators (except for aggressiveness), and very heterogenous in respect to the basic social attitudes and some particular systems of evaluation. Our analysis could be summarized as follows: (a) there are some qualitative differences among the conative types that we have isolated; (b) the differences are especially pronounced between the conatively functional and conatively dysfunctional types, (c) the criminals from the conatively dysfunctional clusters are more heterogeneous than the respondents belonging to the clusters characterized by a better conative functioning.

Since qualitative differences reinforce quantitative differences, it was assumed that the probability of the alpha error was reinforced ten times, but that did not influence the change of decision about the significance of functions, since they (the functions) possess large discriminative power. The values of the coefficients of canonic correlations, their significance levels, as well as the coefficients of canonical discriminative functions and their structure, are given in Tables 4.1.1. i 4.1.3. The positions of the group centroids on the discriminative functions are given in Table 4.1.4., while the data on the percentage of correct classifications of the respondents on the basis of the discriminative functions are given in the Table 4.1.5. The positions of the group centroids on the original dimensions of conative functioning are given in Table 4.1.2.

Table 4.1.1. Coefficients of correlation of canonical discriminative functions, eigen-values, Wilks' lambdas, and Chi-square test significance

Functions	Canonical correlation	Eigen value	Wilks' lambda	Chi-square	Df	Significance
1	0.9372	7.215	0.051	896.412	72	0.0000
2	0.6605	0.774	0.420	261.469	51	0.0000
3	0.4110	0.203	0.745	88.657	32	0.0000
4	0.3214	0.115	0.897	32.866	15	0.0049

Table 4.1.2. Arithmetic means of personality types among criminals on the first principal components of the scales of conative functioning, standard deviations, eta-coefficients, F-ratios, significance of differences among arithmetic means.

Var.	Type 1		Type 2		Type 3		Type 4		Type 5		ETA	F-ratio	Sig.
	M	s	M	s	M	s	M	s	M	s			
ϵ	0.126	.95	0.674	.80	-0.526	1.37	-0.136	.93	-0.059	.86	.327	9.273	.0000
χ	-0.118	.86	1.093	.83	-1.069	.40	0.47	0.79	-0.610	.61	.696	72.857	.0000
α	0.173	.76	0.997	.69	-1.401	.46	0.474	.72	-0.420	.79	.700	74.135	.0000
σ	0.910	.72	0.787	.69	-1.460	.91	0.121	.63	-0.394	.76	.696	72.452	.0000
δ	0.165	.89	1.267	.73	-1.232	.40	0.412	.61	-0.701	.51	.780	120.438	.0000
η	0.037	.88	1.229	.88	-1.227	.22	0.424	.66	-0.640	.52	.754	101.941	.0000
$\sigma 1$	0.623	.61	1.282	.85	-1.281	.62	0.186	.64	-0.653	.47	.783	122.522	.0000
$\sigma 2$	-0.275	.72	1.164	.97	-1.155	.70	0.441	.63	-0.514	.65	.706	76.632	.0000
$\sigma 3$	0.661	.70	1.205	.69	-1.493	.55	0.225	.55	-0.594	.59	.799	136.156	.0000
MAK	1.062	.59	1.048	.72	-1.217	.92	-0.010	.56	-0.542	.67	.749	98.538	.0000
SKN	0.929	.72	1.116	.71	-1.219	.69	0.058	.69	-0.589	.56	.752	100.661	.0000
HIP	1.108	.50	1.155	.66	-1.366	.57	0.035	.57	-0.610	.56	.821	160.044	.0000
HED	0.618	.76	1.282	.72	-1.485	.72	0.063	.59	-0.444	.55	.772	114.036	.0000
MAC	0.343	.67	1.307	.65	-1.380	.70	0.248	.58	-0.571	.67	.771	113.604	.0000
C	-0.693	.89	1.005	.87	-0.878	1.27	0.222	.69	-0.118	.72	.564	36.033	.0000
A	-0.781	.73	0.980	.87	-1.036	.96	0.457	.64	-0.259	.76	.653	57.535	.0000
K	-0.278	.96	1.280	.96	-0.904	1.15	0.118	.59	-0.319	.63	.616	47.301	.0000
BESK	-0.219	.81	0.954	.86	-1.261	1.14	0.307	.73	-0.251	.69	.603	44.244	.0000

Table 4.1.3. Coefficients (C) and structure (S) of canonical discriminative functions

Variables	Discr. function I		Discr. function II		Discr. function III		Discr. function IV	
	C	S	C	S	C	S	C	S
ε	-0.058	0.109	0.068	-0.034	-0.541	-0.183	0.253	0.483
χ	0.259	0.344	0.090	0.286	-0.321	0.046	-0.515	-0.450
α	0.125	0.344	0.136	0.301	0.621	0.419	0.465	-0.039
σ	0.117	0.330	0.382	-0.403	0.465	0.349	0.012	0.148
δ	0.187	0.458	0.142	0.153	-0.060	-0.055	-0.263	-0.474
η	0.129	0.419	0.173	0.221	-0.168	0.011	-0.003	-0.359
$\sigma 1$	0.012	0.463	0.079	-0.202	-0.269	-0.199	0.020	-0.135
$\sigma 2$	0.187	0.349	0.165	0.373	-0.089	0.074	-0.183	-0.161
$\sigma 3$	0.010	0.488	0.140	-0.235	0.399	0.089	-0.139	-0.021
MAK	0.269	0.382	0.068	-0.528	-0.190	-0.165	0.074	0.071
SKN	0.179	0.400	0.063	-0.426	-0.055	-0.183	0.009	-0.034
HIP	0.266	0.495	0.417	-0.619	-0.073	-0.154	-0.192	0.024
HED	0.121	0.441	0.116	-0.237	0.195	-0.044	0.413	0.515
MAC	0.292	0.451	0.031	-0.007	-0.147	-0.049	0.001	0.054
C	0.189	0.196	0.105	0.454	0.059	0.006	0.352	0.516
A	0.142	0.252	0.426	0.595	0.263	0.231	-0.214	0.157
K	0.126	0.267	0.206	0.272	-0.704	-0.300	0.283	0.437
BESK	0.085	0.263	0.154	0.249	0.314	0.272	0.069	0.313

Table 4.1.4. Centroids of conative types on the discriminative functions

	Discriminative function 1	Discriminative function 2	Discriminative function 3	Discriminative function 4
Type I	1.170	-2.191	.026	-.133
Type II	4.431	.466	-.638	.260
Type III	-4.821	.185	-.861	-.371
Type IV	.946	.554	.367	-.332
Type V	-1.999	.073	.235	.416

Table 4.1.5. Correctness of classification of the respondents, on the basis of discriminative functions

Clusters	Number of respondents in each cluster	Percentage of correctly classified respondents, on the basis of discriminative dimensions				
		1	2	3	4	5
Type I	41	39 (95.1%)	1 (2.4%)	0 (%)	1 (2.4%)	0 (0%)
Type II	47	2 (4.3%)	43 (91.5%)	0 (0%)	2 (4.3%)	0 (0%)
Type III	34	0 (0%)	0 (0%)	33 (97.1%)	0 (0%)	1 (2.9%)
Type IV	99	3 (3%)	2 (2%)	0 (0%)	92 (92.9%)	2 (%)
Type V	93	0 (0%)	0 (0%)	3 (3.2%)	1 (1.1%)	89 (95.7%)

Percentage of correct classifications: 94.27%

The first discriminative dimension may be described as the *General conative disfunction*, which is strongly determined by the basic physiological disregulation and disorders of the evaluation system.

The second discriminative dimension can be described as *Neuroticism*, accompanied by anal aggressiveness, authoritarianism and conformism.

The essence of the third discriminative dimension is the *Anxious-aggressive disfunction*.

The fourth discriminative dimension represents a combination characterized by *Strong extraversion and careless pleasure seeking*, accompanied by conformism and conservatism.

It is obvious that these clusters of criminals most prominently differ in regard to the dimension of the general conative functioning and dimension of neuroticism, accompanied by anal aggressiveness, authoritarianism and conformism (the second dimension distinguishes the first cluster from other groupings). Discriminative power of the remaining two dimensions is considerable weaker, especially the power of the second one (which could, perhaps, put in question the existence of the fifth cluster).

The respondents belonging to Cluster 1 (13%) demonstrated a considerable degree of the general conative disfunctioning. The structure of their aggressiveness revealed weaker participation of anal aggressiveness and strong presence of primary-psychopathic and oral aggressiveness. The respondents from this cluster are not prone to anxious reactions. They are heavily machiavelistic, stubborn, violent individuals who radically contest every authority. Their system of evaluation is highly dysfunctional. They could be also described as highly nonconformist and antiauthoritarian persons who despise and reject social norms and do not hesitate to destroy every obstacle which they may find on their way to satisfaction or realization of some goal.

Types of Delinquents in the Space of Conative Functioning

Therefore, the respondents from Cluster 1 could be described as *highly aggressive, antisocial, spiteful, violent individuals with highly dysfunctional system of evaluation*. We shall call them *primary psychopaths*.

The respondents from Cluster 2 (15%) are characterized by a strong general conative dysfunctioning. All conative regulators are disturbed – the basic ones as well as the regulators which coordinate and organize the lower-level regulators. The respondents from Cluster 2 could be described as *generally conative dysfunctional individuals*.

The respondents from Cluster 3 (11%), compared to the individuals belonging to the other Clusters, have distinctively best conative functioning structures. They are also most introverted of all Clusters. These subjects could be described as the *"normal" group of respondents*.

The respondents from Cluster 4 (31%) also demonstrate a significant measure of the general conative dysfunction. This group is characterized by the neurotic and authoritarian personality-structure, accompanied by the anally modulated aggressiveness. Subjects from this cluster also scored high on neuroticism (they revealed a very high dissociation coupled with disorders of the integrator of regulative functions). The respondents from Cluster 4 could be described as *neurotic, anal-aggressive and authoritarian personality structures*. They were labelled as *neurotic*.

The respondents from Cluster 5 (30%) were moderately conatively imbalanced individuals. Their personality structure was somewhat similar to Cluster 3, but their conative functioning turned out to be more inferior. These subjects are conformist, conservative, hedonistic, extravert and careless pleasure seekers and they were called *moderately conatively imbalanced individuals*.

Personality types among convicts, and some characteristics of their criminal behavior

Table 4.2.1. Relationship between personality types and previous conviction

	Type I	Type II	Type III	Type IV	Type V	
Non-recidivists	11 (27.5%)	14 (30%)	22 (65%)	46 (47%)	56 (61%)	149
Recidivists	30 (72.5%)	33 (70%)	12 (35%)	51 (53%)	36 (39%)	162
Total	41	47	34	97	92	311

We have obtained a statistically significant correlation between personality types and recidivism. Here, "recidivism" means the existence of a previous criminal conviction (C-coefficient 0.27, Cramer's V 0.28, $\chi^2 = 23.53$, $df=4$, $sig=0.0001$). Table 4.2.1. demonstrates that

the most recidivists came from Clusters 1 and 2, and then from Cluster 4.

Table 4.2.2. Relationship between personality types and the so-called penological recidivism

	Type I	Type II	Type III	Type IV	Type V	
Non-recidivists	14 (34.1%)	17 (36.2%)	23 (67.6%)	52 (53.6%)	62 (67.4%)	168 (54%)
Recidivists	27 (65.9%)	30 (63.8%)	11 (32.4%)	45 (46.4%)	30 (32.6%)	143 (46%)
Total	41	47	34	97	92	311

Relationship between our clusters and recidivism, in the sense of the so-called penological recidivism¹, also turned out to be statistically significant (C-coefficient 0.26, Cramer's V 0.26, $\chi^2=21.72$, $df=4$, $sig=0.00023$). Relationship between personality types and conviction record was almost entirely reproduced. Namely, the relative frequency of persons previously sentenced to prison was highest among the respondents from Clusters 1 and 2, and then from Cluster 4.

Table 4.2.3. Relationships between personality types and juvenile conviction

	Type I	Type II	Type III	Type IV	Type V	
Never convicted in youth	22 (53.6%)	38 (80.8%)	30 (88.2)	76 (77.5%)	81 (87%)	247 (79.4%)
Convicted in youth	18 (46.4%)	9 (19.2%)	4 (11.8%)	22 (22.5%)	12 (13%)	65 (20.6%)
Total	41	47	34	97	92	311

Relationship between the clusters obtained and juvenile conviction was also statistically significant (C-coefficient 0.24, Cramer's V 0.25, $\chi^2 = 19.64$, $df=4$, $sig=0.00059$). Table shows that Cluster 1 contains the biggest number of respondents who were convicted in teenage years. The relative frequency of juvenile convicts belonging to Clusters 2 and 4 (around 20%) is bigger than the frequency of similar subject belonging to Clusters 2 and 4 (around 12,5 %).

1) "Penological recidivism" means a return to prison.

Types of Delinquents in the Space of Conative Functioning

Table 4.2.4. Relations between personality types and use of crime as a regular source of income

	Type I	Type II	Type III	Type IV	Type V	
Respondents who did not use crime as a regular source of income	18 (44%)	32 (68%)	27 (79.4%)	69 (71%)	74 (80%)	220 (71%)
Respondents who used crime as a regular source of income	22 (56%)	15 (32%)	7 (20.6%)	28 (29%)	18 (20%)	90 (29%)
Total	41	47	34	97	92	310

There was a statistically significant relationship between the clusters obtained and use of crime as a regular source of income (C-coefficient 0.24, Cramer's V 0.24, $\chi^2 = 18.64$, $df=4$, $sig=0.001$). The relative frequency of those who used crime as a regular source of income was highest in Cluster 1. The frequency was also higher in Clusters 2 and 4 (around 33%), when compared to the frequency in Clusters 3 and 5 (around 20%).

Table 4.2.5. Relationship between personality types and specialization for some particular criminal activity

	Type I	Type II	Type III	Type IV	Type V	
Not specialized	20 (50%)	28 (59.5%)	28 (82.3%)	79 (81.4%)	75 (80.6%)	230 (74%)
Specialized	20 (50%)	19 (39.5%)	6 (17.7%)	18 (19.6%)	18 (19.4%)	81 (26%)
Total	40	47	34	97	93	311

There was a statistically significant relationship between the clusters obtained and specialization for some particular criminal activity (C-coefficient 0.26, Cramer's V 0.27, $\chi^2 = 23.19$, $df=4$, $sig=0.00012$). The relative frequency of the persons specialized in some particular criminal activity was highest among the subjects from Cluster 1 (around 50%), and then among the members of Cluster 2. They are much less frequent among the respondents from other clusters (ranging from 18 to 20%).

We could not find any significant relationship between the clusters obtained and kinds of criminal offense (C-coefficient 0.22, Cramer's V 0.12, $c^2=16.45$, $df=16$, $sig=0.42181$) or the length of sentence (C-coefficient 0.19, Cramer's V 0.14, $c^2=12.60$, $df=8$, $sig=0.12622$).

Discussion

It seems that the personality types obtained in our analysis resemble the types discovered by previous research. Thus, for example, the types discovered by Blackburn (1986) in his study of violent offenders are very similar to our types. Blackburn's Cluster 1 corresponds to our Cluster 1. The respondents belonging to Blackburn's Cluster 1 are characterized by the following elements: high impulsivity, aggression, moderate hostility, poor socialization, high extraversion, an absence of social shyness, a low to moderate presence of negative affective experiences and an absence of defensive denial. Blackburn labelled that group as *primary psychopaths* and we have retained the same term for our first cluster. Blackburn's Cluster 1 contained 17% of his sample while the corresponding figure for our first cluster was 13%. Blackburn's Cluster 2 was labelled as *secondary psychopaths*, and it was characterized by the following elements: high level of impulsivity and aggression, the absence of defensive attitudes, the highest level of hostility and the lowest level of socialization, a significant inhibition or social anxiety, the highest level of anxiety, the presence of tension and dysphoric moods. When the personality structure of respondents is taken into account, Blackburn's Cluster 2 bears a strong resemblance to our Cluster 2. However, the respondents from our Cluster 2 revealed much more disturbed personality structures. In fact, they are more similar to psychiatric patients and therefore we labelled them as individuals suffering from heavy conative dysfunctions rather than secondary psychopaths (Blackburn's Cluster 2 contained 32% respondents, while our cluster contains 15% subjects). Blackburn's labelled "his" Third Cluster (30%) as normal, and we did the same with our Third Cluster (11%). The difference in the percentage of respondents contained in these two analogous clusters was perhaps due to the fact that our respondents were normal in the full sense of the term. Namely, if we take into account the regulators of the cybernetic model of conative functioning, our respondents show having the average (the delta regulator) and above the average (all other regulators) functioning. It is quite probable that Blackburn's "normal" sample represented a mixture of our Clusters 3 and 5. His fourth cluster Blackburn (1986:262) describes in the following way: "Group 4 is similar to Group 3 in having a relatively low score on Psychopathy, and in showing a strong denial and impulse control, and a relative absence of hostile evaluation of others. While aggressiveness is also relatively low, it is higher than that of Group 3, suggesting that this group acknowledges some degree of angry feelings. This group is, however, extremely inhibited and withdrawn, and is quite prone to dysphoria and anxiety. This group has previously been given the summary label of inhibited."

It is hard to say whether the personality of our respondents could be recognized in Blackburn's description. Perhaps the respondents from

our Cluster 5 could represent these overcontrolled individuals. Namely, our respondents are characterized by a systematic, yet very moderate conative dysfunction. It is quite probable that such personality type could function, most of the time, in a quite controlled manner, but they are, nevertheless, less stable and much more sensitive and vulnerable than the "normal" structure of personality characteristic for Cluster 3. It is quite probable that some very provocative, extreme and dramatic situations (or prolonged frustrating situations) could trigger occasional outbursts of uncontrolled hate, anger, aggression and violence. The personality structure from our Cluster 4 is also somewhat similar to the "overcontrolled" type. Namely, the respondents from our Cluster 4 are heavily neurotic persons, whose aggressiveness is anall modulated. That modulation could have been formed partly under the influences of the super-ego formation and partly by the influences of external pressures and threats, to which this anxiety-ridden personality type is particularly sensitive. The authoritarian and conformist personality structure is formed as a compromise between internal aggressive impulses and the fear of potential punishment which could come from the social surrounding. Such personality structure could be understood as a result of two opposite forces: (a) aggressive pulsions, and (b) surrounding pressures and conscience that represents the internalized environment pressures. For the formation of such a personality, surrounding pressures play much more important role than conscience, which represents the interiorized form of the surrounding moral pressures. Thus, it is very interesting to note that the functioning of the evaluation system of our respondents was equally disturbed, so that there was a lack of an internal force which could suppress aggressive pulsions. In other words, the behavior of similar persons could, by no means, be defined by some inhibited behavior characteristic to the "overcontrolled" personality. However, it is quite possible that some relative inhibited behaviour could be produced by a very strong anxiety, which makes the behavior extremely sensitive to the possible external aversive stimuli. We still cannot positively say that inhibition constitutes the basis of the "overcontrolled" personality structure..

The clusters obtained by Henderson (1982), McGurk, Ewan and Graham (1981), McGurk and McGurk (1979), are also very similar to our clusters, including the clusters obtained with Blackburn's Broadmore sample of homicides (1971), or the clusters obtained with McGurk's sample of "normal" homicides (1978). The similarity between these results gets the greater importance in the light of the following facts: (a) the populations of respondents were defined differently ("normal" homicides, "abnormal" homicides, general criminal population, etc.); (b) cultural differences between Anglo-Saxon respondents and our subjects; (c) the personality of respondents operationalized through the variables coming from very different concepts and models; (d) personality traits estimated by very different instruments,

varying their metric characteristic and quality; (e) different authors used different clustering methods (hierarchical clustering with Ward's method, hierarchical clustering with the centroid method, algorithm of dynamic clouds, etc.) and different criteria for deciding on the number of significant clusters.

It is obvious that different characteristics of criminal behavior are highly correlated with the personality types of convicts. Our results demonstrated that the "toughest" criminals are to be found among the respondent from Cluster 1, i.e. personality type 1. They are aggressive, antisocial, stubborn and manipulative individuals prone to violence. The second place belongs to the convicts with personality type 2 and then comes the type 4. Compared to the personality types 1, 2 and 4, the "normal" and moderately disturbed personality types produce less recidivists, less criminals specialized in some particular criminal activity and less criminals who use crime as a regular source of income. However, we found no relationship between personality types and kinds of criminal activity. It is not quite clear whether the results obtained could confirm or reject Megargee's theory. Namely, Megargee assumes that the "overcontrolled" type of person will tend to commit extreme acts of violence and that, in this respect, he/she will not differ from "undercontrolled" criminals. The theory also expects this criminal type not to be frequent among the convicts characterized by frequent and moderate use of violence. The respondents from our Cluster 4 did not confirm Megargee's expectations, but we have already said that their classification as "overcontrolled" would be problematic. However, the behaviour of respondents from Clusters 3 and 5 is as predicted by Megargee's theory. They commit fewer criminal acts and do not differ from other types of criminals in respect of the gravity of crime. If the term "overcontrolled" is to have some clear and plausible meaning, then it should be found in the behavior of the consistently unstable and moderately conatively dysfunctional personality who, although decent and ordinary looking, could still, due to its vulnerability, react to some provocative situations by sudden outbursts of aggressiveness, anger and violence. We do not see a reason for labeling our "normal" respondents as "overcontrolled," unless we want to banalize the term by an exaggerated and unjustified broadening of its meaning. If all "normal" persons are to be labelled as "overcontrolled", then the precise meaning of the term will soon disappear in banalities of circular and post-hoc explanations. However, there is an interesting fact related to our cluster of "normals". Namely, the cluster contains the greatest dispersal of respondents in respect to the general aggressiveness. It is possible that some of these respondents represent the "overcontrolled" structure.

Personality type, obviously, does not determine the type of criminal activity. It does not affect the ways of manifestation of the "criminal propensity" (be it robbery, rape or murder, for example). Of course,

it is possible that the type of personality is related to some particular ways of committing the criminal acts which were not studied here (for example, the impulsive criminal behavior versus deliberate criminal behavior; avoidance of "unnecessary" violence versus criminal acts characterized by an excess of brutality, etc). However, the personality of criminals affects something which could be labelled as "general criminal disposition". In our survey, that criminal disposition was operationalized through the concepts of the so-called legal and penological recidivism, as well as through teenage criminal conviction, specialization in some particular criminal activity and use of crime as a regular source of income. It is probable that some personality types strongly interfere with the normal processes of socialization and significantly predispose some individuals to socially undesirable and punishable behavior. The concepts of the quality of the general conative functioning, as well as the concepts of aggressiveness, impulsiveness and dissociation are particularly helpful for proper understanding of such a disposition. Therefore, the general conative disfunctionality, followed by very pronounced aggressiveness and impulsiveness along with an inferior functioning of the higher regulative conative mechanisms of integration and control probably induce the criminal behavior. Furthermore, if the existence and the number of mentioned characteristics is greater, the criminal behavior will be more prominent.

References

- Anderson, P.W., Holcomb, W.R. (1983): Accused Murderers: Five MMPI Personality Types, *Journal of Clinical Psychology*, 39:761768.
- Blackburn, R. (1971): Personality types among abnormal homicides, *British Journal of Criminology*, 11, 1:1432.
- Blackburn, R. (1986): Patterns of personality deviation among violent offenders, *British Journal of Criminology*, 26, 3:254270.
- Henderson, M. (1982): An empirical classification of convicted violent offenders, *British Journal of Criminology*, 22, 1: 121.
- Kalichman, S.C. (1988): Empirically derived MMPI subgroups of incarcerated homicide offenders, *Journal of Clinical Psychology*, 44:733738.
- McGurk, B. (1978): Personality types among "normal" homicides, *British Journal of Criminology*, 18, 2:146161.
- McGurk, B. J. and McGurk, R. E. (1979): Personality types among prisoners and prison officers, *British Journal of Criminology*, 19, No. 1:3150.
- McGurk, B. J., Mc Ewan and Graham, F.(1981): Personality types and recidivism among young delinquents, *British Journal of Criminology*, 21, 2:159166.

Megargee, E. I., (1966): Undercontrolled and overcontrolled personality types in extreme antisocial aggression, *Psychological Monographs*, 80, Whole No. 6, 11

Kron, L. (1993): *Kajinov greh: psihološka tipologija ubica*. Prometej, IKSI Beograd.