

A COMPARISON BETWEEN RECIDIVISTS AND NON-RECIDIVISTS ON AGGRESSION AND SOCIOECONOMIC CHARACTERISTICS

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The aim of this study was to examine the differences in aggression between recidivists and non-recidivists. Aggression was measured by Buss and Perry's Aggression Questionnaire on a sample of 83 recidivists and 175 non-recidivists of both sexes, while they were serving their sentences. The differences were analyzed in two ways; first, by using all items of the Aggression Questionnaire, and second, by using the 4 sub-scales of this instrument. The findings showed significant differences in physical aggression, anger, and hostility. Recidivists were more aggressive and the difference was particularly evident in physical aggression. There was no difference in verbal aggression.

The verbal aggression component (sub-scale) was excluded from discriminant analysis, having a very low coefficient of internal consistency.

In a one-way analysis of variance of all 5 items related to verbal aggression, there were no significant differences between recidivists and non-recidivists.

Recidivists lived in more unfavorable family of origin environments, which were dominated by physical violence. This could to some extent explain their higher level of aggression.

Introduction

Aggressiveness is a very important personality characteristic for understanding criminality. Every criminal act is a kind of aggression, especially in violent crimes.

Aggressiveness is a stable personality trait (Huesmann et al., 1984; Pulkkinen and Pitkänen, 1993; Viemerö, 1996). Aggression develops early in childhood and the genetic and environmental influences are considered to be approximately equal (Rushton et al., 1986).

The family of origin is very important factor in determining the development of aggression in children. Children living in families with low socio-economic status, burdened by parental conflicts, deviant behavior, exposed to erratic and harsh discipline, abused, rejected and neglected by parents, tend to be more aggressive (McCord et al., 1961, 1963; Farrington, 1978, 1989, 1991; Loeber and Dishion, 1984; Dodge et al., 1990; Mejovšek et al., 1997). Aggressive children tend to have "permissive" mothers who are inconsistent in their behavior toward children, and fail

to impose restraints on them when they exhibit extreme negative behaviors (Dumas et al., 1995). Dumas et al. (1999) proposed a developmentally sensitive coping-competence model designed to promote competence and reduce risk of an early-onset conduct disorder, substance abuse and/or school failure.

Aggression at an early age is a good predictor of recidivism and/or the seriousness of committed crime (Farrington, 1978, 1989, 1991; Magnusson et al., 1983; Stouthamer-Loeber and Loeber, 1988). Magnusson et al. (1983) found that at the greatest risk for future offending were highly aggressive boys living with parents who had a low level of education.

Pulkkinen (1983) found a significant relationship between aggression at the age of 8 years

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and the number of crimes at the age of 20 years. Children estimated by their peers as very aggressive at the age of 8 years were more frequently recidivists at the age of 30 years, than were the children who were rated as being less aggressive (Huesmann et al., 1984). Peers and teachers' estimations of aggression in children are good predictors of the number of arrests in early adulthood (Viemerö, 1996). Caspi et al., (1994) found a significant positive correlation between aggression, and self-reported and informant-reported delinquency in the sample of adolescents.

Recidivists are early starters, beginning with criminal activity at an early age. Moffitt (1993) points out the differences between delinquency limited to adolescence and delinquency persistent throughout life. The first is a normal developmental stage in adolescence, and the second develops early in childhood. It is caused by an interaction of a childhood neuropsychological deficit and unfavorable family of origin circumstances, and leads to multioffending. Loeber (1990) describes the aggressive/versatile developmental path which may include behavior problems in early childhood, aggressive and non-aggressive concealing behaviors, frequent attention / impulsivity / hyperactivity disorders, impaired social skills, poor relationships with others, and problem behaviors in and outside the home. These youngsters exhibit more delinquent behavior and often become multiple offenders. They frequently have neuro-psychological disorders (Buikhuisen, 1987; Moffitt et al., 1994). Hyperactivity, impulsivity and attention deficit disorders and conduct problems in childhood are significant predictors of chronic offending (Farrington et al., 1990). Patterson et al. (1991) developed an early starter model for predicting delinquency. The boys at extreme-risk were less well-adjusted, were characterized by being less effectively monitored and disciplined, and their parents were of lower social status and suffered from depression.

Recidivists live in an unfavorable family of origin environment (Farrington, 1978, 1989, 1991; Mejovšek et al., 1997). Farrington (1991) reports that both violent offenders who are predominantly recidivists and non-violent recidivists have many similar characteristics: harsh and erratic rearing, parents who have shown

criminal behaviour, separation from parents and parental conflicts. These characteristics are less frequent in occasional delinquents and in persons who have not been convicted.

McCord (1983) found greater number of recidivists (those who committed crimes in adolescence and adulthood) among rejected, abused and neglected children. Widom (1989) reported similar results; abused and neglected children began criminal activity earlier and were more frequently chronic offenders in adulthood, compared to a control group.

Gendreau et al. (1996) in their meta-analysis found that criminogenic needs (e.g. procriminal orientation and attitudes, antisocial companions, substance abuse) and criminal history are the best predictors of recidivism. Some longitudinal studies offered proof of a strong correlation between aggression in childhood and crime in adulthood (Stattin and Magnusson, 1989). Recidivism is affected by static and dynamic factors. Some authors argue that too much attention has been paid to static factors (age, sex, race, class of origin, early family factors and so on), which are of little use for practitioners dealing with recidivism (Zamble and Quinsey, 1991). The family of origin is important in regard to aggression and recidivism, though it is not among the strongest predictors of recidivism (Gendreau et al., 1996).

The aim of this study was to analyze the differences in Buss and Perry's aggression components (1992) between recidivists and non-recidivists. In addition, we included the family of origin variables which could to some extent explain the supposed greater level of aggression in the sub-sample of recidivists.

Methods

Data were collected on 258 adults, male and female inmates in correctional facilities (mean age 35.2, standard deviation 8.6). The sample consisted predominantly of male inmates (only 28 were females). The participants were convicted of different crimes and served sentences in correctional facilities of different security levels. For the purposes of this study this sample was divided into two sub-samples: 83 recidivists and 175 non-recidivists. Recidivists included those inmates who

had been in correctional facilities as juvenile delinquents at least once, or as adults prior to serving their sentences. We did not differentiate whether inmates became recidivists in adulthood or adolescence. In this paper recidivism is defined in the narrower sense (from a penological view) and is related to correctional treatment.

Aggression was measured by the Aggression Questionnaire (Buss and Perry, 1992). This instrument contains 29 items and measures aggression components: physical aggression, verbal aggression, anger and hostility.

The family of origin questionnaire included 19 variables of socio-economic background, social pathology and physical violence.

Data were processed by the programs for analysis of variance and discriminant analysis.

Results

The internal consistency of the aggression components was evaluated by Cronbach's alpha coefficient. The results show that verbal aggression measured as a component has very low alpha coefficient and that was the reason to exclude this aggression component from further analysis (Table 1.). However, verbal aggression was included in discriminant analysis at the item level.

Table 1. Coefficients of internal consistency of aggression components

	Alpha
Physical aggression	.81
Verbal aggression	.59
Anger	.75
Hostility	.74

The results in Table 2. show that recidivists, as expected, are more aggressive and this is especially evident for physical aggression. Compared with the results of Buss and Perry (1992) for students, and Archer et al. (1995a, b) for students and unemployed young men, anger among the non-recidivists is low as was physical aggression, especially when comparing the anger and physical aggression of unemployed young men, who are even more prone to anger and physical aggression than recidivists. The hostility of non-recidivists exceeds that of unemployed young men who are extremely aggressive compared to the students. The question is how to explain low anger and physical aggression of inmates on one side and their high hostility on the other?

The reasons for high levels of hostility could be numerous: dissatisfaction with their current inmate status, dissatisfaction with the sentence, being excluded from the outside world and separated from relatives and friends, insecurities of prison life (especially the violence and threats by other inmates), overcrowding, but also the probably higher level of hostility from their former lives may be one of the causes leading to delinquency. It is more difficult to find out the reasons for low anger and physical aggression. The possible reason could be greater control over anger and physical aggression because of the fear of disciplinary sanctions, or dissimulation, i.e. insincerity when completing the Aggression Questionnaire.

The correlations between the three components of aggression are similar within the subsamples of recidivists and non-recidivists (Table 3.). The correlations between anger and the other two components are higher than the correlation between physical aggression and hostility. The same findings were noted in the studies of Buss and Perry (1992) and Archer et al.

Table 2. Means and standard deviations of aggression components for recidivists and non-recidivists

	Recidivists		Non-recidivists		No of item
	Mean	St. dev.	Mean	St. dev.	
Physic. ag.	26.76	8.24	20.67	7.87	9
Anger	18.27	6.29	15.95	6.49	7
Hostility	25.18	7.54	23.23	7.34	8

Table 3. Correlations between aggression components

	Recidivists			Non-recidivists	
	Anger	Hostil.		Anger	Hostil.
Physic. ag.	.59	.43	Physic. ag.	.56	.41
Anger		.58	Anger		.61

(1995a,b). Buss and Perry (1992) believe that anger is the psychological bridge between the instrumental aggression components (physical and verbal aggression) and the cognitive aggression component (hostility). Compared with the studies of Buss and Perry (1992) and Archer et al. (1995a,b) the correlations in this study are higher when the comparison is made to the samples of students, but lower when the comparison is made to the sample of unemployed young men (Archer et al., 1995a). A possible reason could be the restrained variances on the aggression components in the sample of students, while the contrary is the case in the sample of unemployed young men.

Recidivists are more aggressive than non-recidivists. This is especially evident for physical aggression (Table 4.).

Since the sample included 26 female non-recidivist inmates and 2 female recidivist inmates, we performed two one-way variance analyses to find out if the female inmates could be analyzed along with the male inmates. First, we performed

a variance analysis on the aggression components for the female and the male non-recidivists. The results showed that difference between the males and the females exists only on physical aggression (F-ratio = 14.79, $p = .000$), and the males, as expected, are more aggressive. The male and the female non-recidivists did not differ on hostility and anger (F-ratio = 3.06, $p = .082$ for hostility and F-ratio = 1.59, $p = .209$ for anger).

Then, the female subjects were excluded and the variance analysis was performed for the male recidivists and non-recidivists only. The two male sub-samples showed significant differences on all the components (F-ratio = 8.83, $p = .003$ for anger; F-ratio = 5.18, $p = .024$ for hostility; F-ratio = 23.42, $p = .000$ for physical aggression).

Therefore, it appears that gender had no impact on the differences in aggression between the recidivists and the non-recidivists (noting that the subsample of female inmates was very small). The difference is larger in physical aggression and somewhat smaller in anger and hostility, when the female inmates were included, but the

Table 4. Discriminant analysis - aggression components
Significance of discriminant function

Function	Can. cor.	Wilks' I.	Chi-sq.	df	p
1	.338	.885	30.96	3	.000

Discriminant coefficients, correlations of aggression components with discriminant function, and ANOVA

	Discr. c.	Cor.	ANOVA	
			F	p
Physical ag.	1.08	.99	32.66	.000
Anger	-.12	.47	7.29	.007
Hostility	-.03	.34	3.91	.049

Group centroids

Recidivists .520
Non-recidivists -.247

Table 5. Discriminant analysis - aggression items
Significance of discriminant function

Funct.	Can. correl.	Wilks' I.	Chi-sq.	df	p
1	.522	.727	76.90	29	.000

Group centroids

Recidivists	.886
Non-recidivists	-.420

Discriminant coefficients, correlations of aggression items with discriminant function, and ANOVA

	D. c.	Corr.	ANOVA	
			F	p
Physical aggression				
Once in a while I can't control the urge to strike another person	-.23	.11	1.10	.295
Given enough provocation, I may hit another person	.01	.38	13.79	.000
If somebody hits me, I hit back	.39	.48	22.28	.000
I get into fights a little more than the average person	.30	.37	13.43	.000
If I have to resort to violence to protect my rights, I will	.13	.39	14.51	.000
There are people who pushed me so far that we came to blows	-.12	.34	10.92	.001
I can think of no good reason for ever hitting a person*	.33	.34	11.09	.001
I have threatened people I know	.55	.58	32.21	.000
I have become so mad that I have broken things	.02	.20	3.95	.048
Verbal Aggression				
I tell my friends openly when I disagree with them	.20	.16	2.38	.125
I often find myself disagreeing with people	-.25	-.05	.20	.654
When people annoy me, I may tell them what I think of them	-.20	.15	2.02	.156
I can't help getting into arguments when people disagree with me	.05	.13	1.72	.191
My friends say that I'm somewhat argumentative	-.21	.04	.12	.732
Anger				
I flare up quickly but get over it quickly	.20	.12	1.48	.225
When frustrated, I let my irritation show	.12	.25	5.75	.017
I sometimes feel like a powder keg ready to explode	-.04	.08	.60	.440
I am an even-tempered person*	-.02	.20	3.86	.050
Some of my friends think I am a hothead	.22	.36	12.60	.000
Sometimes I fly off the handle for no good reason	-.18	.02	.05	.822
I have trouble controlling my temper	-.11	.19	3.33	.069
Hostility				
I am sometimes eaten up with jealousy	-.01	.01	.01	.945
At times I feel I have gotten a raw deal out of life	-.18	.08	.60	.441
Other people always seem to get the breaks	.18	.24	5.46	.020
I wonder why sometimes I feel so bitter about things	-.18	.03	.06	.809
I know that "friends" talk about me behind my back	.30	.31	9.08	.003
I am suspicious of overly friendly strangers	.11	.18	3.08	.080
I sometimes feel that people are laughing at me behind my back	.06	.20	3.80	.052
When people are especially nice, I wonder what they want	-.20	-.08	.57	.453

* The scoring of these items is reversed

significance of differences between recidivists and non-recidivists did not change.

Discriminant analysis in the items space was carried out to examine the differences between the recidivists and the non-recidivists in verbal

aggression, which was excluded as having a very low reliability. Then, the differences between the recidivists and the non-recidivists in items belonging to particular aggression components were examined (Table 5.).

Table 6. Discriminant analysis — family of origin variables
Significance of discriminant function

Function	Can. Corr.	Wilks' I.	Chi-sq.	df	p
1	.381	.855	37.772	19	.006

Group centroids

Recidivists	.597
Non-recidivists	-.281

Discriminant coefficients, correlations of the family of origin variables with discriminant function, and ANOVA

	Disc. coeff.	Correl.	ANOVA	
			F	p
Socioeconomic background				
Education father	-.01	.21	2.10	.149
Education mother	-.17	.08	.12	.730
Housing	.34	.26	3.87	.050
Income	-.25	.12	1.54	.215
Subject lived with	.54	.31	4.53	.034
Dwelling changes	-.14	-.14	.31	.581
Social pathology				
Drifting	.05	.22	2.07	.152
Alcoholism	.27	.41	6.40	.012
Idleness	.06	.33	4.27	.040
Criminality	-.04	.25	1.71	.192
Family relationships	.01	.29	3.38	.067
Relationship with father	-.59	.20	1.65	.200
Relationship with mother	-.33	-.04	.00	.948
Physical violence				
Physical punishment by father	.64	.39	6.88	.009
Physical punishment by mother	-.15	-.03	.00	.955
Physical punishment by others	.21	.26	1.78	.183
Escaping from home (fear of physical punishment)	-.08	.37	5.68	.018
Physically aggressive toward parents	.75	.68	19.23	.000
Physical punishment without reason	-.12	.44	8.48	.004

In all five items related to verbal aggression no differences between the recidivists and the non-recidivists were noted (Table 5).

Among the items belonging to physical aggression, the items that the most distinguish the recidivists from the non-recidivists emphasize the proneness to threaten and attack other people, and are indicative of the severe forms of physical violence.

The differences in the anger items between the recidivists and the non-recidivists emphasize the proneness of the recidivists to impulsive and violent reactions.

The resentment against other people is the main characteristic of hostility that differentiates the recidivists from the non-recidivists.

The results of the discriminant analysis in the space of the family of origin variables indicate that the recidivists lived in worse conditions (Table 6.). This is especially evident for the presence of physical violence in the family. All significant univariate differences (ANOVA) indicate a worse situation in the sub-sample of the recidivists. The significant differences indicate that the recidivists lived in poorer housing conditions, lived more frequently in broken families, were more often exposed to alcohol abuse and idleness of family members, subjected to physical punishment by fathers, ran away from home more often because of fear being physically punished, were more often physically aggressive towards parents, and were more often physically punished without reason. However, taking in account the discriminant coefficients and correlations of variables with the discriminant function, the variables having the best discriminative power are those indicating the poor quality of housing, broken families, alcohol abuse in the family, physical punishment by father, and physical aggression towards parents.

Discussion

Recidivists are more aggressive than the non-recidivists. The difference is most obvious in physical aggression. There is no difference in verbal aggression. Recidivists are more prone to threaten and attack other people, to react impul-

sively and violently, and to be resentful of other people.

Violent offenders tend to be more frequently convicted than non-violent offenders. With more convictions, there is greater probability that at least one crime will be a violent crime (Farrington, 1982). So, violent and persistent nonviolent offenders have many similar characteristics (Farrington, 1991). Persistent offenders frequently have neuro-psychological deficits compared with occasional offenders (Buikhuisen, 1987; Moffitt et al., 1994). These reasons may explain why persistent offenders are substantially more physically aggressive than non-recidivists. The same reasons might explain why they are more prone to anger and hostility.

The greatest difference in physical aggression may be explained by the early onset of aggression in violent and persistent offenders (Farrington and West, 1971; Farrington, 1978, 1989, 1991). They very soon learn to be physically aggressive being stimulated by an unfavorable and provocative environment. Beginning in early childhood physical aggression continues into adulthood as a standard way for solving problems.

The family of origin environment was more unfavorable for the recidivists. It should be noted that all characteristics of the family of origin are not of the same value in predicting recidivism. Of three sets of variables determining the family of origin situation (SES, social pathology and physical violence), physical violence has the highest correlation with recidivism, while SES has the lowest. These results make us question the sociological theories of crime that assert that criminal behavior is largely determined by SES and class of origin (measured by parents occupation, education, employment status). According to Title and Meier (1990, 1991) the social class of origin is a very weak predictor of juvenile delinquency. It seems to be true of adult offender recidivism. Recidivism in adulthood is only related to housing conditions in the parental home and to broken families. Poor housing conditions can influence both deviance and aggression. Inappropriate housing induces children to stay away from home longer, so increasing the likelihood of being exposed to the negative influences of the social surroundings. Besides, some investigations

have established the relationship between poor housing and personality traits, as leading to vandalism and destructiveness, and a feeling of isolation or lack of confidence. Unfavorable housing can be perceived as a sign of the decreased educational potential of the family, because it makes it difficult for the parents to concentrate on education. Often, the literature describes the so-called pathological threshold in housing: if the amount of space per family member is less than certain level (often 10 or 14 squared meters), then there is a growing likelihood that family members will exercise pathological behavior or be more aggressive. Certainly, overcrowded flats can cause troubles in family relationships. In the case where children lack separate space in house, there are also less opportunities for the family members to avoid potential (physical) conflicts, which can contribute to already disturbed relationships between the parents and the children.

The structure of the family of origin is correlated to recidivism, too. More precisely, offenders from deficient families (those who lived with one parent) or offenders who lived out of the family (those who lived with other persons or in institutions) are more likely to be recidivists. In contrast to living with both parents, the mentioned living arrangements are more often related to the weak control over underage persons, increasing indulgence or neglect of children. It has already been mentioned that neglected or abused children have an early onset in criminal activities and proceed with such behaviors into adulthood.

Among the variables referring to the social pathology of the parents, alcoholism and idleness should be emphasized. Offenders whose parents were inclined to these deviations more often become recidivists. It is a known fact that alcoholism very often leads to neglecting parental responsibilities, aggressive behavior or maltreatment of children without reason, even though the effects of alcoholism on mothers and fathers are different. With respect to recidivism, the negative influence of a father's alcoholism must be stressed because this alcoholism is much more related to aggressive behavior towards children. Also, idleness influences not only the working and employment status of the parents (these parents more rarely have a regular and full-time

job, often change or leave work places), but it is important for instilling good work habits in children and leading to their success in school and later, work. We hypothesize that children and adolescents with parents inclined towards alcoholism tend to spend more time out of the parental home in order to escape troubling family situations, quarrels and physical conflicts. There is a greater likelihood for children to accept the same behaviors as their parents.

Variables referring to physical punishment and childrearing practices are of great importance in predicting recidivism. In general, recidivists were more often exposed to physical punishment. Frequent corporal punishment can be explained in more ways. On the one side, one can assume that a respondent frequently showed behavior disorders in childhood and adolescence, so parents tried to hinder such behaviors by physical punishment. On the other hand, there is a possibility that frequent physical punishment was an element of severe upbringing or a consequence of parental social pathology. It is important to say that recidivism is significantly correlated to physical punishment by the father, but is not or only slightly correlated to punishment by the mother and other family members. Frequent physical punishment by the father can be seen as an indicator of a bad relationships between an underage person and the father. In other words, such a practice can indicate to the presence of behavior disorders in a child (adolescent), the father or both of them, and of draconian measures in upbringing. As well as recidivists having been physically punished more frequently, they have been more often exposed to erratic and unwarranted punishment. Punishment without any reason is undoubtedly a sign of poor childrearing methods and bad treatment by parents. Such punishment arouses a feeling of unfairness and bitterness in children. It can indicate the lack of love between a parent and the child. It is possible that a child reacts to erratic physical punishment by avoiding the parents and the home, escaping from the home in order to avoid punishment and humiliation. While away from home, children and adolescents are more likely to accept other deviant behaviors (drifting, begging, and thieving) because they are without money or a livelihood. In addition, they are likely

to meet asocial persons. Escape from the home can result in the neglect homework or work.

There are many negative effects of exercising physical violence in family. Such an atmosphere facilitates the learning of aggression. Children and adolescents from these families get used to such practices and accept physical violence as a part of their own behavior. We can assume violent offenders and recidivists in many cases will be recruited from families that were inclined to physical punishment as norm. Physical punishment by the father and physical aggression towards parents are the most important variables, that could explain higher physical aggression of recidivists later. Children who are more exposed to physical punishment are more prone to violent behavior in adulthood outside the family (Straus, 1991). The relation was highly significant even after controlling for socio-economic status. The results were the same when physical punishment by father was used as the independent variable. Data support the hypothesis that violence causes violence, or in other terms, the intergenerational transmission of violence hypothesis and in this way the findings of Farrington (1978,1989,1991), Huesmann et al. (1984), Widom (1989), Dodge et al. (1990), Straus (1991) and others are confirmed.

What can be done to reduce violent and criminal behavior? The most promising approach is cognitive-behavioral intervention. Cognitive-behavioral programs are among the best treat-

ment programs in respect to post release recidivism (e.g. Andrews et al., 1990; Antonowicz and Ross, 1994; McGuire and Priestley, 1995; MacKenzie, 2000). There are two types of programs: cognitive development and cognitive restructuring programs. Cognitive development programs are concerned with deficits in problem solving, moral reasoning, and social skills. Cognitive restructuring programs focus on thinking distortions, aiming to change the attitudes, beliefs, and habits of thinking (Baro, 1999). In cognitive restructuring programs there are two distinct phases. In the first phase, the inmates are introduced to thinking errors and to the concept that inadequate behaviors are the consequences of these errors. The second phase consists of group discussions on "thinking reports" presented by each inmate. This is a description of a situation in which the inmate was involved and which expresses his thoughts and feelings. The intention is to examine how thoughts and accompanying feelings shape behavior (Withrow, 1994; Bush, 1995; Baro, 1999). Inmates learn skills to be able to control their thoughts and behavior. At the end of the program they prepare their own relapse prevention plan to be able to control their behavior in critical situations once they are back in the community. What are the effects of these programs? They can significantly reduce conduct problems in prison. They are effective for some but not for all offenders and there is still much we do not know (Hollenhorst, 1998).

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